Using WBL as ODI to Improve Work Environment and Well-being of Employee

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Abstract

This research was undertaken at SC Siam Supply and Sounds. The study was an action research, focus on work environment and well-being of employees The objectives of research comprise of three; 1) To determine the current situation of work environment and well-being of employees; 2)To identify if using WBL as ODI can improve work environment and well-being of employee and 3) To compare the difference between pre-ODI and post-ODI. Data collection techniques of this study were survey, observation and interview while the respondents were employees of production department. The OD interventions were based from Whole Brain Literacy model and four steps of ODIs were implemented, consisting of 1) awareness 2) idea creation 3) action and 4) sustainable. The findings from the study revealed that there was difference between pre-ODI and Post-ODI in area of work environment. On the other hands, there was no significant difference in area of well-being of employees.   For future study, researcher recommends to include the measurement scale, intensity of light and temperature scale, to determine appropriate light and temperature for employees.. An improvement of organizational technology would be able to improve work environment and well-being of employee as well.

Key words: whole brain literacy, work environment, employee's well-being, small
    business entrepreneur

Introduction

In well-known organizations, the image of happy employees doing their job in office is usually published. Employees intend to work for organization but it is not for many of Thai SMEs. Many of employees who work in Thai SMEs are dealing with work environment and well-being problems. They spend at least eight hours per day, five days a week to work for their organization without any enthusiasm. How possible is that they intend to work in an inappropriate work environment? Some of them have had accidents at work and got injured. Some have health problems because of unnsanitary work environment. It is a challenge for the organization how to improve work environment and the well-being of employees . Therefore, the research aims to analyze the

organizational situation and determine appropriate OD interventions to improve the work environment and well-being of employees .

Literature Review

Relationship between Work Environment and Performance

Work environment refers to the surrounding within workplace. It includes physical environment, social and psychological environment. The Hawthorne experiment is a well-known experiment which was done by Elton Mayo, an industrial researcher, in late 1920s and early 1930s. The results showed that paying attention to employees' needs would improve productivity. Afterwards, Landsberger suggested that increased attention could lead to temporary increase in work performance. It is reactivity in which people improve because they are being observed. This is referred to as observer .

Later, there are many other studies about the correlation between work environment and performance were conducted. Kamaruzzaman and Sabrani (2011 showed that productivity can be interrupted by unhealthy employees while appropriate work environment leads to an increase of productivity.

Pathak (2014) showed the correlation between indoor work environment and employee's comfort and that a comfortable environment leads to an increase in work performance.

Subjective Well-being

Subjective Well-Being (SWB) is a person's cognitive and affective evaluations of life (Diener et al., 2002). Cognitive element refers to what people think about their life satisfaction. The affective element refers to emotions, moods and feelings. The people who have high levels of satisfaction would be deemed to have high level of SWB or are very happy.
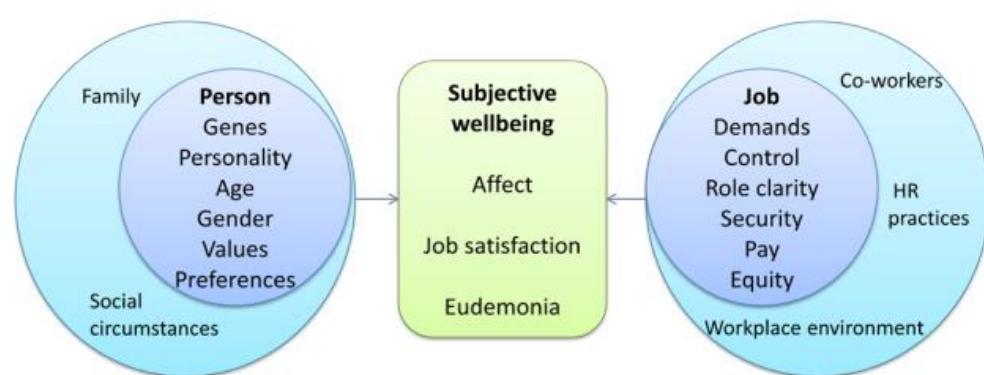

Figure 1 Factors influencing SWB at work (Bryson et al., 2014)

SWB is influenced by individuality and work (Bryson et al., 2014). Individuality refers to personal characteristic and social circumstance of people while another element

refs to job and workplace environment. Warr (2007) studied about gender and the result showed that females have more job satisfaction than male although they also have higher levels of anxiety and depression. Furthermore, older employees are satisfied with their job more than younger employees (Birdi et al., 1995, Clerk et al.,1996). The nature of job also affects SWB. Nozal (2009) mentioned that an employed person typically has better heath than an unemployed person . However, it does not mean that an employed person is satisfied. It also depends on job demands. Eudemonia refers to well-being as distinct from happiness. Waterman (1993) suggested that eudemonia occurs when people's life activities are most congruent or meshing with deeply held values and are holistically or fully engaged which can be from both sides of social circumstance and work environment.

Whole Brain Literacy

Whole Brain Literacy (WBL) is a concept of human's thinking system. It is an integral thinking-through process to generate a wholistic view outcome by connecting four quadrants around the center core on purpose. WBL was developed from Brain Map Model (Lynch, 1984) extrapolated and evolved by Tayko (2010) for instruction and organization development activities.
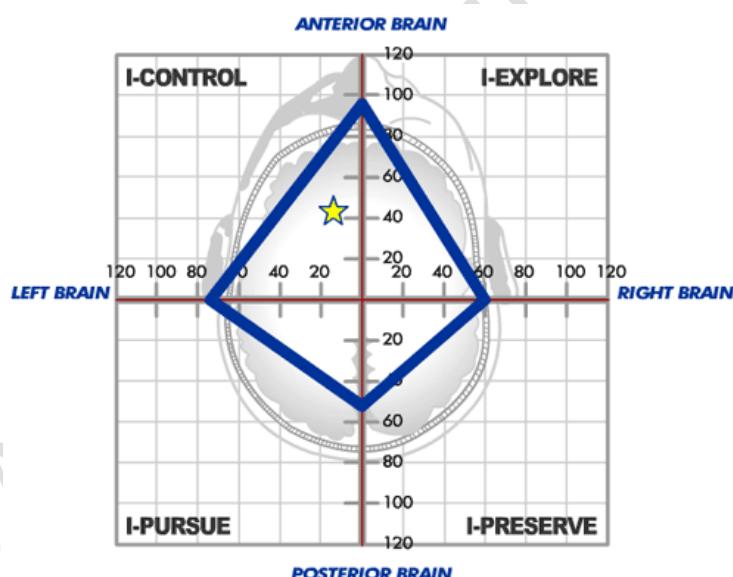

Figure 2 Brain Map Model (Lynch, 1984)

Figure 2 illustrates the four quadrants of brain which called I-Control, I-Explore, I-Preserve and I-Pursue. Lynch (1984) believed that four quadrants of brain work in different mode of information.

Tayko and Reyes-Talmo (2010) created one point connecting the four quadrants of brain at the center core which called "core purpose". It is known as Whole Brain Literacy (WBL). It is a concept which required people to think thoughtfully with full consciousness by using all part of brains to process information and considering all data thoroughly until reach the conclusion.

Conceptual Framework
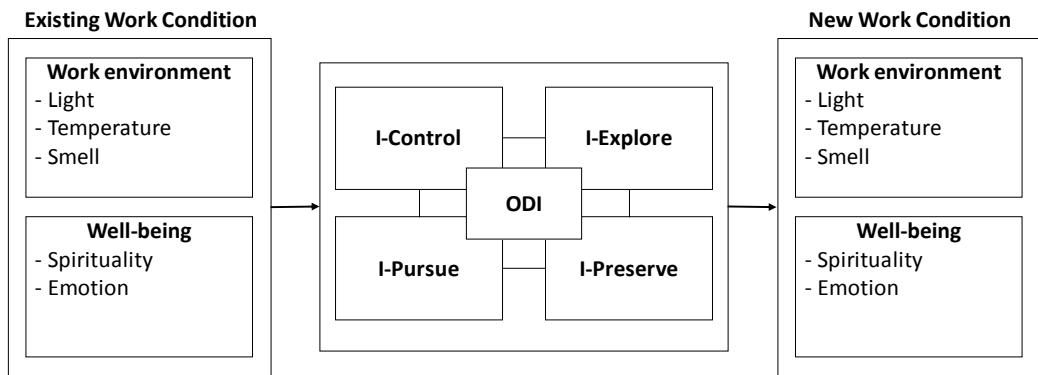
Figure 3 Conceptual framework of the study

Figure 3 is the conceptual framework of the study. There are three stages in this study which are Pre-ODI, ODI and Post-ODI. This study focused on two variables which are work environment and well-being of employee. Work environment consists of three sub-variables; light, temperature and smell. Well-being consists of two variables; spirituality and emotion. The objective of study is to evaluate the impact of ODI between Pre-ODI and Post-ODI.

Hypotheses

Ho$_1$: There is no significant difference between Pre-ODI and Post-ODI on work environment.

Ha$_1$: There is significant difference between Pre-ODI and Post-ODI on work environment.

Ho$_2$: There is no significant difference between Pre-ODI and Post-ODI on well-being of employees.

**Ha$_2$**: There is significant difference between Pre-ODI and Post-ODI on well-being of employees.

Research Methodology
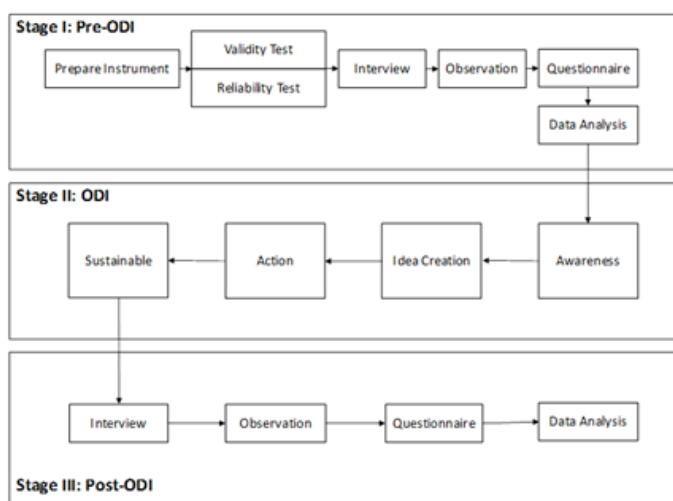
The research was designed into three stages; 1) pre-ODI 2) ODI 3) post-ODI.

1) In the Pre-ODI stage data was collected to identify the current situation. In this stage, researcher prepared instruments, did data collection and data analysis. There were three instruments used in this research, a questionnaire composed of twenty questions, interview guide .and observation checklist. All three instruments were created based on WBL. Validity test and reliability test were done before questionnaire was distributed. The actual respondents of this study were 34 employees of SC Siam Supply and Sounds Partnership who worked in production team. Respondents were required to rate on a 6-point Likert-type scale from strongly disagree to strongly agree. All data were recorded and analyzed using a statistical analysis program

2) ODIs were designed with four steps. WBL was applied in this stage by connecting four quadrants of brain through process of Awareness, Idea creation, Action and Sustainable.
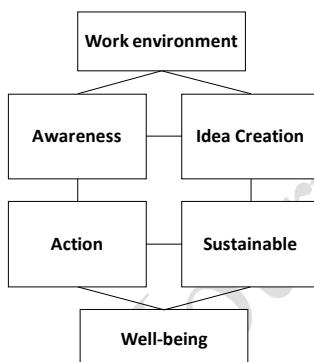
The first step was to communicate with employee to show the advantages of improvement work environment and well-being of employees. It was to create self-awareness as a turning point for change. The second step was to explore for an appropriate solution for improving. Session was created for idea collection, blend and determine the action. Next step was taking an action by implementing with collaboration of employees. The last step was to refreeze change with sustainable session.

3) The post-ODI was the final stage of research methodology. The researcher collected information after implemented ODI. All data were recorded and analyzed using descriptive statistic, inferential statistic, Content analysis and Participant observation were used in data analysis and applied to test the hypothesis

Findings and Data Analysis

From table 1, based on 30 respondents, 40 percent are male and 60 percent are female. The majority are 36 to 45 years old at 73.33 percent. About two out of third work at SC Siam Supply and Sounds for 3 years and more (66.67 percent).
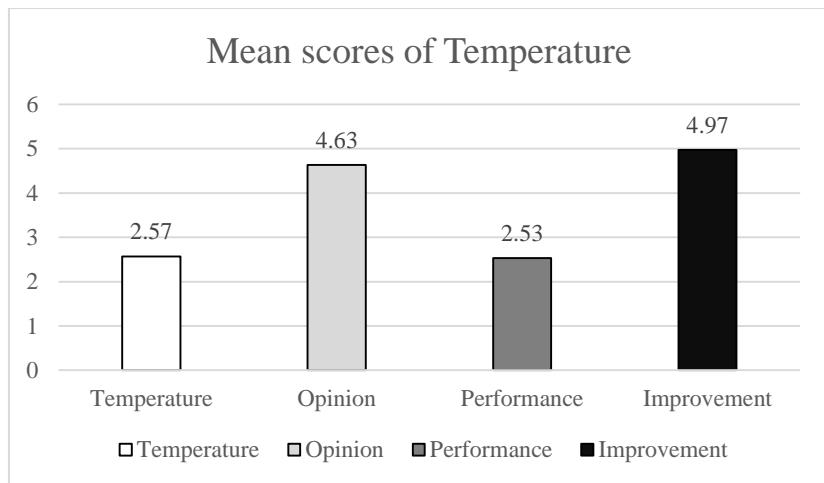
Table 1

Respondents Profile (n = 30)

Respondent's Factors		Frequency of respondents (percentage)
Gender	Male	40.00
	Female	60.00
Age	Less than 26 years old	6.67
	26 to 35 years old	6.67
	36 to 45 years old	73.33
	46 to 55 years old	13.33
	56 years old and more	0.00
Working Experience	Less than 1 year	3.33
	1 to 2 years	10.00
	2 to 3 years	20.00
	3 years and more	66.67

The quantitative data analysis was used to describe the results from twenty questions of questionnaire. The questionnaire consists of five sections; light, temperature, smell, spirituality and emotion.
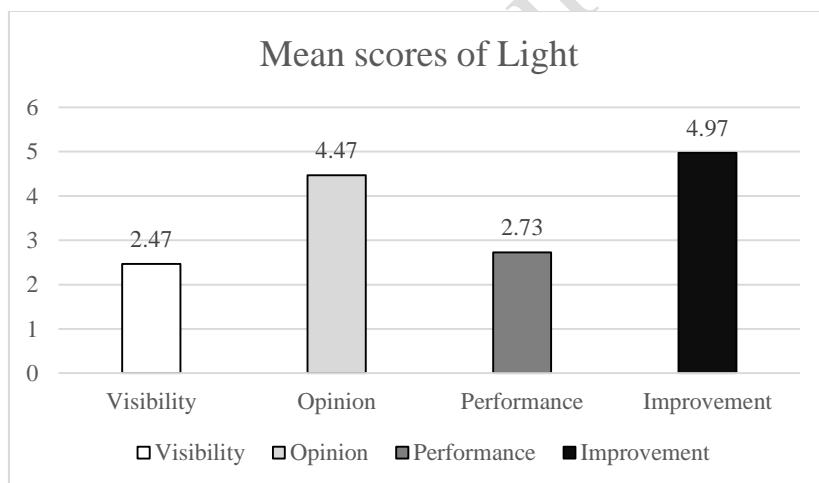

Figure 2 Mean scores of light

Under current light at workplace, results showed that respondens disagreed for clearly vision at work with mean score 2.47 out of 6.00. In part of opinion, Respondents agreed that they can work better if there is adequate light with mean score 4.47 out of 6.00. The respondents slightly disagreed that they can work effectiveness under current light. Respondents agreed that organization should have an improvement about light with mean score 4.97 out of 6.00.

Figure 3 Mean scores of temperature

The respondents disagreed about comfortable temperature at work with mean score 2.57 out of 6.00. For opinion, they agreed that they can work more effectively in comfortable temperature with mean score 4.63 out of 6.00. But under current temperature, they disagreed that they had good performance with mean score 2.53 out of 6.00. For an improvement, they agreed that the organization should have an improvement with mean score 4.63 out of 6.00.
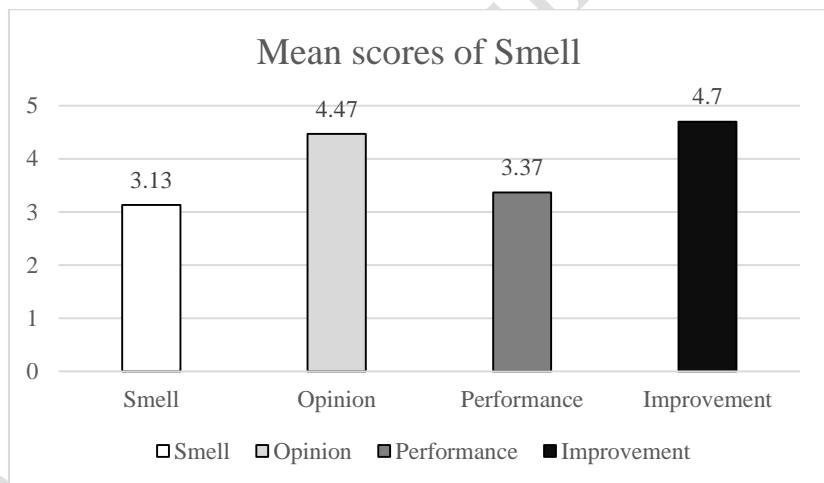
Figure 4 Mean score of smell

The respondents slightly disagreed that there is no smell at work with mean score 3.13 out of 6.00. They agreed that they can work better with mean score 4.47 out of 6.00. But under current smell in workplace, they slightly disagreed that they had good performance with mean score 3.37 out of 6.00. For an improvement, they agreed that organization should improve in part of smell with mean score 4.70 out of 6.00.
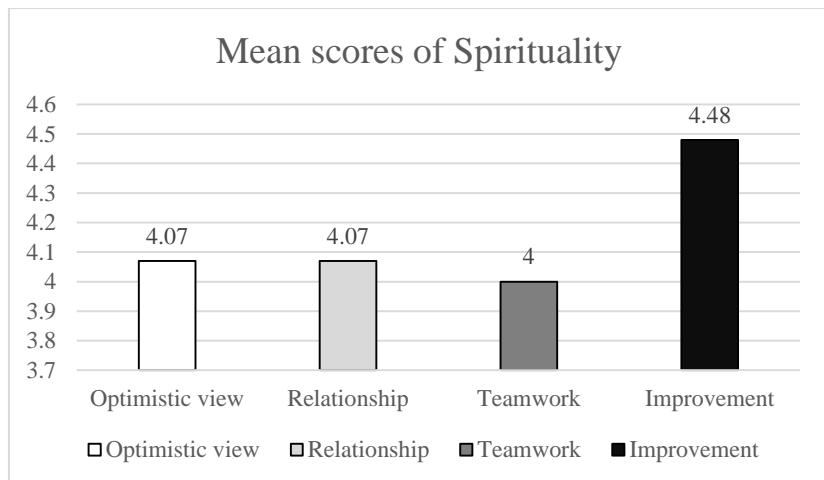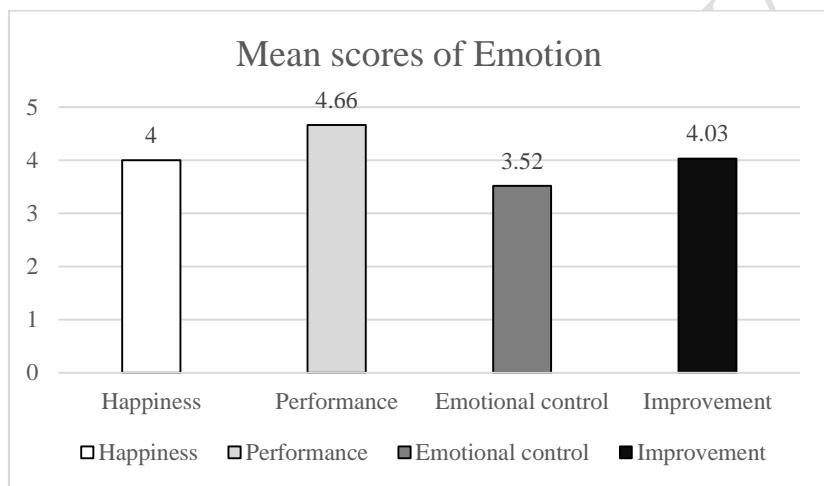
Figure 5 Mean scores of spirituality

Figure 6 Mean scores of emotion

For well-being of employees, respondents slightly agreed that they were optimistic; had a good relationship and able to work as a team with mean scores 4.07, 4.07 and 4.00 out of 6.00 respectively. While respondents agreed that they are ready for an improvement with mean score 4.48 out of 6.00.

Respondents slightly agreed that they were happy at work, good emotional control and ready for an improvement with mean scores 4.00, 3.52 and 4.03 out of 6.00 respectively. While they agreed that happiness lead to work effectiveness with mean score 4.66 out of 6.00.

The qualitative data analysis was used to describe the results of interview and observation. From interview, respondents mentioned that they were satisfied with their job but organization should improve work environment. From observation, there was no accident during the period of study. Employees lacked enthusiasm while working. Work environment was unsanitary because of dirt, snacks, empty bottle and etc surrounding workplace.

The ODI were implemented, using four steps mentioned in research methodology. The results of ODI are summarized as follows:
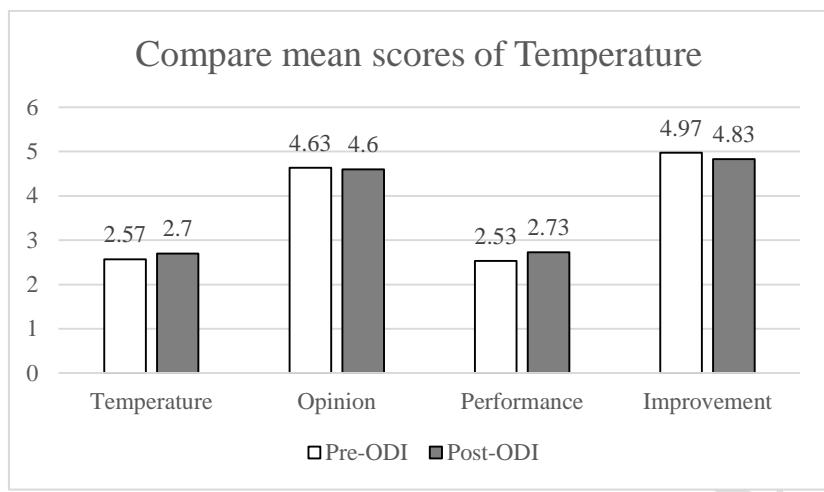
Table 2

Result of ODI

| Process of ODI	Objective	Result
1. Awareness	1. Understand the important of work environment and well-being. 2. Influence employees to change	1. Employees understand the advantage of good work environment and important of well-being. 2. Employees want to improve work environment and well-being.
2. Idea creation	1. Collect ideas from employees 2. Finding appropriate ODIs	1. Ideas were collected and collated . 2. Session was arranged. It is a session which employees have to think about their well-being and drawing desire work-environment. 3. Seven appropriate ODI were generated from mapping employees' need within scope and limitation of improvement.
3. Action	1. Improve work environment 2. Improve well-being of employees	1. Workplace is cleaner than before. 2. There is new multipurpose area for employees. 3. There is new information board and knowledge corner. 4. Employees had additional income from recyclables and workplace is clean. 5. New light bulbs and fans were installed. 6. Employees have good perspective to their colleague and show their enthusiastic for work. 7. Employees have bike for exercise and able to ride for lunch.
4. Sustainable	1. To make it sustainable	1. Employees know their own responsibility and keep improving their work environment. 2. Employees able to maintain enhanced work area.

The results after ODI were implemented :
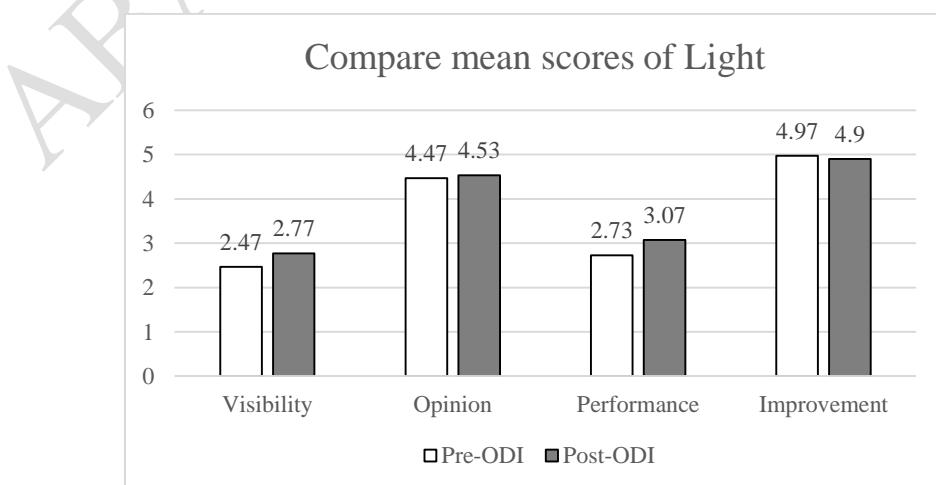
Figure 7 Comparison of mean scores of light

Mean variance scores for light were slightly improved. Visibility increased for 0.30. The opinion of employees improved from 4.47 to 4.53.

Figure 8 Comparison of mean score of temperature

Average weighted mean scores of temperature changed as following. Employees slightly disagreed that organization had comfortable temperature with increase of mean score for 0.13. They agreed that they could work better with mean score 4.60 out 6.00. The current performance improved from 2.53 to 2.73 which fell into slightly disagree category while employees agreed to improve work environment with average weighted mean score of 4.83 out of 6.00.
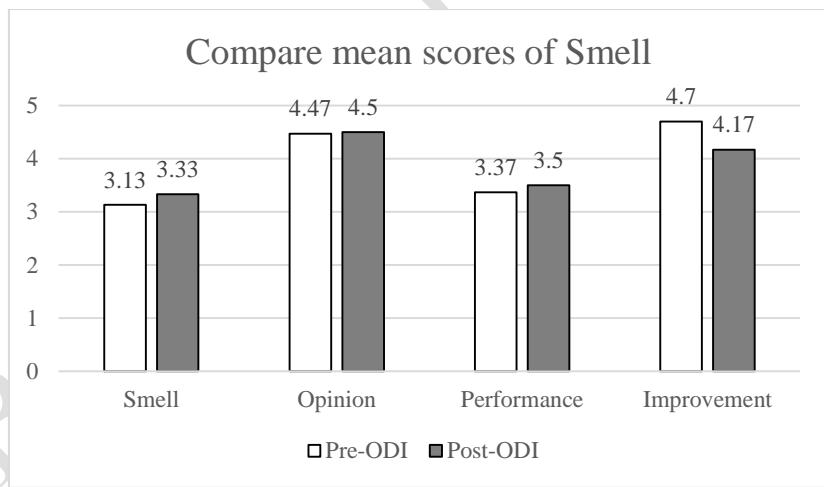
Figure 9 Comparison of mean score of smell

The smell in office was reduced with increased mean score of 0.20. Employees agreed that they can work better. Current performance of employee increased from 3.37 to 3.50.
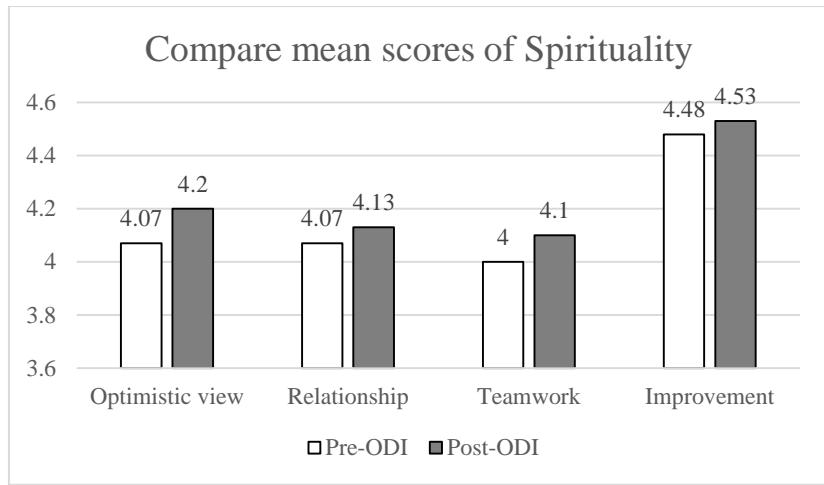
Figure 10 Comparison of mean scores of spirituality

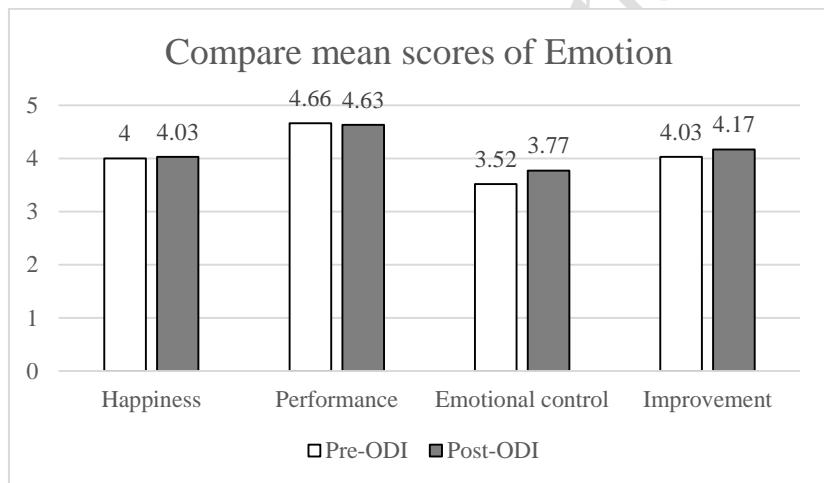For spirituality, the average weighted mean scores of pre-ODIs and post-ODIs of the four questions were improved towards high side as illustrated in the Figure 14. The mean scores of optimistic view, relationship, teamwork and need improvement increased for 0.13, 0.06, 0.10 and 0.05 respectively.

Figure 11 Comparison of mean scores of emotion

For emotion, the average weighted mean score of happiness of employees between pri-ODI and post-ODI are 0.03 difference. The average weighted mean scores of emotional control and need improvement increased from 3.52 to 3.77 and 4.03 to 4.17 respectively.

Statistical significance (t-test) was used to determine the difference between pre-ODIs and post-ODIs. The significant level was set at 0.05.

Table 3

Analysis result of statistical significance test (work environment)

Questionnaire	Paired Differences					t	df	Sig.(2-tailed)
	Mean	Std. Deviation	Std.Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Work environment								
Visibility	.3000	.59596	.10881	.0775	.5225	2.757	29	.010
Opinion	.0667	.44978	.08212	-.1013	.2346	.812	29	.423
Performance	.3333	.71116	.12984	.0678	.5989	2.567	29	.016
Improvement	-.0667	.44978	.08212	-.2346	.1013	-.812	29	.423
Temperature	.1333	.34575	.06312	.0042	.2624	2.112	29	.043
Opinion	-.0333	.55605	.10152	-.2410	.1743	-.328	29	.745
Performance	.2000	.48423	.08841	.0192	.3808	2.262	29	.031
Improvement	-.1333	.57135	.10431	-.3467	.0800	-1.278	29	.211
Smell	.2000	.48423	.08841	.0192	.3808	2.262	29	.031
Opinion	.0333	.76489	.13965	-.2523	.3189	.239	29	.813
Performance	.1333	.43417	.07927	-.0288	.2955	1.682	29	.103
Improvement	-.5333	.97320	.17768	-.8967	-.1699	-3.002	29	.005

Table 4

Analysis result of statistical significance test (well-being of employees)

Questionnaire	Paired Differences					t	df	Sig.(2-tailed)
	Mean	Std. Deviation	Std.Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Well-being								
Optimistic view	.1333	.73030	.13333	-.1394	.4060	1.000	29	.326
Relationship	.0333	.41384	.07556	-.1212	.1879	.441	29	.662
Teamwork	.0667	.86834	.15854	-.2576	.3909	.421	29	.677
Improvement	.1000	1.37339	.25075	-.4128	.6128	.399	29	.693
Happiness	.0667	.44978	.08212	-.1013	.2346	.821	29	.423
Performance	-.0333	.61495	.11227	-.2630	.1963	-.297	29	.769
Emotional control	.2333	1.56873	.28641	-.3524	.8191	.815	29	.422
Improvement	.1333	1.38298	.25250	-.3831	.6497	.528	29	.601

In summary, the employees have better vision, better temperature and smell with significant value 0.01, 0.043 and 0.031, respectively. They had better performance because of improvement of light and temperature with t-test scores 0.016 and 0.031 while there was no significant difference on performance after an improvement of smell. Therefore, employees still need improvement of light and temperature as same as pre-ODIs except in area of smell that mean value decreased with significant difference score

0.005.Under area of well-being, there is no variable had significant different score less than 0.05. Hence, there is no significant difference in the well-being of employees.

Content analysis and participant observation were used to describe the results from interview and observation. Results were concluded as follows.

pre-ODIs   **post-ODIs**

Figure 12 Compare work environment 1

Employees realized that the work environment was improved by collaboration of organization and employees. The waste area was changed into a multipurpose area where employees could sit for lunch and relax.

pre-ODIs   **post-ODIs**

Figure 13 Compare work environment 2

Employees mentioned that the cleanliness of work environment was better. Everyone kept work area clean. Garbage was collected in the provided area, recyclables were sold and generated income for employees. There was additional area for employees which was called knowledge and announcement corner. The infographic knowledge about health and financial was provided here along with an announcement from organization.

Conclusion and Recommendation

The research was designed to determine the current situation, implementing appropriate ODI, determining the impact of ODI . The result shown that seven activities; cleaning, multipurpose area, information board and knowledge corner, trash to cash, light and fan, employee of the month and bike for all, in fours step of ODIs had impact to work environment. On the other hand, the implemented ODI had no significant impact on the o well-being of employees.

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