

Brief Report

Supervisor and Co-worker Support and Work Engagement: The Role of Teachers' Workload

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The aim of this study was to examine the relationship between teachers' work engagement and support from supervisors and co-workers, as well as to investigate the role of the workload as a moderator. The participants ($N = 118$) were selected using a convenience sampling method from three private schools in Surabaya. Data were collected using a questionnaire with five response choices and were analyzed using SPSS 19.0, specifically multiple regression analysis and test of absolute value difference. The results showed that: (a) supervisor and co-worker support were simultaneously positively related to work engagement ($r = .432, p < .05$), (b) supervisor support were not statistically significant correlated to work engagement ($r = .135, p > .05$), (c) co-worker support were positively correlated statistically significant to work engagement ($r = .425, p < .05$), (d) workload moderated the relationship between supervisor support and work engagement ($r = .325, p < .05$), (e) workload moderated the relationship between co-worker support and work engagement ($r = .199, p < .05$). These results highlighted the importance of supervisor and co-worker support in predicting teachers' engagement, moderated by the teachers' workload.

Keywords: work engagement, social support, supervisor support, co-worker support, workload, moderator

Tujuan studi ini adalah untuk menguji hubungan antara dukungan sosial atasan dan rekan kerja, dan keterikatan kerja, serta untuk menguji fungsi beban kerja sebagai moderator. Subjek ($N = 118$) adalah para guru yang diperoleh melalui *convenience sampling*. Data diperoleh menggunakan skala pernyataan tertutup dengan lima pilihan jawaban, yang dianalisis menggunakan uji analisis regresi berganda dan uji nilai selisih mutlak pada SPSS 19.0. Hasil menunjukkan: ada hubungan antara dukungan sosial atasan dan rekan kerja secara simultan terhadap keterikatan kerja ($r = .432; p < .05$), tidak ada hubungan dukungan sosial atasan dan keterikatan kerja ($r = .135; p > .05$), ada hubungan dukungan sosial rekan kerja dan keterikatan kerja ($r = .425; p < .05$). Terdapat hubungan antara dukungan sosial atasan dan keterikatan kerja, dengan beban kerja sebagai variabel moderator ($r = .325; p < .05$), dan ada hubungan antara dukungan sosial rekan kerja dan keterikatan kerja, dengan beban kerja sebagai variabel moderator ($r = .199; p < .05$). Disimpulkan bahwa dukungan sosial atasan dan rekan kerja merupakan aspek-aspek penting dalam menumbuhkan keterikatan kerja guru yang dimoderatori beban kerja

Kata kunci: keterikatan kerja, dukungan sosial atasan, dukungan sosial rekan kerja, beban kerja, moderator

The Teacher and Lecturer Legislation or Undang-Undang Guru dan Dosen/UUGD, chapter 1 verse 1 (Undang-undang RI, 2005) states that teachers are professionals whose key duties are to educate, teach,

guide, direct, train, assess, and evaluate students in a formal education path, primary school, and high school. UUGD number 14 chapter 35 (1) in 2005 that regulates teachers' workload describes teachers' workload includes main tasks, such as planning, delivering, and evaluating learning outcomes; guiding and training students; as well as performing additional tasks. However, it is mentioned in the next verse that

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the teachers' workload as described in verse (1) is of at least 24 hours and 40 hours at most of face-to-face sessions per week.

The teachers' main responsibilities stated in chapter 35 (1) only includes the learning delivery aspect, whilst the other main responsibilities (e.g. planning and evaluating learning outcomes, guiding and training students, as well as performing additional tasks) are not described. The General Directorate of Teachers Quality Improvement (Dirjen Peningkatan Mutu Pendidik dan Tenaga Kependidikan/PMPTK) from National Education Department had been aware of this issue, which led them to release a guideline in 2008 to calculate teachers' workload, regardless whether the teacher was successful or not in achieving the minimum target.

The UUGD chapter 1 verse 1 explains that teachers' responsibilities are not only to teach in a class environment, but also to educate, guide, direct, assess, and evaluate. In addition, they are also required to develop their profession by conducting research and/or initiating a learning innovation. Considering this, there seems to be a need for the teachers' workload to be reviewed, especially in relation to the regulatory aspect. Teachers with high work engagement tend to perceive their job more positively, highly passionate about their job, dedicated to their organizations, and focused on their job (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Schaufeli & Bakker, 2004).

Bakker and Demerouti (2008) defined work engagement as a fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption. Engagement involves individuals' (managerial and non-managerial employees) obedience to the organization's vision, mission, and goals while performing their duties. Employees who are highly engaged to their organization: (a) display strong understanding of the organization's vision, mission, goals, and policies, (b) are happy about their job, (c) possess high work motivation, (d) always seek to improve their quality of performance, (e) are innovative, (f) respect the manager-employee relationships, (g) are able to work effectively within a team, (h) identify themselves as a part of the organization's "big family".

By taking into account Bakker and Demerouti's (2008) definition of work engagement, then it can be expected that employees' engagement toward their organization would contribute to the organization's success in dealing with their human resources issues. The levels of employee engagement were positively related to their performance, which in turn resulted in a positive overall organizational performance.

Employees are working not only to obtain financial compensation, but also to seek for the non-financial rewards, such as personal recognition and career development. As such, it is unlikely that employee engagement would be enhanced by utilizing a structural approach only. First of all, as individuals, they should be "tied up" with a value system approach.

Employees with high work engagement display certain characteristics. Federman (2009) noted that highly engaged employees: (a) are focused in performing a task and other tasks, (b) identify themselves as part of the team, (c) have a sense of personal mastery and rarely feel pressured about their job, (d) work with change and approach challenges in a mature manner. An initial interview with a teacher from a high school in Surabaya revealed a lack of 'vigor' characteristic of work engagement:

"I keep my spirit high in teaching, but since this has been going on for a long period, I've become tired and burned out. Not to mention that the financial incentives are not paid on time, which made me do this job half-heartedly." (BYT, June 1, 2013).

"Saya sih tetap semangat kalau mengajar, tapi kalau lama-lama begini saya juga capek, jenuh mas. Apalagi kadang tunjangan dari sekolah lama keluarnya mas, jadi terkadang aras-arasan." (BYT, 1 Juni 2013).

Another initial interview was conducted regarding the 'dedication' aspect, which was defined by the author as individuals' strong involvement, enthusiasm, and pride about their job. A teacher (AA) indicated a lack of challenge that she experienced as a teacher:

"I go to school as a daily routine, with nothing new to expect, sometimes I get bored because I'm dealing with the same stuff, my job is to do the same thing over and over again." (AA, July 12, 2013).

"Waktu datang ke sekolah saya sudah kayak rutinitas aja mas, gak ada hal baru, ya kadang agak bosan aja yang ditemui itu-itu aja, jadi kerjanya mbulet disitu aja." (AA, 12 Juli 2013).

One of the predictors of work engagement, which can be classified as a personal resource is social support (Xanthopoulos, Bakker, Demerouti, & Schaufeli, 2007). Halbesleben (2010) has conducted a meta-analysis which results showed that psychological resources influenced work engagement. One of the psychological resources dimensions used in this study was social support, which was reported to have .32 correlation coefficient to the overall work engagement.

House (as cited in I. G. Sarason, B. R. Sarason, Sherin, & Pierce, 1990, p. 87) stated that social support is interpersonal relationships that involve two or more individuals to fulfill the individuals' basic needs in obtaining the sense of safety, social relationships, approval, and love. Gottlieb (as cited in Sarason, et al., 1990, p. 87) defined social support as verbal or non-verbal information, suggestion, or assistance that are provided by others within an individual's social network, or in the form of companionship to provide emotional gains that influence the receiver's behavior. Cobb (cited in Risma & Retnaningsih, 2008, p. 6) referred social support as the provision of comfort, attention, recognition, as well as the acceptance of an individual's condition. This social support may be offered by individuals or groups.

House and Kahn (cited in Cohen, 2004) proposed four types of social support. First, emotional support refers to empathy, care, attention, and trust, as well as openness in problem solving. As a result, an individual would feel assured, comfortable, and loved. Second, instrumental support involves the provision of facilities that may assist individuals to achieve their goal, such as goods, services, time, and opportunities. Third, informational support includes the provision of advice, directions, and suggestions of how one should act in a problem-solving process. Fourth, esteem support occurs through the expression of rewards or recognition of the individuals' effort and feedback about their outcomes and achievements.

Hart and Staveland (1988) described workload as the amount of one's effort and resources spent to perform the required tasks in their job. Workload can be classified as quantitative or qualitative. Quantitative workload refers to the amount of work that is required to fulfill the needs of students' education, whilst qualitative workload involves the high level of responsibility displayed in teaching the students. A high level workload may lead to poor communication between teacher – teacher and teacher – student. Calculating teachers' workload has few important consequences, e.g. to assess and review students' education needs, recruiting and allocating staff, and determine work condition and teaching quality. Ilyas (2004) described that by using a work sampling, it is possible to observe specific activities at work, such as the activities performed by teachers during the work hours, whether those activities are related or not to their tasks and duties, and the proportion of time spent for productive and unproductive activities.

This study examined the JD-R model (job demand-resources) in relation to work engagement (Bakker & Demerouti, 2008). Firstly, job demands refer to physical, social, or organizational aspects of the job that require sustained physical and/or psychological effort. Secondly, job resources refer to those physical, psychological, social, or organizational aspects of the job that are either/or: functional in achieving work goals, reduce job demands and the associated physiological and psychological costs, and stimulate personal growth, learning, and development (Bakker, Schaufeli, Leiter, dan Taris, 2008). Thirdly, in the JD-R model, it was proposed that job resources act as a buffer for the impact of job demands. Hence, this study hypothesized that:

Major hypothesis: There will be a relationship between supervisor and co-worker support and work engagement in teachers.

Minor hypothesis 1: Supervisor support will be associated with work engagement in teachers.

Minor hypothesis 2: Co-worker support will be associated with work engagement in teachers.

Minor hypothesis 3: Workload will moderate the relationship between supervisor support and work engagement in teachers.

Minor hypothesis 4: Workload will moderate the relationship between co-worker support and work engagement in teachers.

Method

Operational Definition of Variables

Work engagement. Work engagement refers to a fulfilling motivational concept toward a job that is characterized by vigor, dedication, and absorption. Utrecht Work Engagement Scale (UWES; *Schaufeli & Bakker, 2004*) was used in this study. Higher scores reflect higher work engagement toward one's job.

Supervisor and co-worker support. Social support refers to a form of help or assistance provided by someone else to motivate an individual in doing their job. This study measured the social support received from supervisors and co-workers. According to Schwarzer & Schulz (2003), there are four aspects of social support: 1) Perceived Available Support, 2) Need for Support, 3) Support Seeking, and 4) Actually Received Support.

This study measured the social support variable using the Berlin Social Support Scale (BSSS) that was translated into Indonesian. Higher scores reflect

Table 1
Work Engagement Scale Specification

No	Dimension	Item	Total
1	Vigor	1, 4, 8, 12, 15, 17	6
2	Dedication	2, 5, 7, 10, 13	5
3	Absorption	3, 6, 9, 11, 14, 16	6
Total			17

Table 2
Social Support Scale Specification

No	Dimension	Favourable	Unfavourable	Total
1	Perceived Available Support			
	a. Instrumental	1,2,3,4	-	4
	b. Emotional	5, 6, 7, 8	-	4
2	Need for Support	9, 10, 11	12	4
3	Support Seeking	13, 14, 15, 16, 17		5
4	Actually Received Support	18, 19, 20, 24, 25, 26, 27, 28, 29,30,31, 32, 33	21, 22, 23	15
Total				32

Table 3
Workload Scale Specification

No	Dimension	Item	Total
1	Physical demand	1,7, 14,21	4
2	Temporal demand	4, 10, 18,23	4
3	Performance	2, 12, 17, 22	4
4	Mental demand	5,8,13,19	4
5	Effort	3, 11, 16,24	4
6	Frustration level	6,9,15,20	4
Total			24

higher support received from co-workers and supervisors.

Workload. Workload is defined as the amount of effort that is required for an individual to perform a certain level of performance that involves mental demand, physical demand, temporal demand, performance, effort, and frustration level. The perception of workload was measured using NASA-TLX workload scale by Hart and Staveland (1988). Higher scores reflect higher workload.

Population and Sampling Method

This study used a population of teachers in three private Senior High Schools (A, B, and C) in Surabaya.

The sampling utilized in this study was convenience sampling technique (Istijanto, 2006). The participants were the teachers who actively teaching in those schools. The sample consisted of 118 teachers.

Data Collection

Data were collected using a questionnaire consisted of five sections:

1) The first section was a consent form to collect and analyze the data from the participants.

2) The second section was a demographic questionnaire.

3) The third section was the work engagement scale. This 17-item scale measured work engagement score using a likert scale with five response choices, namely always, often, sometimes, rarely, never.

The scale used was UWES (Utrecht Work Engagement Scale) translated into Indonesian. The alpha coefficient in previous research has been shown to be .936 (Tanudjaja, 2012) and .8882 (Puspita, 2012). Table 1 shows the scale item specification to assist with the understanding and scoring of this scale.

4) The fourth section was the social support scale, which comprised of 32 items. The scale consisted of: four items for Perceived Available Support for instrumental support, four items for Perceived Available Support for emotional support, four items for Need for Support, five items for Support Seeking, and 15 items for Actually Received Support. This scale was adapted from BSSS (Berlin Social Support Scale) to reflect the social support from supervisors and co-workers only, and was translated into Indonesian. Responses were measured on a five-point scale: always, often, sometimes, rarely, never. Table 2 shows the scale item specification to assist with the understanding and scoring of this scale.

5) The fifth section was the 24-item workload scale that measured six dimensions, namely four items for mental demand, four items for physical demand, four items for temporal demand, four items for performance, four items for effort, and four items for frustration. Each statement was provided with five response choices: always, often, sometimes, rarely, never. Table 3 shows the scale item specification to assist with the understanding and scoring of this scale.

Data Analyses

The correlation analysis in this study was conducted using SPSS for windows version 19.0. All variables

Tabel 4
Reliability of Measurement Results

No	Variable	Corrected Total Correlation	Item Reliability Alpha Cronbach
1	Work engagement	.417 - .772	.930
2	Supervisor's support	.419 - .833	.957
3	Co-worker's support	.522 - .834	.968
4	Workload	.339 - .736	.879

Table 5
Normality Test Results

Variable	Skor Kolmogorov - Smimov	Spread status
Work engagement	.348	Normal
Supervisor's support	.163	Normal
Co-worker's support	.099	Normal
Workload	.603	Normal

Table 6
Linearity Test Results

Variable	F	p	Spread status
Co-worker's support - Supervisor's support	25.626	0	Linier
Work engagement - Co-worker's support	21.63	0	Linier

were checked for content validity, reliability, and assumption prior to hypotheses testing analyses. The work engagement, social support, and workload scales' validity were determined by checking the dimensions and items against the theory using logical validity. The test of reliability was presented using Cronbach alpha coefficient. The threshold value for the test of normality was set at $p > .05$ and the test of linearity was set at $p < .05$.

Reliability test. The reliability test in this study applied the alpha Cronbach technique, using the SPSS 19.0.

Table 4 is a reliability table, which reveals the Alpha Cronbach value for the four variables $> .7$ indicating reliability. In a reliability test the corrected item total correlation should be $> .3$. In the work engagement variable there was no discarded items due to the fulfillment of the requirement and having alpha Cronbach of .930. In the supervisor's variable, five items were discarded (12, 20, 21, 22, 23) resulting

in alpha Cronbach .957. In the co-worker's variable, five items were discarded (12, 20, 21, 22, 23), resulting in alpha Cronbach .968. In the workload variable, seven items were discarded (6, 7, 8, 21, 22, 23, 24), resulting in alpha Cronbach .879.

Normality and linearity assumption test. Table 5 reveals that all variables, work engagement, supervisor's support, co-worker's support, and workload spread data were $> .05$ indicating the acceptance of the Null Hypothesis, revealing that work engagement, supervisor's support, co-worker's support, and workload spread data were normal, supporting the parametric correlation test

Table 6 reveals that all variables indicate a linear correlation. The work engagement has a linear correlation with the supervisor's support with $p = .0000$ ($< .05$). Work engagement has a linear correlation with co-worker's support with $p = .0000$ ($< .05$).

Hypotheses testing. The statistical technique used was multiple regression analysis with absolute value difference. The multiple regression analysis is a statistical method used to test the relationship strength that involves independent variable(s) and moderator(s). The purpose of the test of absolute value difference (Frucot & Shearon, as cited in Ghazali, 2006) was to examine the moderator's role (teachers' workload) in influencing the relationship between social support and work engagement.

Results

This section provides the demographic characteristics of the participants of this research. There were 118 participants, which description is shown using a frequency distribution. The data described was categorized by age, sex, duration of work, and education (Table 7 – Table 10).

The hypotheses testing were firstly conducted using multiple regression analysis. The purpose of this analysis was to investigate the relationship between supervisor support, co-worker support, and work engagement. Table 11 describes the results of the multiple regression analysis.

Table 11 shows that JD-R model was supported by this finding. The results explained that the social support dimension of the JD-R model contributed 18.6% to employee work engagement. The hypothesis testing was analyzed using multiple regression technique and absolute value difference to examine the moderation effect of workload. The results are shown in Table 12.

Table 7
Frequency Distribution of the Age Category

No	Age	Frequency	%
1	15 - 24 years	4	3.40%
2	25 - 44 years	50	42.40%
3	45 - 65 years	24	20.30%
4	> 65 years	1	.80%
5	Missing	39	33.10%
	Total	118	100%

Table 8
Frequency Distribution of Gender

No.	Gender	Frequency	%
1.	female	61	51.70%
2.	male	39	33.10%
3.	missing	18	15.30%
	Total	118	100%

Table 9
Frequency Distribution of Duration of Work

No	Duration of work	Frequency	%
1	<1 year	51	43.20%
2	1-10 years	33	28.00%
3	11-20 years	17	14.40%
4	21-30 years	13	11.00%
5	>30 years	4	3.40%
	Total	118	100%

Table 10
Frequency Distribution of Education

No	Highest education	Frequency	%
1	Undergraduate	13	11.00%
2	Baccalaureate	73	61.90%
3	High School	3	2.50%
4	Missing	29	24.60%
	Total	118	100%

Table 12 shows that the relationship between supervisor support and work engagement was not significant ($p > .05$). The supervisor support contributed 1.8% to work engagement. The results found a significant relationship between co-worker support and work engagement ($p < .05$). The support from co-workers contributed 18.1% to work engagement. Workload significantly moderated the relationship for both

Table 11
Regression Results for Major Hypothesis Testing

Variable	R	R ²	F	p
Dependent Variable: Work Engagement				
Independent Variable: Supervisor Support	.432	.186	13.171	.000
Co-worker Support				

Table 12
Results of Minor Hypotheses 1-4 Testing

Variable	Std. Beta	R square	p
Supervisor support – work engagement	.135	.018	.144
Co-worker support – work engagement	.425	.181	.000
Absolute difference supervisor support and workload – work engagement	.352	.124	.000
Absolute difference co-worker support and workload – work engagement	.199	.039	.031

supervisor support and work engagement (12.4%; $p < .05$), as well as co-worker support and work engagement (3.9%; $p < .05$).

Discussion

The Relationship Between Supervisor Support, Co-worker Support, and Work Engagement in Teachers

In line with the expectation outlined in the major hypothesis, the results of this study found that there were significant relationships between supervisor support, co-worker support, and work engagement in teachers at private schools in Surabaya ($r = .432$; $p < .05$). These findings support the previous research by Bakker and Demerouti (2008) about Job Demands – Resources model of work engagement.

Overall, social support that were provided by supervisors and co-workers in this study accounted for 18.6% in influencing work engagement, whilst the other 81.4% were affected by other variables that were not investigated in the current study and/or factors

that had not been examined in the model. There was a difference in regards to the correlation coefficient between this study and the previous meta-analysis research due to the nature of participants' demographic and location. JD-R model explained the connection between the sources of social support (from supervisors and co-workers), both of which are part of job resources dimension. The results found that 80.7% of the participants displayed a high-very high level of work engagement, 83.9% reported that they had received moderate-high support from their supervisors, and 97.5% perceived to be moderately-highly supported by their co-workers. These findings supported the study by Demerouti, et al. (cited in Xanthopoulou, et al., 2007) that suggested that job resources, namely autonomy, social support, supervisor guidance, and opportunity for professional development, are factors that may affect work engagement, in addition to the personal resources. This is also in accordance with the previous study that found that social support, as part of job resources, influenced work engagement (Demerouti et al., as cited in Xanthopoulou, et al., 2007).

Morale and emotional support from supervisors and co-workers may boost teachers' enthusiasm in working. The social support provided in the workplace may contribute to productivity and employee work engagement (Hodson, 1997). This is supported by the results of the current study that indicate the teachers' feeling when they were about to go to work, namely 60 participants felt excited about going to work. From the data collected, it was found that 38.9% (46 participants) reported to have high-very high supervisor support and work engagement. It was also found that 66.1% (78 participants), reported to have high-very high co-worker support and work engagement. From these results, it can be suggested that an individual who perceives to have a high level of social support would be likely to value those emotional, instrumental, informational, and esteem contributions/support in solving their problems in the workplace.

This research involved 118 teachers who were mainly female (51.7%). The majority of the participants, 63%, were aged above 26 years old. Most of the participants, 85.6%, had been working as a teacher in their current school for less than 20 years. These demographic characteristics are similar to the previous research by Dehaloo and Schulze (2013), with most of the participants were female (59%), aged above 26 years old (85%), and had been working at the organization for less than 20 years (61%). In addition to these demographic similarities, the results of this study have also revealed similar findings to Dehaloo

and Schulze's (2013), namely social support was found to be positively related to work engagement.

The Relationship Between Supervisor Support and Work Engagement

Minor Hypothesis 1 was tested to investigate the relationship between supervisor support and work engagement. The results ($r = .018$; $p > .05$) showed that the relationship was not significant. This non-significant correlation may be due to the fact that 43.2% of the teachers had only been working at the school for less than 1 year, which may suggest that they had not yet developed a good teacher-supervisor relationship. This is in line with the study by Driedger and Cox (1991) which indicated that the insignificant relationship between supervisor support and work engagement was likely to be related to the fact that some of the participants were still in the employment negotiation phase with the employer.

In this study, there were 56.8% of the teachers reported moderate to low support from their supervisor. This finding indicates that most of the participants had not been able to experience a real form of supervisor support yet. This finding is in contrast with the previous study by Bakker et al. (2008) that found a strong positive relationship between supervisor support and work engagement.

Bakker and Demerouti (2008) indicated that a low level of support from supervisor may lead to a low level of work engagement as well, considering that supervisor support is a form of job resources which predict work engagement. The findings of this study suggest that the teachers in private schools in Surabaya perceived their supervisor as not providing enough support for them to be engaged with their job. It was also found that the mean for the supervisor support score was 88.525, while the mean score for the co-worker support was 100.805. These results showed that the teachers perceived to receive more support from their co-worker rather than from their super-visors at the workplace.

The Relationship Between Co-worker Support and Work Engagement

The testing of minor Hypothesis 2 found that there was a significant relationship between co-worker support and work engagement in teachers in private schools in Surabaya ($r = .181$; $p < .05$). This is an indication that the teachers valued and appreciated the support they received from their co-workers. This current research found that the average score

for supervisor support was 88.525 and 100.805 for co-worker support. The results also showed that 70.4% of the participants reported high to very high co-worker support, so that it can be concluded that most of the teachers in those schools received a satisfactory level of support from their co-workers and take it into account in engaging themselves with their work.

Hobfoll and Stephens (as cited in Ferber, 1983) suggested that social support as a social interaction plays a major role in providing help and assistance, also in establishing the sense of attachment to an individual or a group who have been together for a long period of time and shared care or love. This is in accordance with the recommendation by Demerouti et al. (as cited in Xanthopoulou, et al., 2007) who indicated that social support as a dimension of job resources influences work engagement. Therefore, it can be suggested that when the teachers perceived a high level of support from their co-worker, it is likely that they would tend to be more energetic and passionate in performing their tasks, fully engaged with their job, and feel that the time flies when they are working.

An individual who received a high level of social support is likely to believe that the support contributes to their emotional, instrumental, informational, and esteem value, hence may assist them in dealing with the problems encountered at work. Co-worker support would enable them to solve their problems more effectively and to perform better. It is also likely that co-worker support plays a major role in minimizing their physical as well as psychological exhaustion. Teachers who feel supported by their co-worker tend to be more engaged in their work, which in turn would increase their performance. The support received from co-workers may create a comfortable and peaceful atmosphere in the workplace, and as a result, an individual could focus on their tasks at work (Rook, 1987).

The Role of Workload as a Moderator on the Relationship Between Supervisor Support and Work Engagement

The analysis of minor Hypothesis 3 showed that there was a significant moderation effect of workload on the relationship between supervisor support and work engagement ($r = .124$; $p < .05$). This result supported a research by Bakker and Demerouti (2008) that examined the relationship between Job Demands-Resources model and work engagement.

The results indicated that the workload contributed as a moderator on the relationship between supervisor support and work engagement. The statistical data showed that when the workload variable was taken into account, it interacted with supervisor support and together they contributed 12.4% to work engagement. This finding suggested that workload played a role as a stressor to influence work engagement in teachers. This is in accordance with Schwarzer and Schulz' (2003) statement that the basic concept of energy is provided by other people, in the form of support, or the reciprocity of giving and receiving support.

Bakker and Demerouti (2008) proposed that high social support may assist an individual in completing a task. The relationship between social support and work engagement is not only affected by workload as a moderator, but also by the level of the supervisor support. Therefore, even if the teachers perceived a high level of workload, the relationship between social support and work engagement would also be high. This is supported by a statement from a teacher from school A during the initial interview who reported that he kept working in the school because of his supervisor who had been supporting him. Schaufeli and Bakker (2004) indicated that when an employee could feel a positive emotion and able to change the external pressure into something enjoyable, he/she would be overflowed by positive affect and thoughts about their job. This current study suggests that the teachers in the private high schools in Surabaya did not perceive workload as a negative aspect, instead they would display their internal motivation to anticipate the existing challenges together with their community.

The Role of Workload as a Moderator on the Relationship Between Co-worker Support and Work Engagement

The analysis of minor Hypothesis 4 showed that there was a significant moderation effect of workload on the relationship between co-worker support and work engagement ($r = .039$; $p < .05$). This result also supported the research by Bakker and Demerouti (2008) that examined the relationship between Job Demands-Resources model and work engagement.

The results indicated that the workload contributed as a moderator on the relationship between co-worker support and work engagement. Bakker and Demerouti (2008) stated that a high level of social support is likely to assist an individual in completing a task. The teachers participated in this study may perceived

that they were highly supported by their co-workers as most of them were within the same age range, namely 44.9% were between 23-44 years old. In addition to the support from their supervisor and co-worker, it is predicted that the workload would contribute as a stressor for a teacher.

Conclusion, Limitations, and Implications

Based on the results and discussion, it can be concluded that the major hypothesis was partially supported, namely there was a significant relationship between co-worker support and work engagement in teachers in private high schools in Surabaya, but no significant relationship was found between supervisor support and work engagement.

This current study found that workload act as a stressor in moderating the relationship between social support (both from supervisor and co-worker) and work engagement in teachers in private high schools in Surabaya.

Limitations. Considering the schools' tight regulations and the teachers' limited time to participate in this study, the observation and interview may not be as comprehensive in probing the issues in depth. In addition, the participants completed the questionnaire in an unsupervised setting, which may lead to lack of clarity regarding the statements and questions.

A main weakness of this study was that results of the measurements were used with the assumption that all variables were unidimensional. Due to that the reliability test was conducted simultaneously using all items in one scale with the consequence that items which are unique/special were discarded. The left items were only items measuring the same aspects of the others in the scale (without taking care from where the aspects/dimension were coming from)

Another weakness still correlated with the measurement tool was applying a norm based on a mean value and ideal standard deviation in grouping the respondents. Such norm selection could results in a wrong subject grouping. Though it could be considered as a fatal weakness, unfortunately, the minimal efforts and concern to validate and standardize measurement tools in relevant sample groups (Indonesia), forced the author to use norms based on these ideal values.

Implications. There are several implications related to this study: The schools are expected to maintain the level of the workload and not increasing or decreasing it significantly in a short period of time, as this will be likely to affect the teachers' work engagement. In order to enhance the work engagement,

it may be beneficial for the supervisor to provide more support to their members by building a closer relationship and provide more clarity around the decisions made that may influence the performance of the teachers in the school. It may also be advantageous to provide training for the teachers to establish a strong and close relationship among the teachers themselves (co-workers).

The teachers may benefit from requesting feedback from their supervisors and/or co-workers in relation to their current/ future performance to improve the quality of their work. The teachers are also encouraged to maintain the high level of support among the co-workers, so that they would be able to persist in solving the problems and challenges in their workplace.

For future studies, it is suggested to conduct a brief communication with the participants prior to completing the questionnaire in order to describe the definition of the social support and workload. This is to clarify each of the variables measured, hence the participants would be able to respond to the questions more accurately.

From a measurement perspective, other researchers are recommended to use measurement tools already validated or standardized in the Indonesian context. This would be vital in assuring the appropriateness and benefit of research data. If it is too troublesome, one could use validation results of other researchers. Such is recommended whether it is a product developed by national experts or results of adaptation from a measurement tool already developed from abroad.

References

- Bakker, A. B., & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International*, 13(3), 209-23.
- Bakker, A. B., Schaufeli, W. B., Leiter, M. P., & Taris, T. W. (2008). Work engagement: An emerging concept in occupational health psychology. *Journal of Work & Stress*, 22(3), 187-200.
- Cohen, S. (2004). Social relationships and health. *American Psychologist*, 59(8), 676-684. doi: 10.1037/0003-066X.59.8.676
- Dehaloo, G., & Schulze, S. (2013). Influences on the work engagement of secondary school teachers in rural Kwazulu-Natal. *The Journal for Transdisciplinary Research in Southern Africa*, 9(2), 225-240.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W.B. (2001). The job demands-resources

- model of burnout. *Journal of Applied Psychology*, 86, 499-512.
- Driedger, S. M., & Cox, D. (1991). Burnout in nurses who care for PWAs: The impact of social support. *AIDS Patient Care* 5, 197-203
- Federman, B. (2009). *Employee engagement: A road for creating profits, optimizing performance, and increasing loyalty*. San Fransisco: Jossey Bass
- Ferber, A. B. (1983). *Stress and burnout in the human service profesional*. New York: Pegamon Press Inc
- Ghozali, I. (2006). *Aplikasi analisis multivariate dengan program SPSS*. Semarang: Badan Penerbit Universitas Diponegoro.
- Hart, S. G., & Staveland, L. E. (1988). Development of NASA-TLX (Task Load Index): Result of empirical and theoritical research. In P. A. Hancock & N. Meshkati (Eds.), *Human mental workload* (pp. 5-39). Amsterdam: North Holland Press
- Halbesleben, J. R. B. (2010). A meta-analysis of resources and work engagement: Relationships with burnout, demands, resources, and consequences. In A. B. Bakker & M. P. Leiter (Eds.), *Work engagement: A handbook of essential theory and research* (pp. 102-117). New York: Psychology Press
- Hodson, R. (1997). Group relations at work solidarity, conflict and relations with management work and occupation. *Journal of Applied Psychology*, 24, 426-452.
- Istijanto. (2006). *Riset: Ilyas, Y. (2004). Perencanaan SDM rumah sakit: Teori, metoda, dan formula*. Depok: FKM Universitas Indonesia
- Puspita, M. D. (2012). *Hubungan antara dukungan social dan makna kerja sebagai panggilan (calling) dan keterikatan kerja pada perawat di Rumah Sakit Jiwa Menur Surabaya* (unpublished mini-thesis). Faculty of Psychology Universitas Surabaya.
- Risma, R. M., & Retnangingsih. (2008). *Hubungan antara dukungan sosial orang tua dengan prestasi belajar pada anak usia sekolah dasar* (unpublished mini-thesis). Faculty of Psychology, Universitas Gunadarma.
- Rook, K. (1987). Social support versus companionship: Effects on life stress, loneliness, and evaluations by others. *Journal of Personality and Social Psychology*. 52(6), 1132-1147.
- Sarason, I. G., Sarason, B. R., Sherin, E. N., & Pierce, G. R. (1990). A brief measure of social support: *practical and theoretical implications*. USA: University of Washington.
- Schwarzer, R., & Schulz, U. (2003). *Long term effects of spousal support on coping with cancer after surgery*. Berlin: Freie Universitas Berlin.
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*, 25, 293-315.
- Tanujaya, R. M..(2012). Hubungan antara konflik keluarga-kerja, makna kerja sebagai panggilan, dan persepsi terhadap dukungan organisasional dengan keterikatan kerja pada guru (unpublished mini-thesis). Faculty of Psychology, Universitas Surabaya
- Undang-undang RI No. 14 Tahun 2005 tentang Guru dan Dosen. (2005). Bandung: Fokus Media
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2007). The role of personal resources in the Job Demands-Resources Model. *International Journal of Stress Management*, 14, 121-141.