THE EFFECT OF ORGANIZATION DEVELOPMENT INTERVENTION ON STRUCTURALAND PSYCHOLOGICAL EMPOWERMENT TO ENHANCE INNOVATIVE WORK BEHAVIOR: AN ACTION RESEARCH IN A TECHNICAL SCHOOL IN THAILAND

Tamonwan Somsriruen¹, Gloria S. Chavez², and Perla Rizalina M. Tayko³

Abstract

This research investigated the effect of organization development interventions (ODI) in improving structural and psychological empowerment, to promote innovative work behavior among organization members, in a technical school in Thailand. Using an action research design, the ODI activities were conducted for a six month period with 36 employees. Quantitative and qualitative methods were used to explore and gather data at all levels (executives, heads of department, and employees). The action research was conducted in three phases: pre-ODI, ODI, and post-ODI. The findings revealed, that employees were able to generate new ideas through connecting with others, and were able to develop and implement ideas related to their own work.

Recommendations for further improvement of the organization include: constant assessment of the school situation, development of team support to sustain momentum, development of leadership support, adoption of a cross-functional team to generate ideas, and introduction of Whole Brain Literacy to help employees execute ideas.

Keywords: organizations as system, empowerment, innovative work behavior and whole brain literacy.

¹Tamonwan Somsriruen is a Ph.D candidate at Assumption University. He is working as a Lecturer at College of Management Study at Chalerm Kanchana University, Nonthaburi, Thailand.

²Gloria Chavez earned her Master in Business Administration and Doctorate in Business Administration from De La Salle University, Philippines. She attended the Price-Babson Symposium for Entrepreneurship Educators (SEE) at Babson College in Massachusetts and the International Business and Corporate Strategy Program at INSEAD, Fountainebleau, France. She was a visiting professor at Anhui University in Hefei, China. She was awarded the 2015 Entrepreneurship Educator's National Educator Award. She is a visiting Professor at Graduate School of Business, Assumption University, Thailand.

³Dr. Perla Rizalina M. Tayko holds a Ph.D. in Organizational Development and Planning from the Southeast Asia Interdisciplinary Development Institute (SAIDI), Philippines. She is also a Nee OD Program Director of Graduates School of Business, Assumption University, Thailand.

INTRODUCTION

The environment created by the dynamic labor market in the 21st century context, demands the requirement of a new skill set for Thai people across national, regional and global levels. In the global context, technical schools all over the world have started to adapt to the changes brought about by the world of automation. For instance, European countries have developed innovation in vocational education (Organisation for Economic Cooperation and Development (OECD), 2011). Within the regional context, Asian employers have observed a mismatch between what employers want from employees, and the ability of employees (Ra, Chin, & Liu, 2015). Additionally, to emphasize the prevalence of the matter in the national scope, Mr. Thavorn Chalatsathein, vice-president of the Federation of Thai Industry, suggested that technical schools should put more emphasis on handson experience (Rajamangala Institute of Technology Krungthep, 2015)to equip University graduates with the skills needed for them to enter the vocational labor market (Samkoses, 2017). Therefore, XYZ technical school, the focal organization in this study, must respond to these challenges in the current situation.

The Focal System

This research was conducted at XYZ technical school which is under the XYZ educational group. The XYZ educational group is one of the fastest growing institutions in the northeast of Thailand. The school first started with two technical schools in the late 1980s. Later, in 2004, XYZ College was established, and within two decades, there

was a total of one university (five campuses) and two technical schools under the XYZ educational group. All campuses and schools are located in different provinces. XYZ technical school has full autonomy to operate with provost and administrative functions, but it needs to report all operational activities back to XYZ University, with the vision of building a future of excellence and being a trusted school.

McKinsey 7-S Model

The McKinsey 7-S model was used to assess the internal situation at XYZ technical school. An effective company usually has all 7 elements working in harmony, with each element supporting each other (McKinsey and Company, 2008). The model consists of two major elements. Soft elements include shared values, style, staff and skills; while hard elements include strategy, structure and systems.

Shared Values: it was determined that the XYZ technical school is at the stage of recrimination in the organization life cycle. Adizes (2015) described this as a witch-hunting situation (political games manships), characterized by seeking blame for problems, and the decline of the organization.

Style: the management style of the owner was identified as exploitive authoritative, meaning that decision making is made from the top. This signifies that leaders command their subordinates and the employees have little or no participation in decision-making.

Staff: the strong power of the authoritative management style affects the staff; they only perform work as the leaders command.

Skills: the old-timers aim only to help their alliances while the young ones try to

introduce ideas and want to show their abilities. Thus far, employees are inactive in introducing new ideas (minimal innovation) and are discouraged from improving their skills to meet the environmental challenges.

Strategy: the technical school has engaged local employers. It has also increased the time allocation forwork-experience in the curriculum, from three months to one year, in order to strengthen hands-on experience.

Structure: there is no clear structure for dealing with projects or for cooperation between departments.

System: Quality Assurance is a requirement of the government to control the quality of teaching. However, there is no system to support this requirement.

Therefore, the major challenge of the organization was to prepare for a long term change in the school culture (shared value), which is at the core of the organization, in order to meet the challenges in the current environment.

The Need for Action Research

The four issues derived from Mckinsey's 7–S assessment (soft elements) are as follows:

- 1) Political gamesmanship (shared value): Senge (2016) suggested to adopt change through innovation in an education setting (Senge, 2000 cited in Cummings & Worley, 2009). Teachers who have innovative work behavior are able to adapt and develop the competencies needed in a fast changing world (Lambriex-Schmitzi, Klink, Gerken, & Segers, 2015).
- 2) Exploitive authoritative (style): Adizes (2015) suggests the concept of decentralization to have a rebirth of the

- organization. **Structural empowerment** has the capability to address this, since it involves enabling employees with the power to make decisions in order to accomplish their work.
- 3) Lack of skill enhancement(skill): Patterson, West, and Wall (2004) have confirmed the success of empowerment to encourage better performance through skills enhancement. Furthermore, **structural empowerment** is associated directly with work skills, and directly relates to the ability to manage power within the organization (Ford, 2011).
- 4) Only doing work as the leadership commands (staff): motivation has been proven to improve performance (Li, Wei, Ren, & Di, 2015). **Psychological empowerment** is one of the widely used methods to improve motivation since its aim is to create a sense of willingness to complete tasks(Spreitzer, 1995).

The major challenge of this organization is to prepare for a long term change in the school culture. Thus, there is a need for change in the soft elements of the organization. McKinsey suggests that soft elements have a greater influence on culture than hard elements (McKinsey and Company, 2008). Thus, soft elements are the focus of this study. Structural and psychological empowerment and innovative work behavior are the main variables for change in this action research.

RESEARCH OBJECTIVES

Based on the assessment of the organization, the following research objectives were formulated.

- To assess and analyze the current situation of XYZ technical school in terms of structural empowerment and psychological empowerment, and innovative work behavior.
- 2) To design and implement appropriate OD interventions.
- 3) To determine the difference between pre-ODI and post-ODI values, on structural empowerment and psychological empower-ment, and innovative work behavior.
- 4) To determine the relationships between structural empowerment, psycholo-gical empowerment, and innovative work behavior.

RESEARCH QUESTIONS

- 1) What is the current situation of XYZ technical school in terms of structural and psychological empowerment, and innovative work behavior?
- 2) What are the appropriate Organization Development Interventions (ODIs) to enhance structural empowerment and psychological empowerment, and innovative work behavior?
- 3) Is there a difference between pre-ODI and post-ODI values of structural and psychological empowerment and innovative work behavior?
- 4) Is there a relationship between structural empowerment, psychological empowerment and innovative work behavior?

RESEARCH HYPOTHESIS

Hypothesis1: There is a significant difference between pre-ODI and post-ODI values of structural empowerment.

Hypothesis2: There is a significant difference between pre-ODI and post-ODI values of psychological empowerment.

Hypothesis3: There is a significant difference between pre-ODI and post-ODI values of innovative work behavior.

Hypothesis4: There is a significant relationship between structural empowerment and innovative work behavior.

Hypothesis5: There is a significant relationship between psychological empowerment and innovative work behavior.

Operational Definitions of Terms

- 1) Organizational system; the system is XYZ technical school. Within the school system there are subsystems or functions which are needed to help the system to function properly. The environment (such as the vocational business and labor market) is the external system which influences XYZ technical school.
- 2) Empowerment; refers to providing teachers and staff with skills, resources, authority, opportunity and motivation, and holding them responsible and accountable for the outcomes of their actions.
- 3) Innovative work behavior; it allows teachers to generate alternative creative ideas and come up with creative options to implement these ideas.
- 4) Whole brain literacy; WBL orientation allows teachers and staff to connect all four quadrants of their brain to allow them to think more openly, and generate better options in their work.

Significance of the Study

There are three main factors which encouraged the researcher to conduct this study. Firstly, every owner and manager might be confronted with the paradox of taking control and letting things go (the locus of control). The president of the University is at the center of control. The outcome of this research could guide the president in terms of role differentiation and role complementation. Secondly, the study could contribute actionable knowledge for OD practice, for XYZ technical school. It also could be a reference or guide in the change process, in enhancing structural and psychological empowerment for other organizations. Thirdly, a study of certain change practices at the operational levels, in terms of structural or psychological empowerment and innovative work behavior, is challenging. Developing OD practices is valuable for top management to achieve the school objectives of survival in a new environment, and sustainable growth.

Review of Literature

Organization as a System

A new perspective has been developed to address the rapid changes facing organizations (McNamara, 2017). Considering XYZ School as a system, a change in environment will affect the school, while changes in any of the departments or sub-systems may also affect the whole system. Thus, an organization system model is needed to identify the goals for change (school culture), leading to higher organizational effectiveness in the current environmental context (Cummings & Worley, 2009). The

organization system model, also identifies the focus for intervention in this study. There are three main levels of organization in the system. The individual level aims to create individual belief that leads to individual effectiveness. The group level proposes to promote team norms that enhance team effectiveness. The final goal of forming a desired culture occurs at the organizational level. The three levels should have a synchronized design, from organizational level to individual level, but implementation of change should occur from the individual level to organizational level.

It is important to identify organizational culture as a goal for change and to manage it accordingly; Edgar Schein stated" if you do not manage culture, it manages you and you may not even be aware of the extent to which this is happening." (Schein cited in Anderson & Anderson, 2010, p.184). Two concepts of organizational culture are presented here; that of organizational culture by Human Synergistics (Jones et al., 2006) and that of the Anderson and Anderson's study (2010). Human Synergistics conducted research on organizations which had been established for more than forty years (Jones et al., 2006). They determined three major types of culture; constructive, passive/ defensive, and aggressive/defensive cultures. Employees in constructive culture environments, perform at their best, want to develop and grow and have a shared common goal. Meanwhile, in passive/defensive and aggressive/defensive cultures, people are full of negative feelings such as insecurity and fear of failure, resulting in unhealthy behavior. Anderson and Anderson's study (2010) discussed the attributes of high performing team cultures and low performing team cultures. It was found that collective experience and work with a high internal state of being, are crucial in developing culture (from low to high performing team culture/ and from defensive to constructive culture). A high performing team culturecanbe achieved through structural empowerment (SE), as SE improves the shared work effort and trust between people, collective experience (Bjornali & Støren, 2012; Xerri & Brunetto, 2011, Hebenstreit, 2012), and psychological empowerment (PE). Psychological empowerment identifies the concept of individuals' connecting with power within themselves; as a result, people are motivated and are willing to work, working from their inner-self (Spreitzer, 1995). Both SE and PE support innovative culture (innovative work behavior).

Employee Empowerment

The concept of empowerment was developed from the theory of organizational power by Kanter (1979) where he defined empowerment, as "the ability to get things done in an organization" (Kanter, 1977 cited in Ledwell et al., 2006, p.79). This study adapted two constructs; structural and psychological empowerment. Structural empowerment was introduced by Kanter (1993). It focused on the structure of power within the organization. There are six powers that are required for empowerment: knowledge, resources, support, opportunity, informal power and formal power. Sergio Fernandez (2013) conducted a study on the effect of structural empowerment on performance, job satisfaction and innovativeness. The results found improvement in all three aspects, but for innovativeness the study showed only a high score for Encourage to Innovate, with a moderate

score for *Innovative work behavior*. The literature also later proved the misuse of support, particularly reward systems, and "pay-for-performance", which could discourage innovative behavior (Fernandez & Moldogaziev, 2012; Kim, Sutton, & Gong, 2013). Some studies also determined that supervisors' advice and feedback encouraged innovative work behavior (Bjornali & Støren, 2012; Hebenstreit, 2012; Xerri & Brunetto, 2011). This demonstrates that various structural empowerment practices, have influence on IWB. The present study aimed to explore the practices which could work effectively in a technical school.

Psychological empowerment's first definition was established by Conger and Kanungo (1988), as a motivational concept of self-efficiency. As this theory developed, the literature suggested PE should be widened from one element to a total of four: selfefficiency, meaningfulness, impact, and autonomy (Thomas & Velthouse, 1990). Psychological empowerment occurs from within the individual and it has no limits. Furthermore, it deals with individual level change i.e. perception of ones work in the organization. Thus, it is likely to result in a change of behavior. Seygalan and Chamanzamin (2015) found that empowerment acts as psychological motivation, and has a moderate impact on Innovative work behavior (IWB).

Innovative work behavior

The literature starts with the study of individual innovation in three major aspects: personality and characteristics, outputs, and individual behavior. Hurt, Joseph, and Cook in 1977 (cited in De Jong & Den Hartog,

2008) noted personal characteristics (personality-based) and attempts to change personality which led to innovation. The output based view was introduced by West (1987, cited in De Jong, & Den Hartog, 2008),in order to measure individual innovation, which contributed to the organization. Then, there was the behavioral approach, in which a certain set of innovative behavior was the focus. This later became known as innovative work behavior (IWB). IWB consists of the two stages: creativity-oriented work behavior (ideation level) and implementation-oriented work behavior (execution level) (Dorenbosch et al., 2005; Jong & Den Hartog, 2007). Thus, innovative work behavior (IWB) is defined as the process of bringing new problem-solving ideas into practice (Ardts et al., 2010).

The theory of Innovative work behavior was developed within a Western context and caution should be exercised when applying it to Thai culture. Thai culture places a moderately high importance on the avoidance of uncertainty, so management usually considers strategies which reduce risk (Pornpitakpan, 2000; Rujirawanich, Addison, & Smallman, 2011). This may be due to the low acceptance of failure (Wongtada & Rice, 2008). Thus, group culture is an important factor, and has been proven in some literature to reduce insecure feelings and improve decision-making (Pimpa, 2012; Pratoom & Savatsomboon, 2012). Therefore, individual and team learning intervention were developed to promote innovative work behavior at XYZ School.

Whole Brain Literacy

To develop effective human process intervention, Whole Brain Literacy was adopted to facilitate a shifting mindset among employees (changing the employees' perspectives). This mode of design provides an appropriate tool for learners to use, helping them to shift from one mindset to another.

There are five perspectives in the WBL frame and flow template, namely 1) at the core *I Live with Purpose*, i.e. purposive thinking; 2) precision thinking or *I Control*, creating certainty and consistency; 3) possibility thinking or I Explore for opportunities; 4) activity, aim or productivity thinking or I Pursue results and outcomes, and 5) feeling-powered or I Preserve for relationships and posterity (Tayko & Agloro, 2013). This method develops the ability to focus on one's core or purpose while generating better options from the flow of the other four perspectives. With awareness of all five perspectives, a person can explore the full potential of the thinking process and improve performance. Appreciative Inquiry (AI) is also one of the positive approaches to develop the potential of employees, to consider four perspectives in order to see something differently (WBL).

THEORETICAL FRAMEWORK

Based on key findings from previous literature, the researcher came up with a theoretical framework for the study, as presented in figure 1. The external environment affects the school system (organization as system), while innovative work behavior is a required prerequisite for adopting a new culture. Structural and psychological empowerment are also required to change perceptions in support of IWB, and at the same time help to manage changes in the soft elements from the 7-S model.PE and SE also help in developing IWB by changing the mindset and engagement of employees through

Lewin's model (1951), WBL and AI. This then helps to meet the requirements for human process intervention identified through the organizational system model (individual, group and organization level) by encouraging human growth from the inside-out.

Conceptual Framework

The design of the elements of the structural empowerment matrix, psychological empowerment matrix, and innovative work behavior is done by using the five perspectives of the whole brain literacy frame and flow (presented in figure 2).

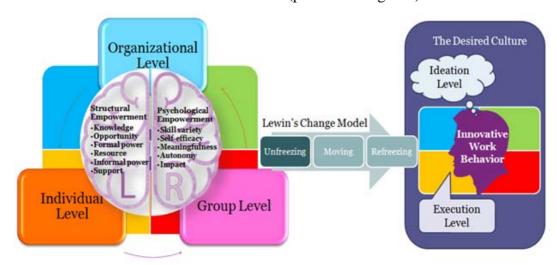


Figure 1: Theoretical Framework

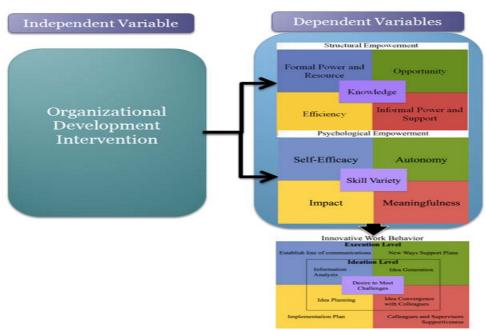


Figure 2: Conceptual Framework

The main purpose of this study is to determine the impact of ODI on the variables in this study. Each OD intervention (independent variable) aims to result in structural empowerment and psychological empowerment(dependent variables) with relation to innovative work behavior.

Action Research Framework

There are three stages in the action research framework as shown in figure 3: pre-ODI, ODI and post ODI. The Pre-ODI phase assessed the organizational condition before the OD interventions, identifying the 13 indicators and variables for measurement in the study. The four ODI processes (assessment, appreciation, application and actualization) used Lewin's change model, while SE, PE and IWB used WBL to maximize the effectiveness of individual learning and team learning, resulting in changed behavior. The post-ODI stage evaluated the outcomes of the action research with respect to the 13 indicators.

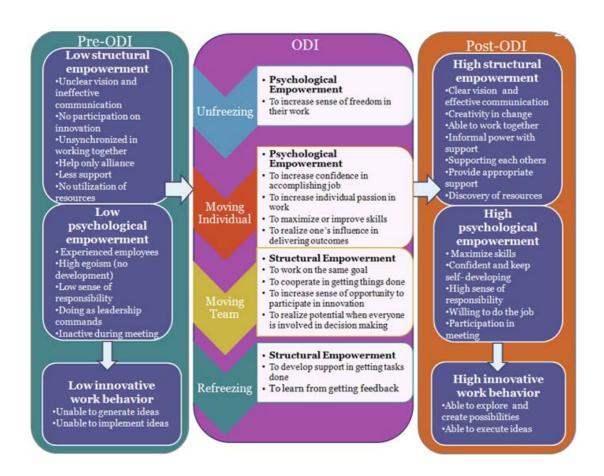


Figure 3: Action Research Framework

Research Methodology

This action research study employed both a quantitative and qualitative approach, to collect and analyze information from before and after Organization Development Intervention (ODI). Questionnaires (quantitative) were gathered from 36 employees. A triangulation method (qualitative) was also used; this included in-depth interviews, observation, and employee journals. This method is important for validation or verification of qualitative research, ensuring that each account is rich, robust, comprehensive and well-developed. Face-to-face interviews were done at the employee level (10 respondents), to explore personal perceptions on structural empowerment (SE), psychological empowerment (PE) and innovative work behavior (IWB), and to determine how employee empowerment and innovative work behavior were being practiced in the school. Interviews were also conducted at the leader and executive level (8 respondents), to assess subordinates' IWB and observations during intervention. Employee journals were completed by 36 employees.

ODI Design Process

This study followed three main phases:

- 1) Pre-ODI Stage: this phase used a survey questionnaire and in-depth interviews to measure the levels of SE, PE and IWB before ODI.
- 2) The ODI Stage: this phase applied two main concepts, which were Whole Brain Literacy (WBL) and the action research process of K. Lewin (1951). Thus, a total of four stages for change, including seven

activities, were designed based on the operational objectives presented in figure 4.

Activities included (1) Assessment, which aimed to determine the motivation to support the change (system thinking) in the current stage. (2)Appreciation, which sought to develop the feeling of appreciation at three levels; individual (strengthening of skills workshop), passion in ones work (professional passion), and the organizational level (One from many, many as one workshop). (3) Application, which provided exercises and opportunities to practice skills for working and thinking together (working and growing together), and practice in thinking together for better options (divergent and convergent thinking). (4) Actualization, which highlighted the benefits of continuous learning from effective feedback, creating an emotional push to strive to be better (marshmallow challenge).

3) Post-ODI Stage: the post-ODI stage aimed to assess the effect of ODI by comparing the pre and post-ODI values. Thus, the same methods to gather data were used for both pre-ODI and post-ODI stages.

The structural empowerment questionnaire includes 24 items and was adapted from the Condition of Work Effectiveness Questionnaires (CWEQ I-II). Psychological Empowerment included 20 items, adopted from Spreitzer (1995), and an additional variable, skill variety. There are 36 items in the IWB questionnaire, which are separated into ideation level, and execution level. This scale is adapted from the multi-dimensional measurement from the work of Dorenbosch and his colleagues (2005), and Kleysen and Street (2007). Thirty respondents were randomly selected by the human resource

department (HRD) from Y technical school for a pilot reliability test. Analysis of this pilot study yielded a Cronbach's alpha coefficient of 0.906 (SE: 0.883, PE: 0.839 and IWB: 0.840). The content validity of the questionnaire was also evaluated by experts including, one holding a Ph.D. in management, and two holding Ph.D's in Organization Development.

RESULTS AND FINDINGS

The Demographic Profile of the Respondents

The majority of respondents (63.9%, 23 respondents) were males, while females made up 36.1% (13 respondents). In technical schools, mechanical and computer subjects are mostly taught by male teachers. There was a wide range of ages, but most respondents (47.2%, 17 respondents) were in the 25-29 years of age range, with the other 12 people (33.3%) in the 30-34 years old bracket. Thus, the majority of the school's staff are of a relatively young generation.

Twenty-three people (36.1%, 13 respondents) were part-time employees, while

full-time employees made up the majority of respondents, at 63.9 % of the total (23). With respect to the length of service, it was found that 27.8% (10 respondents) had worked with the school for less than three years, while approximately half of the respondents (55.6%, 20 respondents) had worked with the school for 4-9 years, and 16.7% (6 respondents) had been with the school for 10-15 years.

Structural Empowerment Results

Table 1 shows the paired sample t-test and Wilcoxon signed-rank test results of the six dimensions; knowledge, informal power, support, opportunity, resource and formal power. The results indicated the p-values of all the dimensions were less than 0.05 (<5%). The percentage of improvement for the six dimensions, ranged between 11.2% and 19.9%, which showed a statistically significant improvement between pre and post-ODI phases, thus supporting *Hypothesis1: There is a significant difference between pre-ODI and post-ODI on structural empowerment.*

Table 1: Structural Empowerment (Paired T-Test and Wilcoxon Signed Rank Test)

	Pre-ODI		Post-ODI		Diff	t	P-value T-test	Z Wilcoxon	P-value Wilcoxon	Improved %
	Mean	S.D	Mean	S.D						
Knowledge	3.93	0.50	4.58	0.19	+.65	-10.080	.000	-5.28	.000	16.54
Informal Power	4.10	0.42	4.56	0.42	+.46	-9.297	.000	-4.991	.000	11.22
Support	3.76	0.48	4.39	0.37	+.63	-12.677	.000	-5.272	.000	16.76
Opportunity	3.76	0.51	4.51	0.30	+.75	-11.352	.000	-5.258	.000	19.95
Resource	3.61	0.42	4.21	0.42	+.60	-7.993	.000	-5.176	.000	16.62
Formal Power	3.96	0.45	4.56	0.34	+.60	-13.315	.000	-5.286	.000	15.15
Structural Empowerment	3.85	0.37	4.47	0.26	+.61	-18.673	.000	-5.238	.000	15.92

The qualitative analysis also supported the observations of change; employees were found to support each other along a process, realize opportunities by suggesting new ideas, increase their ability to overcome limited resources, and were able to align their work activity with school vision (knowledge).

Psychological Empowerment Results

The p-values for all the dimensions were less than 0.05 (<5%), as presented in table 2. This shows that there is a significant difference between the values of the pre and post-ODI phases. The ODI prompted improvement in the dimensions of autonomy, meaningfulness, impact, skill variety, and self-efficacy or potency, with an overall improvement of 13.9%. Thus, these findings support *Hypothesis2: There is a significant difference between pre-ODI and post-ODI values for psychological empowerment.*

At the Pre-ODI stage, employees only recognized high autonomy in teaching and few participated during meetings. However, in the post-ODI stage participants realized freedom in their work role (teaching and management role) and had become more participative, showing acceptance of other participants and others' opinions, suggesting alternative ways and sharing ideas.

Innovative Work Behavior Results

Table 3 shows the paired sample t-test as well as the Wilcoxon signed-rank results for the dimensions of IWB during pre and post-ODI phases. The p-values of all the dimensions were less than 0.05 (< 5%). The same was true for the Wilcoxon signed rank results. The post-ODI levels of each of the dimensions were higher than those of the pre-ODI level. The overall improvement was 9.81%. Therefore, these findings support

Table 2: Psychological Empowerment (Paired T-Test and Wilcoxon Signed Rank Test)

	Pre-ODI		Post-ODI		Diff	t	p- value	Z Wilcoxon	P-value Wilcoxon	Improved %
	Mean	S.D	Mean	S.D			T-test	Wilconon	Wilconon	70
Autonomy	2.99	0.85	3.97	0.56	+.99	-6.060	.000	-5.059	.000	32.78
Meaningfulness	4.08	0.57	4.46	0.35	+.38	-4.048	.000	-3.981	.000	9.31
Impact	3.85	0.62	4.32	0.44	+.47	-4.261	.000	-3.537	.000	12.21
Skill variety	3.89	0.49	4.32	0.41	+.43	-4.206	.000	-3.796	.000	11.05
Self -efficacy or potency	3.99	0.36	4.33	0.32	+.35	-8.154	.000	-5.142	.000	8.52
Psychological Empowerment	3.76	0.47	4.28	0.30	+.52	-6.403	.000	-4.970	.000	13.90

Hypothesis3: There is a significant difference between pre-ODI and post-ODI values of innovative work behavior.

Table 3: Innovative Work Behavior (Paired T-Test and Wilcoxon Signed Rank Test)

	Pre-ODI		Post-ODI		Diff	t	P-value T-test	Z Wilcoxon	P-value Wilcoxon	Improved %
	Mean	S.D	Mean	S.D						
Knowledge	3.93	0.50	4.58	0.19	+.65	-10.080	.000	-5.28	.000	16.54
Informal Power	4.10	0.42	4.56	0.42	+.46	-9.297	.000	-4.991	.000	11.22
Support	3.76	0.48	4.39	0.37	+.63	-12.677	.000	-5.272	.000	16.76
Opportunity	3.76	0.51	4.51	0.30	+.75	-11.352	.000	-5.258	.000	19.95
Resource	3.61	0.42	4.21	0.42	+.60	-7.993	.000	-5.176	.000	16.62
Formal Power	3.96	0.45	4.56	0.34	+.60	-13.315	.000	-5.286	.000	15.15
Structural Empowerment	3.85	0.37	4.47	0.26	+.61	-18.673	.000	-5.238	.000	15.92

At pre-ODI, employees have ideas but are mostly concerned with limitations. They also believe that it is others' responsibility to find solutions to problems. In contrast, during the post-ODI phase, employees have ideas and plans to improve themselves and the school (come-up with solutions).

Observation and Employee Journals Results

Content analysis is a useful tool in emphasizing the understanding revealed through participant journals and observations. Journals were distributed to all participants, after each training session and then collected during the next session. The aim of this method of data collection was to uncover the achieved outcomes of learning and interventions for each employee. Meanwhile, executives and leaders were invited to the workshop, to observe their employees and to validate the observation

method, ensuring it was not limited to only the researcher's notes. The results were used for validating and supporting the statistical analysis. In coaching, there are four aspects (experience, thoughts, feelings and action) which help to access the inner processes and create change. This is called the coaching cycle and has wide implications for coaching. The concept leads to interactions between and integration of the mind, body and environment, eventually affecting perception and resulting in new interactions with the environment (Clancy & Binkert, 2017). It is also a tool for encouraging participants to shift their mindset: creating new thoughts and beliefs, cultivating feelings, and experimenting in new actions for positive results. By encouraging one or more of these aspects, coaching leads to transformation and change. For this study, the findings revealed that employees were able to develop all four areas. Thus, the OD intervention resulted in effecting change. The findings of the observations and employee journals are presented in table 4.

Table 4: Learning Development Stages

Development	Assessment	Appreciation	Application	Actualization	
Stage Experience	-Problem-solving related to their individual work	- Goal setting - Open to opinions - Self-development	-Cooperation - Connecting and integrating	-Learning from doing and working -Brainstorming	
Thoughts/Beliefs	-Planning skills -Realizing a higher sense of freedom	-Realizing ones participation in work -Discovering common goals	-Discovering the high quality of working together -Discovering creativity in change	- Realizing learning from doing -Discovering self- development from feedback	
Feelings/ Emotions	-Teamwork -Energize -Active	-Willing to make decisions - Fun	-Motivation -Love -Commitment -Honesty	-Willingness to make decisions -Teamwork -Commitment	
Actions/Behaviors	-Interpersonal relations	-Need for feedback on work -Resourcefulness	-Finding new ways by sharing ideas -Valuing other's perspectives	-Public recognition -Cooperation -Participation (involvement)	

Relationship Results

Table 5 presents the results of the correlation analysis, confirming the relationship between structural or psychological empowerment and innovative work behavior. The results from the Pearson Correlation analysis showed a strong significance of less than 0.05~(%~0.05) for both SE and PE respectively. For SE and IWB the correlation coefficient (r) was equal to .718, indicating a strong relationship.

Meanwhile, the correlation coefficient for PE and IWB was .423, indicating a moderate relationship. Thus, the two hypotheses were proved as follows; Hypothesis4 there is a significant relationship between structural empowerment and innovative work behavior, and Hypothesis5 there is a significant relationship between psychological empowerment and innovative work behavior.

Table 5: Structural Empowerment and Psychological Empowerment in Relation to Innovative Work Behavior

Variables	Coefficients ®	P-value	Level of correlation
Structural Empowerment and	.718**	.000	Strong Correlation
Innovative Work			
Behavior(Relationship)			
Psychological Empowerment	.423*	.010	Moderate Correlation
and Innovative Work Behavior			
(Relationship)			

CONCLUSION

The situation of the XYZ School at the post-ODI stage showed that OD intervention enhanced the soft elements of the school's internal situation, and was able to address the four school issues. The design of ODI using the Lewin model, WBL and AI enhanced structural and psychological empowerment encouraging innovative work behavior. ODI resulted in more creativity and more participation (style). Employees became more active (staff) and were able to improve their skills by learning from feedback. All these enhanced innovative work behavior which provides shared value. Organizational development intervention was effective as shown in the increase of psychological empowerment, structural empowerment and innovative work behavior. At the individual level, employees became more active (willing to do the job) and ready for more challenges. Meanwhile, the interventions developed the bonding at the group level. These are fundamental aspects in the development of innovative behavior and playing a more active role in work. Furthermore, the relationship between empowerment and innovative work behavior was established. Innovative work behavior potentially required working cooperation (structural empowerment)to generate new ideas to execution. Meanwhile, will power (psychological empowerment) is essentialwhenexecuting ideas.

RECOMMENDATIONS

There are four main aspects in order to achieve a long term transformation of the school.

- 1) It is suggested to assess the school situation after asix month period of intervention. This will uncover other potential challenges and allow for continuous development of the school.
- 2) After six months of intervention, leaders decided to keep the momentum but this is difficult to achieve, without team support. Thus, to improve intervention further, it is recommended to develop team support to combat the refreezing stage of the change process.
- 3) To increase theimpacts of SE and PE, it is recommended to adopt empowerment practices at the leadership level. Based on literature, the interaction of leadership plays acrucial role in increasing empowerment.
- 4) To increase IWB, it is recommended to adopt a cross-functional team. Thus, various people from different departments should help in thinking through certain solutions and improving the ideation level. As for improvement of IWB at the execution level, it is suggested that increasing PE may be done through the Whole Brain Literacy model. The WBL modality may be used to help organization members to process information and understand their own thoughts, helping them to think more widely regarding the purpose and issue they are facing. Thus it helps individuals to access their inner power (PE).

REFERENCES

Anderson, D., & Anderson, L. A. (2010). The role and impact of culture. In *Beyond Change Management: How to Achieve Breakthrough Results Through Conscious Change Leadership* (2nd ed.). San Francisco: Pfeiffer.

Ardts, C. A., van der Velde, M. E. G., & Maurer, T. J. (2010). The influence of

- development programs on employee outcomes. Human Resource Development Quarterly, 21(4), 411. Retrieved from http:// search.proquest.com/docview/ 821691167?accountid=8401
- Bjornali, E. S., & Støren, L. A. (2012). Examining competence factors that encourage innovative behaviour by European higher education graduate professionals. Journal of Small Business and Enterprise Development, 19(3), 402–423. http://doi.org/http://dx.doi.org/ 10.1108/14626001211250135
- Clancy, A., & Binkert, J. (2017). Pivoting: a Coach's Guild to Igniting Substantial Change. New York: Springer Nature.
- Conger, J., & Kanungo, R. (1988). The empowerment process: Integrating theory and practice. Academy of Management Review, (13), 471–482.
- Cummings, T., & Worley, C. (2009). Organization Development and Change (9th Editio). Mason: Cengage Learning.
- De Jong, J., & Den Hartog, D. (2008). Innovative work behavior: measurement and validation. EIM Business and Policy Research, 1-27.
- Dorenbosch, L., van Engen, M. L., & Verhagan, M. (2005). On-the-job innovation: the impact of job design and human resource management through production ownership. Creativity and Innovation Management, 14(2), 129-141. Retrieved from http:// search.proquest.com/docview/ 195076819?accountid=8401
- Evans, D. (1996). Straightforward Statistics for the Behavioral Sciences. California: Brooks/Cole Publishing Company.

- perceived characteristics of management Fernandez, S. (2013). Employee empowerment, employee attitudes, and performance: testing a causal model. Public Administration Review, 73(3), 490. http://doi.org/10.1111/ puar.12049.he
 - Fernandez, S., & Moldogaziev, T. (2012). Using employee empowerment to encourage innovative behavior in the public sector. Journal of Public Administration Research and Theory, 23(1), 155–187. http://doi.org/10.1093/ jopart/mus008
 - Ford, D. K. (2011). An Evaluation of Moderating Influences of Employee Proactive Personality: Empowerment and Political Skill. Portland State University. Retrieved from https:// search.proquest.com/docview/ 875561106?accountid=8401
 - Hebenstreit, J. J. (2012). Nurse educator perceptions of structural empowerment and innovative behavior. Nursing Education Perspectives, 33(5), 297-301. http://doi.org/10.5480/1536-5026-33.5.297
 - Jones, Q., Dumphy, D., Fishman, R., Larne, M., & Canter, C. (2006). In Great Company, Unlocking the Secrets of Cultural Transformation. Human Synergistics International.
 - Jong, J. P. J. de, & Den Hartog, D. N. (2007). How leaders influence employees' innovative behaviour. European Journal of Innovation Management, 10(1), 41-64. http://doi.org/http://dx.doi.org/ 10.1108/14601060710720546
 - Kanter, R. M. (1979). Power failure in management circuits. Harvard Business Review, 57(4), 65–75.

- Kanter, R. M. (1993). *Men and Women of the Corporation*. Basic books.
- Kim, H., Sutton, K. L., & Gong, Y. (2013). Group-based pay-for-performance plans and firm performance: The moderating role of empowerment practices. *Asia Pacific Journal of Management*, 30(1), 31–52. http://doi.org/10.1007/s10490-011-9255-7
- Kleysen, R., Kleysen, R. F., & Street, C. T. (2007). Toward a multi-dimensional measure of individual innovative behavior. *Journal of Intellectual Capital*, 2(3), 284.
- Lambriex-Schmitzi, P., Klink, M. van der, Gerken, M., & Segers, M. (2015). Innovative Work Behaviour of teachers in Higher Education: An extended view. Retrieved from http://zuyd.surfsharekit.nl:8080/get/smpid:52465/DS1
- Ledwell, E. A., Andrusyszyn, M., & Iwasiw, C. L. (2006). Nursing students 'empowerment in distance education/: testing Kanter's theory, 21(2), 78–95.
- Lewin, K. (1951). *Feild Theory in Social Science*. New York: Harper and Row.
- Li, Y., Wei, F., Ren, S., & Di, Y. (2015). Locus of control, psychological empowerment and intrinsic motivation relation to performance. *Journal of Managerial Psychology*, 30(4), 422–438. Retrieved from https://search.proquest.com/docview/1680385280?accountid=8401
- McKinsey and Company. (2008). Enduring ideas: the 7-S framework. *McKinsey Quarterly, March*. Retrieved from http://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-

- insights/enduring-ideas-the-7-s-framework
- McNamara, C. (2017). *Thinking about Organizations as System*. Retrieved April 3, 2017, from http://managementhelp.org/organizations.htm#anchor1121703
- Organisation for Economic Co-operation and Development (OECD). (2011). *Learning for Jobs*. Retrieved from http://www.oecd.org/education/innovation-education/learningforjobs.htm
- Patterson, M. G., West, M. A., & Wall, T. D. (2004). Integrated manufacturing, empowerment, and company performance. *Journal of Organizational Behavior*, 25(5), 641–665. Retrieved from https://search.proquest.com/docview/224884109?accountid=8401
- Pimpa, N. (2012). Amazing Thailand: organizational culture in the Thai public sector. *International Business Research*, 5(11), 35–43. http://doi.org/10.5539/ibr.v5n11p35
- Pornpitakpan, C. (2000). Trade in Thailand: a three-way cultural comparison. *Business Horizons*, 43(2), 61–70.
- Pratoom, K., & Savatsomboon, G. (2012). Explaining factors affecting individual innovation: The case of producer group members in Thailand. *Asia Pacific Journal of Management*, 29(4), 1063–1087. http://doi.org/http://dx.doi.org/10.1007/s10490-010-9246-0
- Ra, S., Chin, B., & Liu, A. (2015). *Challenges and Opprotunies for Skill Development in Asia: Changing Suppy Demand and Mismatch*. Retrieved from https://www.adb.org/sites/default/files/publication/176736/challenges-and-opportunities-skills-asia.pdf

- Rajamangala Institute of Technology Krungthep. (2015). Education and National Economic Stability On Vocational Education and the Future of Thai Industrial Sector. Retrieved from http:/ /www.rmutk.ac.th/index.php/en/ component/k2/item/429-education-andnational-economic
- Rujirawanich, P., Addison, R., & Smallman, C. (2011). The effects of cultural factors on innovation in a Thai SME. *Management Research Review*, *34*(12), 1264–1279. http://doi.org/http://d x . d o i . o r g / 1 0 . 1 1 0 8 / 01409171111186397
- Samkoses, W. (2017). Unemployment Rate in 2017. *The Momentum*. Retrieved from http://themomentum.co/momentum-feature-unemployment-higher-rate-and-graduate-degree-unemployed
- Senge, P. (2016). Dance of (profound) change: build competitiveness and sustainability through learning and innovation. In *PMAT 50th Anniversary International Confernce on Building People Capability for Organization Sustainability*.
- Seyqalan, H. G., & Chamanzamin, M. R. (2015). Investigating Relationship between Human Resource Empowerment and Innovative Performance in Vocational Training of Guilan Province. *International Review of Management and Business Research*, 4(2), 550–560. Retrieved from http://search.proquest.com/docview/1690371183?accountid=8401
- Spreitzer, G. M. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of Management Journal*, 38(5), 1442. Retrieved from http://

- search.proquest.com/docview/199829803?accountid=8401
- Tayko, P. R. M., & Agloro, J. M. (2013). *On the Ball: Leveraging the Future You Want with WBL*. I-T Partners and Linkage Company.
- Thomas, K. W., & Velthouse, B. A. (1990). Cognitive elements of empowerment: an "interpretive" model of intrinsic task motivation. *Academy of Management Review*, *15*(4), 666–681.
- Wongtada, N., & Rice, G. (2008). Multidimensional latent traits of perceived organizational innovation: Differences between Thai and Egyptian employees. *Asia Pacific Journal of Management*, 25(3), 537–562. http://doi.org/http://dx.doi.org/10.1007/s10490-008-9085-4
- Xerri, M., & Brunetto, Y. (2011). Fostering the innovative behaviour of SME employees: a social capital perspective. Research & Practice in Human Resource Management, 19(2), 1–17. Retrieved from http://search.proquest.com/docview/1158873609?accountid=8401