

# Applying PLS-SEM in Investigating Factors Affecting Employee Engagement: The Case of SAS English Centre, Da Nang branch, Vietnam

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**Abstract:** This study aims to explore the driven factors of employee engagement in the chain of English centre in Danang city, Vietnam by applying PLS-SEM model. Eight variables were included in this study after the quantitative research, in which employee engagement was the dependent variable, job satisfaction and organizational attention and support were hypothesized to have direct impact on employee engagement. Five other variables including Relationship in a workplace, Working environment, Job characteristics, Wage, Training and development were supposed to have influence on employee engagement through intermediate variable-job satisfaction. The results of this study supported all research hypotheses. Additionally, five mentioned above variables were found to have no significant direct effect on employee engagement. This study results carry practical contribution to the management board, particularly to the human resources department of organization.

## 1. Introduction

Human resource plays a strategic role in the development of organization. Human resource is one of the important indicators of achieving organisational goals and help organization perform efficiently (Macke & Genari, 2019). Organizations with powerful human resource were found to be more profitable compared to others. Since the administrators are aware of the importance of human resource, this sector has captured the great attention of not only the management board but also the researchers.

Employee engagement has long been regarded as one of the most important concepts in Human Resources. It was found that increasing employee engagement can definitely help organization to improve business performance and transform to the best (Cattermole et al., 2013). Employee engagement has been considered as the critical driver of business today as it can create a good working environment for employees, which affects their morale. Engagement also boosts the communication among employee, which assist them to complete their work effectively, from that increase working productivity (Altehbah, 2019).

Engaged employees are being used as a strategic competence tool by businesses. Employees who are highly engaged continually have outperformance and create a new standard. Engaged employee plays a role of foundation line of any business in helping to improve their job performance, gain more customer loyalty, which in turn give organization more profit (Altehbah, 2019).

In Vietnam, it is both important and challenging to develop the long-term human resource. The employee turnover rate has been on the rise in the last three years, reaching a rate of 24% in 2019. The high turnover rate was caused partly by the fierce competition labour market. While accepting turnover as cost of doing business, Vietnam's firm still strive to increase employee engagement as after consulting firms and surveying administrators, it was found that employee engagement can reduce turnover (Van & Nafukho, 2019). Additionally, it can increase share shareholder value and as the catalyst for outperforming the competition.

Employee engagement is one of the interest research field. Therefore, there is a need for academic research on this topic. This study aims to investigate the driven factors of employee engagement in the chain of English centre – SAS in Da Nang city, Vietnam. The following research objectives would facilitate the achievement of this goal: (1) review factors that positively affect employee engagement; (2) describe, analyse, and assess the situation of employee engagement in SAS English centre in Da Nang city; (3) infer and propose recommendations in terms of enhancing employee engagement.

**2. Literature Review**

**2.1. Definition of Employee Engagement**

Employee engagement with an organization has long been understood by many researchers and given different definitions. Employee engagement, according to Nguyen and Pham, (2016), employee enegement has three dimensions: emotional engagement (emotional attachment to one's work), cognitive engagement (striving at work), and physical engagement (showing a willingness to invest extra effort for the organizational development). Employee engagement is classified as either personal engagement, work engagement, or organizational engagement, which generates confusion.

According to Mowday et al. (2013), employee engagement with organization refered employee homogeneity, struggling, job satisfaction, and employee loyalty to the organization. This definition refers to the positive relationship between the employee and the organization that makes them always willing to put more effort to contribute to the success and development of the organization. Employee engagement, according to Saks (2019), is defined by employees' positive attitudes about the organization's ideals and actions. Employees who obtain appropriate physical and spiritual value from the organization feel obligated to repay them by giving their all to the organization. Employees are more optimistic and engaged, he claims, when the organization provides them with the resources they need. Gibbons (2006) defines the deep relationship that employees feel about their organization is employee engagement. According to Tella et al., (2007), engagement reflects job satisfaction and employee loyalty to the organization, and it is an ongoing process through which members show concern for the organization.

While there are many alternative definitions, experts believe that employee engagement is a vital notion in attempting to characterize the nature of the connection between a business, a work, and its employees in terms of both quality and quantity. An engaged employee is defined as someone who is willing to bring their best selves to work, is completely passionate and enthusiastic about it, has a positive attitude toward the organization and its values, and thus takes positive actions to improve personal performance, job efficiency, and the organization's reputation and benefits (Nguyen & Pham, 2020).

**2.2. The Roles of Employee Engagement with Organization**

According to Saks & Gruman (2014), employee involvement is critical to corporate success and competitiveness. Organizations are aware that using human capital can enhance their efficiency and competitive advantage. In other words, human resource is a means to increase the competitive advantage of an organization. The loss of employees, especially talented ones, means that the organization has to spend a lot of money, time and effort to recruit and train new replacement. This loss results in more losses than monetary damages because it has the potential to affect the will of those who remain.

Employee engagement is regarded as critical not only to individual performance but also to organizational success. It is described as a key determinant of individual attitudes, behaviors, and job satisfaction, as well as organizational cashflow, retention, productivity,

shareholder return, and overall growth. According to Nguyen and Pham (2020), both managers and employees are concerned with the connection between employees and the workplace. We can visualize that there will be a link between the image of the organization and the personal image of the employee when employees feel like they want to engage with the organization. Therefore, managers must encourage employee engagement because if there is no engagement between the employee and the organization, the employee will not feel close and will not want to stick with the organization, ultimately resulting in the employee's tendency to leave the organization to find another good job.

**2.3. Driven Factors of Employee Engagement**

As mentioned, employee engagement has captured the great attention of organizations and researchers. Many of studies were conducted aiming to find out the antecedents of employee engagement.

Kahn's structure proved to be one of the most useful. Psychological availability, psychological safety, and psychological meaningfulness are three psychological states that play a role as personal engagement components (Kahn, 1990). The results found by Task revealed that traits, job qualities, work interactions, interpersonal relationships, a stable and safe workplace, as well as leadership styles and team norms were determinants of employee engagement.

Dockel et al., (2006) investigated the influence of factors affecting the engagement of high-tech workers in telecommunications companies in Gauteng province, South Africa. The authors used 6 factors to measure employee satisfaction, including: superiors' support, Training and development opportunities, Promotion opportunities, Job characteristics, Wage and Welfare. They used a three-component scale for organizational engagement of Meyer and Allen including emotional engagement; for benefit and ethical linkage to measure the degree of employee's engagement with the organization. The results show that 4 factors: superiors' support, Job characteristics, Wage and Welfare has a strong influence on the organizational engagement of this high-tech worker, while the other 2 factors did not statistically influence employee engagement.

Job design, learning and development, performance management, and reward programs, according to Armstrong and Taylor (2014), should strengthen employee engagement in firms, while emphasizing the essential role of direct supervisors in promoting such organizational activities. Armstrong and Taylor (2014) advised that respecting employee, setting a meaningful and cultural climate and tackling the work environment systems can help to enhance employee engagement degree. The researchers believe that a work environment where employees are full of enthusiasm results in higher productivity. A coherent work environment makes employees feel like they want to work and want to be a part of the organization's success because their personal goals and organizational goals are closely linked. It will help the organization save a lot of tangible and intangible costs, time spent on recruiting and training new staff to replace.

The study of Ha Nam Khanh Giao and Nguyen Dang Huyen Tran (2017) on factors affecting employee's engagement was conducted to evaluate the influence staff engagement with the school by surveying 174 staff. Tools of Cronbach's Alpha, EFA and multiple regression analysis were used. The results have presented a 5-factor model that positively affects employee engagement, ranked in descending order: Job characteristics, Colleagues relationship, School reputation, Salary and welfare, Organizational support.

Margaretha et al., (2018) conducted a study on employee engagement and influencing factors in Indonesia. This study aimed to understand the factors that affect employee

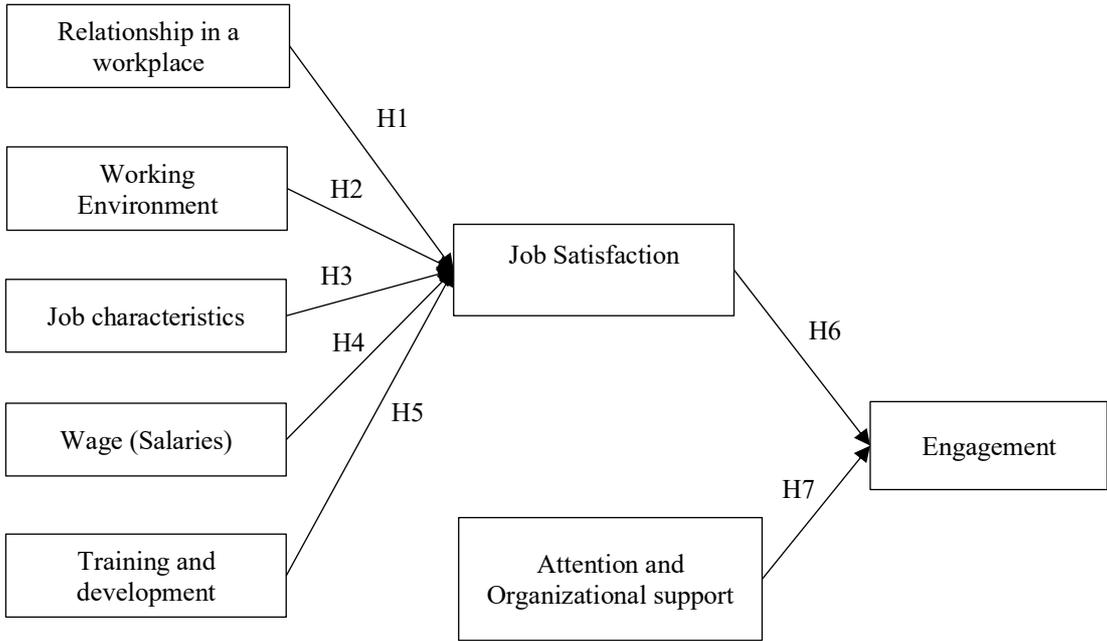
engagement of lecturers in Indonesia. Data collected from 200 respondents. Based on the results it was known that job characteristic, reward and recognition, perceived organizational and supervisor support affect employee engagement. Some managerial implications that can be applied based on the results of this study have been submitted in this research, one of those such as the organization should provide a challenging, safe and secure work environment for employees, in order to get proactive employees that will give a positive effect on overall organizational performance.

The results of a study conducted by Tran Van Dung in 2018 showed that the employee's engagement with the Company was affected by six independent factors ranked in order of importance are: Leadership style; Company culture; Income; Relationship with colleagues; The nature of work and Training and promotion opportunities and the mediating factor is Satisfaction.

Manivannan and Sanchita (2020) conducted the study "Factors influencing employee engagement in educational organization" in Chennai, India. In total a sample size of 689 was used to collect the valid responses using the research instrument in the form of a questionnaire with 5 factors: Rewards and Recognition for teachers, Job Contribution of teachers, employee Organizational Commitment, Perceived Organizational Support, as felt by teachers, and Teachers' Perceived Supervisor Support. The results show that all 5 predictor variables have significant impact on the outcome of interest. Further the maximum extent of impact seems to be from the perceived support from the employee supervisor followed by perceived job contribution while the rewards and recognition, while significant seems to have a lesser effect compared to other factors.

### 3. Research Framework and Research Methods

Previous studies have discovered many factors affecting the employee's connection with the organization in general, with businesses and companies in particular. However, there is not a common model for all types of businesses, but also depending on other conditions. In which the right conditions in Vietnam play an important role and that is also the basis for research. This study performed the assessment of the scale affecting the engagement of teachers and teaching assistants at SAS English Centre. Based on the above literature review, the authors proposed the below research model and hypotheses.



- H1: Relationship in a workplace positively affects employee engagement through job satisfaction.
- H2: Working- Environment positively affects employee engagement through job satisfaction.
- H3: Job characteristics positively affect employee engagement through job satisfaction.
- H4: Wage (Salaries) positively affects employee engagement through job satisfaction.
- H5: Training and development positively affect employee engagement through job satisfaction.
- H6: Job satisfaction positively affects employee engagement.
- H7: Attention and Organizational positively affects employee engagement.

### 3.2. Research methods

In search of a topic, the author proposes a research model that includes 6 independent variables: Relationship in a workplace, working environment, job characteristics, wage (Salaries), training and development, attention and organizational support, one intermediate variable is job satisfaction, and the dependent variable is the engagement of teachers and teaching assistants at SAS centres in Da Nang city.

#### 3.2.1. Qualitative research

Qualitative research is done to check whether the factors and observed variables are consistent with the current situation of the SAS English centre in Da Nang, or whether such factors and variables should be removed. Or whether there will need to be additions to any observed variables or not. After that, the author will use these results to set up a questionnaire for quantitative research.

The research design used in qualitative research is a structured interview. The authors conducted a discussion with 7 individuals working in the management department at SAS Da Nang English Centre, of which 3 are experts at the human resources (HR) department, the rest are in the facility management department. The content of this interview was fully and carefully recorded, synthesized as a basis for the correct adjustment and supplement of the scale content to prepare for the next official investigation phase.

The results can be summarized after discussion. In general, the comments of experts on factors affecting the job satisfaction of teachers and teaching assistants revolve around working environment factors, relationships in a workplace, working environment, salary, training and development policy of the company. This is consistent with the proposed theoretical basis and research model.

Regarding factors affecting the engagement of teachers and teaching assistants: Through interviews, we can see the factors that businesses care about and support (concerns about interests, aspirations, opinion, assistance for teachers or teaching assistants with challenges) and job satisfaction (work environment, co-worker relationships; leadership, nature of work, wages, training and development policies of the company, etc) are factors affecting engagement. These are also the two main factors affecting the engagement mentioned in the theoretical basis and the proposed research model. Commenting on observed variables and measuring the proposed variables in the model, interviewed experts think that most of the variables reflect the investigation objectives.

#### 3.2.2 Quantitative Research

The authors have conducted quantitative research to look for the answers for the relationship between independent variables and employee engagement in the proposed research model. Quantitative research is conducted as soon as the questionnaire is revised from qualitative research results, which makes a total of 33 questions. In Based on this, a questionnaire has been sent in the form of soft copies to teachers and teaching assistants of SAS centre.

In this study, the simple random sampling method is used. To analyze the relationship between engagement, factors for job satisfaction, attention and organizational support, methods Linear structural analysis (SEM) is used. This method requires a large sample size because it is based on the theory of sample distribution (Raykov and Widaman 1995). However, according to Hair et al. (1998) if the Maximum Likelihood estimation method, the minimum sample size from 100 - 150. In addition, the sample size for the estimated method used in the linear structure model (SEM) has three types: small sample  $\leq 100$ , average sample 100 –200 and large sample  $\geq 200$ . The sample size of this study is 125, so basically it is satisfied requirement of analytical method.

#### 4. Empirical Results

##### 4.1. Sample Descriptive Statistics

Total 125 questionnaires were collected. After collecting all the data from respondents, these questionnaires were tested carefully to ensure strictly about the reliability and validity in analysis. The result presented that there are 119 appropriate questionnaires, which means that 95.2% out of total collected questionnaires are information of the subject included: age, gender, marital status, academic level, occupation, experience years in the part one of the questionnaires; questions about respondent’s experience of engagement in the second part of the survey questionnaires

**Table 1: Sample descriptive statistics**

	Items	Frequency	Percent
Age	18-25	35	29.4
	26-35	67	56.3
	>36	17	14.3
Gender	Male	44	37
	Female	75	63
Marital status	Single	80	67.2
	Married	39	32.8
Job position	Teacher	73	61.3
	Teaching assistant	46	38.7
Academic level	Teaching certificate (Tesol, Tefl)	43	36.1
	Intermedia	1	0.8
	College	12	10.1
	University	59	49.6
	Master	4	3.4
Working experience	1- 3 years	58	48.7
	3- 6 years	39	32.8
	6-10 years	20	16.8
	> 10 years	2	1.7
<b>Total</b>		<b>119</b>	<b>100</b>

### 4.2. Reliability Test – Cronbach’s Alpha

In this section, Cronbach’s alpha which is a model of internal consistency, based on the average inter-item correlation was calculated in this part to confirm that all items were measuring the same construct.

**Table 2: Reliability Test – Cronbach’s Alpha**

	Cronbach's Alpha
Attention and Organizational support	0.904
Engagement	0.937
Job characteristic	0.877
Job satisfaction	0.876
Relationship in a workplace	0.930
Training and Development	0.930
Wage (Salaries)	0.864
Working environment	0.935

The results of this analysis step are showed in the following table 4.7. Table 4.7 indicated that Cronbach’s alpha for all variables were higher than 0.7 (Nunnally, J.C. 1978), which means that the internal consistency reliability of all variables is acceptable. Therefore, all variables of this study are suitable for next analysis.

### 4.3. Convergent Validity

Convergent validity is assessed through three components: Composite reliability, the average variance extracted (AVE) and the outer loading.

Composite reliability (CR) is a measure of scale reliability, which is used assesses the internal consistency of a measure. According to Hair et al (2017), the aggregated reliability coefficient is from 0.7 or more, so that the factors have internal consistency.

The average variance extracted (AVE) is a measure to assess convergent validity. This measure is similar to explained variance in EFA in SPSS. AVE presents the average amount of variance in indicator variables that a construct is managed to explain. AVE must be greater than 0.5 (Hair et al 2017) to be acceptable. If the average variance extracted is less than .50, then the variance due to measurement error is greater than the variance due to the construct. In this case, the convergent validity of the construct is questionable.

The outer loading index is used to measure the reliability of the scale. The scales with factor load coefficients of less than 0.4 should be removed from the research model. Scales with strong factor load coefficients ( $\geq 0.7$ ) should be retained in the research model. For scales with factor load factors between 0.4 and less than 0.7, rejection of the scale can only be performed if the elimination increases the value of the combined confidence factor or the mean extracted variance. (Bagozzi et al 1991; hair et al 2011).

The results summarized in Table 3 showed that composite reliability of all variables was greater than 0.7 and the average variance extracted (AVE) of all variables was higher than 0.5. Figure 1 reported the factor loading of all 33 observed sub-scale. As showed at figure 1, all factor loadings were greater than 0.7. Therefore, it was concluded that all variables in this study were valid.





the significant level 5% statistic because all 5 factors have T-value coefficient >1.96. Two factors-Job satisfaction and factor attention and organizational support significantly affect the engagement with T-value > 1.96 and p < 5%. The hypotheses are detailed in Table 7.

**Table 7. Hypotheses Testing by Bootstrapping**

Hypothesis	Relationship	Original Sample (O)	Sample Mean (M)	Standard Deviation	T Statistics	P
H1	Relationship in a workplace -> Job satisfaction	0.277	0.286	0.085	3.263	0.001
H2	Working Environment -> Job satisfaction	0.239	0.235	0.075	3.169	0.002
H3	Job Characteristic -> Job satisfaction	0.147	0.145	0.066	2.217	0.027
H4	Wage (Salaries) -> Job satisfaction	0.186	0.180	0.057	3.278	0.001
H5	Training and Development > Job satisfaction	0.170	0.171	0.051	3.366	0.001
H6	Job satisfaction -> Engagement	0.352	0.350	0.096	3.660	0.000
H7	Attention and Organizational support -> Engagement	0.169	0.167	0.050	3.378	0.001

The author also run the bootstrapping to test whether there are direct relationships between 5 independent factors (Relationship in a workplace, Job Characteristics, Working environment, Wage, Training and Development) with employee engagement. The results of this second bootstrapping will support the acceptances of hypothesis 1 to hypothesis 5.

The results of the second bootstrapping are presented in Table 8.

**Table 8: Testing direct relationship by bootstrapping**

Relationship	Original Sample (O)	Sample Mean (M)	Standard Deviation	T Statistics	P Values
Relationship in a workplace > Engagement	0.130	0.135	0.088	1.472	0.142
Working Environment -> Engagement	0.118	0.112	0.075	1.562	0.119
Job Characteristic -> Engagement	0.019	0.023	0.071	0.275	0.783
Wage (Salaries) -> Engagement	0.132	0.129	0.075	1.760	0.079
Training and Development > Engagement	0.102	0.106	0.052	1.953	0.051

As indicated in Table 8, all five observed factors do not have the direct impact on employee engagement. However, they were found to have direct influence on job satisfaction and job satisfaction significantly affects employee engagement. Therefore, we once again, conclude that job satisfaction mediate the relationship of these five observed factors with engagement.

Figure 2 show the resultsof bootstrapping

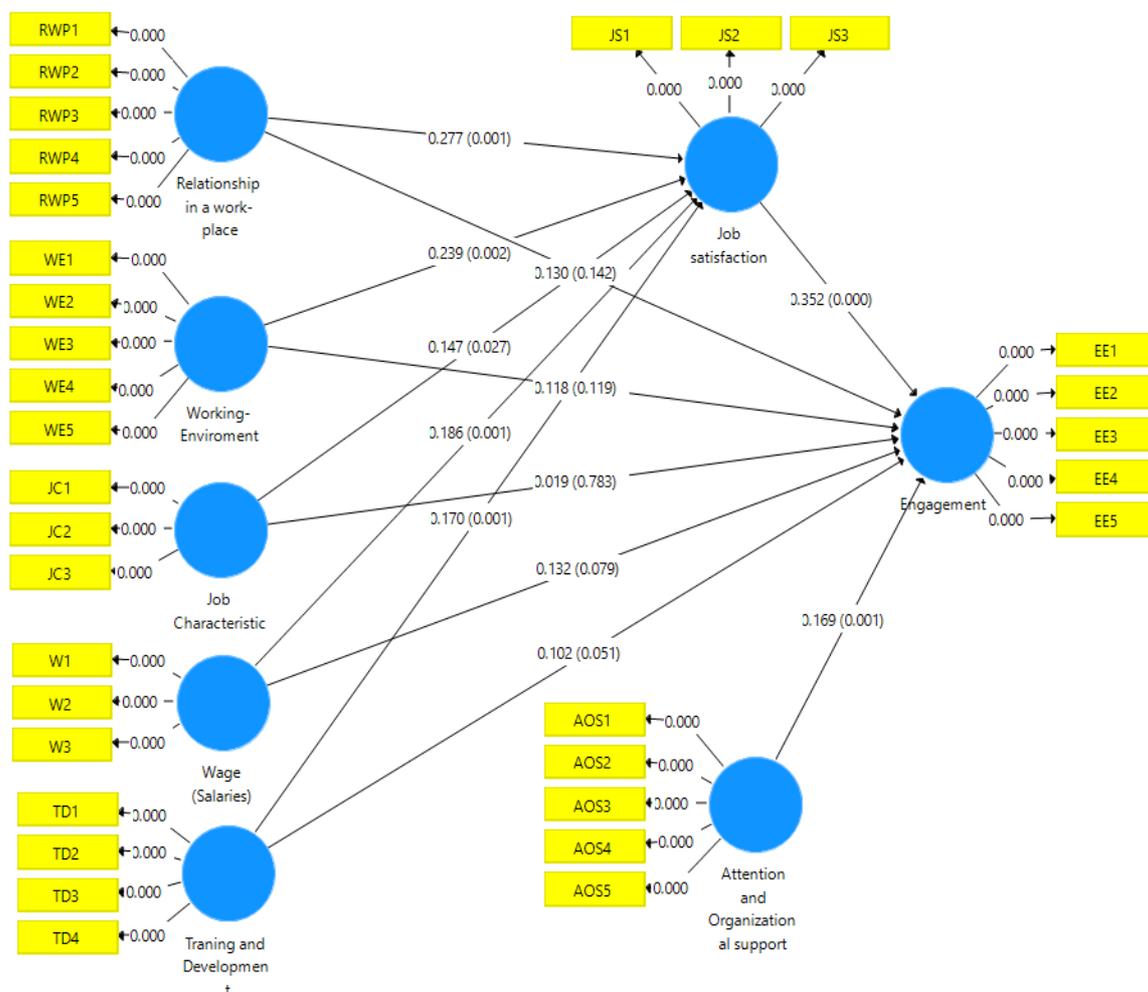


Figure 2: Path Coefficients and p-value

### 5. Conclusions

With the aim of examining the research models of employee engagement in general and teachers and teaching assistants in particular, the authors have drawn and proposed 7 factors that affect the engagement of teachers and teaching assistants and applied to this study, including: Attention and Organizational support, Job satisfaction, Job Characteristics, Relationship in a workplace, Training and Development, Wage (salaries), Working Environment.

From the definitions and related studies, the author builds a research model that measures the attachment of teachers and teaching assistants to the above factors with a total of 38 observed variables for the 8 model factors above.

The research is conducted through two methods, qualitative research conducted by structured interviews with a group of individuals having experience in the company. The result

of the qualitative study resulted in 8 factors with total 33 observed variables. Quantitative research is conducted after summarizing the results from qualitative research, then conducting a survey by distributing questionnaires directly to 125 employees working at SAS English centre, Da Nang branch.

The results of practical testing of factors affecting the engagement of teachers and teaching assistants of SAS English centre, Da Nang branch showed that job satisfaction and attention and organizational support are two factors that directly influence the engagement of employee while the relationships of five factors - relationship in a workplace, job Characteristics, working environment, wage, training and development with employee engagement were mediated by job satisfaction. Or in the other words, job satisfaction plays as the intermediate variables between these five factors and engagement.

Like every other study, this research has its limitations such as it focused limitedly to the SAS English centre with a branch in Da Nang, so this study cannot answer the general engagement of teachers and teaching assistants in the coastal areas. Central Coast or the entire territory of Vietnam. Thus, future research should expand the scope of research. Secondly, due to the limited research time, the author only conducted interviews with a relatively small number of samples, so it did not completely reflect the factors that create the connection of teachers and teaching assistants. Therefore, it is advisable to conduct studies over long periods of time and repeat to evaluate the Trend of change for improvement or failure.

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