



Improving Individual, Team and Organizational Learning
Through Organization Development Interventions (ODI):
A Case Study of Assumption College Nakhonratchasima, Thailand

Siam Kaewprasith

A Dissertation Submitted in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy in Organization Development
Faculty of Graduate School of Business
Assumption University
Academic Year 2017
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Dissertation Title : Improving Individual, Team and Organizational Learning
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By : Mr. Siam Kaewprasith

Major : Doctor of Philosophy in Organization Development (Ph.DOD)

Dissertation Advisor : Salvacion E. Villavicencio, Ph.D.

Academic Year : 1/2017

The Graduate School/Faculty of Graduate School of Business, Assumption University,
has approved this dissertation as a partial fulfillment of the requirements for the Degree of
Doctor of Philosophy in Organization Development.

K. Phothikitti

.....
Dean of Graduate School of Business, Kitti Phothikitti, Ph.D.

DISSERTATION EXAMINATION COMMITTEE

Kanyamon I.

..... Chairman
Assoc. Professor Dr. Kanyamon Inwang, Ph.D.

SV

..... Advisor
Salvacion E. Villavicencio, Ph.D.

LeeHLu

..... Member
Program Director, Lee Hsing Lu, Ph.D.

Seongdok Kim

..... Member
Associate Program Director, Seongdok Kim, Ph.D.

Sming Chungviwatanant

..... Member
Sming Chungviwatanant, Ph.D.

Abstract

This research aims to improve teachers and staff as individuals, team, and organizational learning through the organization development interventions (ODI) for Assumption College Nakonratchasima, a school with 3,087 students, from kindergarten to higher secondary, with 213 Thai teachers, and 32 foreign teachers. Researcher has conducted an action research with a mix of both quantitative technique and qualitative approaches to examine with an aim to improve the quality of the current understanding, practice, and factors enable individuals, team and organization learning. An Organization Development Intervention (ODI), a set of designed planned actions, organizing workshops, and on spot trainings in an atmosphere of schooling activities was designed and implemented to improve organizational learning. The progress analysis was determined from the Mean scores of the different gap scores of the variables between the PRE ODI and Post ODI. The pair simple t-test was applied as statistical analysis to test the hypothesis. Ho1 is rejected, as there is a significant difference between PRE ODI and POST ODI on individual learning, team learning and organizational learning. The qualitative data indicates that the teachers and staff at the school have demonstrated improvement in their interest and support for the school vision, which has become widely accepted by teachers and staff. The school gradually has improved its organizational learning, taking the role of a learning organization, which provides the chance of consciously and continuously pursuing quality improvement. This study has resulted in the change of personal attitudes and practices. In another words, ACN teachers and staff as individuals, team, and organizational learning have improved through OD Intervention that enables them to break through the turbulent situation, ensuring sustainability and retaining its competitive advantage in very competitive and changing circumstances.

Keywords: school organizational learning, learning organization

Acknowledgement

The completion of this dissertation has become one of the most memorable and treasured experiences. I would like to take this opportunity to express my heartfelt thanks and special words of appreciation to those people whose support and assistance have made this research complete.

I would like to express my gratitude to Rev. Bro. Dr. Bancha Saenghiran, the Rector Magnificus of Assumption University, Rev. Bro. Dr. Sirichai Fonseka, and all the Brothers working at Assumption University, Dr. Kittit Photikitti, Dean of the Graduate School of Business, Dr. Kittikorn Dowpisek, and all the staff of the Graduate School of Business. This study could not be a success without their support.

I would also like to express my gratitude to Brother Archin Tengtrakul for his invitation and warm welcome to pursue this Ph.D study. He always offers his extensive support in many ways, understanding and guiding me along the path to solve many unforeseen problems and difficulties.

My sincere gratitude specially goes to Dr. Perla Rizalina M. Tayko for accepting me to join the Ph.DOD Program, and accompanying me till the end of my dissertation, to Dr. Sirichai Phudhikulpadab, my first advisor for supervision and encouragement during my adventure before defending the proposal, and to Dr. Salvacion Villavicencio, my second advisor for convincing me the importance of the research methodology. I appreciate her guidance, kindness, encouragement and valuable comments and her rich expertise which help me to carry out my work.

Completion of my research would not have been possible without active collaborations and contribution of my co-administrators and collaborators at Assumption College Nakornrachasima and St. Louis School Chachoengsao, who have been involved in the study.

Finally, I would like to dedicate this dissertation to my beloved the Congregation of the Brother of Saint Gabriel. I believe the fruit of this research will ensure the sustainable development and continuous growth of the schools under the care of the Brothers.

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CHAPTER 1

INTRODUCTION TO THE STUDY :

POTENTIAL CHALLENGE FOR CHANGE

In this chapter, the overview of why this research needs to be undertaken is presented. The general information of globalization of education and national education is reviewed. Assumption College Nakhonratchasima (ACN) is the case study of this research. The school is revitalizing the culture of organizational learning. Consequently, the chapter presents the global context, regional context, and organization context of ACN as a Catholic school under the Foundation of St. Gabriel. This chapter contains the research objectives, problem statement, research questions, hypothesis, and significance of the study, scope and delimitations.

1.1 GLOBAL CONTEXT

Globalization with its effects (e.g., social, cultural, economic, and technology) has significantly changed across all regions in various services and industries regarding transmission of information, closer cooperation, and advanced transportation. Modern information technology as a driver for social communication, trade, services, currency, news information, and culture is made available to people. The most interesting issues are: economic competitiveness and market share; identity within globalization; equity; sustainability; and the roles of education. These changes are consequently also rapidly changing the context or the environment of human systems which force the organization and its members to involve for acquisition while scanning and assessing its relevant practices for the better innovation and productivity (Nelly, 2003).

The changing context of the environment and its consequences are generating constraining, conflicting and converging multiple particular issues onto national and international agendas in education. The growth of worldwide educational dialogues and institutions led to the concept that education is perceived as an commercial investment with the goal of developing human resource investment or better employees to promote economic growth. In fact, the political agenda has utilized education sector as the key solutions to develop the country and remain sustainability in competitions. Consequently, education that refers to lifelong learning for educating professional skills, and economic improvement has been promoted as a part of government policy to develop the country.

The globalization has changed education sector rapidly all over the world. As an effective tool under the utilization of government education, systems must be reformed to flexibly and

quickly increase opportunities in the environment. Learning organization is the best choice of organization intervention to break through these challenging situations. Organizations that learn assume challenges and improve unproductive patterns of behaviors. Personnel of a learning organization has culture to reflect upon working process and think systematically in order to forecast change and initiate new processes toward the benefit of organizational stakeholders such as administrators, students, faculty and staff, parents (Senge, 2006; Freed, 2001; Moloi, 2010; Ayupp & Perumal, 2008). A significant aspect toward organizational successfulness means adaptation to changes and sustainable organizational learning with the purpose of engagement and empowerment (Asadi, Ghorbani, & Naderan, 2009; Marsick, 2009; Dirani, 2009; Ortenblad, 2004b).

Any country of high literacy and better education has better opportunities for sustainable growth. Meanwhile, increasingly digital world is one of the latest and largest trends that effect education sector worldwide. The recognition of the needs to preparing students for the jobs of the future shake the current practices of schools to focus on changing from traditional teaching. Teaching the 21st Century Skills emphasizes on digital literacy and have a focus on problem-solving, creativity, and communication. (Pimienta, D., Prado, D., & Blanco, Á., 2009).

Therefore, developing an education system in almost every country has been concentrated on the 21st Century Skills as the key to boosting economic growth and increasing wealthiest and well being, lessening poverty, and remaining its sustainability. These dimensions aim to create learning persons, a learning organization and a learning society. There are expectations for schools to preparing the new generations that have fully global awareness, creativity and innovation, and are high cable of information and media literacy. This requires schools to shift from traditional content giving to building up transmedia literacy. The ability to learn new trends and changes has become essential in understanding information from a variety of sources and making connections between them. To achieve sustainable growth, strategies for changing and upgrading people's attitude through education is seemingly unavoidable with the emphasis on four dimensions, ranging from delightful classroom atmosphere, wisdom, intellect, and the ability to solve problems to judgment of what is best for students and society (Roger and Susan, 2003).

1.2 REGIONAL CONTEXT

Globalization has impacts on the development of the Asian countries and has become a major issue in education reform. Rapid global economic integration leads to transformation and migration of industrial and occupational structure. Increasing of workers migration brings about the new composition of multination of teachers and students and diversity of cultures to classroom.

(Hyunjoon Park, 2010) Asian educational trend is supplemented by the government policy to keep progress in economic and social development. The demand for university education increases as relative salaries for higher-educated labor increase. Asian governments attempt to expand their higher education.

The shift of Asian educational paradigms is affected by the 21st century global trend such as technological development, increasing economic interdependency. Growing pressure on natural resources and environmental degradation and rapidly changing labour markets create high labour migration and unemployment. Therefore, Asian nations educational systems are increasing their competitiveness to acquire global market share. Education policy-making and delivery are essential to be constantly reflected to shape both national and international effort. It includes improving emphasis on language curriculum, science and math curriculum. Quality control and standard assurance are changing educational administration and classroom practices. They become part of essential efforts to increase accountability and opportunity in market competitions. With the awareness that effective education system with efficient public administration enables the country's fast development and capability of stimulating economic growth, Asian governments tend to magnetize foreign capital and to provide skilled and educated labor. Thus there are number of reforming trend of Asian educational development to keep up with the context of globalization. (Joseph Zajda, 2005)

1.3 NATIONAL CONTEXT

There is a need for educational changes to comply with the globalization and the world's knowledge society where knowledge and intelligence is used as a key tool to strengthen the potential and international competitiveness (Office of the National Education Commission, 2010). The goal is the quality of new generation of Thai citizens, quality of the new type of teachers, quality learning organization and educational institutions, and quality of administration bodies (Tandron, 2015).

Education is an important sector that invariably undergoes changes, some of which are due to government policies to enhance schooling systems for the sake of students, parents and school administrators. The policies as articulated by Thai Ministry of Education, 2004 stating that the aim is at improving educational standards and increasing national competitiveness. Developing educational standard equals to that of developing countries, increasing capacity for research and development, and developing innovations and technologies. (Ministry of Education, 2004).

Being influenced and affected by the current trends of globalization like other developed countries, Thailand recognizes the needs to stimulate and speed up its development in all aspects to be able to surf global waves of changes relevantly and timely. The most important element that enhances schooling systems for greater performance is human resources development and management. Knowledge is a mean for developing the country. (Wijakkanalan, S., Wijakkanalan, W., Suwannoi, P., & Boonrawd, S. ,2013). Thailand adapts to current changes and intellectual revolution scheme and new values system of the Thai society that gives priority to the participation of all sectors. The country values "*People Centered Development*" and employs economy as a tool in helping improve people's lives for the betterment of their quality of life. The asset in education reveals that sustainable economic growth requires a well-educated and skillful employee (Carnoy, 2003) and thus the development framework articulates economic, social, and environmental development (National Economic and Social Development Plan, 2002-2006). It adheres to the King's "*Philosophy of Sufficiency Economy*", a philosophy which should be applied in the development of education and quality of learning (through learning reform for knowledge-based livelihood; strengthening capacity of educational personnel; strengthening management system toward quality learning; and administration of education) (Office of the National Education Commission (ONEC), 2003).

Education is an important driver for development of the country; thus prompting school administrators and teachers to prepare their people and systems for the benefits of global communities regardless of race and nationalities. The 15-year National Education Plan demands building a society of learning, knowledge and integrity. The emphasis is placed on fostering a learning society with knowledge management, good behavior and integrity of the people. There are campaigns for research, increasing the knowledge and changing learning style of Thai people and Thai society (Singsuriya, Aungsumalin, & Worapong, 2014). Moreover, the quality and ability of academic personnel are necessary to assure the effectiveness of the educational reform system and the growth of the community of learning.

The current military government has used its special administrative power to deal with the education issues. The new long-term strategies to develop education toward Thailand version 4.0 emerged to strengthen next generation of human capital. The new education development plan 2017-2038 includes a wide range of campaigns, initiatives and reforming plan. The main components of Thailand education reform consist of enduring basic education, improvement of education system and its administrative system, improvement of teaching profession and quality assurance, and learning reform. The ministry of education plans to update school and teacher

standards. Systematic standardization to assess performance and encourage schools' participation in ongoing development is the key to success.

While learning reform is essential to national education reform, educational personnel as the key players and spinners of educational system has important roles in the development of the country. They bear heavy responsibility of educating students to support technological development and economic growth. Lifelong learning with a balanced orientation of knowledge management, learning skill and learning attitudes are emphasized and highlighted as important issues. Through improving human resources, learning new knowledge and skills are important issues in providing professional consultations, conducting academic researches, participating in decision making process and preserving high level of organizational standards (Chughtai & Zafar, 2006; Awang, Ahmad, & Zin, 2010). Therefore the concept of the fully developing learning organization in educational institutions has appealed much attention (Alam, 2009). Thus the concern is whether educational institutions have the characteristics to revitalize organizational learning to retain their staffs to improve their attitudes, skills and knowledge to become learning organizations (White and Weathersby, 2005).

This action research highlights the importance of the learning process at individual, team, and organization levels through implementation of the intervention. During the research process, ACN teachers and staff continually reflect on what they have learned, their approaches, how they have a dialogue and made decisions, their findings and their reactions. In short, in this action research and approaches, the researcher as an OD practitioner has been involved in the cycle of planning, acting, dialogue, reflecting and learning (Buijs, 2012).

1.4 ORGANIZATION BACKGROUND OF THE FOUNDATION SAINT GABRIEL SCHOOLS IN THAILAND

Brothers of Saint Gabriel is a Catholic religious congregation of men who are dedicated to the education of young people and the service of the poor. The Montfort Brothers of Saint Gabriel has a long history of service to education in Thailand, both through their prestigious schools and university and also through their charitable development projects for the more marginalized elements in Thai society. The Foundation in Thailand is part of a worldwide community, the Montfort Brothers of Saint Gabriel, who base their educational and charitable work on the inspiration of Saint Louis Marie de Montfort (1673 -1716). He founded them in France toward the end of his life to help him in his priestly ministry and to lead and teach in schools which he set up for the education of the poor. Montfort's spirituality is still central to the work of the brothers today,

nearly 300 years later, as they continue to minister to many thousands of people in over 30 countries.

The fundamental characteristics of Montfortian spirituality are based on the spirit of Saint Louis Marie de Montfort himself. The core mission of the Brothers is that they are administrators of charity schools, committed to providing education that forms and develops all aspects of their service to young people. Central to these characteristics of Montfort spirituality is the key notion that the brothers work with dedication for "God Alone" and hold firmly to the motto, "Labor Omnia Vincit", where working for others is the guiding principle which overcomes all difficulties. By adopting these characteristics of Montfortian spirituality, the brothers continue to see their leadership role as one of service, especially to the poor and the marginalized. Within the fee-paying institutes, they seek to instill within all students, including those from wealthy backgrounds, principles of dignity and respect, coupled with purposeful-concern and non-political social action for the poor and the marginalized, through value education and through the service projects for the out-reach and community service of all students, teachers and Brothers in each one of their institutes.

The robust Thailand economy driven by human intellectual capital in 2000 is known to be having a cascading impact on the current education systems/models in the country. Schools are witnessing increased pressure from the industry demanding high standards in education. The schools under St.Gabriel's Foundation of Thailand had an embedded potentiality ingrained in tradition and culture to make a significant contribution to the early learning of young students and empower them to succeed in the face of challenge. Consequently, FSG schools were facing with dramatically changed circumstances in the economic environment and the government educative development policies. The changes were so swift and sweeping that the school authorities were finding it difficult to comprehend and evolve an adequate response. These critical challenges drove the foundation to develop a standardization system called "Brother of Saint Gabriel's Education Standards" as part of holistic Development Plan of the schools under the foundation (BSG Education Standard, 2001). Learning organization was embedded as one of the criteria of the BSG Standardization to help the schools to respond to the government educative standardization.

The BSG standard was the standard to help school management to improve and learn a better way toward their sustainability. Consequently, the schools under FSG started to conform the policy and practiced learning organization and receive the inspection by the FSG education committee annually. It works from a standard, experiment with a hypothesis, measures results, then either modifies the standard or tries another experiment to produce organizational learning. FSG

administrative team has taken its organization closer to becoming a learning organization since then. Learning organization brings about possibilities and new perspectives of possible development toward sustainability of the schools under FSG.

1.5 ASSUMPTION COLLEGE NAKORN RACHASIMA ORGANIZATIONAL CONTEXT

Assumption College Nakornratchasima (ACN) is situated at 3 St.Mary Rd.Muang Nakornratchasima District, Nakornratchasima Province in the northeast of Thailand, about 200 kilometers from Bangkok. It was established in 1986 with the initiative of H.E. Alain Van Gaver, a local diocese bishop. At that time Rev.Bro.Simeon was appointed as the first director of the school. The College began with 8 classrooms, and had only 13 teachers on the first day. There were 330 students at the end of the first academic year.

At present, ACN has 3,087 students, from kindergarten to higher secondary, with 213 Thai teachers, and 32 foreign teachers. ACN has 90 classrooms from kindergarten to secondary six with two teachers specially assigned as class-teacher to take care of the students and play the guiding roles in addition to teaching their subjects. ACN teachers work hours cover an average of 20-25 hours per week and are also assigned special duties according to job description (ACN Organizational Learning Survey, 2016).

In this study, the researcher applied the SWOT and SOAR analysis to understand the ACN organization context. These tools of strategic planning are represented by the acronym SWOT stands for Strengths, Weaknesses, Opportunities, and Threats and SOAR stands for: Strengths, Opportunities, Aspirations, and Results (Jacqueline M. Stavros, 2009). SWOT can be used at any level of an organization; it is traditionally employed at the senior management level. Having used SWOT analysis for the previous fifteen years, people tend to look for problems and focus on weaknesses and threats before searching for possibilities. Drained energy and loss of spirit can negatively impact momentum and achieving results (Daly, Alan, Millhollen, Basha, and Di Guilio, Laila, 2007). In SOAR, weaknesses and threats are not ignored. They are reframed and given the appropriate motivations' within the Opportunities and Results conversation. Ultimately, it becomes a question of balance. High performing teams talk to each other differently than low performing teams. High performing teams are more positive, ask more questions, and are more focused outside of themselves. SOAR is a way to help people learn how to have positive and other-focused inquiry (Fredrickson, B., 2009).

Diagnosing ACN school contextual situation with both qualitative and quantitative methods allowed researcher to learn the context and situation of the school. Researcher approached the

situation of the school with the framework of an action research to examine the current situation of individuals, team and organization learning in Assumption College Nakhornrachasima (ACN). Documentary research, social structure and interviews with administrators, teachers and staffs allowed the researcher to examine the current situation of individual learning, team learning and organization learning in schools and search for factors to enable individuals, team and organization learning and complete the SWOT Analysis. The researcher diagnosed the extent of learning capacity by implementing a qualitative methodology with a variety of means to gain preliminary data and situation of the school organizational learning, to locate areas of strength and weakness, and take steps to further develop it. By meeting and interviewing with school director and middle administrators department by department, the researcher has engaged them in a series of conversations to identify and analyze strengths and opportunities, in order to create shared aspirations, goals, strategies, and commitment to achieve results and conclude the SOAR (Jacqueline M. Stavros, Gina Hinrichs, 2009).



Table 1: *SWOT/SOAR analysis*

STRENGTH	WEAKNESS
<ol style="list-style-type: none"> 1. ACN-maintains high standards with a good reputation. 2. ACN has good facilities, environment, advance technology equipment for educational technology to support classroom activities and student care system. 3. Administrators have provided quality time to work collaboratively to improve standard. 4. ACN teachers and staff have experienced in undergone many improvement programs. 	<ol style="list-style-type: none"> 1. Limitation of adaptation to changes 2. ACN teachers and staff are used to with conservative and bureaucratic way of administration 3. The top management does not aware of the importance of developing the school towards a learning organization. 4. Teachers and staff do not have the courage to take initiative but rely on the commands and directions 5. The school has administrative structure and management style that is not support the knowledge management and learning culture. 6. Meetings become the floor to inform with less discussion or dialogue. 7. Teachers and staff have limited know-how about knowledge management to promote a learning culture. 8. There is moderate awareness among administrators, teachers and staff of global educational trends, and how they could effect or create impact to the school. 9. There is very little space for organizational learning, initiative and innovation.
OPPORTUNITIES	THREATS
<ol style="list-style-type: none"> 1. Education is an important driver for development of the country, the political agenda has utilized education sector as the key solutions to develop country. 2. ACN situate in business area which is recognized as the gate to North East region of the country. 3. Stakeholders such as parents, students and local communities are highly satisfied with the school facilities and curriculum. 	<ol style="list-style-type: none"> 1. Stakeholders and local communities are moderately satisfied with the school administration and service 2. Schools are facing with pressure from economic factors, globalization, government policies. 3. Stakeholders' expectations.
ASPIRATION	RESULT
<ol style="list-style-type: none"> 1. Development beyond the compliance with the educational standardization and regulations. 2. Strategies for changing and upgrading people's attitude through education. 3. Aim to create learning persons, learning organization and learning society. 4. Enable the chance of consciously and continuously pursuing quality improvement. 5. Develop sustainability of being an active learning organization. 	<ol style="list-style-type: none"> 1. Improving ACN teachers and staff as individuals, team, and organizational learning through the organization development interventions 2. Practicing Organizational Learning and knowledge management 3. Preparation students ready for life in a fast-changing world 4. Ongoing or relevant professional development that come with the policy of the top leader. 5. Promote continuous learning and dialogue and Inquiry at the individual level. 6. Encourage collaboration and team learning 7. Provide Strategic leadership for learning 8. Create systems to capture and share learning 9. Empower teachers and staff toward a collective vision and Systems Connection.

Table 1 indicates the SWOT/SOAR analysis of ACN as an organization. Public stakeholders expect ACN to maintain high standards with a good reputation and the school is perceived as the best private school in Nakhonratchasima province. The school has everything that a good school must have in terms of good facilities, environment, advanced technology equipment for educational technology to support classroom activities and student care system. The school stakeholders' satisfaction annual surveys indicated that stakeholders such as parents, students and local communities are highly satisfied with the school facilities and curriculum but moderately satisfied with the school administration and service. (ACN stakeholders' satisfaction survey, 2013 - 2014)

ACN teachers and staff are used to with conservative and bureaucratic way of administration; this is the result of autocratic and bureaucratic leadership style from the French and Spanish ancestor Brothers. In FSG schools, the Brother Director as the school administrator is expected to be the top leader who can lead every activity and solve every problem, though the source of his know-how and understanding of leadership roles is not always evident. Religious Brothers as school administrators are expected to be good at every thing for everyone. The top administration style led by the Brothers best fit with Assumption College Nakhonratchasima culture, is demonstrating single opinion leadership style as the key leadership style. Key leadership traits were based on what would now be termed Instructional Leadership, with very rigid hierarchical and top down approaches to management and very little true consultation with staff about the development of the school (Dechachai, 2012). Teachers and staff kept recording how they succeeded and handed over its autocratic and single opinion leadership style from generation to generation and those became the norms. Additionally, the Brothers believe that Thai culture in which the deep sense of reverence to those of high status and position society, appreciate authoritarian approaches to educational leadership by a religious person and thus adopting authoritarian approach when it comes to school management.

These efforts and management styles were appropriate in the past but are less effective in the modern world. An increased demand for quality education has increased dramatically in recent years. Schools are being faced with pressure from economic factors, globalization, government policies, and stakeholders' expectations. The school needs to develop beyond the compliance with the educational standardization and regulations (Dechachai, 2012).

Normally Brothers as school administrators may feel constrained about revealing their secret of performing leadership roles (Dechachai, 2012). Teachers as followers of the Brothers admire and adore them and are ready to do anything they wish them to do and that periodically

reframed their way of understanding toward work relationship to be focused more on the obedience to the authority and traditions. They dare not to liberate themselves but choose to hide themselves from taking any initiative. At present, the Brothers and school administrators are facing a difficult situation due to rapid changes in economy, society, politics, and marketplaces (Dechachai, 2012). These global trends have shaped external and internal environment in the schooling system in Thailand; thus prompting educational institutions, regardless of whether they are private or state schools, to undergo major transformation. Policy and strategic plan toward learning organization are not concretely articulated. Teachers and staff do not have the courage to take initiative but rely on the commands and directions of the Brother Director who plays the role of the school director (ACN Organizational Learning Survey, 2016).

ACN has undergone many improvement programs with the emphasis on standardization and quality assurance audit programs many times from various offices. Both reports from FSG quality assessment and ACN annual self assessment report (ACN SAR, 2013-2015) have been done and the overall results indicate a good level; based on the evaluation of the physical availability of material and resources, but not about the behavior of the people who are involved or use the resources. The evaluation does not primarily focus on the operation process and system of knowledge management.

1.6 PROBLEM STATEMENT

This research was inspired toward a healthy change and improvement of the school's organizational learning in a balanced way in order to maintain a competitive advantage. The main concern of this research is to improve ACN teachers and staff as individuals, team, and organizational learning through the organization development interventions (ODI). As Organizational Learning is moderately practiced to break through the turbulent situation, practice learning in all levels towards learning organization is an important factor for the school as an organization to progress and achieve to improve organizational performance. Though there are some practices as individuals, team and organization levels, teachers and staffs have learning skills using their personal experience and moderately share their new findings and build the community of learning. They depend much on serving the traditional observances and transactional leadership style for compliance purpose and survival of position. Deficiency of learning culture makes schoolteachers, both team and individuals, simply ignore change, repeat old practices, and apply old solution in all ventures. Continuous learning is essential for competitive advantages and

sustainability for an organization due to the fast changing environment that demands organizations fast responses and constant adaptation to survive and become prosperous.

1.7 RESEARCH QUESTIONS

This research attempts to answer to the following research questions:

1. What is the current level of understanding and practice of individuals, team and organizational learning in Assumption College Nakhornrachasima (ACN)?
2. What factors enable individuals, team and organizational learning?
3. What Organization Development Intervention (ODI) could be designed and implemented to improve organizational learning?
4. What is the perception difference on organizational learning of individuals, team and organization learning before and after ODI?
5. What is the impact of Organization Development Intervention (ODI) on individuals learning, team learning and organizational learning?

1.8 RESEARCH OBJECTIVES

1. To examine perception on the current understanding and practice of organizational learning of individuals, team and organization learning in Assumption College Nakhornrachasima (ACN).
2. To design and implement Organization Development Interventions to improve organizational learning.
3. To compare the perception difference on organizational learning of individuals, team and organization learning before and after ODI.
4. To propose Organizational Learning improvement program and ODI learning package for further study.

1.9 HYPOTHESIS OF THE STUDY

Ho1 There is no difference between PRE ODI and POST ODI on perception about individual learning, team learning and organizational learning

Ha1 There is difference between PRE ODI and POST ODI on perception about individual learning, team learning and organizational learning

1.10 SIGNIFICANCE OF THE STUDY

In order that Assumption College Nakornrachasima (ACN), one of the Foundation of St.Gabriel (FSG) schools ensures sustainability and retains its competitive advantage in very competitive and changing circumstances, ACN teachers and staff need to develop high ability to learn to continuously enhance themselves successfully and effectively under constantly changing situations. Through the organization development interventions (ODI), there will be improvement in ACN teachers and staff individual learning, team learning, and organizational learning. This study aims to sustain the development of ACN towards an active learning organization. ACN as a learning organization will progress beyond satisfying regulations and standardization towards the goal and vision of the FSG .

This study is significant as an action research of Assumption College Nakornrachasima. For sustainability and continuous success of the schools as it is under the FSG, it is important and will provide benefits as follows.

1. The study provides ACN with relevant information pertaining to organizational learning.
2. The study offers the reader an insight into the school as a learning organization and educational system that learns.
3. The findings of this research may enable the researcher to determine and design organizational development intervention programs for ACN to improve individuals, team and organizational learning and develop ACN to be an active learning organization.
4. The findings of this research can be of interest to develop strategies to improve school organizational learning for the school administrators of the Saint Gabriel's Foundation. They can have better understanding of the importance of leading to improve individuals, team and organizational learning, develop the school to be an active learning organization and for future improvement of the school's systems.
5. This study will contribute new perspectives on the issue of leadership roles in education integrated from an Asian point of religious background view.

1.11 SCOPE AND LIMITATION OF THE STUDY

The studied organization of this research is a Catholic school. The focus is on a case study of Assumption College Nakhonratchasima (ACN). The reasons of why ACN is studied consist of 1) the researcher's action research on ACN schooling suggests Organization Development Intervention (ODI) be applied to assess the existing potentials of ACN' organizational learning improvement; 2)

the ODI will improve individuals, team and organizational learning to enhance the greater organization learning in the school; 3) the possibilities of implementing theories according to the school's potential of supporting environment. The scope of the study is based on introducing and improving the organizational learning by applying the Organization Development Intervention (ODI) framework. Since the important research objective is to propose an Organizational Learning improvement ODI for ACN and the schools under the Foundation of St.Gabriel, the researcher would like to create a good and lively impact in practicing organization learning in ACN school life beyond regulations and standardization rather than create another theory or policy and keep it on shelf.

The possible challenge of introducing the organizational learning ODI as an action research framework on the individuals, team, and organizational learning improvement could be about the difference of perceptions and attitudes among teachers and staff and leadership style of school administrators, which would occur in all theoretical perspectives. However, the researcher will try to reduce the impacts by organizing workshops and on spot trainings that is integrated well with the school activity.



1.12 DEFINITIONS AND TERMS

Saint Gabriel Foundation in Thailand (FSG): A federation of schools, colleges and an international university under the direction of the Montfort Brothers of Saint Gabriel, a catholic religious congregation of men.

Assumption College Nakornrachasima (ACN): A private catholic school under Saint Gabriel Foundation which is situated at 3 St.Mary Rd.Muang District, Nakornrachasima Province on the northeast of Thailand.

Organization Development Intervention (ODI): Organization Development Intervention refers to sets of designed planned actions and activities with OD techniques (methods) based on the behavioral sciences designed by the process of study to improve school as an organization to appropriate effectiveness. ODI enhances desired outcomes such as interpersonal relationship, knowledge, productivity, income, satisfaction, both for personal and group/team growth.

Knowledge Management: refers to effort to manage the intellectual capital to be organized and utilized and then improve toward better performance in enabling the innovation and creativeness to create knowledge at the individual and team levels, and to empower the school as an organization beyond solving current problems. KM leads to the capability of progressive improvement to face change and learn from its experiences.

Learning Organization: Learning Organizational refers the state of the school as an organization that has practiced organizational learning and characteristics to collectively improve learning processes of the people in organization, at the individual, team and organization levels. Members of school as an organization perform an active dynamic learning role within their functions at every level (individual, team or group, and organization) and how research facilitates the learning to develop the learning culture within school as an organizational practice in order to struggle toward constant improvement in sharing best practices among individual and across team and spreading all over the organization.

Organizational learning: Organizational learning refers to the collective competency of organization learning behaviors at different levels (individual, team, and organization) which is composed of: Continuous learning, Dialogue and inquiry, Collaborative and team learning, Empowerment toward shared vision, Embedded system, Systems connection, and Strategic leadership of Organization learning at individual level, Organization learning at team level, and Organization learning at Organization level.

Individual learning: refers to the performance of individuals' activities such as systematic problem solving, and investigation with new methodologies through effective dialogue to prove their

assumptions, to draw conclusions, and to reflect upon the emerging ideas and thoughts both individually and collectively. An individual in organization constantly learns from personal experiences, past history, and best practices of others.

Team learning: refers to systematic process of learning that encourages Encourage collaboration of employees to think and contribute their collective knowledge together. Leader of Teams lead dialogue to make reflection on working process, to make decision, to admire achievements and to foster growing mindset to improvements. Well-planned strategies and strategic leadership for learning knowledge of the team are transferred systematically for better efficiency within team and across teams as they establish on each other's potencies.

Administrator: refers to the school personnel who perform educational administrator duties

Teacher: refers to the school personnel who perform teaching responsibilities.

Staff: refers to the school personnel who perform educational supportive responsibilities.

Continuous learning: refers learning behavior of school personnel and arrangement or management to allow learning opportunities; Learning activities are designed or integrated into work so that people can learn on the job; opportunities are provided for ongoing education and growth.

Dialogue and Inquiry: refers to school personnel behaviors to develop productive reasoning skills to express their views and the capacity to listen and inquire into the views of others. Arrangement and management are essential to encourage for a culture of positive investigation and sharing knowledge. The culture is changed to support questioning, feedback, and experimentation.

Collaboration and team learning: refers to active utilization of collaborative and cooperative skills. Job is designed to use groups to access different modes of thinking. Workings as team are expected to give value to collaboration by the culture and reward system.

Strategic leadership for learning: refers to supportive leadership roles of the school administrators and management team to change and give direction for the movement of the organization toward a collective vision improves organizational learning.

Empowerment: refers to promoting engagement toward a collective vision. School personnel at every level are involved in setting, owning, and implementing a joint vision; responsibility is distributed close to decision making so that people are motivated to learn toward what they are held accountable to do.

Embedded system: refers to appropriate knowledge management system. Various systems to share learning are created, integrated with work and well maintained.

Systems connection: refers to connecting the organization to its environment by involving both internal and external setting. School personnel are helped to see the effect of their work on the entire school. They scan the environment and use information to adjust work practices to link the school to its communities.



CHAPTER 2

LITERATURE REVIEW, THEORETICAL, CONCEPTUAL AND RESEARCH FRAMEWORKS

In line with the area of study, this literature review brings to focus of the concepts and models of organizational learning and overview of the concepts of school as an open system and organizational development intervention. Topics like Learning Organization as an organizational development intervention (ODI) are topics to be covered. The literature reviews about fostering organizational learning in schools and some of the findings in related field. The last section highlights organization and development research models with an emphasis on action research approach and its relation to organizational learning.

2.1 SCHOOL AS AN OPEN SYSTEM

Organization is a system like a human being in nature. As a human being has an instinct to be keen to know and desire to understand, organization learns to benefit itself through the manipulating of the dynamic of transferring information, both inside out and across organization systems. Organization is unique at making good use of information and exchanging just as someone is a better learner than others. Leaders in learning organizations have roles as designers, teacher/coaches and stewards responsible for creating learning communities and flatten the organizational structure to enable people to work together as associates. The emphasis is on enabling the organization to strive towards continual renewal and revitalization. Leaders of these types of organizations inspire learning as a priority and essential life long process for the organization and all of its members. Its focus is on learning both individually and collectively as a team. This synergistic nature distinguishes of the learning organization from the other type of organization (Senge, 1990).

Systems theory works internally among personnel and across the organization, as a mean to understand and anticipate decision making (Ahrweiler, 2011). An open system involves a system that interrelates internal system with its environment. Organization can be viewed as an open system as it depends on interactions among people and information taken from environment. An organization as a system is composed of three related parts: inputs, changes, and outputs. An organization brings in inputs (raw materials, customer requirements, capital, information or people), operate through change process and give product into environment as outputs (Rothwell, 2010).

A school is categorized as an open system because its operation is much like a living organism. School imports inputs from environment, transforms the inputs with some managements and then produce the outputs as the educational services to the society (Duffy, 2008). To be precise, school constituted by individuals perform various functions necessary toward the successfulness of goals and vision of the school. Teachers and staff are sustainable vision and goals oriented as they achieve their goals through interaction and coordinated effort with themselves inside and environment outside (Robbins, SP & Barnwell, 2002).

A school cannot be separated from its environment since a school needs and takes resources involving of human capital and other resources, such as materials, energy, and information, from the environment as its Inputs. School struggles to transform students into more knowledgeable persons. The change process begins as the productive interactions and activities between students and teachers are lively and grow within learning spaces and the classrooms. Teaching and learning practices can mostly, allow teachers and staff to facilitate learning and promote knowledge acquisition that lead to transformation of intellectual and personal development. Learning is the fundamental characteristic for fruitful future of the student to the society (Norlin, 2009). School also needs to work together with environment to realize the school purposes in order to provide services to the environment (Lunenburg, 2010). The Output is students' learning skills, changed behaviors, knowledge, attitudes, and abilities. They are the outcomes of what is changed and transformed by the system then released to environment. Thus, transformed inputs signify outputs or products left the system (Cummings & Worley, 2009).

The school is considered a place to establish learning skill for students. In consideration of the present nature of the school, which refers to a place that promotes learning atmosphere, the concepts of learning organization match well with the nature of the school system. The concept of the organizational learning is increasingly relevant to the twenty-first century educational management because of the increasing complexity, uncertainty and rapidity of change of the school context. It is therefore important to understand what a organizational learning is, what its characteristics are and how it relates to the concept of a learning organization. It originally came from the field of management literature, and has been introduced into education literature. When a school is referred to as a learning organization, it is an organization that has an enhanced capacity to learn, adapt, and change. It is a place of "skilled at creating, acquiring, and transferring knowledge and insights." In the school, everyone is encouraged to continuously see the value and embrace learning and understand its importance in the development of Individuals, Teams and the overall school as an organization.

2.2 ORGANIZATIONAL DEVELOPMENT INTERVENTIONS

Organizational development intervention (ODI) refers to sets of designed planned actions and activities with OD techniques (methods) created by professionals, mentors, and coaches to improve an organization to appropriate effectiveness. ODI enhances desired outcomes both for individual and group/team growth such as interpersonal relationship, knowledge, productivity, income, satisfaction, (McLean N. Gary, 2006). By implementing organizational development ODI engages every part in the organization toward an ultimate goal to enhance the organization potential and competence through systematic process and actions (Muhammad Yunus, 2016). The organizational development intervention process involves the diagnosis to identify the areas of concentration, presentation of the results, design planned change efforts and the implementation through sequence of actions (Cummings, T. G., & Worley, C. G. , 2009). Learning organizations will be subject to reflect and learn aligning with continuous development through this transformational change (Theodore, 2013).

2.3 ORGANIZATIONAL LEARNING

The concept of organizational learning has been mostly discussed as a strategic movement of human resource development (HRD) policies. Organizational learning is a dynamic process for organizations to sustain continuous growth and improving core competences (Galvin, 2008, Keating, 1995).

Learning collectivity initiated from individuals as “agents” for organizations to learn, relearn and collected as organization knowledge (Wang and Ahmed, 2003). Large organizations are aware of the importance of organizational learning and develop their organizational infrastructure and HRD policies to encourage learning dynamic and activities within their workplace (Saru, 2007). Effective Organizational learning is a foundation of innovation and competitive advantage or the organization (Dai, 2012). There are research studies with different context, which indicated that organizational learning created positive impact on organizational performance (Common, 2004; Bontis *et al.*, 2002; Chang and Lee, 2007; Imants, 2003; Pantouvakis and Bouranta, 2013). It significantly depends on how individuals practice learning dynamic, share knowledge at work and how the top management, remain strategically retained and reused within the organization (Renta-Davids *et al.*, 2014).

2.4 DIMENSIONS OF THE LEARNING ORGANIZATION AND MEASURING ORGANIZATIONAL LEARNING

While the principle of learning organizations has been applied widely in the business environment, it is new to the education environment. Many studies are related to OL in a variety of subject areas and bring about the valid measurement factors that were applied to a large number of settings. (Kumar & Idris, 2006; Lim, 2003; Hernandez, 2000; Wang, 2005). Measuring organizational learning is possible and reliable (Templeton, Morris, Snyder, & Lewis, 2004). Moilanen identified and compared some of the instruments available in terms of scope, depth, and reliability. They concluded that the Dimensions of the Learning Organization Questionnaire (DLOQ), developed by Marsick and Watkins, meets the three criteria of comprehensiveness, depth, and validity, and also integrates important attributes of the learning organization. Since individual learning has impacts on organizational learning, relationship between them can be easily observed, explored and measured (Marsick and Watkins, 2003). There is a feedback questionnaire developed by Marsick and Watkins called the Dimensions of Learning Organization Questionnaire (DLOQ) (Moilanen, 2005).

The DLOQ is designed to measure learning culture in organizations and intends to capture the employee's perception regarding the seven dimensions in order to help the organization get a clearer picture of where they are versus where they need to be. The seven dimensions are of the positive nature and cultural aspects of a supportive learning organization, which encourages dynamic organizational learning processes. It is widely applied and utilized to investigate upon the processes and performance toward the goals that an organization is maintaining. The organizational learning is measured as it reflects the state of learning organization (Moilanen, 2005).

There are seven distinct but interrelated dimensions of a learning organization at individual, team and organizational levels (Watkins and Marsick, 1996). These dimensions are continuous learning, inquiry and dialogue, Collaboration and team learning, empowerment on embedded system, empower people toward a collective vision, system connection and strategic leadership. These seven dimensions have a significant influence on organizational outcomes (Yang *et al*, 2004).

Table 2 : Definitions of constructs for the dimensions of the learning organization questionnaire

Dimension	Definition
Create continuous learning opportunities	Allowing learning opportunities; Learning is designed into work so that people can learn on the job; opportunities are provided for ongoing education and growth.
Promote inquiry and	Encourage a culture of positive investigation and sharing

dialogue	knowledge; People gain productive reasoning skills to express their views and the capacity to listen and inquire into the views of others; the culture is changed to support questioning, feedback, and experimentation.
Encourage collaboration and team learning	Active use of collaborative and cooperative skills; Work is designed to use groups to access different modes of thinking; groups are expected to learn together and work together; collaboration is valued by the culture and rewarded.
Empowerment embedded system	Appropriate knowledge management system; Both high- and low-technology systems to share learning are created and integrated with work; access is provided; systems are maintained.
Empower people toward a collective vision	Promote engagement toward collective vision; People are involved in setting, owning, and implementing a joint vision; responsibility is distributed close to decision making so that people are motivated to learn toward what they are held accountable to do.
System connection	Connect the organization to its environment, involving both internal and external setting; People are helped to see the effect of their work on the entire enterprise; people scan the environment and use information to adjust work practices; the organization is linked to its communities.
Provide strategic leadership for learning	Supportive leadership roles to change and give direction for the movement of the organization; Leaders model, champion, and support learning; leadership uses learning strategically for business results.

adapted from Marsick and Watkins, 2003 [18]

Marsick and Watkins focused on seven dimensions of organizational learning, which are identified as related factors of an learning organization. They applied DLOQ to measure the capability of an organization to assimilate people in order and facilitate continuous learning to enable organizational changes (Yang, Watkins, and Marsick, 2004). The instrument factor consists of continuous learning, inquiry and dialogue, team-based learning, empowerment, embedded system, system connection, strategic leadership. They are complementarily essential dimensions embedded in the interaction between organization members and the organized structure of a learning organization culture. *DLOQ* originally applied 43-items to measure the variables in the

dimension. Later, Yang, Watkins and Marsick refined and confirmed the validity of the DLOQ short version with 21-items while maintaining the unique theoretical structure and reliability of the results of confirmatory and exploratory factor analyses. (Yang, Watkins & Marsick, 2004). This short version is also better suited for scholars that want to use the DLOQ as a research instrument (Yang, 2003).

2.5 ORGANIZATIONAL LEARNING PROCESS

Organizational learning refers to a process of creating, retaining and sharing knowledge in the development of capabilities in acquisition, generating, and integration of knowledge targeted at more productive and effectiveness organizational practices (Gilley & Maycunich, 2000; López et al., 2006; Argyris & Schön, 1978). Learning in individuals, team and organization encompasses innovative thinking around designs. It begins with the experience of discovery of undesired errors or gaps between what happened and desired conditions. Learning processes lead to developing solutions to eliminate this gap. It embraces diagnosing and understanding problems and designing suitable solutions. Intervention processes involve implementing solutions, reflection about the effects of the solutions and draw conclusions to generate knowledge extending to other relevant situations (Smith, 2001). The organizational learning process has three types of learning model.

2.5.1 Model I learning is a **single-loop** learning. It includes self-justifying practices that constrain learning. Theories in use are reinforced to screen information, feelings, competition, and findings from experiments. Improving the status quo empowers learners to decrease errors or gaps between desired and existing conditions. Adaptive learning allows to generate gradual change in how organizations function. Administrators employ single-loop learning when they look for solutions to moderate and fully control the outcome between current and desired performance (Smith, 2001).

2.5.2 Model II learning operates with **double-loop** learning. Administrator utilizes alternative theories according to considerable information, flexibility and knowledgeable choices, dialogue, continuous evaluation of implementation and accountability to the decision-making. This reduces defensiveness and allows better personal mastery and collaboration among team members, openness to information and feedback, and public recognition of theories in use (Scharmer, 2009). The process of double-loop learning generates learning that aims at examining and improving itself to improve the status quo (Yuthas *et al.*, 2004). The process operates at a deeper abstract level than single-loop learning does. The existing assumptions and conditions from single-loop learning

operates are learned to be modified. Model II learning promotes transformational change, where the current situation itself is radically developed (Argyris, 2004).

2.5.3 Model III learning is called deutero-learning. Learning is focused at the learning process itself. It involves **learning how to learn** and enhances how organizations alternatively implement single- and double-loop learning. Administrators periodically reflect on how learning is conducted throughout the organization. They evaluate their performances of the processes of discovery, invention, generalization, and production that lead to improvement and productivity in organization learning (Argyris, 2003).

Learning is essential for competitiveness. It links with knowledge acquisition and developing members toward better learners with productivity development (Marsick and Watkins, 2003). OD practitioners have designed special interventions and developed change strategies for organizational learning processes. This intervention is an innovative practice in OD when it is focusing on cognitive aspects of learning and adaptive learning process to enables developing mental models (López et al., 2005).

2.6 ORGANIZATIONAL LEARNING AS AN INTERVENTION

Organizational Learning refers to skilled interventions which is aimed at searching, interpreting, generating, sharing, and preserving knowledge, and making reflections on new knowledge. Organizational learning practitioners have integrated a variety of interventions into their unique designs and implementations, which are suitable for each organization to grow. Every part of organization features such as information systems, structure, human resources practices, learning culture, and leadership style has their influence on the quality of learning processes. Administrators as organizational learning practitioners make use of many strategies such as reward systems and performance appraisal, career planning and development as human capitals management interventions to empower and engage members to advance new skills and knowledge (Kormanik, 2005). Techno-structural interventions, such as network structures and process-based, and reengineering, animated dialogue across teamwork (Cummings & Worley, 2001). Effective organization learning inspires change process, team building, searching conferences, and intergroup relations interventions. It encourages members to keep interpersonal relationships healthy. A good combination of strategic change interventions enable organizations to generate new knowledge relevant to their situation and in turn improve values and norms that stimulate organizational learning (Nonaka, 2003).

OL interventions are designed to engage organization members as individual, team and organization to practice learning progress from Model I, Model II and Model III learning. OL Intervention involves every member across team of members from different levels and areas of working. The process starts with the discovering of individual's mental models, application of theories in use and behaviors as consequences (Barry Sugarman, 2014). OL practitioners then apply a series of the personnel relationship tools to facilitate dialogue and interaction activities to animate clients to be open minded and frank with each other. It is essential to reach authentic dialogue about how they usually breakthrough problems, reach to make decisions, and cooperate among each other. As a result, team members are moved to investigate into their own and others' break through and to reflect on the assumptions that lead to what they believe (Barge, 2002). Dialogue leads to a better understanding of current theories in use and response and thus enable members to discover incorrect behaviors and attitudes that lead to unproductive behaviors and efforts (Miller, 2005).

OL practitioners continuously observe and develop the learning process toward the last stage that involves learning how to learn or deuterio-learning. The learning process focuses on itself, reflects and evaluates OL strategies and the organizational structures and processes that contribute to learning process (Argyris, 2003). Deuterio-learning periodically involves observation and assessment of facilitating single-loop switchable with double-loop learning to generalize progressive possibility to changing situations. It produces appropriate modifications to improve OL and assist in learning about improving the learning system itself. Administrators should inspire organizational members at all levels so that they can reflect on the learning process and invoke a 'stop-and-think' policy to develop the quality of problem-solving and learning (Visser, 2007). Through these reflective learning activities, organizations may find solutions to help them to become better at strategic learning.

2.7 ORGANIZATIONAL LEARNING VS LEARNING ORGANIZATION

The terms "**learning organization**" and "**organizational learning**" are interrelated by utilized. The terms are changed over and used in a confusing variety of meaning. It shows the missing concept of both terms which is not well understood. It is essential, for a greater understanding of the relationship between "organizational learning" and the "learning organization". It will provide better theoretical comprehension and lead to the understanding of the meanings related to the area of this study (Tseng and McLean, 2007).

This study focuses on the meanings of both terms. "**Organizational learning**" gives the meanings concerning the action of learning and focuses on the processes of learning itself. On the

other hand, “**learning organization**” has another characteristic to collectively improve learning processes of the organization (Easterby-Smith and Araujo 1999; Tsang, 1997). Learning organization” is the ideal and vision of its practice. It simply clarifies that **learning organization** refers to the state of an organization that has healthy organizational learning which focuses on “*activity*” and “*process*” (Finger and Brand 1999: 136).

2.8 LEARNING ORGANIZATION

The theory of Learning Organization is well researched in a wide range of academic studies from management science to economic science, from psychology to anthropology and to sociology (Easterby-Smith and Lyles, 2011). Attempting to create an ideal concept of learning organization has brought a variety of corresponding interpretations that indicates the effort of defining, making understanding of a learning organization (Phillips, 2003). Learning Organization was introduced and explored as the arts of management and business best practice by Peter Senge in the early 1990's. A learning organization empowers its people to continually learn to form a common vision by seeing the big picture. It gradually learns from new thing in every situation and increasingly generates unique knowledge to develop its learning culture. The concept became famous when Senge published his book name “*The Fifth Discipline*”. The book explained about characteristics of the learning organization, the five disciplines. Learning organization is characterized by systems thinking, mental models, personal mastery, building of shared vision, and team learning.

2.8.1 Systems thinking

Learning organizations are proficient at activities such as systematic problem solving, and investigation with new methodologies. People in learning organizations constantly learn from their own experiences, past history, and best practices of others. Accompanied by are individual mind-set, and patterns of behavior. They transfer knowledge quickly and efficiently throughout their organizations. Knowledge from across the disciplines is combined and given priority on unity and wholeness rather than parts. We learn best from experience and decision-making, but rarely face the consequences of our most important decisions. When faced with a problem, we tend to focus upon cause, effect, and solution. Normally we look to movements that produce enhancements within a short period of time. However, short-term improvements often significantly encompass long-term costs when viewed in systems terms. System thinking leads to the connection of things beyond

events to structure and culture. It is a ability for analyzing “patterns” within complex situations. An organization with healthy system thinking and learning is always able to break through the complex and challenging situation well (Senge, 1990).

2.8.2 Personal mastery

Organizational learning begins with individual learning. An organization learns through individuals who learn. Members of an organization need to have the discipline of constantly informative personal vision or personal mastery. Putting more effort to approach a certain situation creatively and sustaining creative tension can increase an opportunity to achieve goals (Senge, 1990). Learning organizations have conditions that foster individuals learning culture and continually improve its goal with lifelong learning nurturing as the common vision of the organization (Isaacson and Bamburg, 1992).

2.8.3 Mental models

Mindsets and attitudes of the members of the organization will lead to thoughts, theory in use and encompass the behaviors. Mental models effect personal perception of the situation and encompass response with their theories in-use (Argyris, 1982). Learning organizations empower people mental models to flexibility and reorganize them to align with common vision. Organized mental models improve quality of relationship and enhance ability to solve problems. Learning is essential to new skills learning. It develops new strategies, foster institutional changes or transformation. The people bring about healthy change for the development of the organization. Fostering openness moves the organization to common alignment and working beyond the sorts of internal conflicts, politics and game playing that overshadows traditional organizations (Senge, 1990).

2.8.4 Team learning

Team is the fundamental learning unit in organizational learning. Learning occurs at three levels: individual, group and organization (Giesecke and McNeil, 2004). The learning process of organization emerges with the collective learning of the team and across the team. It happens continually, both in formal and informal style. Thus, learning organization certainly is necessary as it can be applied to both individuals and organizations. It must go beyond giving importance of learning as “survival learning” or “adaptive learning”. We become able to re-create ourselves through genuine learning. A learning organization integrates “adaptive learning” with “generative

learning” and generate learning toward enhancement and productive learning culture (Senge , 1990).

These learning processes stimulate a sense of engagement and unity. Team learns with process of sharing with common agreement, mutual understanding in common practice, performance and reflection (Fiol & Lyles, 1985). The learning becomes lively inside the team, across team and across organization. Organization’s ability to learn is correlated to the capability of its teams to learn (Edmondson, 2002; Senge, 1990). Organizations rely on team generative learning to approach a situation, break through complex problems, generate new knowledge, and to improve its performance (Kayes, 2004). Organization that makes or reaches decisions in teams empowers better solutions and cooperation.

2.8.5 Shared vision

Organization demands people who have the spirit of ownership, concerned about their organization and commitments to gathered together and create a mutual vision. The common vision grows clearer when people share their passion to foresee benefits grow (Senge, 1990). The authentic vision has the power to encourage people to explore new knowledge, implement experimentations, and try innovations. It is not because they are told to, but because they want to. When personal visions are the same as collective vision, the common vision will align policies, administrative and management behaviors. A learning organization promotes shared vision that control alignment of development. Visions grow with a supporting process and atmosphere (Senge, 1990).

Learning organizations with the characteristics of five disciplines will continually intensify its ability to shape its prosperous future. The five disciplines involve with a transformation of mindset from fixed mindset to growing mindset, from seeing portions and detail toward seeing wholes, from considering people as helpless reactors toward considering them as active participants. By shaping their reality with aligning to the vision the learning organization reacts toward the present to constructing the future and differentiate itself from conservative or traditional organizations (Senge, 1990). There are many other points of view about a learning organization but none is commonly or widely accepted.

2.8.6 Dialogue

The word “dialogue” originates from two Greek roots. “**dia**” means “through” and “**logos**” means “the word”. Therefore, the meaning is “through the meaning of the word”. Dialogue is described as a sustained collective learning into the processes, expectations, and beliefs in everyday

experiences. It is a creative mutual consideration of complex situation. It is a real "listening" to one another and considering of one's own opinions (Parent & Lovelace, 2011).

Dialogue is a key approach to understand each other, especially with regard to team learning. It involves social relationship, expectations with consideration and understanding, certain virtues and focuses on advance understanding. Agreement must not be forced. It relies on a common belief (Habermas, 1984). Using dialogue as a method to increase and enhance shared learning experiences, dialogue develops the team learning discipline and all five components of the learning organization. Dialogue provides an opportunity to master listening skills, understand mental models, develop a shared vision, and organize learning together (Parent & Lovelace, 2011). Individuals learn through effective dialogue to prove their assumptions, to make conclusions, and to reflect upon the emerging ideas and thoughts both individually and collectively. Communication allows the flow of information and knowledge (Jamali et al., 2006). Team learning is associated with effective communication and demands good aptitude of members to draw up assumptions and commit a genuine "thinking together" (Senge, 1990).

2.9 ORGANIZATIONAL LEARNING AND KNOWLEDGE MANAGEMENT

Both knowledge management (KM) and organizational learning (OL) have been acknowledged and become attractive more and more to researchers and practitioners in the past 20 years (Easterby-Smith and Lyles, 2011). Both organization learning and knowledge management are interconnected and change processes. A learning organization pursues to improve its competency to learn and generate new knowledge. Organizational learning promotes a sense of inspiration and empowerment in the workforce to motivate them toward continuous learning (Bryson et al., 2006). KM is regarded as an advanced management strategy in the business world for increasing intellectual resources and there is something in common, especially daily operation knowledge of organizations. Sharing, transfer, storage and retrieval should effectively manage such knowledge, so that necessary knowledge should be conveniently accessible to organizational members (Davenport, 2005). KM system is grounded with the systematic process of learning, organizing, and shared the knowledge among organizational members and people outside organization to utilize knowledge be more productive and efficient (Alavi and Leidner, 2000).

KM signifies practices, norms and techniques utilized by organizations. Its practices include identifying, representing and sharing knowledge, collecting intellectual capital and other forms of knowledge for development. Knowledge is reused and transferred across the organization

(Iandoli and Zollo, 2007). KM attempts to manage the intellectual capital to be organized and utilized then improve toward better performance. KM is utilized as interventions to empower the organization beyond solving current problems and leads to capability of progressively improvement (Cummings & Worley, 2009). It accelerates an organization toward effectively managing its knowledge to face change and learns from its experiences. Organizational learning enables innovation and creativeness to create knowledge at the individual and team levels. Increasing learning organization aptitude is necessary for achievement in today's global knowledge economies (Housel and Bell, 2001).

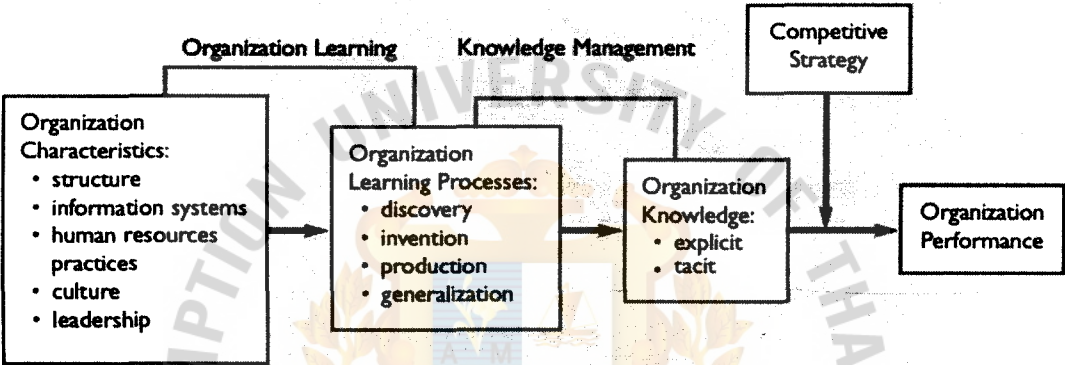


Figure 1 How KM and Organizational Learning are interrelated

OL and KM are interrelated (Ajay K. Jain & Ana Moreno , 2015). The figure explains framework of the integration of understanding interrelation of OL and KM interventions along with change processes. OL and KM integrated to improve organization performance and to affect the collective knowledge of an organization. The knowledge directly influences performance, such as customer service and quality of production. The organization's competitive strategy relies on the relation between organization learning and knowledge management that leads to a high performance. It is both related and functioned effectively that matters the strategies.

OL interventions promote effective learning processes and emphasizes how organizations enhance their capability to acquire and develop new knowledge. The learning processes improve themselves. KM interventions emphasizes how the knowledge as the products of learning processes can be organized to improve performance. The processes, which an organization continuously identifies, implements and improves, are related to the concept of "continuous improvement". The improvements are established in the organization as "best practices" to deal with frequently

occurring situations. Thus, OL can help in the enhancement and in the renewal of organizational knowledge (Swart and Kinnie, 2010).

In conclusion knowledge management is the specific interventions designed in close relationship with organizational learning (Probst, 2002). It engages individual and collective knowledge resources. Organizational learning represents evolution in the organization's competence to respond, solve problems and develop process of changes in the knowledge management. Therefore, the achievement of organizational learning involves knowledge management (Massingham & Diment, 2009).

2.10 LEVELS OF THE ORGANIZATIONAL LEARNING

Organization performs its role in facilitating organizational learning behaviors at different levels (individual, team or group, and organization). It connects learning with productive capability, continuous improvement, performance, and competitive advantage. The organization combines dynamic centers of productive learning at different levels. (Berson, Waldman, Nemanich, Galvin, & Keller, 2006).

2.10.1 Individual Learning

Organizational learning relies on the performance of individuals learning. It is the consequence of the structure of learning culture and procedure of that organization. (Cook and Yanow, 1993, p. 375). The contribution in learning of every individual in a learning organization is significant to the lifespan and organization prosperity (Ayupp- & Perumal, 2008). Learning organizations ensure that every individual will survive a rapidly changing situation of modern times. Workplaces become learning spaces in this respect for individual employees pursuing learning. A learning organization has both an atmosphere and leadership support that facilitates unceasing learning among employees through the supportive management (Garvin, 2008). Flexibility provides space for employees to learn freely within the organization and removes the barriers of rigidly structured company (Birdthistle and Fleming, 2005). Leadership plays an important function in supporting individuals to be aware of what they have been learning (Berson, 2006). The learning organization is a space of continuous learning with employees who are intellectually considering about their work and enthusiastically reflect on their experience. These people develop experience-based knowledge of change and unceasingly prove them in practice with colleagues. They use their mutual supportive and inventiveness to generating new knowledge (Serrat, 2009).

2.10.2 Team Learning

Team learning encourages employees to think and contribute their collective knowledge together. The individuals share their experiences and skills to the members of the team. Teamwork allows them to deal with problems and develop new breakthrough ideas for the organization (Wang and Ahmed, 2003). Teams bring a variety of understandings, insights, behaviors and action. It enables space to develop work process and increase team member proficiency (Bennet, 2004). A learning organization empowers movement of knowledge and experience across the organization with movement at the team level. Ideas are reviewed lively within an open dialogue, which is supported with respect for a variety and uniqueness of opinions. Teams use dialogue to make reflection on working process, to admire achievements and to foster growing mindset to improvements. Dialogue allows a better opportunity to explore and allows mistakes to be understood and considered as an opportunity to learn. By generating and sharing new knowledge collectively, the new skills and strategies are practiced and delivered among team members (Wang and Ahmed, 2003; Goh, 1998).

Teams that perform effectively expand team member skill competency and bring a variety of thinking knowledge (Bennet and Bennet, 2004). These teams are composed of extremely expert members who acquire sharing of thinking knowledge for the accomplishment of a job without knowing any special thing than others. Knowledge must be transferred in systematic and well-planned strategies for better efficiency within teams and across teams as they establish on each other's potencies. Trustfulness among team members grows and consequently they gradually increase value for each other's thoughts (Birdthistle and Fleming, 2005).

2.10.3 Organizational Learning

Organizational learning composes of adaptive processes to form a self-reflective organization. The process collectively increases generative learning through the organization. It is important to understand the dynamics of learning and knowledge management processes around new principles and techniques. The learning seeks to achieve results and how to achieves results. It actively reflects from its successes and failures. Learning organizations regularly challenge their basic assumptions about how things are done. They discuss their weaknesses openly, answer difficult questions and encourage inventive breakthrough. The learning is aimed at renewing and generating knowledge for the organization. Its appropriate quality goals and strategies can be adapted to opportunities and the changing needs (Ghosh, 2004).

A learning organization utilizes organizational learning for organizational transformation. At the level of the organization, collective and generative learning are about developing the organization itself. Learning organizations minimize margins between the external environments. It empowers knowledge workers and lead to transformation in organizations. Learning is dealing within internal connections and the network of connections within organization and across organizations. A learning organization is thus a powerful instrument of organization intervention. It is a system tool that integrates external mechanisms to link suppliers and customers to the organization. Learning organizations consider and invest in organizational learning as a key driver of efficiency and performance improvement (James, 2003).

2.11 ORGANIZATIONAL EFFECTIVENESS AND ORGANIZATIONAL LEARNING PRACTICES

Organizational Learning creates impact on organizational effectiveness and high performance human resource practices (Woodall, 2005). The relationship between organizational effectiveness and organizational learning as a fundamental characteristic of competitiveness relates with performance improvement and knowledge management (López, Peón, and Ordás 2006). Increased organizational performance is a continuous orientation as a consequence of increasing employees' capabilities and better understanding of organization's environment. The knowledge rising from learning involves with an improvement in ability to respond through a broader awareness and understanding of the environment (Groff, T., and T. Jones. 2003). High performance by human resource systems can leverage organizational effectiveness in attaining sustainable competitive advantage. Organizational learning creates impact upon the skills, attitudes, knowledge and behaviors. The organizational development intervention to improve organizational learning competencies is the proper feature of effectiveness enhancement (Murray & Donegan, 2003).

2.12 LEADERSHIP ROLES TO FOSTER ORGANIZATIONAL LEARNING

The first leadership action to encompass a common vision toward the state of becoming a learning organization is to foster an organizational learning. An authentic leader performs the roles as designers, stewards and teachers in fostering their organizational learning. They are responsible for inspiring and building up followers toward continual development of their competencies to clarify vision, learn complexity, and improve shared mental models. Leaders must also be aware of their responsibility for learning themselves (Senge, 1990: 340).

2.12.1 Leader as designer

Leaders are always involved with integrating the five components of organizational learning and must progress beyond just design organization's policies and strategies. Designing integrates creative ideas, meaningful purposes, visions and living core values to formulate a shared vision. Leader as designing promotes an on going orientation and foster a lifelong learning. Designing the learning processes is the leaders' affair. Members of the organization progress in learning mastery and can productively approach critical issues with their learning culture (Senge 1990: p 341-345).

2.12.2 Leader as steward

Leaders are stewards of the vision. Stewardship encompasses a commitment to responsibility for the vision. Vision belongs to the team and organization. It is not their personal possession. Their obligation is to achieve it for the benefit of others. Authentic leaders learn to have passion in their vision as contribution to success of the organization. From their sense of stewardship, leaders have responsibility to define reality and draw inspiration. They engage people by listening to their vision, try to understand it, and to modify it when necessary. This practice facilitates developing a vision, both individual and shared (Senge, 1990: 345, 351).

2.12.3 Leader as teacher

Leader as teacher does not involve "teaching" activity or instructing people how to achieve shared vision. Such leaders foster learning and are always be available for facilitating people to learn and achieve better accuracy. They see the 'big picture' and understand powers that cause behaviors. By concentrating on shared vision, leaders encourage a supportive vision of organization. They empower people throughout the organization to develop systemic understandings and to be more insightful of reality (Max de Pree, 1990). Being open to challenge and further improvement is a key to success. It is an aptitude to conceptualize understandings and generate public knowledge. Accepting this responsibility is the solution to becoming one of the most gifted teachers (Senge, 1993: 353, 356).

Leader performs the role of a teacher to facilitate activities to developing learning skills at creating and transmitting knowledge to foster healthy organizational learning to leverage organization toward state of active learning organization (Garvin, 1993).

Leadership roles bring about the awareness of the members toward learning organization. The state of becoming a learning organization can be a shared vision. It does not simply happen and

might be possible by instantly coaching individuals. The vision comes true as an emerging of consequences of facilitating organizational learning among individual members and team works (Pedler, 1991). Learning is constant, esteemed, and most effective when every single member shares one's passion to learn and be mindful of valuing every activity and experience as a precious opportunity to learn (Kerka, 1995).

2.13 FOSTERING ORGANIZATIONAL LEARNING IN SCHOOLS : CREATING IMPACT THROUGH LEARNING

The increasing complication, uncertainty and rapid change of the school context under quality assurance system national and education reform, signifies the impression of the learning organization for the twenty-first century educational administration and management. Learning Organization concept inspires a strong movement from inside out and focus upon continuous improvement (Drucker, 1998). Integration and application of the concept of an organizational learning both from the field of business and management science and education administration can enhance the capability to handle with change more successfully and effectively (Philips, 2006; Jamali et al., 2006). The concept also involves school as an organization. School as an organization needs to be flexible and break through an uncompromising and unending changing environment. The school system has to learn how they can deal with old and new problems, be ready for any situation, and prepare themselves toward sustainability (Chapman, 2002).

Fostering school's organizational learning demands a systemic approach with the support of the processes of organization change development. The organizational learning involves multiple sources and learning opportunities. Teachers perform better in alignment to schools' visions and goals. Growing mindsets of self-directed professional teachers are accountable for the quality of organizational learning that takes place in the schools as learning space. School's organizational learning involves much more individual learning, team learning and interdependent support than one finds with traditional practice (Brown, 2003). Organizational Learning promotes a passion to learn and inspiration to motivate everyone for continuous learning. This is not a matter of the individual or certain team but the school as a whole and an organization is able to revitalize and keep balance of change and stability (Bryson et al. , 2006).

To foster the school as a learning organization, school administrators would focus more on developing social structures, activities and process that enable teachers and staff to develop the professional aptitude and proficiency to learn in their changeable and unpredictable environments (Strain, 2000). Through fostering of continuous improvement, teachers and staff would function as

fraternal learning communities to allow collective intelligence and collective passion of a shared vision (Brown & Lauder, 2001). Educating “systems thinking” allow teachers and staff to be able to comprehend the “big picture” of the school as an organization. They will understand how small actions create big consequences and how the part effects the whole (Deming, 1986). They would see the relationship and importance of interpersonal learning, team learning and collective organizational learning, as the ultimate factor to change and productive performance (Mulford, 1998; Mitchell & Sackney, 2000).

Becoming a learning organization brings a school to invest in human capital and redesign administrative structures to empower teachers and staff to lifelong learning in their assigned job and that of others (Senge, 2000). Both academic and social learning enable teachers and staff in developing the competency and passion to living the deeper cognitive learning community, creativity, compassion and inclusivity. A balance between transactional and transformational forms of administrators’ leadership contribute significantly to organizational processes directly as well as to school conditions fostering organizational learning processes. Passion to learn, availability and sufficient resources encourage individual learning toward professional development and promote school innovation in administration. School administrators together with teachers and staff will be able to foster cultures of professional learning and to strengthen personal interrelationship (Arbuckle, 2000, p. 326).

Ideal organization is characterized as “self-renewing” or as a “learning organization”. Administrative leaders of schools have the passion like leaders of businesses. They want their organizations to be responsive, flexible, and to survive in changing circumstances. Organization are highly adaptable when every member at all levels, as individual persons, teams and the organization continues learning. Effective school administrators can inspire people, lead and can manage for a diverse student background" (Kantabutra and Avery, 2007). Creating such conditions for teachers as learners in their organizations is derived from the innovative view of effective learning. School administrators should strive to support this condition. Through learning personnel improves themselves toward innovative practice. Through learning teachers and staff reflect on their relationship to the world and extend tendency to create, to generate process of life (Senge 1990: p14).

"Learning" is a lifelong generative learning that leads to understanding the meaning of life beyond just knowing more information. And organizational learning is not possible unless it inspires people at every level to practice it. (Senge 1990: p127). What if even the most successful teacher is a poor learner? The school may survive but will never live up to its best position. What

if, a school organizational learning could be, "excellence" is actually "mediocrity"? This supports the fact that learning organization is essential. Teachers and staffs in school with organization learning are empowered to achieve a clear alignment to organizational vision. Collective aspiration and innovative thinking are fostered and set free. They are continually learning to learn together to expand their competency to develop beyond struggling to survive under the laws of "survival of the fittest."

The school is expected as the learning space for fostering a transformative learning for students. When a school is regarded as a learning organization, it is an organization that is capable of skills at acquiring, generating, and transferring knowledge. In a school with organizational learning, teachers and staff are encouraged to continuously embrace values as he/she learns and develops of self, teams, and the school/organization. Transformative learning is successful and is recognized, when it includes every member at all levels (Ssegawa, J. K., & Kasule, 2015).

Professional development must include teachers and staffs in all phases of its improvement. Teacher is the architect of the classroom and composer of learning activities. Professional development and coaching for the teachers prepare them to become an active aspiration of student achievement. Since teachers and staff are at the spinners of what takes place in the school, administrator and leader are responsible for empowering an enthusiastic organizational learning atmosphere (Gisela Cebrián, Marcus Grace, Debra Humphris, 2013). Facilitating learning has a major influence on students' achievement. Any reform effort has to go through teachers. They will ultimately determine and integrate what is introduced, attempted, and included in the classroom experience. This inspires OD practitioners to initiate professional learning culture in schools (Pamela Sammons, Lorena Ortega, Ariel Mariah Lindorff, Alison Kington, 2016). While this research study focuses on individual level of teachers and staff, it also considers team level and organization level as part of its underlying purpose to ensure organizational learning improvement.

2.14 RELATED OD INTERVENTION AND RESEARCH ABOUT LEARNING ORGANIZATION

There was an emphasis and recognition on schools operating as learning organizations to improve student-learning outcomes in Queensland Education (Crowther et al. 2002; Çuttance, 2001; Fullan, 2001; Hargreaves, 2003). The application learning organization theories in school system was interesting and applied to empower schools as organizations from being controlling organizations to learning organizations. Later the practical framework specifically focuses on the application of the improvement of five organizational disciplines: systems thinking, personal mastery, mental modes, building shared vision and team learning were designed to engage teachers

and administrators in improving school organizational learning culture and moved the whole organization forward to effective learning organization state (Arbuckle, 2000).

Marks and Louis (1999) studied the characteristics of the capacity for a school as an organizational learning from 24 site-managed public schools. Schools as a learning organization have characteristics and practices, such as structural arrangements of schools, shared commitment and collaborative activity, knowledge management and skills development, formation of leadership, and feedback and accountability. There is a strong and reliable relationship between organizational learning and teacher empowerment. The relationship is particularly strong for empowerment in the domains of teacher work life and student school experience (Marks and Louis, 1999).

Silins and Mulford (2002) studied the nature of organizational learning and the leadership practices and processes that foster organizational learning in Australian high schools. The research suggested that a school develops as a learning organization when members are learning how to learn together in a supportive atmosphere and effective leadership. Teachers will have a passion to practice collective and individual learning when a school has nature of sharing and monitoring mission, taking initiatives and risks, professional development, trusting and collaborative climate (Silins and Mulford, 2002).

Janice R. Fauske and Rebecca Raybould (2005) conducted a study in an urban elementary school in a district in the western USA for eight months. They assessed teachers' involvement in an organizational learning inventiveness and evaluated the nature of individuals learning, team learning and organizational learning. The study indicated that teachers' individual and collective mental models influenced organizational learning and linked to the change of integrating instructional technology. There is correlation of individual, team and organizational learning in sharing of mental model frameworks in performing routines across all teachers. Active learning among teachers related with implications for leading organizational change efforts in schools (Janice R. Fauske and Rebecca Raybould , 2005).

Joo Ho Park (2008) studied and applied Senge's five disciplines model of learning organizations in 17 vocational high schools in the Seoul, Korea. The finding indicates that learning organization theory was suitably applied and implement to school as an organization with Asian contexts. It led to the assumption of the idea that the model of learning organization and its related concepts, which originally were developed in the context of Western culture were applicable to a South Korean school in Asian culture (Joo Ho Park , 2008).

Klaus-Peter Schulz (2010) studied the Organizational learning development in 13 inter-organizational school networks. The finding mentioned that exchange through inter-organizational organizational learning was observable in school practice. Collaboration and communication in school inter-organizational networks generate organizational change and elaboration in the operational work process. Successful learning networks provide network cooperation and convince of the reimbursements of the network for their own organization (Klaus-Peter Schulz, 2010).

Hanna Kurland, Hilla Peretz, Rachel Hertz, Lazarowitz, (2010) studied the leadership style and organizational learning to assess the perceptions of 1,474 teachers at 104 elementary schools in northern Israel. The study revealed that the school leader vision was a primary predictor and indicator of organizational learning of the school. There is correlation between principals' transformational leadership style and school organizational learning. The performance of schools as a learning organization depends on school leadership style. School leader reinforces the teachers' passion to learn and to pursue the school's vision, creates determination and alignment, binds every member of the school together and encourages involvement in continuous learning. The study concluded that leadership style, shared vision and organizational learning are considered the keys to school development (Hanna Kurland, Hilla Peretz, Rachel Hertz, Lazarowitz, 2010).

In the recent study to develop knowledge management strategies for schools under the St.Gabriel's Foundation of Thailand, Brother Chamnan Laorakphol had interviewed many school Directors including the former Directors. The result shows that the top management is aware of the importance of developing the school towards a learning organization. They acknowledged that it is essential to define clear goals and establish policies and determine a set of strategies for the schools of FSG to develop their organizational learning. The school administrators have important roles supporting the school's organizational learning base on practicing of the knowledge management. The school plans; operations and every day process must reflect the learning process of the organization (Chamnan Laoruckphon, 2010).

2.15 THEORETICAL FRAMEWORK

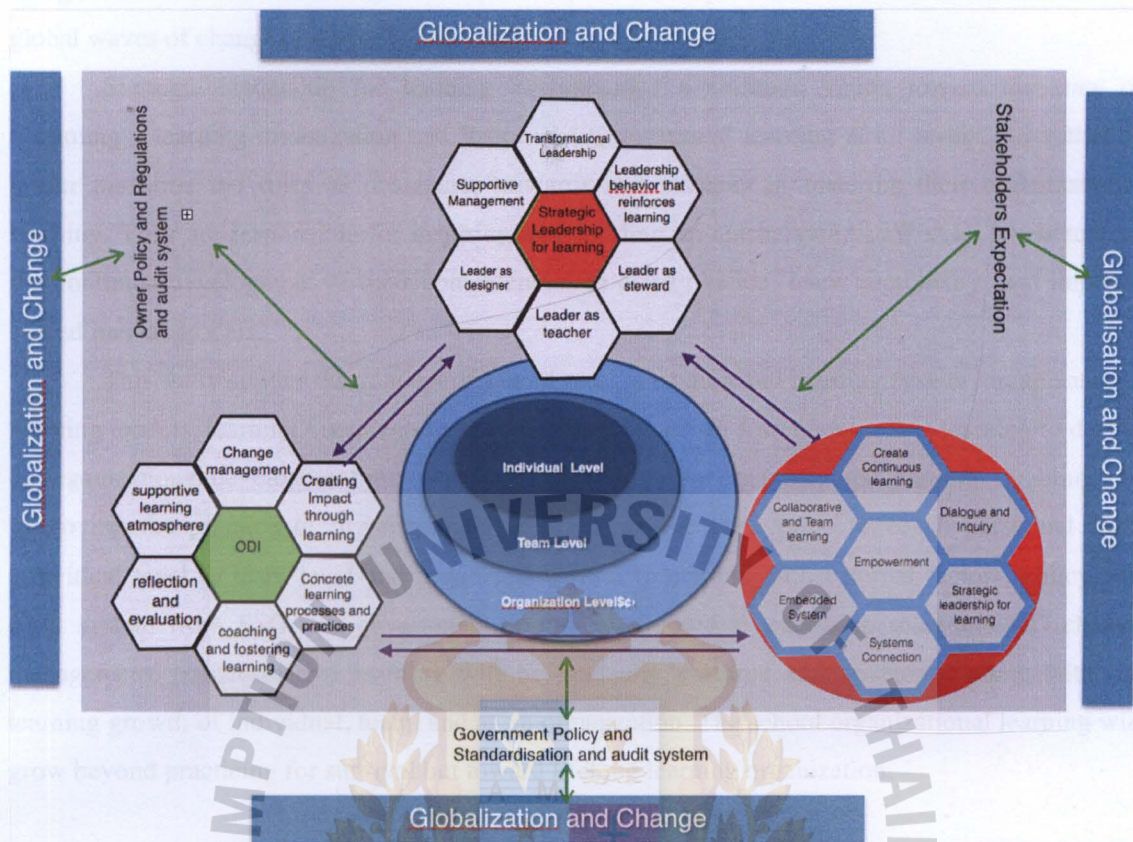


Figure 2. Theoretical framework

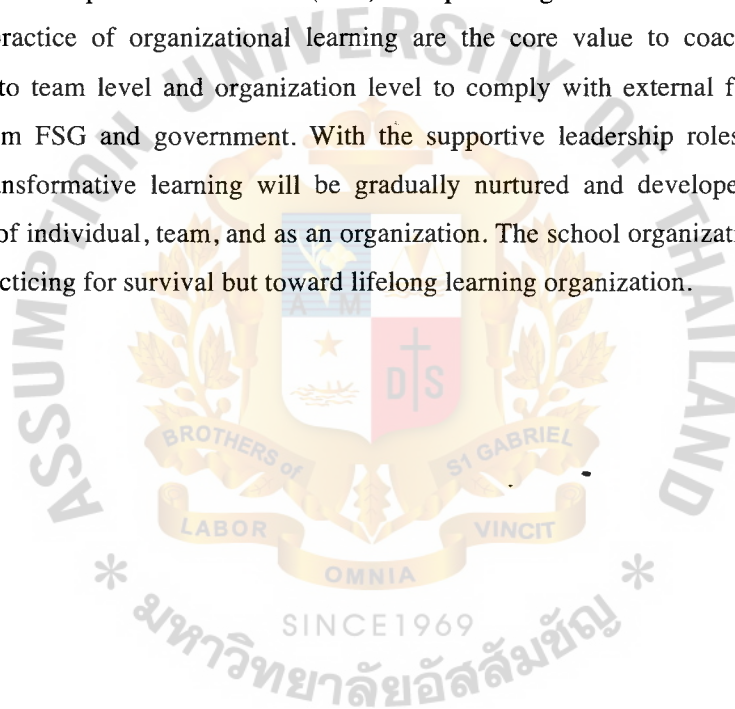
As presented in Figure 2, the theoretical foundations of this research that are on three major assumptions in terms of the process to engage in are: namely a) that human systems are open dynamic learning systems, interacting within itself as well as with its environment in various ways and at various levels; b) that human systems at individual, team and organization levels, engaged in a process of learning, a process so generic in its functioning and growth; c) in the course of the learning process, various variables, elements and activities are at play.

Globalization has impacts on the development of the school through government policies to enhance schooling systems for the sake of students, parents and school administrators. Learning organization is the best choice of organization intervention to break through these challenging situations. Organizations that learn assume challenges and improve unproductive patterns of behaviors. Being influenced and affected by the current trends of globalization, the school

recognizes the needs to stimulate and speeds up its development at all levels to be able to surf global waves of changes relevantly and timely.

Strategic leadership for learning encompassed a common vision toward the state of becoming a learning organization and foster an organizational learning at all levels. An authentic leader performs the roles as designers, stewards and teachers in fostering their organizational learning. They are responsible for inspiring and building up teachers and staff at all levels toward the continual development of their competencies to clarify vision, learn complexity, and improve shared mental models.

This study applies the concept of school as organization and learning system, organizational learning models, learning organization and its related factors in foster continuous learning to design an organizational development intervention (ODI) to improve organizational learning. Enabling and improving the practice of organizational learning are the core value to coach personnel from individual level to team level and organization level to comply with external factors, policy and audit system from FSG and government. With the supportive leadership roles and OD change management, transformative learning will be gradually nurtured and developed along with the learning growth of individual, team, and as an organization. The school organizational learning will grow beyond practicing for survival but toward lifelong learning organization.



2.16 CONCEPTUAL FRAMEWORK

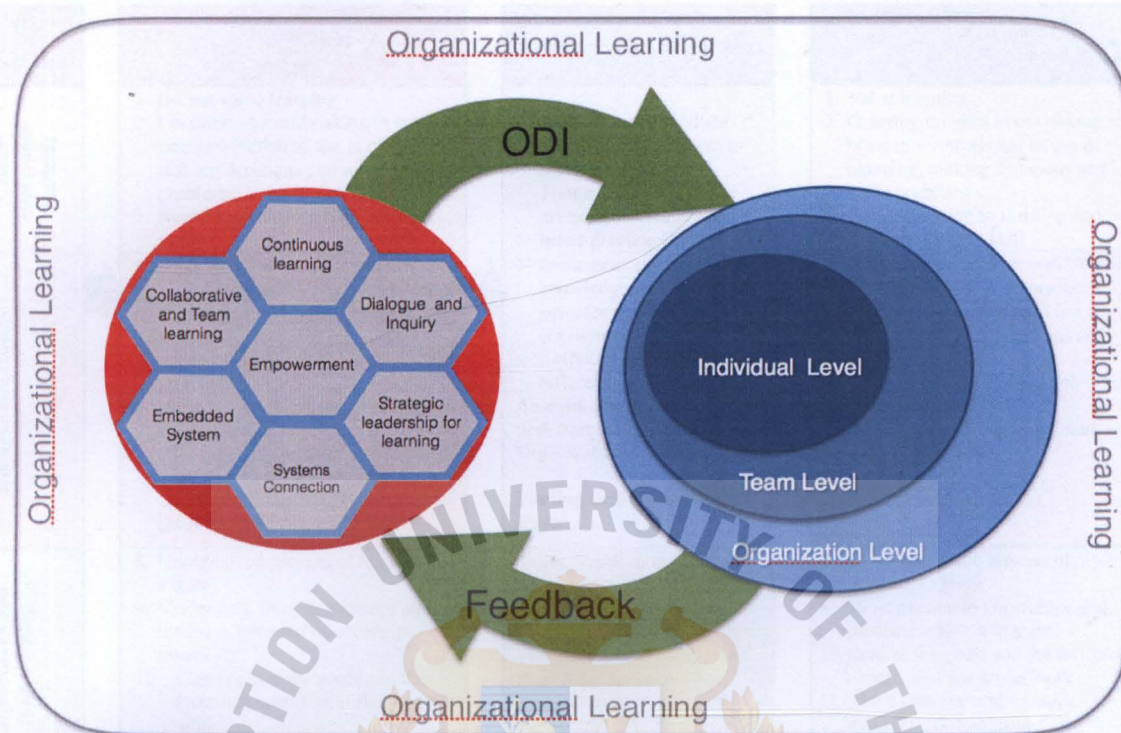


Figure 3. Conceptual Framework

As presented in Figure 2, the OD Intervention at three levels is applied as independent factors that affect the dependent factors in the organizational learning area. The dependent factors consist of continuous learning, dialogue and inquiry, collaborative and team learning, empowerment, embedded system, system connection, and strategic leadership. They serve as essential dimensions embedded in the interaction between organization members and the organized structure of the school organizational learning culture. This conceptual framework reflects the researcher's system thinking of dealing with a real situation of the school to improve individuals, team and organizational learning.

2.17 ACTION RESEARCH FRAMEWORK

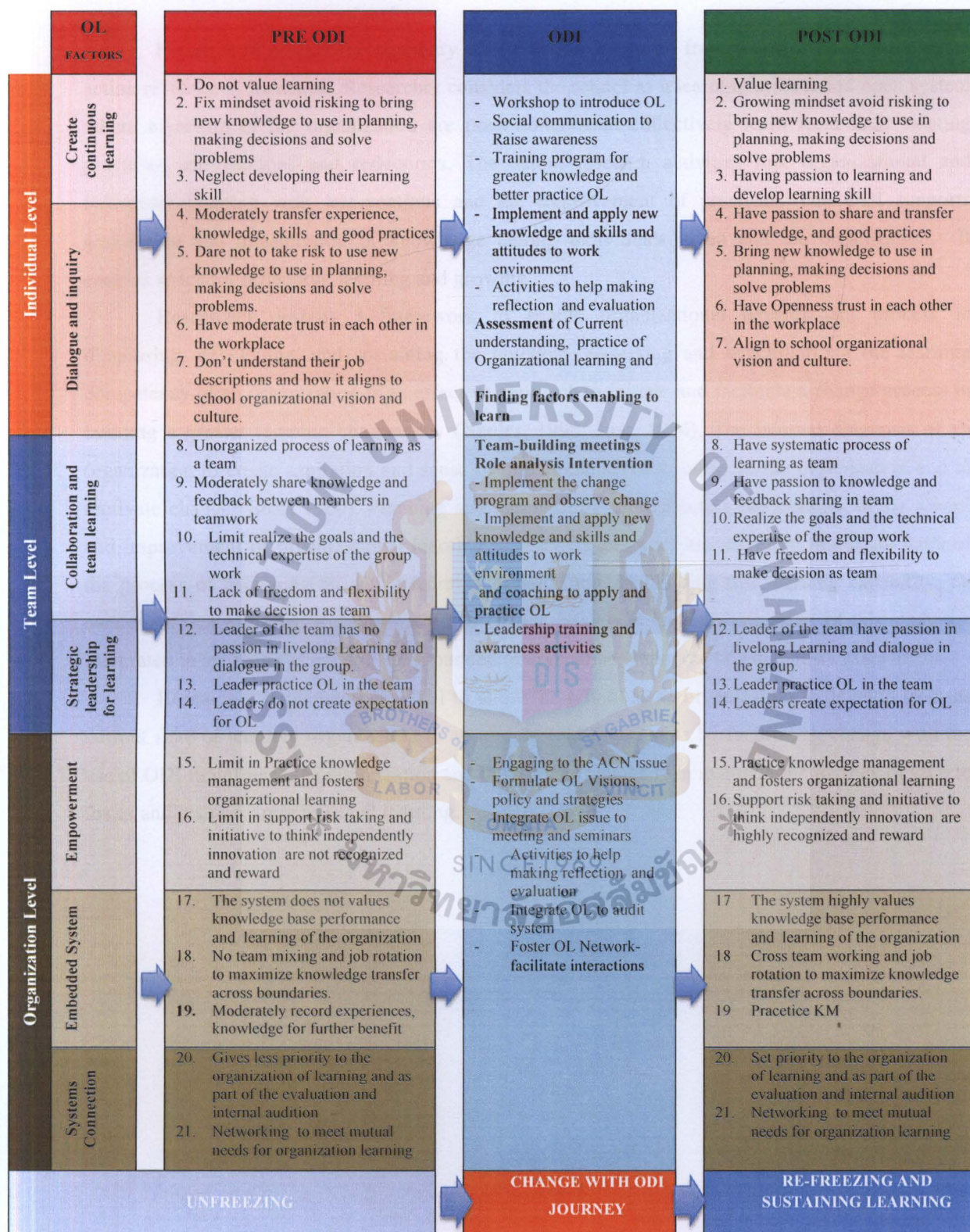


Figure 4. Action Research Framework

Figure 4 illustrates the summary of the action Research framework. This research is an action research in its nature. Researcher considers the school as a learning system and open system where members of the organization are practitioners that collectively learn from their existing practices, interventions and reflections. The action research activities link organizational and individual learning with interventions and the improvement of practices. The ODI supports acquisition and transmission of knowledge among individuals, team and the organization. It enables space for reflection, learning and growing.

Researcher designs a framework to enable organizational development process in diagnosing, developing, and sustaining the outcome. Assessing and benchmarking the learning competency of an organization is an effective approach to initiate and facilitate a change process in building a greater learning competency (Nadler, 1998; Jick, 1994). The internal diagnosis of an organization to create aspiration and sense of urgent can serve to unfreeze the organization and to motivate change (Beer, 1980). Planning and successfully implementing the changes in the school and improvement of organizational learning of teachers and staff are therefore important parts of the process of becoming an active learning organization. In building this learning capability, on awareness that everyone is engaging in this change process is created. The ODIs of this study are integrated in an open system and are grounded or crystallized from the OD diagnosis/assessment.

Researcher implements the ODI to allow the school as an organization to develop from its current state of learning organization to a more desired future state by facilitating change with the use of ODI to unfreeze the organization and to motivate change then maintain the journey of ODI to foster and restrain organizational learning.

CHAPTER 3

RESEARCH METHOD

This chapter illustrates the research design and explains the procedures, population, research instrument, descriptions of the population, collection of data, and data analysis.

3.1 RESEARCH DESIGN: ACTION RESEARCH METHODOLOGY AND PROCEDURES

There are many organizations that choose action research approaches to develop their potentials. Researcher as a practitioner and facilitator of action research to improve individuals, team and the organization learning must focus on close collaboration and highly participatory of the participants that involved at every stage of the research process (Bradbury-Huang, H., 2010). Action research allows OD practitioners to integrate research and to facilitate knowledge advancement and sharing across academic fields and the community at large. Through stakeholder participation, it provides an ethical ground for verifying findings as well as increasing for better partnership between researchers and collaborators (Smith, G., Mr, Saville, M., Mr, Alsop, M., Mr, Griffin, 2014). Action research addresses real life issues and techniques adopted in acquisition of knowledge. It integrates qualitative and collaborative processes aiming to benefit the immediate stakeholders in a democratic, collaboration through participation, and social change (Ferrance, 2000). Action research makes inquiries on contributions from extensive fields of knowledge through *value-oriented* aims for sustainable results over time. It is recognized as a means of improving impact which is based on the assumption that involvement makes spirit of ownership. Animating interventions increases the 'agency' of stakeholders who assist 'cause' successful endings through their own decisions and movements (Stern, 2012).

Action research methods involve researchers and stakeholders to cooperate in the process of diagnosis of a problem, design of interventions and application, implementation and evaluation of interventions to make improvement. There are five main phases in Action Research methodology (Reason and McArdle, 2008).

Phase I: **Diagnosing** or problem identification of localized problems and their underlying causes and formulate a working hypothesis to be used in the action research cycle.

Phase II: **Action planning**, participants gather, organize and interpret data in order to formulate actions that can improve the existing situation.

Phrase III: **Action taking** according to the systemically analyzed field data, participants implement planned solutions.

Phrase IV: **Results evaluation** involves the assessment of the effect of intervention and determines the amount of improvement.

Phrase V: **Reflection** or specifying learning, participants' document and sum up the learning outcomes, which include knowledge contributions to both theory and practice. It also addresses additional questions raised by the data and hence serves as the starting point for a new cycle of additional improvements.

This study has the nature of an action research approach as to deal with real situation of the school. It is primarily focus to improve individuals, team and organizational learning. It is more appropriate to implement Action research than traditional research for improving organizational learning and practice (Ortrun Zuber Skerritt, Chad Perry, 2002).

3.2 PARTICIPANTS AND POPULATION

The participants of this study are the total population of ACN teachers, administrators and staff. There are 13 administrators, 213 Thai teachers and staff, 32 foreign teachers who participated the action research study. Researcher purposely engaged every teacher and staff in the study.

3.3 DATA COLLECTION

In order to accomplish the research objectives, the researcher utilized both qualitative and quantitative study. The qualitative study integrates with many methods such as documentary research, structure social and digital interviews with administrators, teachers and staff.

The quantitative technique consisted of online survey, communication via email and school E-Office system to determine the perceptions and preferences of teachers and staff towards organizational learning. On completion of finalizing instrument design, researcher administered the data collection using online survey via school E-Office system. The researcher formulated an online survey with multiple choices about organizational learning competency electronically sent by e-mail. The questionnaires contained an instruction page and a consent page stating "by completing and submitting the survey you are granting permission to the researcher to use this data, and that samples will be coded so that the identity of the respondents will be protected". The respondents returned the completed questionnaires electronically to the researcher by online survey.

The response of the participant was gathered and made ready for analyzing. The process is as follows:

The researcher prepared bilingual, Thai and English, questionnaires and contacted the Office of Director Department of the school to collect participants' email addresses. Then questionnaires are sent via online and inform the participants of the launch of questionnaires via E-Office system.

The respondents are requested to respond to the questionnaires within one month as available function to be set in the online survey.

Follow-up of the questionnaires, together with social communication to distribute reminder note, are sent to those respondents from time to time. After their retrieval, the online survey application checks all questionnaires and automatically and real time to analyze and report instant descriptive statistic.

The qualitative techniques were another method of collecting the data that focused on respondents' perceptions of organizational learning in the schools. A social communication and face to face interaction was used to facilitate interview. Social communications and face to face interactions were used to facilitate interview and collect qualitative data to respond to the research objectives no.4; To make assessment of the effect of intervention and determine the amount of improvement, and the research questions no.4 and 5; What is the perception difference on learning organization of individuals, team and organization learning before and after ODI? What is the impact of Organization Development Intervention (ODI) on individuals learning, team learning and organizational learning? The feedbacks are as follows.

As with many qualitative studies, the participants in the school knew the researcher and well, so anonymity was neither a possibility nor a goal. However, survey responses were anonymous. Researcher reminded the participants of this on several occasions, believing they might be more forthcoming in their responses with such assurances. To assure the confidentiality of the survey data from the point it was first collected through the data analysis process, participants' names and identities were not described or mentioned. Hardcopies of memo notes, and survey responses were kept in a locked cabinet in the researcher's office. The computer files were kept in password-protected files on a personal computer.

3.4 RESEARCH INSTRUMENT'S VALIDITY AND RELIABILITY TEST

This study uses a mix of both quantitative technique and qualitative approaches based on the theoretical-framework to collect data and find out the situation and opportunity to improve organizational learning in schools. DLOQ questionnaire is used to be a guideline to generate a questionnaire for ACN as several studies have shown strong reliability and validity levels for the

DLOQ (Asadi, et al., 2009; Basim, Sesen, & Korkmazyurek, 2007; Hernandez & Watkins, 2003; Watkins & Marsick, 1997; Yang, et al., 2004). The short version DLOQ consists of three adequate measures items for each of the seven dimensions of the DLOQ and has better psychometric properties in terms of the formation of an adequate measurement model. The short version of DLOQ has been measured for reliability and validity and utilized in a variety of studies and across a variety of cultural contexts (Elinger , 2002; Hernandez, 2000; Lien, 2006; Song, Joo, & Zhang et al., 2008; Yang, 2003; Yang et al., 2004). The results of these studies have verified the applicability of the DLOQ in different cultures, providing internal consistency of each item's reliability (coefficient alpha range from .71 to .91) and reliable factor structure of the dimensions of learning organization (Lien et al., 2006).

The questionnaire was adapted from the Dimensions of Learning Organization Questionnaire (DLOQ), developed by Watkins and Marsick (1996, 2003) to meet the understanding ACN school context. The DLOQ statements are adapted and integrated with the questionnaire "Assessing the Organizational Learning Capacity of Schools" by David c. Dibbon (1999), and the questionnaire "Development of knowledge management strategies for schools under the St.Gabriel's Foundation of Thailand", Dissertation by Chamnan Laorukphol (2010) to make it comprehensive to investigate the perceptions and describe the nature of ACN organizational learning.

Both close-ended and open-ended basic forms are used to generate the questionnaire. Close-ended questions consist of a series of alternative five points of Linkert Scale ranking chosen by respondents. Open-ended questions allow respondents to compose their own words freely in writing to respond to the questions. This instrument measures respondents' perceptions on learning organization dimensions. The dimensions describe organizational learning actions or practices by individuals, teams, leaders, and the organization as a whole.

There are seven dimensions to be measured by this instrument which include (1) creating continuous learning opportunities, (2) promoting inquiry and dialogue, (3) encouraging collaboration and team learning, (4) creating systems to capture and share learning, (5) empowering people toward a collective vision, (6) connecting to organization to its environment, and (7) providing strategic leadership for learning. (See Table 2. for an explanation of relationship between the three organizational learning levels and the dimensions of Learning Organization Questionnaire.)

Table 3 : *Explanation of relationship between the three organizational learning levels and the dimensions of learning organization questionnaire*

Factor	Dimension	Question#
Individual level	(1) Continuous learning	1 - 3
	(2) Dialogue and Inquiry	4 - 7
Team Level	(3) Collaboration and team learning	8 - 11
	(4) Strategic leadership for learning	12 -14
Organizational Level	(5) Empowerment	15 -16
	(6) Embedded Systems	17 - 19
	(7) Systems Connection	20 - 21

Close-ended questions with alternative five points of Linkert scale ranking are utilized to address research questions 1 (What is the current understanding and practice of individuals, team and organization learning in the school?) and 4 (What is the impact of Organization Development Intervention (ODI) on individuals, team and organizational level before and after ODI?). Open-ended questions which allow respondents to answer freely in writing are utilized to address research question 2 (What factors enable individuals, team and organization learning?). Researcher uses Pre-ODI data to address research question 3 (What Organization Development Intervention (ODI) could be designed and implemented to improve organizational learning?).

Table 4 : Questions and actual computed results of IOC

PART 1 Individual Learning	Appropriateness
Continuous learning; Create continuous learning	
1. I give priority to learning and ready to put new knowledge into practice.	1
2. I am open to learning new things and use new knowledge to develop myself and my job.	1
3. I can freely develop my learning skills for innovation and I attend meetings and seminars outside my school to exchange knowledge and experience.	1
Dialogue and inquiry; Promote inquiry and dialogue	
4. I help other teachers and staff to foster dialogue and learning atmosphere to develop ourselves and school	1
5. I participate with other teachers and staff in bringing new knowledge to use in planning, making decisions and problem solving	1
6. I am encouraged to share and learn together in an atmosphere of openness and transparency.	1
7. I understand my job description and realize how it is aligned to school organizational vision and culture.	1
PART 2 Team Learning	Appropriateness
Collaboration and team learning; Encourage collaboration and team learning	
8. In my team, we have a systematic process of learning as a team within the same line of work and create new knowledge from existing knowledge by processing data and dialogues.	1
9. In my team, we are encouraged to share knowledge and feedback among members of our team and with other teams.	1
10. Each teachers and staff as member of each team in the school realize the goals and the technical expertise of their group work.	1
11. In my team, we are encouraged to participate in decision-making by consensus, using information and dialogue before making a final decision.	0.66
Strategic leadership for learning; Provide strategic leadership for learning	
12. In my team, the leader of the group encourage the team to learn, share knowledge in team dialogue and practice lifelong learning.	1

13. In my team, the leader encouraged teachers and staff to participate in dialogue to make decision by consensus and respect the opinion of them.	1
14. In my team, the leader creates expectation that everyone is responsible for learning, collecting and transferring knowledge.	1
PART 3 Organizational Learning	Appropriateness
Empowerment; Empower people toward a collective vision	
15. The school provides resources and facilities needed for teachers and staff to perform knowledge management and fosters organizational learning.	1
16. The school recognizes people as praise and reward for learning constantly and taking risk to initiative innovation.	1
Embedded system; Create systems to capture and share learning	
17. The school develops a knowledge base around the values and learning needs of the organization.	1
18. The school gives priority to the promotion of learning and as part of the evaluation and internal audit.	0.66
19. The school encourages team mixing and job rotation to maximize knowledge transfer across boundaries.	1
Systems connection; Connect to organization to its environment	
20. The school requires teachers and staff to record experiences, knowledge, skillful process and good practices in written documents such as instruction manuals, lesson plans, operational reports in a format that can be reused again later.	1
21. The school works together with the outside community to meet mutual needs for organization learning.	1

The table 4 shows that the newly adapted instrument for ACN contains 21 items which have passed the examination of validity with index of congruency (IOC) higher than 0.75 from three experts from a variety of education and organization development fields. Each statement was measured and scored on a scale of -1, 0, +1. This is to determine whether the statement or wording inference is able to serve useful purposes and has positive consequences. This instrument was validated during its initial development and tried out by utilizing factor analysis to ensure the considered factors are consistent. The instrument was used on a trial basis to collect data from the pilot group of 30 teachers and staff of St.Louis School Chachoengsao. Reliability was tested using

Chronbach's Alpha Coefficient to ensure that the questionnaire has good quality to be used as instrument to assess the organizational learning.

Table 5 : *Reliability of Testing the Questionnaire*

Dimensions of OL	Minimum Required Value	Cronbach's Coefficient Alpha Indices
Continuous learning	> 0.70	.839
Dialogue and Inquiry	> 0.70	.910
Collaboration and team learning	> 0.70	.765
Strategic leadership for learning	> 0.70	.868
Empowerment	> 0.70	.868
Embedded Systems	> 0.70	.848
Systems Connection	> 0.70	.800
Total	> 0.70	.961

3.5 DATA ANALYSIS

Applying mixed methods together with integrated procedures is an exceptional practice to conduct high quality research (Creswell and Tashakkori 2007; Johnson and Christensen 2012). This study utilizes both qualitative and quantitative study to achieve the objectives of the study. "Qualitative research refers to document study of the meanings, concepts, definitions, characteristics of the related factors and situation. By conducting digital and social interview, it seeks answers to questions by examining the perception of the learning of teachers and staff at various levels. In contrast, quantitative research refers to counts and measures of the perception organizational learning with an integrate DLOQ, (Berg, 2004). Both qualitative data and quantitative data were analyzed. Qualitative data were collected from three sources: literature reviews, observations, interviews, and survey open-ended questions. Quantitative data were collected from survey with closed-ended questions.

As the triangulation is a powerful solution to the problem of relying too much on any single data source or method, qualitative data was triangulated with quantitative data to strengthen evaluation and make findings more useful by providing different information and perspectives about the improvement of the ACN organizational learning (Patton, 1990). Therefore, this research made use of a variety of methods to ensure the correctness and trustworthiness of the research findings and lessen the risk to unreliability.

- *Triangulation of methods* (Both qualitative and quantitative data collection and data analysis methods were employed);
- *Triangulation of data sources* (Observations, interviews, and surveys were utilized);
- *Triangulation of qualitative data analysis* (Two teachers and researcher regularly participated in decoding meeting)
- *Triangulation of analysts* (Multiple analysts were used to review survey, interview, and observation findings).

3.5.1 Qualitative data analysis.

Three types of qualitative data were analyzed, in the following order: responses to survey open-ended questions; responses to interview questions; and notes from observations of ACN teachers and staff meetings and activities.

The coding team.

Table 6 : *List of coder participants*

Coder	Key Qualification
Coder 1 Dr.Yupaporn Thepsuriyanon	Ph.D in Education Experience in FSG education for more than 10 years
Coder 2 Mr.Somboon Sukchai	Master Degree in OD Experience in FSG education for more than 10 years
Coder 3 Ms.Laddawan Puengthong	Master Degree in Education Experience in FSG education for more than 10 years

Table 6 shows the list of the coder participants. Researcher assigned three teachers who had Ph.D and Master degrees coupled with extensive experience in conducting research study and surveys of the school to assist in coding the qualitative data. Collaborating with co-coders was done with meetings throughout the coding process. These meeting were dynamic with comparing notes on coding, discussing and defending individual coding decisions, negotiating compromises, and

refining codes and code definitions. While different coders will always have opinion on any given data, it is essential to have a positive mindset and integrity with regard to contribution to a data analysis process. Frequent communication among coder increases coding skills, ensures better final product, and creates conviction in the study's findings. (Berg, 2007; Padgett, 2008).

The coding process

Coders were assigned to group the given data according to the variable, to extract themes to identify how respondents perceive or think about ODIs as well as their expectations and to make a memo of synthesis of the data. While coding, all three coders used hard copies, rather than computer copies to list codes and to write short and precise memos. Coding meetings occurred frequently at the beginning of the coding process of both Pre-ODI and Post-ODI periods. Discussion in coding meetings allowed comparison and review about ideas that struck him or her while coding, trends emerging from the data, and adjustments that might be made to synthesize the data. Coding deadlines were agreed upon for the completion of specific coding tasks. Discussions during coding meetings were animated by researcher.

3.5.2 Quantitative data analysis.

A single type of quantitative data was analyzed: responses to survey with closed-ended questions. Simple statistical technique for Social Sciences was used to analyze data to provide descriptive statistics; Mean, and Standard Deviation. The results indicated the information on the current organizational learning competency that occurred in ACN school as PRE ODI and the state of teachers and staff on the organizational learning competency in ACN school as Post ODI.

After the ODI, the progress analysis will be determined from the Mean scores of the different gap scores of the variables between the PRE ODI and Post ODI. The pair simple t-test is applied as statistic analysis to compare the mean score of PRE OD Intervention and Post OD Intervention to find out the impact of the OD Intervention for the ACN organizational learning.

The test provided an appropriate significance test of the difference of paired sample's means. The researcher tested the Organizational Learning on the same variables collected twice. Therefore, the paired sample t-test, sometimes called the dependent sample t-test was used to determine the impacts of OD Intervention on the school's organizational learning between the means of PRE OD Intervention and POST OD Intervention. By applying this paired sample t-test, the determined same group of 204 teachers and staff was engaged to respond to the same survey instrument twice with an interval of five months between the two surveys, resulting in pairs of observations.

3.6 THE PRINCIPLE OF DATA INTERPRETATION

Making inferences, drawing conclusion concerning the meaning and implication of its variables of this research investigation, made the interpretation of data. A distinction was made between analysis and interpretation. To evaluate the level of organizational learning before the OD Intervention and the after the OD Intervention on the level of organizational learning, the average means of each factor under seven dimensions of organizational learning is computed.

In this study, Linkert Scale was used to measure the level of satisfaction. The scale rates from the lowest level of Learning Practice at 1 = " Not True or never occurs " to the highest level of Learning Practice at 5 = " Always True or occurs ". The interval of means score for each level of satisfaction was calculated by: (Largest data value-Smallest data value). Number of classes $5-1 = 4/5 = 0.80$. Therefore, the range of means score was determined as shown in the Table 6



Table 7: *Range of Mean Score of Organizational Learning Practice*

Level of Organizational Learning Practice	Arbitrary Level (Range of Mean)
Always True or occurs	4.21-5.00
Somewhat True or occurs	3.41-4.20
Neutral	2.61-3.40
Rarely True or occurs	1.81-2.60
Not True or never occurs	1.00-1.80

The table 7 shows the criteria as arbitrary level for interpretation of Means on the level of Organizational Learning Practice of teachers and staff at the Pre-ODI and Post-ODI tests.

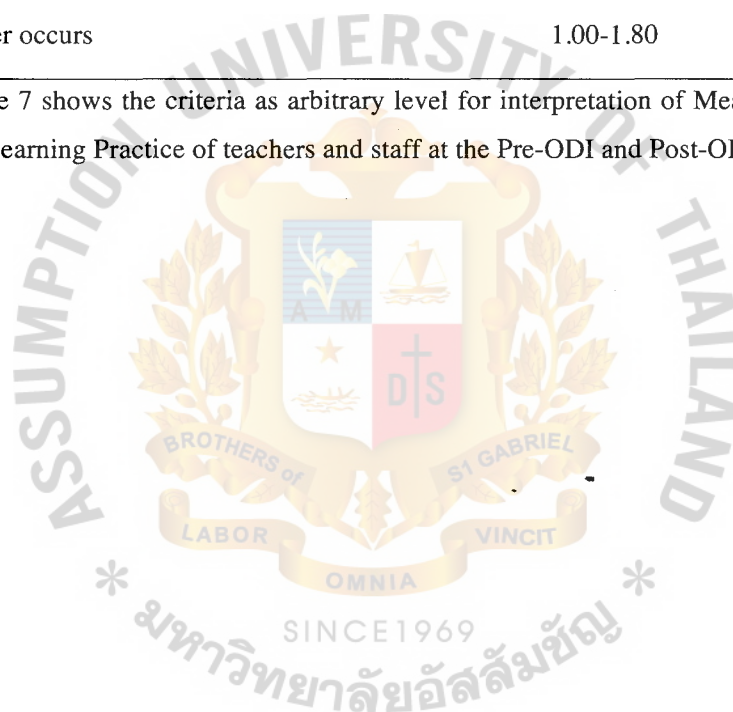


Table 8: Data Analysis and interpretation procedure

PHRASE 1 Diagnosing		
Response to Research Objectives: 1. To examine perception on the current understanding and practice of organizational learning of individuals, team and organization learning in the school.		
Research Questions: 1. What is the current understanding and practice of individuals, team and organizational learning in the school?		
Target purposive sample (n=208)		
Source of data or Sample	Data Analysis Method	Outcome
1. Documents - FSG school Charter - SWOT analysis - Quality Assurance Reports - Stake Holders Satisfaction Survey 2 Observation, Interviews 3. Online Survey	Literature review Coding process Descriptive statistic Determination of Means Score and Standard Deviation	Preliminary Data about current understanding and practice of individuals, team and organization learning in the school
PHRASE 2 Action Planning		
Response to Research Objectives: 2. To design and implement Organization Development Interventions to improve organizational learning.		
Research Questions: 2. What factors enable individuals, team and organizational learning?		
Target purposive sample (n=208)		
Source of data or Sample	Data Analysis Method	Outcome
Qualitative study to identify trends, Action Research, OD Change Models and insights about learning organization with various resources and interviews with experienced educative administrators Visiting and meeting with Director and the school management	Literature review To investigate and diagnose the school contextual situation Literature review Synthesis of OD change models, action research practices in the focus area	- Seven factors enable individuals, team and organization learning - Action research framework - ODI framework - Research instrument

PHRASE 3 Action taking

Response to Research Objectives:

2. To design and implement Organization Development Interventions to improve organizational learning.

Research Questions:

3. What Organization Development Intervention (ODI) could be designed and implemented to improve organizational learning?

Target purposive sample (n=208)

Source of data or Sample	Data Analysis Method	Outcome
Quantitative study to make first assessment with research questionnaire Meeting with Director and the school management to collect data	PRE ODI and POST ODI Descriptive statistic Determination of Means Score and Standard Deviation	Organization Development Interventions to improve organizational learning

PHRASE 4 Results Evaluation

Response to Research Objectives:

3. To compare the perception difference on organizational learning of individuals, team and organization learning before and after ODI.

Research Questions:

4. What is the perception difference on learning organization of individuals, team and organization learning before and after ODI?

5. What is the impact of Organization Development Intervention (ODI) on individuals learning, team learning and organizational learning?

Target purposive sample (n=208)

Source of data or Sample	Data Analysis Method	Outcome
Field note of ODI Second assessment of the output of the OD Intervention of the improvement of the organizational learning	Determination of responses to interview questions, Means Score and Standard Deviation of the different gap scores of the variables between the Pre ODI and Post ODI with the pair simple t-test	The impact of the OD Intervention for the school organizational learning

PHRASE 5 Reflection and conclusion

Response to Research Objectives:

4. To propose Organizational Learning improvement ODI for further study.

Target purposive sample (n=208)

Source of data or Sample	Data Analysis Method	Outcome
Overall assessment of the output of the OD Intervention of the improvement of the organizational learning	Specifying learning by determination of actions and reflections of the Pre ODI and Post ODI	Organizational Learning improvement ODI for the school and the schools under the Foundation.
Sum up of the learning outcomes, which include participants' document knowledge and contributions to both theory and practice.	Additional questions raised by the data and hence serves as the starting point for a new cycle of additional improvements.	

Table 2 indicates the summary of the data analysis and interpretation procedure. Researcher designed a framework of data analysis to respond each research question and objective systematically according to the five phases of research; PHRASE One Diagnosing, PHRASE Two Action Planning, PHRASE Three Action taking, PHRASE Four Results Evaluation and PHRASE Five Reflection and conclusion.

CHAPTER 4

Data Analysis, Presentation and Interpretation

In this chapter, the research results are presented from both qualitative and quantitative methods in responding to the research questions.

As this study aimed to improve the school organizational learning at all levels, researcher utilized both qualitative and quantitative methodology to collect data through document research, content analysis, interviews and questionnaires. The collection of data through document research and content analysis was done during the first and second semester of the academic year 2016. The collections of data for the quantity methodology were done during the academic year 2016. The respondents were 208 teachers and staff, working in Assumption College Nakhornratchasima. The returned completed questionnaires were 174, which represent 83.65% of the total population.

4.1 QUALITATIVE RESEARCH FINDINGS: PRELIMINARY DATA AND CURRENT UNDERSTANDING AND PRACTICE OF INDIVIDUALS, TEAM AND ORGANIZATION LEARNING IN THE SCHOOL

This research implemented a qualitative methodology with a variety of means that allowed research to gain preliminary data and situation of the school organizational learning such as documentary research, structure social and digital interviews with administrators, teachers and staff. An online survey with open-ended questions was launched. Frequent visits to working team were done to establish dialogue and enable the communication via email and school E-Office system. Collection of the qualitative data was done with informal interview, that focused on respondents' perceptions of organizational learning in ACN schools.

4.1.1 Preliminary data

Assumption College Nakhonratchasima is situated at 3 St.Mary Rd.Muang Nakhonratchasima District, Nakhonratchasima Province in the northeast of Thailand, about 200 kilometers from Bangkok. The school has 3,087 students, from kindergarten to higher secondary, with 3 top management administrators, 10 middle management administrators, 208 Thai teachers and staff, and 32 foreign teachers. ACN has 90 classrooms from kindergarten to secondary sixth.

An ACN teacher teaches an average of 20-25 hours per week and is also assigned special duties according to job description. ACN staff work hours starts at 7:45 hr. and ends at 17:00 hr. Most of them understand their role and are ready to accept any assignment from their team leaders and serve the bureaucratic style of administration well. Middle managements administrators will

receive directives and policy from the Director and inform their team in detail. Members of the team are expected to perform accordingly. Many meetings become the floor to inform with less discussion or dialogue. Decision-making is rarely made in the meeting. No one dares to risk or practice differently. The school is being faced with pressure from economic factors, globalization, government policies, and stakeholders' expectations. Thus there is the need to develop beyond the compliance with the educational standardization and regulations. Policy and strategic plan toward learning organization are not concretely articulated.

ACN has undergone an improvement program with the emphasis on standardization and quality assurance audit programs many times from various offices. Both reports from FSG quality assessment and ACN annual self assessment report (ACN SAR, 2013-2015) have been done and the overall results indicate a good level; based on the evaluation of the physical availability of material and resources, but not about the behavior of the people who are involved or use the resources. The evaluation does not primarily focus on the operation process and system of knowledge management.

4.1.2 Current understanding and practice of individuals, team and organization learning in the school

Teachers and staff do not have the courage to take initiative but rely on the commands and directions of the Director. They dare not liberate themselves but choose to hide themselves from taking any initiative. Any innovation must be informed to the top management before being implemented. Teachers and staff keep recording how their success in serving single opinion leadership style and hand over this secret of survival from generation to generation and they have become the norms.

The school has administrative structure and management style that does not support the knowledge management and learning culture. Teachers and staff have a fixed mindset to respond to the hierarchical controls and external standardization. They primarily stick to the conformity to rules, regulations and the directions from the authority. The interviews show that most of the teachers and staff have limited know-how about knowledge management to promote a learning culture. Preparing students to be ready for life in a fast-changing world has been under estimated.

ACN had gone through a series of changes in leadership. Inconsistent approaches within a mandate of the director and between the mandate have been shown to create pressures on administrators, teachers and staff. New visions and practices always change with the new leadership style until school personnel do not recognize shared vision and fix their mindset toward the

directives from top management. New leaders always come with special strategy to move toward the unreachable vision written by the committee of the Foundation.

The school top administrator leads the organization with his great vision. He directs every activity and solve every problem, though the source of his know-how and understanding of leadership roles is not always evident. He is expected to be good at every thing for everyone. At the moment the top administration style led by the Director best fit with Assumption College Nakhonratchasima culture, and is demonstrating a single opinion leadership style as the key leadership style based on what would now be termed Instructional Leadership, with hierarchical and top down approaches to management and very little true consultation with staff about the development of the school.

The top management moderately highlights the importance of developing the school towards a learning organization. There is moderate awareness among administrators, teachers and staff of global educational trends, and how they could affect or create impact on the school. Though passing many quality assurance systems, teachers and staff and ACN as an organization have failed to use their experience for the development of their organizational learning. Therefore the types of relationship among students, teachers and staff, and leaders have been established upon fixed mindset of blind response and practice according to authority and dare not take risks and initiatives. They have missed a chance to build positive characteristics for a shared and monitored mission, a trusting and collaborative climate. They just wait for an ongoing or relevant professional development that will come with the policy of the top leader. The mind of the ACN administrators in running the school is to work hard according to the top down order for the better position of themselves and the school. There is little space for organizational learning, initiative and innovation. ACN needs to improve its organizational learning and become a learning organization to enable the chance of consciously and continuously pursuing quality improvement (ACN Organizational Learning Survey, 2016).

Public stakeholders expect ACN to maintain high standards with a good reputation and the school is perceived as the best private school in Nakhonratchasima province. The school has everything that a good school must have in term of good facilities, environment, advanced technology equipment's for educational technology to support classroom activities and student care system. The school stakeholders' satisfaction annual surveys indicated that stakeholders such as parents, students and local communities are highly satisfied with the school facilities and curriculum but are moderately satisfied with the school administration and service.

4.2 QUANTITATIVE RESEARCH FINDINGS; THE SURVEY RESEARCH RESULTS OF BOTH THE PRE OD INTERVENTION AND THE POST OD INTERVENTION

In order to accomplish the research objectives, the researcher has utilized online survey via school E-Office system to arrange the data collection. An online surveys with multiple choices regarding organizational learning competency were electronically sent by e-mail. The respondents returned the completed form electronically to the researcher by online survey. After their retrieval, the online survey application checks all questionnaires and automatically and real time to analyze and report instant descriptive statistic. The Statistical Package for Social Science (SPSS) were utilized to determine Frequency, Percentage, Mean and Standard Deviation (SD) scores of participants' responses to the items of the questionnaire.

4.2.1 Respondent information

Table 9: *Personal Information: Department being subordinate to*

Department	Frequency	Percentage
Director's Office Dept.	8	4.6
Academic Dept.	89	51.1
Discipline Dept.	17	9.8
Student Activity Dept.	7	4.0
Kindergarten Dept.	34	19.5
Registration and Finance Dept.	13	7.5
General Admin. Dept	6	3.4
Total	174	100

Table 9 indicates the percent of the teachers and staff according to the department being subordinated. 51.1 % are from the Academic Department, 19.5% are from Kindergarten, 9.8% are from Discipline Department, 7.5% are from Registration and Finance Department, 4.6% are from Director's Office Department, 4.0% are from Student Activity Department and 3.4% are from General Admin. Department.

Table 10: *Personal Information: Responsibility or position*

Department	Fequency	Percentage
Head of Dept.	4	2.3
Head of team work	35	20.1
Teaching teachers	104	59.8
Staff	31	17.8
Total	174	100

Table 10 indicates the percent of the teachers and staff according to their responsibilities or their positions. 59.8% are teaching teachers, 20% are heads of teamwork, 17.8% are staff, and 2.3% are heads of department.



4.2.2 PRE OD Intervention

Table 11 : *PRE ODI : Descriptive Mean and Standard Deviation (SD)*

INDIVIDUAL LEVEL

Factors and Dimension	MEAN	SD	RATING
1. I give priority to learning and ready to put new knowledge into practice.	2.46	.90	Neutral
2. I am open to learning new things and use new knowledge to develop myself and my job.	2.43	.91	Somewhat true
3. I can freely develop my learning skills for innovation and I attend meetings and seminars outside my school to exchange knowledge and experience.	2.52	.84	Neutral
Continuous learning	2.47	.90	Rarely true or occur
4. I help other teachers and staff to foster dialogue and learning atmosphere to develop ourselves and school	2.64	.86	Neutral
5. I participate with other teachers and staff in bringing new knowledge to use in planning, making decisions and problem solving	2.51	.94	Rarely true or occur
6. I am encouraged to share and learn together in an atmosphere of openness and transparency.	2.52	.76	Rarely true or occur
7. I understand my job description and realize how it is aligned to school organizational vision and culture.	2.64	.73	Neutral
Promote dialogue and Inquiry	2.58	.63	Rarely true or occur

TEAM OR GROUP LEVEL

Factors and Dimension	MEAN	SD	RATING
8. In my team, we have a systematic process of learning as a team within the same line of work and create new knowledge from existing knowledge by processing data and dialogues.	3.14	.68	Neutral
9. In my team, we are encouraged to share knowledge and feedback among members of our team and with other teams.	2.30	.83	Rarely true or occur
10. Each teachers and staff as member of each team in the school realize the goals and the technical expertise of their group work.	2.53	.98	Rarely true or occur
11. In my team, we are encouraged to participate in decision-making by consensus, using information and dialogue before making a final decision.	2.22	.98	Rarely true or occur
Encourage collaboration and team learning	2.54	.67	Rarely true or occur
12. In my team, the leader of the group encourage the team to learn, share knowledge in team dialogue and practice lifelong learning.	2.97	.59	Neutral
13. In my team, the leader encouraged teachers and staff to participate in dialogue to make decision by consensus and respect the opinion of them.	2.67	.80	Neutral
14. In my team, the leader creates expectation that everyone is responsible for learning, collecting and transferring knowledge.	2.70	.88	Neutral
Provide Strategic leadership for learning	2.78	.60	Neutral

ORGANIZATIONAL LEVEL

Factors and Dimension	MEAN	SD	RATING
15. The school provides resources and facilities needed for teachers and staff to perform knowledge management and fosters organizational learning.	2.87	.90	Neutral
16. The school recognizes people as praise and reward for learning constantly and taking risk to initiative innovation.	2.48	.91	Rarely true or occur
Empower people toward a collective vision	2.67	.92	Neutral
17. The school develops a knowledge base around the values and learning needs of the organization.	2.48	.88	Rarely true or occur
18. The school gives priority to the promotion of learning and as part of the evaluation and internal audit.	2.33	.98	Rarely true or occur
19. The school encourages team mixing and job rotation to maximize knowledge transfer across boundaries.	2.52	.94	Rarely true or occur
Create systems to capture and share learning	2.41	.85	Rarely true or occur
20. The school requires teachers and staff to record experiences, knowledge, skillful process and good practices in written documents such as instruction manuals, lesson plans, operational reports in a format that can be reused again later.	2.74	.97	Neutral
21. The school works together with the outside community to meet mutual needs for organization learning.	2.51	.94	Rarely true or occur
Systems Connection Connect to organization to its environment	2.60	.86	Neutral

Table 11: teachers and staff perceived that before OD Intervention, continuous learning and Promote dialogue and Inquiry at the individual level rarely occurred. At the team or group level, teachers and staff perceived that encourage collaboration and team learning rarely occurred while they perceived that provide Strategic leadership for learning occurred more. At the organization

level, teachers and staff perceived that create systems to capture and share learning rarely occurred while empower people toward a collective vision and Systems Connection remained neutral.

Table 12: *PRE OD Intervention : Descriptive Mean and Standard Deviation (SD)*

Level and Dimension	MEAN	SD	RATING
Continuous learning	2.47	.90	Rarely true or occur
Promote dialogue and Inquiry	2.58	.63	Rarely true or occur
INDIVIDUAL LEVEL	2.53	.71	Rarely true or occur
Encourage collaboration and team learning	2.54	.67	Rarely true or occur
Provide Strategic leadership for learning	2.78	.60	Neutral
TEAM LEVEL	2.64	.62	Neutral
Empower people toward a collective vision	2.67	.92	Neutral
Create systems to capture and share learning	2.41	.86	Rarely true or occur
Systems Connection Connect to organization to its environment	2.60	.87	Neutral
ORGANIZATIONAL LEVEL	2.54	.73	Rarely true or occur

Table 12 indicates teachers and staff perceived that before ODI organizational learning occurs neutrally at team level while rarely occurred at individual level and organizational level.

4.2.3 OD INTERVENTIONS: Learning organization to improve organizational learning

As the Pre-OD Intervention was concerned with diagnosing ACN school contextual situation with both qualitative and quantitative methods, the result of this quantitative survey study

corresponded and confirmed with information from qualitative study and provided a quality preliminary data for researcher to in-depth understand the context of ACN.

Therefore researcher designed the OD Intervention by integrating an open system, action research design framework and organizational development process together to diagnose, develop, and sustain the outcome in nature. In building this learning capability, creating an awareness that everyone was engaging in this change process is created. Assessing and benchmarking the learning competency of an organization was an effective approach to motivate aspiration and sense of urgent change to unfreeze the organization. The school as an organization developed from its current state of learning organization to a more desired future state by facilitating change with the use of ODI to unfreeze the organization and to motivate change then maintain the journey of ODI to foster and restrain organizational learning.

At the individual level, teachers and staff perceived that continuous learning and Promote dialogue and Inquiry at the individual level rarely occurred. They have a fixed mindset and avoid the risk of bringing new knowledge to use in planning, making decisions and solving problems. Self-initiative in learning skill was low as they moderately transferred experience, knowledge and good practices, and somewhat trusted each other in the workplace.

Therefore, to design and implement Organization Development Interventions to improve organizational learning at the individual level, researcher performed observation and reflections of the school documentation. Survey and interviews were conducted to make assessment to understand current practice of Organizational learning and factors enabling to learn at individual level, team level, and organization level. All teachers and staff must be introduced about Learning Organization and were engaged to raise awareness and sense of urgency to improve organizational learning. Facilitating sessions during annual general assembly of the beginning of the year 2017 can foster awareness Learning Organization, to promote best practices and collect the qualitative data for POST OD Intervention. Researcher as a practitioner and facilitator of action research must try to enable space for reflection, learning and growing to improve individuals, team and the organization learning.

At the team level, teachers and staff perceived that encourage collaboration and team learning rarely occurred while they perceived that provide Strategic leadership for learning occurred more. Team leaders had a limited passion for personal lifelong learning and learning as a team. Moderately share knowledge and feedback between members in teamwork took away the freedom and flexibility among team members necessary to make a decision.

Therefore, workshops and discussion for teachers and staff at different situation of team level of teachers and staff were conducted to keep engaging teachers and staff to practice organizational learning. Researcher accompanied and had frequent visits to give/receive feedback. The sustainability of implementing the organizational learning practice was concerned. Focusing on close collaboration and high participation of the participants involved at every stage of the research process, Researcher linked organizational and individual learning with interventions and the improvement of practices to support acquisition and transmission of knowledge among individuals, team and the organization. Periodical on spot training and coaching for individual or teams were essential for success in engaging management team to support, express their re-enforcement and in cooperating to foster OL Network.

At the organization level, teachers and staff perceived that create systems to capture and share learning rarely occurred while empower people toward a collective vision and Systems Connections remained neutral. Limitation in Practice knowledge management and fostering organizational learning caused the management team to avoid risk taking or initiative to think independently and deny innovation. They gave less priority to the organization of learning and did not value knowledge based performance as part of the evaluation and internal audition.

Therefore, getting agreement and cooperation in taking action from the top management administrator of the school and sessions conducted during annual general assembly of the beginning of the year 2016 were essential to raise awareness and sense of urgency of the school as an organization to change. The journey of ODI to foster organizational learning concerning about raising awareness and engaging everyone in the school to change process with the use of assembly in the annual seminar as OD Intervention to unfreeze the organization and to motivate change toward organizational learning. Meetings with the school management and various departments of the school to give feedback, discussion and dialogue were essential to build engagement and support by the school managements and personnel.

Researcher could conclude the findings for the Pre-ODI about understanding and practicing of individuals, team and organization learning in the school where teachers and staff do not have the courage to take initiative but rely on the commands and directions of the Director. The single opinion leadership style did not enable leader of the organization to facilitate the change process and the transformation in the quality of teaching and learning. Teachers and staff hide themselves from taking any initiative and dare not liberate themselves. Any innovation must be informed to the

top management before being implemented. The school has an administrative structure and management style that does not support the knowledge management and learning culture. Teachers and staff have a fixed mindset to respond to the hierarchical controls and external standardization. They primarily stick to the conformity to rules, regulations and the directions from the authority.

The OD Intervention consisted of the followings;

1. Researcher started the ODI by engaging and introducing Learning Organization to the top management administrator of the school to get agreement and cooperation in taking action on the ODI.

2. Consequently, sessions conducted during annual general assembly were dedicated to raise awareness and a sense of urgency to change. All teachers and staff were introduced to Learning Organization and were engaged to raise awareness and sense of urgency to improve organizational learning.

3. Researcher performed observation and reflections of the school documentation. Survey and interview were conducted to make assessment to understand current practice of Organizational learning and factors enabling to learn at individual level, team level, and organization level.

4. Researcher arranged 2nd Meeting with the school management to give feedback and result of the Pre-ODI and engaged the school management to a greater richness of dialogue and possibility.

5. Research together with administrative management held seminars, workshops and discussion for teachers and staff at different situation of Team/group level of teachers and staff. These activities engaged teachers and staff to practice organizational learning for a greater richness of dialogue and shift of mindset toward formulating common vision and strategies to implement and to apply new knowledge, skills and attitudes to work environment.

6. Periodicals on spot training and coaching for individual or team were essential to re-enforce and foster OL Network that facilitated interactions between knowledgeable individual and team to promote best practices.

7. Accompaniment and frequent visiting enabled researcher to follow up the change, give/receive feedback and ensure the sustainability to implement the organizational learning practice.

8. Research facilitated workshop for the management team to create strategy to re-enforce practice of OL in internal audit system.

9. Periodical meeting with school management enabled research to give/receive feedback of the implement the organizational learning practice.

Assessing and benchmarking the learning competency of an organization was an effective approach to initiate and facilitate a change process in building a greater learning competency (Nadler, 1998; Jick, 1994). The internal diagnosis of an organization to create aspiration and sense of urgent could serve to unfreeze the organization and to motivate change (Beer, 1980). Planning and successfully implementing the changes and improvement of organizational learning was therefore an important part of the process of becoming a learning organization.

Table 13: *OD Intervention*

Change Process	Activities	Objectives	Target Participants	Time frame/ Frequency
Create a vision	1. Meeting with the school management	Engage and introduce Learning Organization to raise awareness and sense of urgency to change Getting agreement and cooperation in taking action on the ODI	Team leaders Administrators	Dec. – Jan, 2017
Communication the vision and empower to act	2. Facilitating general Assembly	Engage and introduce Learning Organization to raise awareness and sense of urgency to change	All teachers and staff	Dec. 23, 2016
Planning for short-term win	3. First assessment	Understanding current practice, of Organizational learning and factors enabling to learn at individual level, team level, and organization level	All teachers and staff	Dec. 23, 2016
Consolidating improvement	4. 2nd Meeting with the school management	Giving feedback and result of the Pre-ODI and engage the school management to a greater richness of dialogue and possibility	Team leaders Administrators	Jan. 23, 2017
Sustaining improvement	5. Facilitating general Seminar and workshops	Engage to practice Learning Organization for a greater richness of dialogue and shift of mindset Formulate common vision and strategies to implement and apply new knowledge and skills and attitudes to work environment.	All teachers, and staff Team/group level of teachers and staff	March 06, 2017

Institutionalizing new approaches	6. Team visiting, on spot training and coaching for individual or team that need re-enforcement	- Apply and practice OL - Follow up the change - Give/receive feedbacks - Foster OL Network facilitate interactions between knowledgeable individual and team to promote best practices	Team/group level of teachers and staff	March – May, 2017
	7. 3rd Meeting with school management	-Give/receive feedbacks - Re-enforce practice of OL in internal audit system	Team leaders Administrators	March – June, 2017

4.2.4 POST OD Intervention

Table 14 : *POST OD Intervention : Descriptive Mean and Standard Deviation (SD)*

INDIVIDUAL LEVEL

Factors and Dimension	MEAN	SD	RATING
1. I give priority to learning and ready to put new knowledge into practice.	4.26	.58	Always true or occurs
2. I am open to learning new things and use new knowledge to develop myself and my job.	4.41	.63	Always true or occurs
3. I can freely develop my learning skills for innovation and I attend meetings and seminars outside my school to exchange knowledge and experience.	4.18	.61	Somewhat true or occurs
Continuous learning	4.28	.49	Always true or occurs
4. I help other teachers and staff to foster dialogue and learning atmosphere to develop ourselves and school	4.16	.65	Somewhat true or occurs
5. I participate with other teachers and staff in bringing new knowledge to use in planning, making decisions	3.99	.70	Somewhat true or occurs

and problem solving

- | | | | |
|---|------|-----|-------------------------|
| 6. I am encouraged to share and learn together in an atmosphere of openness and transparency. | 4.10 | .72 | Somewhat true or occurs |
| 7. I understand my job description and realize how it is aligned to school organizational vision and culture. | 4.25 | .67 | Always true or occurs |

Promote dialogue and Inquiry 4.12 .55 Somewhat true or occurs



TEAM LEVEL

Factors and Dimension	MEAN	SD	RATING
8. In my team, we have a systematic process of learning as a team within the same line of work and create new knowledge from existing knowledge by processing data and dialogues.	4.11	.69	Somewhat true or occurs
9. In my team, we are encouraged to share knowledge and feedback among members of our team and with other teams.	4.03	.73	Somewhat true or occurs
10. Each teachers and staff as member of each team in the school realize the goals and the technical expertise of their group work.	4.09	.72	Somewhat true or occurs
11. In my team, we are encouraged to participate in decision-making by consensus, using information and dialogue before making a final decision.	3.95	.81	Somewhat true or occurs
Encourage collaboration and team learning	4.04	.57	Somewhat true or occurs
12. In my team, the leader of the group encourages the team to learn, share knowledge in team dialogue and practice lifelong learning.	4.02	.73	Somewhat true or occurs
13. In my team, the leader encouraged teachers and staff to participate in dialogue to make decision by consensus and respect the opinion of them.	4.00	.68	Somewhat true or occurs
14. In my team, the leader creates expectation that everyone is responsible for learning, collecting and transferring knowledge.	4.22	.66	Always true or occurs
Provide Strategic leadership for learning	4.13	.57	Somewhat true or occurs

ORGANIZATIONAL LEVEL

Factors and Dimension	MEAN	SD	RATING
15. The school provides resources and facilities needed for teachers and staff to perform knowledge management and fosters organizational learning.	4.20	.73	Somewhat true or occurs
16. The school recognizes people as praise and reward for learning constantly and taking risk to initiative innovation.	4.29	.68	Always true or occurs
Empower people toward a collective vision	4.28	.64	Always true or occurs
17. The school develops a knowledge base around the values and learning needs of the organization.	4.16	.66	Somewhat true or occurs
18. The school gives priority to the promotion of learning and as part of the evaluation and internal audit.	4.39	.67	Always true or occurs
19. The school encourages team mixing and job rotation to maximize knowledge transfer across boundaries.	4.06	.76	Somewhat true or occurs
Create systems to capture and share learning	4.20	.60	Always true or occurs
20. The school requires teachers and staff to record experiences, knowledge, skillful process and good practices in written documents such as instruction manuals, lesson plans, operational reports in a format that can be reused again later.	4.15	.66	Somewhat true or occurs
21. The school works together with the outside community to meet mutual needs for organization learning.	4.09	.73	Somewhat true or occurs
Systems Connection Connect to organization to its environment	4.14	.62	Somewhat true or occurs

Table 14: teachers and staff perceived that after OD Intervention, continuous learning is always occur while Promote dialogue and Inquiry increase to somewhat occur at the individual level. At the team or group level, teachers and staff perceived that both encourage collaboration and team learning occur and provide Strategic leadership for learning are increase to somewhat occur. At the organization level, teachers and staff perceived that create systems to capture and share

learning and empower people toward a collective vision are always occur while systems connection is increase to somewhat occur.



Table 15 : *POST OD Intervention : Descriptive Mean and Standard Deviation (SD)*

Level and Dimension	MEAN	SD	RATING
Continuous learning	4.28	.49	Always true or occurs
Promote dialogue and Inquiry	4.12	.55	Somewhat true or occurs
INDIVIDUAL LEVEL	4.19	.48	Always true or occurs
Encourage collaboration and team learning	4.04	.57	Somewhat true or occurs
Provide Strategic leadership for learning	4.13	.57	Somewhat true or occurs
TEAM LEVEL	4.08	.53	Always true or occurs
Empower people toward a collective vision	4.28	.64	Always true or occurs
Create systems to capture and share learning	4.20	.60	Always true or occurs
Systems Connection Connect to organization to its environment	4.14	.62	Somewhat true or occurs
ORGANIZATIONAL LEVEL	4.21	.54	Always true or occurs

Table 15 indicates teachers and staff perceived that after OD Intervention organizational learning occurs increases to always occur at individual level, team level and organizational level.

4.2.5 : Descriptive Mean and Standard Deviation comparison of PRE and POST OD

Intervention

Table 16 : PRE and POST OD Intervention : Descriptive Mean and Standard Deviation (SD)

INDIVIDUAL LEVEL

Factors and Dimension	PRE ODI		POST ODI	
	MEAN	SD	MEAN	SD
1. I give priority to learning and ready to put new knowledge into practice.	2.46	.90	4.26	.58
2. I am open to learning new things and use new knowledge to develop myself and my job.	2.43	.91	4.41	.63
3. I can freely develop my learning skills for innovation and I attend meetings and seminars outside my school to exchange knowledge and experience.	2.52	.84	4.18	.61
Continuous learning	2.47	.90	4.28	.49
4. I help other teachers and staff to foster dialogue and learning atmosphere to develop ourselves and school	2.64	.86	4.16	.65
5. I participate with other teachers and staff in bringing new knowledge to use in planning, making decisions and problem solving	2.51	.94	3.99	.70
6. I am encouraged to share and learn together in an atmosphere of openness and transparency.	2.52	.76	4.10	.72
7. I understand my job description and realize how it is aligned to school organizational vision and culture.	2.64	.73	4.25	.67
Dialogue and Inquiry	2.58	.63	4.12	.55

TEAM LEVEL

Factors and Dimension	PRE ODI		POST ODI	
	MEAN	SD	MEAN	SD
8				
. In my team, we have a systematic process of learning as a team within the same line of work and create new knowledge from existing knowledge by processing data and dialogues.	3.14	.68	4.11	.69
9. In my team, we are encouraged to share knowledge and feedback among members of our team and with other teams.	2.30	.83	4.03	.73
10. Each teachers and staff as member of each team in the school realize the goals and the technical expertise of their group work.	2.53	.98	4.09	.72
11. In my team, we are encouraged to participate in decision-making by consensus, using information and dialogue before making a final decision.	2.22	.98	3.95	.81
Collaboration and team learning	2.54	.67	4.04	.57
12. In my team, the leader of the group encourages the team to learn, share knowledge in team dialogue and practice lifelong learning.	2.97	.59	4.02	.73
13. In my team, the leader encouraged teachers and staff to participate in dialogue to make decision by consensus and respect the opinion of them.	2.67	.80	4.00	.68
14. In my team, the leader creates expectation that everyone is responsible for learning, collecting and transferring knowledge.	2.70	.88	4.22	.66
Strategic leadership for learning	2.78	.60	4.13	.57

ORGANIZATIONAL LEVEL

Factors and Dimension	PRE ODI		POST ODI	
	MEAN	SD	MEAN	SD
5. The school provides resources and facilities needed for teachers and staff to perform knowledge management and fosters organizational learning.	2.87	.90	4.20	.73
16. The school recognizes people as praise and reward for learning constantly and taking risk to initiative innovation.	2.48	.91	4.29	.68
Empowerment	2.67	.92	4.28	.64
17. The school develops a knowledge base around the values and learning needs of the organization.	2.48	.88	4.16	.66
18. The school gives priority to the promotion of learning and as part of the evaluation and internal audit.	2.33	.98	4.39	.67
19. The school encourages team mixing and job rotation to maximize knowledge transfer across boundaries.	2.52	.94	4.06	.76
System Embedded	2.41	.85	4.20	.60
20. The school requires teachers and staff to record experiences, knowledge , skillful process and good practices in written documents such as instruction manuals, lesson plans, operational reports in a format that can be reused again later.	2.71	.97	4.15	.66
21. The school works together with the outside community to meet mutual needs for organization learning.	2.51	.94	4.09	.73
Systems Connection	2.60	.86	4.14	.62

Table 16: Teachers and staff perceived that after OD Intervention, continuous learning, Promote dialogue and Inquiry increase at the individual level. At the team level, teachers and staff perceived that both encourage collaboration and team learning occur and provide Strategic leadership for learning are increase. At the organization level, teachers and staff perceived that

create systems to capture and share learning, empower people toward a collective vision, and systems connection is increase.

Table 17 : *PRE* and *POST OD Intervention comparison : Descriptive Mean and Standard Deviation (SD)*

Level and Dimension	PRE ODI		POST ODI	
	MEAN	SD	MEAN	SD
Continuous learning	2.47	.90	4.28	.49
Dialogue and Inquiry	2.58	.63	4.12	.55
INDIVIDUAL LEVEL	2.53	.71	4.19	.48
Collaboration and team learning	2.54	.67	4.04	.57
Strategic leadership for learning	2.78	.60	4.13	.57
TEAM LEVEL	2.64	.62	4.08	.53
Empowerment	2.67	.92	4.28	.64
Embedded System	2.41	.86	4.20	.60
Systems Connection	2.60	.87	4.14	.62
ORGANIZATIONAL LEVEL	2.54	.73	4.21	.54

Table 17 indicates teachers and staff perceived that after OD Intervention organizational learning occurs increases at individual level, team level and organizational level.

4.2.6 The Paired Sample t-Test: The PRE ODI and POST ODI Research Result

The researcher determined the significance of means difference by using the Paired Sample t-Test to respond to the fourth research objective and find answer to the fourth research question. The fourth research question led to the hypothesis about testing the significant difference of ACN Organizational Learning between Pre-Organization Development Intervention and Post-Organization Development Intervention. The following statistical analysis and data interpretation are presented below.

Table 18: *POST OD Intervention : T-Test INDIVIDUAL LEARNING*

The Difference of OD Intervention between Pre OD Intervention and Post OD Intervention

Dimensions		Paired Differences		t	Sig	Decision
		Mean	Stand Deviation			
Pair 1	Continuous learning POST ODI – PRE ODI	1.81195	.96054	24.883	.000	Reject Ho
Pair 2	Dialogue and inquiry POST ODI – PRE ODI	1.54598	.78739	25.899	.000	Reject Ho
Pair 3	Individual Level POST ODI – PRE ODI	1.66063	.80144	27.332	.000	Reject Ho

Table 18 indicates the results of the effect of OD Intervention on Individual Learning. The significant value in the table is equal to 0.000, which is less than 0.05 of significance level of two tailed, the null hypothesis is rejected. Therefore, the researcher concludes that there is a significant difference in the level of Organizational Learning at the Individual Level following the OD intervention.

Table 19 : *POST OD Intervention : T-Test TEAM LEARNING*

The Difference of OD Intervention between Pre OD Intervention and Post OD Intervention

Dimensions		Paired Differences		t	Sig	Decision
		Mean	Stand Deviation			
Pair 4	Collaboration and team learning POST ODI – PRE ODI	1.49425	.85425	23.074	.000	Reject Ho
Pair 5	Strategic leadership for learning POST ODI – PRE ODI	1.35868	.78826	22.736	.000	Reject Ho
Pair 6	Team Learning POST ODI – PRE ODI	1.43540	.78471	24.129	.000	Reject Ho

Table 19 indicates the results of the effect of OD Intervention on Organizational Learning. The significant value in the table is equal to 0.000, which is less than 0.05 of significance level of two tailed, the null hypothesis is rejected. Therefore, the researcher concludes that there is a significant difference in the level of Organizational Learning at the Team Level following the OD intervention.

Table 20 : *POST OD Intervention : T-Test ORGANIZATION LEARNING*

The Difference of OD Intervention between Pre OD Intervention and Post OD Intervention

Dimensions		Paired Differences		t	Sig	Decision
		Mean	Stand Deviation			
Pair 7	Empowerment POST ODI – PRE ODI	1.60632	1.09593	19.334	.000	Reject Ho
Pair 8	System embedded POST ODI – PRE ODI	1.78603	.97905	24.063	.000	Reject Ho
Pair 9	Systems Connection POST ODI – PRE ODI	1.54023	1.02489	19.824	.000	Reject Ho
Pair 10	Organization Learning POST ODI – PRE ODI	1.66408	.85525	25.666	.000	Reject Ho

Table 20 indicates the results of the effect of OD Intervention on Organizational Learning at Organization Level. The significant value in the table is equal to 0.000, which is less than 0.05 of significance level of two tailed, the null hypothesis is rejected. Therefore, the researcher concludes that there is a significant difference in the level of Organizational Learning at the Organization Level following the OD intervention.

4.3 QUALITATIVE RESEARCH FINDINGS; THE INTERVIEW AND OBSERVATION RESULTS OF THE POST OD INTERVENTION

Social communications and face to face interactions were used to facilitate interview and collect qualitative data to respond to the research objectives no.4; To make assessment of the effect of intervention and determine the amount of improvement, and the research questions no.4 and 5; What is the perception difference on learning organization of individuals, team and organization learning before and after ODI? What is the impact of Organization Development Intervention (ODI) on individuals learning, team learning and organizational learning? The feedbacks are as followings.

Table 21: Key summary from structured feedback from Pre ODI

Dimensions	No. of feedback	Coder 1	Coder 2	Coder 3	Final Agreement
Individual Level					
- Continuous learning	85	<ul style="list-style-type: none"> - Lack of awareness - Neglect developing their learning skill - Teachers are too tire to be different - Do not value learning - No one talk about learning new thing 	<ul style="list-style-type: none"> - Limitation of adaptation to changes - Play safe and strict to command - Learning new thing is not compulsory - Learning happen from attending seminar and training. 	<ul style="list-style-type: none"> - No need to learn new thing much - Follow command -Some teacher practice learning 	<ul style="list-style-type: none"> - Do not value learning - Fix mindset avoid risking to bring new knowledge to use in planning, making decisions and solve problems - Neglect developing their learning skill

Dimensions	No. of feedback	Coder 1	Coder 2	Coder 3	Final Agreement
- Dialogue and inquiry	84	<ul style="list-style-type: none"> - Dare not to take risk to use new knowledge to use in making decisions and solve problems - Good practice is personal secret - Dialogue happy in close friend group 	<ul style="list-style-type: none"> - Moderately transfer experience, knowledge, skills and good practices - Many teachers share their knowledge in close group. - Dare not to take risk to use new knowledge to use in planning - used to keep quiet and serve conservative line command with no question. 	<ul style="list-style-type: none"> - Moderately trust to say different opinion - Never read job description - School vision and culture is just a paper in the file box. 	<ul style="list-style-type: none"> - Moderately transfer experience, knowledge, skills and good practices - Dare not to take risk to use new knowledge to use in planning, making decisions and solve problems. - Have moderate trust in each other in the workplace - Don't understand their job descriptions and how it aligns to school organizationa I vision and culture.
Team Level					
Collaboration and team learning	80	<ul style="list-style-type: none"> - Work as team according to line command with no question in the team. - Team cannot make their own decision - Have to wait for top management decision 	<ul style="list-style-type: none"> - Unorganized process of learning as a team - Top management make decision and Never listen to team opinion 	<ul style="list-style-type: none"> - Lack of freedom and flexibility - Not realize other expertise - Have less evaluation in team working process 	<ul style="list-style-type: none"> - Unorganized process of learning as a team - Moderately share knowledge and feedback between members in teamwork - Limit realize the goals and the technical expertise of the group work - Lack of freedom and flexibility to make decision as team
Strategic leadership for	85	<ul style="list-style-type: none"> - Director directs every activity. - The top 	<ul style="list-style-type: none"> - Director solves every problem. - Top management 	<ul style="list-style-type: none"> - Single opinion leadership style - No need for 	<ul style="list-style-type: none"> - Leader of the team has no passion in

Dimensions	No. of feedback	Coder 1	Coder 2	Coder 3	Final Agreement
learning		management does not aware of the importance of developing the school towards a learning organization	have no interest in learning process of the team. - No one know Organizational Learning -	teachers and staff to learn new thing extra than following command and rules.	livelong Learning and dialogue in the group. - Leader practice OL in the team - Leaders do not create expectation for OL
Organization Level					
Empowerment	80	- Little space for organizational learning, initiative and innovation - Think independently innovation are not recognized .	- Bureaucratic working style - Do not have the courage to take initiative - Limit in support risk taking	- Fix mindset of blind respond - Avoid risking	- Limit in Practice knowledge management and fosters organizationa l learning - Limit in support risk taking and initiative to think independently innovation are not recognized and reward
System embedded	85	- Failed to turn their experience to knowledge	- Not support the knowledge management and learning culture	- No need to record experiences, knowledge for further benefit - Team mixing is done informally.	- The system does not values knowledge base performance and learning of the organization - No team mixing and job rotation to maximize knowledge transfer across boundaries. - Mode rately record experiences, knowledge for further benefit
Systems Connection	82	- Moderate awareness among administrators, teachers and staff of global educational trends	- Dare not taking risks - Limit knowledge transfer across boundaries.	- Avoid team mixing - Job rotation is considered as punishment - Create Networking to	- Gives less priority to the organization of learning and as part of the evaluation and internal

Dimensions	No. of feedback	Coder 1	Coder 2	Coder 3	Final Agreement
				meet mutual needs for organization learning according to command	audition - Networking to meet mutual needs for organization learning

After introduction of OD Intervention teachers and staff at Assumption College Nakhonrachasima demonstrated improvement in their interest and support for the school vision. Though, the school adopted the general vision from the Foundation, teachers and staff were involved in the creation of the school vision, their department vision and they appeared to share ownership for it during the annual seminar. The vision was shared with teachers through the communications of the Director during the monthly meeting, meeting of the boards of the Director, and meeting of Department committee. The vision is now widely accepted by teachers and staff.

Table 22 : Key summary from structured feedback from POST ODI

Dimensions	No. of feedback	Coder 1	Coder 2	Coder 3	Final Agreement
Individual Level					
- Continuous learning	95	<ul style="list-style-type: none"> give priority to learning - Some adaptation to changes - knowledge to develop job - have flexibility to develop learning skills - Teachers and staff gradually improved their individual learning 	<ul style="list-style-type: none"> - ready to put new knowledge into practice - Learning happen from attending seminar and training. - develop passion to innovation - vision is now widely accepted by teachers and staff 	<ul style="list-style-type: none"> - open to learning new things Follow command - Some teacher practice learning 	<ul style="list-style-type: none"> - Value learning - Growing mindset avoid risking to bring new knowledge to use in planning, making decisions and solve problems - Having passion to learning and develop learning skill
- Dialogue and inquiry	90	<ul style="list-style-type: none"> - Try to use new knowledge to use in making decisions and solve problems - Good practice is personal secret - foster dialogue in close friend group - Have trust to say different opinion - Teachers are encouraged to share and learn 	<ul style="list-style-type: none"> - Better learning atmosphere some teachers share their knowledge. - Better atmosphere of openness and transparency - Teachers aligned their work to school organizational vision and culture. 	<ul style="list-style-type: none"> - Teachers and staff are encouraged to study their job description - teachers and staff participate with other in planning and solving problems. - Teachers take risk to use new 	<ul style="list-style-type: none"> - Have passion to share and transfer knowledge, and good practices - Bring new knowledge to use in planning, making decisions and solve problems - Have Openness trust in each other in the workplace

Dimensions	No. of feedback	Coder 1	Coder 2	Coder 3	Final Agreement
		together - Teachers provided quality time to work collaboratively and team learning is valued	- There is no need to wait for directive and order, academic staffs make use of dialogue to learning and transfer knowledge.	knowledge to use in planning	- Align to school organizational vision and culture.
Team Level					
Collaboration and team learning	100	- Work as team to share information and making team. - Teams have some chance to make their own decision - Develop systematic process of learning as a team - Teachers and staff tried to form a team to carefully plan events and processes too meet the expectation of the director.	- Create new knowledge from action and reflection as a team - Managements start to value feedback among members of each team and across teams - The schools administrators are not familiar with teams or team learning processes.	- Feedback among members of team are encouraged - Learning as a team occurs within the same line of work - Team members participate in decision making	- There is systematic process of learning as team - Passion to knowledge and feedback sharing in team are valued - Teacher and staff began to realize the goals and the technical expertise of their teamwork - Freedom and flexibility to make decision as team become true and occur more often
Strategic leadership for learning	102	- Director encourage teams to learn and practice lifelong learning - Sharing knowledge and dialogue in team become common practice to reach team decision.	- Top management have interest in learning and creates expectation for teachers and staff to be participative in KM - Leadership training for team leaders are expected	Teachers and staff have better responsible for learning, collecting and transferring knowledge. - Teachers and staff demonstrated improvement of their interest and support for the school vision	- Leader of the team have passion in lifelong Learning and dialogue in the group. - Leader practice OL in the team - Leaders create expectation for OL
Organization Level					

Dimensions	No. of feedback	Coder 1	Coder 2	Coder 3	Final Agreement
Empowerment	103	<ul style="list-style-type: none"> - Resources and facilities are provided to support learning. 	<ul style="list-style-type: none"> - Fostering organizational learning become interested to team leaders. 	<ul style="list-style-type: none"> - There is reward for initiative and innovation 	<ul style="list-style-type: none"> - Practice knowledge management and fosters organizational learning - Support risk taking and initiative to think independently innovation are highly recognized and reward
System embedded	100	<ul style="list-style-type: none"> - Process and good practices are required to make as written documents or instruction manuals - Teachers and staff appeared to share ownership for school and department vision 	<ul style="list-style-type: none"> - Knowledge management and learning culture become mutual understanding and expectation. - Informal networks enabled the transfer of knowledge 	<ul style="list-style-type: none"> - Departments create reports in a format that can be reused again - Job rotation is easier to negotiate and accepted. 	<ul style="list-style-type: none"> - The system highly values knowledge base performance and learning of the organization - Cross team working and job rotation to maximize knowledge transfer across boundaries. - Practice KM
Systems Connection	104	<ul style="list-style-type: none"> - Better awareness among administrators, teachers and staff of global educational trends 	<ul style="list-style-type: none"> - Knowledge transfer across boundaries. 	<ul style="list-style-type: none"> - Create Networking to meet mutual needs for organization learning according to command 	<ul style="list-style-type: none"> - Set priority to the organization of learning and as part of the evaluation and internal audition - Networking to meet mutual needs for organization learning

4.3.1 Individual level

In order to improve organizational learning capacity in Assumption College Nakhonrhasima school, the researcher tried to evaluate and understand the current individual learning activities by conducting structured formal and informal interviews and observations at many meetings and working atmospheres. The questions were asked to help the teachers and staffs determine their individual learning and enable their improvement. Determining the types of learning

that the individual engages in (single-loop, double-loop, deuterio) and how they engaged in learning will provide insights regarding the occurrence of the new learning.

4.3.1.1 Continuous learning

At Assumption College Nakhornrachasima, teachers and staff were required to attend professional meetings regularly and to perform action research in the area of responsibilities. Engaging in the ODI made teachers and staff aware of the necessity of practicing organizational learning. They gradually improved their individual learning. There were evidence and testimony of practices of both single-loop and double-loop learning.

The head of the Director's Office who was responsible for the personnel stated about learning in the workplace thus, *"the kick off meeting made teachers set priority to learning dimensions and practice learning, they learn as they always attend seminars and professional trainings to get new ideas, knowledge and methodologies to apply to our job. Our school has been ongoing in making this task force as policy."*

The Head of Academic Department also said *"After the school has engaged the ODI, the school curriculum is constantly being revised and has become an essential point of reflection in the meeting of the department. The classroom action research and reflection is very important as part of teaching responsibilities"*.

An example of adaptive (single-loop) learning is provided by a discipline staff:

"There were some of the students who came in late on Monday morning. Students always have many reasons and excuses. So I reported to the head of the Discipline Department and the administrator came up with a directive that anyone arriving late on Monday morning gets a face-to-face warning by him and has to meet him as the first person in the school for three days. So in that case it was the administration saying to the students 'this is the your choice'". (Single-loop as described by a discipline staff).

Higher Secondary Teachers followed an example of generative learning (double-loop) outlined by a class teacher:

"There was a policy from the Director to focus on the ensuring the success of every student to enter the university. Teachers believed that they already had success but they weren't convinced that they had attended to some of our students' special needs. Actually, many teachers realized that it was through a collaborative movement and initiatives of our teachers with the cooperation and encouragement of the Head of the Academic Department. I think many teachers have a better understanding of what it means to be learning disabled, and how one might better assist a student

with learning disable. The teachers in higher secondary section are better prepared to meet students with special needs” (double-loop learning described by a class teacher).

4.3.1.2 Dialogue and Inquiry

As the researcher tried to lead change in improving the organizational learning, the researcher made use of how everyone knew each other well and their informal relationship to initiate frequent on-the- job training, socialization and sharing of information through social media such as LINE Group. It became very common between administrative teachers and staffs to have a face- to-face contact and social media communication in dealing with problems and finding a solution. This reduced the need for a formal plan as described by the head of academic Department.

“Most of our contacts and communication are usually face to face conversations and sending messages via social media. Most staff members are in the academic office before school and head of the department come to school early, so it’s easy to make contact with people. We encounter everyday situation together. There is no need to wait for directive and order, academic staffs make use of dialogue to learning and transfer knowledge. There may be a formal memo or a special meeting, but usually someone will come to you and say, look, have you seen this?, are you aware of that?, show me how to do this. Social media also is very useful to our communication, as everyone feels comfortable to share information and knowledge. Again, that’s part of the communication of the school. It’s small enough that you can touch base with somebody. It’s very informal.”

Informal networks enabled the transfer of knowledge between departments and through peer-to-peer communication. For example, the English teachers at higher secondary talked about sharing as an informal process:

“When I taught M.6, we met formally in the morning of every week to look at the curriculum in academic staff meeting. But this year we meet informally and a lot more getting covered because it’s not someone else’s agenda or sitting for listening someone else business. On the other hand, when you just go to a general department meeting, I would say that I probably accomplish the most by setting up at individual meetings with teachers or making use of social media to send message and enable dialogue. We plan the curriculum together, share the student’s problems and find solutions through informal meeting then report the outcome through the weekly meeting.”

4.3.2 Team or Group Level

At ACN, individuals formally operate as groups or teams according to Director’s directives. The schools administrators are not familiar with teams or team learning processes. Teachers and

staffs are often skeptical about working as a part of a group. They feel comfortable to follow the directive from the top. However, knowing about Learning Organization did change their attitude and they began to feel that forming teamwork or committees are primarily an effective means for them to provide input and enable administrators to make a desirable final decision. One of the more experienced Lower Secondary teachers claimed:

"In making any change in our schools, groups of people come together in a variety of forms (task forces, management teams, and curriculum teams) to analyze complex issues and tackle organizational problems. Series of meeting were scheduled. They came together many times to develop the new curriculum, experiment with and implement technology and to work on improving school operations and sometimes groups form automatically along departmental lines, usually for the purpose of improving departmental effectiveness."

There is some evidence of new learning spreading throughout the organization at the team level. Though the process at the initial state is slow, teachers provided quality time to work collaboratively and team learning is valued.

4.3.2.1 Collaboration and team learning

After engaging the first seminar to introduce Organizational Learning, teachers were expected to work collaboratively in their department and sharing information or result of project implementation was quite common in many meetings. The culture of the school was collaborative in nature. Indeed, they had established an atmosphere in which sharing and learning seemed to evolve naturally. Sharing and transferring of knowledge were important. As a result, teachers and staff tried to form a team to carefully plan events and processes to meet the expectation of the director. One of the heads of the sport day organizing team mentioned:

"Well, with the director and many former heads of departments in the meeting, I would say that there were a lot of decisions that would be made to solve problem and plan for the unexpected issues. There were new recommendations as the old practices by working committee got refused and new solutions were found out by the dynamic of the meeting. I think a lot of people must have felt that a lot of time had been wasted as they had to listen and practice without a chance to be a part of planning committee. I felt the change and was willing to do my best because I have chance to make decision. I want to prove that I was right also."

Many teachers claimed they work with both formal organized teams and informal team. After they learned about the organizational learning, they realized that they have to take learning process as priority to their consideration. Teachers and staff claimed that they enjoy to plan, solve problems and make decisions together. They also indicated that even though they became more

busy and take more time to discuss and wait for people to come for a meeting, they felt the meaning of being together as a family. Time to find consolation from people outside school became less meaning.

A senior lady teacher said, *"I've often felt we should make dialogue about our situation and plan the project more and more. Senior teachers should have spirit to share their wisdom to the young and give space for the young teachers to grow intellectually with a warm feeling."*

After engaging with ODI, ACN administrators and teachers began to take risk in organizing team from cross-functional work units. They designed combination of team with cross functional work to deal with a situation, meet stakeholder's expectations and continuously improve services to stakeholders. The teams are provided with quality time to work and explore collaboratively and create opportunities for professional learning from one another during the sharing of new learning experiences with each other and the rest of the organization.

4.3.2.2 Strategic leadership for learning

ACN administrators began to see the benefits of organizational learning and working in teams however, they still played safe or felt comfortable to minimize the change. Administrators were skeptical in losing complete control and questioned the team in participating in decision-making activities. However, they provided quality time and space for groups or teams to work collaboratively. When teachers and staff came together in groups, they developed a sense of responsibility and decision-making in group became gradually accepted.

By the end of the semester, teamwork was gradually valued and effectively practiced. Teams are a part of normal operations in many departments and team learning occurs as a natural part of work. A head of workgroup explained how teamwork was functioning:

"My workgroup had evolved and become more diverse as the teachers and staff were gathered from across the team. Conflicts and disagreements of how to go about doing things and making decisions were essentially the issue leading to dialogue and discussion. Consensus building enabled the team to make good decisions."

Top management team realized that the school need to train personnel to not only appreciate working in group but to have good strategic approach in working in team. Preparation of the strategic leadership became our next priority. The head of Quality Assurance Team mentioned:

ACN employed a variety of teams, both formally and informally organized, to deal with many complex issues, to search for new knowledge, to solve problems and to take risk in innovative action. The integration of technology, the Gifted Program and English Program were examples of

how the school had reflected on its purpose and made transformational changes for education mission. We are lacked of capable team leaders and administrators who really understand the situation and are able to lead the change in a smooth way.

Training team leaders from existing management structure were preferred and we set as school agenda. Though they had a limited knowledge of organizational learning at team level, administrators were beginning to realize the benefits to shift simple team working to organizing cross-functional work teams. There was no formal teamwork or team learning training but ODI enabled teachers, staff and administrators provided quality time to work collaboratively. Strategic leadership for team learning is valued and gradually practiced.

4.3.3 Organization Level

After introducing the organizational learning to the school, ACN organizational learning at the organization level became a new interesting issue. Administrator, teachers and staff became of the need to share knowledge among individuals and teams. In fact, it became the responsibility of all the members of the organization. Organizational learning leads ACN to effective change in organizational pattern of actions and reaction toward issues. Teachers and staff have a good attitude that whole organizational learning can be developed starting from changing at individual level. A new vision of practicing organizational learning had been communicated to the staff during new academic year seminar by the top administrator and a management team. In this instance, new knowledge resulted in the entire staff developing new thoughts and ideas about the nature of schooling and this translated into new ways of doing things. The director stated that the interpretation of the new knowledge resulted in a new model of schooling and made the school unique in the community of the schools in the province. Organizational learning enables ACN to become the school of choice in the province.

4.3.3.1 Empowerment

At ACN, the director, as top administrator had consulted with his boards, department heads and other key teachers to share the common vision of the Foundation and create ACN unique vision of the future. He communicated this vision by himself during many levels of meeting to the teachers and staff. They were asked to collaboratively support it. Any initiative or project that enabled the

vision to come true was highly concerned and collaboratively giving hands. The higher secondary social studies teacher, who had passion and was very supportive of the new vision, noted:

“There were some teachers who disagreed but acknowledged that there would be many changes. Yes, I do sense some decisions that are probably made before they come to the staff. I know some teachers in certain situations are not happy with the way some decisions that affect the whole school are made and they sometimes feel that they weren't consulted – that they weren't actively involved in the process. But, you know, it really wouldn't change things if they were. Heads of departments focused more on day-to-day management to support change. They had been through many dialogues to empower many key persons in leading changes”

ACN administrators gradually are supportive of organizational learning and its processes. They provide quality time for members to practice organizational learning in working and planning with collaborative atmosphere. They encourage team members to arrive at decisions based on critical analysis and they respect the decisions of the teams, making themselves available for input and to provide information and advice when it is requested but they do not try to lead the debate. They ensured that teachers and staff in their team receive enough special training on how to function as a member of a team. The head of Quality Assurance office explained her role in working with teams:

“In terms of all of the things that happen, I am just a voice. On the committees and in the places where it's so important to have staff take ownership, be part of the decision, and make the decision, I'm just one of the people”.

4.3.3.2 Embedded Systems

At the beginning of the OD Intervention, there were few changes or innovations in school. There is some existing knowledge management plan and evidence of new knowledge creation seemed neglected. Teachers and staff did not pay much attention to what was happening outside their school and education trend or sustainability of the school. There personally took efforts to be innovative just to solve their instant problem. Researcher activated the system of learning new knowledge through workshops and conferences. Means for sharing were formal memos, letters, notice boards, informal dialogues, work place visiting and meetings. However, whole organizational learning is interrelated with individual learning and team learning, and is more than the sum of individual and team learning.

Administrators recognized that it was essential to embed system to the school Quality Assurance System to enable organizational learning. The embedded system of organizational learning in ACN as the whole involves acquiring new knowledge through dialogues, sharing it with

members in the organization and ensuring that this new knowledge is stored and made easily accessible for future purposes. In schools KPI and process of internal audit were set to evaluate the system annually to ensure the growth of the organizational learning of the school. Long term growth and improvement plans for organizational learning were considered as means toward sustainability recognize that the future cannot for an uncertain future.

4.3.3.3 Systems Connection

Organizational learning in ACN is not only limited to practices inside the schools. After teachers and staff started practicing organizational learning, networking with other schools and institutions was animated by the administrators. Knowledge from outside school had made impact on initiatives to work and lead to innovation.

The administrators, teachers and staff kept up-to-date with education trend and social movement trends through social communication, Ministry of Education documents, consultation with experts, education visit and outing, and network-based projects, other. The administration teams have become open to exchange in networking and is ready to take risk in cooperation by contract. Teachers and staff are aware that it is not easy to maintain networks in function. It was a challenge for them to sustain productive and professional practice in dealing with others from outside school with understanding that a network requires mutual trust and reliable investment.

CHAPTER 5

Summary, Conclusions, and Recommendations

In this study, the improvement of organizational learning culture helps school members to become dynamic in learning new knowledge and innovation. The main concern of this research is to improve ACN teachers and staff as individuals learning, team learning, and organizational learning through the organization development interventions (OD Intervention). This chapter is organized under summary of findings, conclusion and recommendations. Improving organizational learning was a confirmed process conducted by the researcher through the Pre-ODI, ODI, and Post-ODI methods.

5.1 SUMMARY OF FINDINGS

The context of this study is Assumption College Nakhornratchasima, a school with 3,087 students, from kindergarten to higher secondary, with 213 Thai teachers, and 32 foreign teachers. The main concern of this research is to improve ACN teachers and staff as individuals, team, and organizational learning through the organization development interventions (ODI). Though the school has everything that a good school must have in terms of good facilities, environment, advanced technology equipment for educational technology to support classroom activities and student care system, teachers and staff school personnel do not recognize shared vision and fix their mindset toward the directives from top management. Deficiency of learning culture caused ACN teachers and staff, both team and individuals, to ignore change, repeat old practices, and apply old solutions in all ventures.

Organizational Learning was an OD Intervention which researcher utilized to help the school breakthrough the turbulent situation and ensure sustainability.

This action research had improved organizational learning of the school as an organization and allowed researcher as OD practitioner to collectively learn from existing practices, interventions and reflections.

5.2 CONCLUSION: PRE OD INTERVENTION

Researcher approached the situation of the school with the framework of an action research to examine the current situation of individuals, team and organization learning in Assumption College Nakhornratchasima (ACN). Pre-OD Intervention was concerned about diagnosing ACN school contextual situation with both qualitative and quantitative methods. Researcher learned the

context and situation of the school by meeting and interviewing with school director and middle administrators, department by department. Researcher performed qualitative method by studying various resources such as literature review, documentary research, and interviews with experienced educative administrators. Documentary research, structure social and interviews with administrators, teachers and staff allow research to examine the current situation of individual learning, team learning and organization learning in schools and searched for factors enable individuals, team and organization learning. Research diagnosed the extent of learning capacity by implementing a qualitative methodology with variety of means to gain preliminary data and situation of the school organizational learning, to locate areas of strength and weakness, and take steps to further develop it.

In order to gain better perception of Pre-ODI stage, an online survey with a questionnaire applied from DLOQ questionnaire was launched after its passing the validity test. Determination of the perceptions, preferences and the current issue of the school organizational learning and to identify trends gave insights on learning organization in the area of education to assess organization learning at all level, individuals team and institution level. The result of this quantitative survey study corresponded and confirmed with information from qualitative study and provided a quality preliminary data for researcher to in-depth understand the context of ACN.

Teachers and staff perceived that continuous learning and Promote dialogue and Inquiry at the individual level rarely occurred. They have a fixed mindset and avoid risk taking in planning, making decisions and solve problems. Self-initiative in learning skill was low as they moderately transferred experience, knowledge and good practices, and somewhat trusted each other in the workplace.

At the team or group level, teachers and staff perceived that encourage collaboration and team learning rarely occurred while they perceived that provide Strategic leadership for learning occurred more. Team leaders had limited passion in personal lifelong learning and learning as a team. Moderately shared knowledge and feedback between members in teamwork resulted in the team's lack of freedom and flexibility to make decision.

At the organization level, teachers and staff perceived that create systems to capture and share learning rarely occurred while empower people toward a collective vision and Systems Connection remained neutral. Limitation in Practice knowledge management and fostering organizational learning cause the management team to avoid supporting risk taking or initiative to think independently and deny innovation. They gave less priority on the organization of learning and did not value knowledge based performance as part of the evaluation and internal audition.

The results from qualitative study of documents, interview and observation reflected more challenge and area to improve than the result from quantitative study. Researcher could conclude the findings for the Pre-ODI about understanding and practicing of individuals, team and organization learning in the school that teachers and staff do not have the courage to take initiative but rely on the commands and directions of the Director. The single opinion leadership style did not enable leader of the organization to facilitate the change process and the transformation in the quality of teaching and learning. Teachers and staff hide themselves from taking any initiative and dare not liberate themselves. Any innovation must be informed to the top management before being implemented. The school has an administrative structure and management style that does not support the knowledge management and learning culture. Teachers and staff work have a fixed mindset to respond to the hierarchical controls and that of external standardization. They primarily stick to the conformity to rules, regulations and the directions from the authority.

5.3 CONCLUSION: OD INTERVENTION

Effective Organizational learning was a foundation of innovation and competitive advantage or the organization (Dai, 2012). It created positive impact on organizational performance (Common, 2004). To design and implement Organization Development Interventions to improve organizational learning, researcher integrated an open system, action research design framework and organizational development process together to diagnose, develop, and sustain the outcome in nature. Assessing and benchmarking the learning competency of an organization was an effective approach to motivate aspiration and a sense of urgent change to unfreeze the organization. Researcher performed observation and reflections of the school documentation. Survey and interview were conducted to make assessment to understand current practice of Organizational learning and factors enabling to learn at individual level, team level, and organization level.

Researcher got agreement and cooperation in taking action from the top management administrator of the school and consequently, sessions conducted during annual general assembly of the beginning of the year 2016 were dedicated to raise awareness and sense of urgency to change. All teachers and staff were introduced to Learning Organization and were engaged to raise awareness and a sense of urgency to improve organizational learning.

ACN as an organization gradually developed from its current state of learning organization to a more desired future state through the journey of ODI to foster and restrain organizational learning. Planning and successfully implementing the changes and improvement of organizational learning became an important part of the process. Researcher raised an awareness and engaged

everyone in the school to change process with the use of assembly in the annual seminar as OD Intervention to unfreeze the organization and to motivate change toward organizational learning.

Researcher arranged meetings with the school management and various departments of the school to give feedback and result of the Pre-ODI. Discussion and dialogue were well engaged and supported by the school management and personnel. Periodical on spot training and coaching for individual or teams were essential as researcher success in engaging management team to support, express their re-enforcement and made cooperation in foster OL Network.

Workshops and discussion for teachers and staff at different situation of Team/group level of teachers and staff were conducted to keep engaging teachers and staff to practice organizational learning. Researcher accompanied and had frequent visits to give/receive feedbacks. The sustainability of implement the organizational learning practice was well concerned. Focusing on close collaboration and high participation of the participants involved at every stage of the research process, Researcher linked organizational and individual learning with interventions and the improvement of practices to support acquisition and transmission of knowledge among individuals, team and the organization.

Researcher conducted sessions during annual general assembly of the beginning of the year 2017 to foster awareness on Learning Organization, to promote best practices and collect the qualitative data for POST OD Intervention. Researcher as a practitioner and facilitator of action research did enable space for reflection, learning and growing to improve individuals, team and the organization learning.

5.4 CONCLUSION: POST OD FINDINGS

ACN has gradually improved its organizational learning and become learning organizations to enable the chance of consciously and continuously pursuing quality improvement.

To determine the initial impact of ODI on individual, team and organizational learning, the progress analysis was determined from the Mean scores of the different gap scores of the variables between the PRE ODI and Post ODI. The quantitative data indicates that the perception of teachers and staff increases at individual level, team level and organizational level. The pair simple t-test was applied as statistic analysis to compare the mean score of PRE ODI and Post ODI to find out the impact of the OD Intervention for the ACN organizational learning. There was a significant difference in the level of Organizational Learning at the Organization Level following the OD intervention.

The following conclusions for the hypothesis are presented based on the quantitative data analysis.

Ho1 is rejected, there is a significant difference between PRE ODI and POST ODI on individual learning, team learning and organizational learning

The qualitative data indicates that after the school engaged ODI, teachers and staff at Assumption College Nakhonrachasima demonstrated improvement in their interest and support for the school vision. Though the school adopted the general vision from the Foundation, teachers and staff were involved in the creation of the school visions, their department vision and they appeared to share ownership for it during the annual seminar. The vision was shared with teachers through the communications of the Director during the monthly meeting, meeting of the boards of the Director, and meeting of Department committee. The vision is now widely accepted by teachers and staff.

5.5 RECOMMENDED OD INTERVENTION FOR ASSUMPTION COLLEGE NAKHORN RACHASIMA TO SUSTAIN DEVELOPMENT OF ORGANIZATIONAL LEARNING

The challenge of introducing the organization learning OD Intervention as an action research on the individuals, team, and organizational learning improvement is that Learning organizations will be subject to reflect and learn aligning with continuous development. It deals with the difference of perception and attitude among teachers and staff and leadership style of school administrators. This study success to raise the impacts to personal attitude and change practice by sets of designed planned actions, organizing workshops, and on spot trainings in an atmosphere of schooling activities. Researcher would like to propose building aspects (Garvin, Edmondson, and Gino, 2008) that the school administrators as change leaders perform to enable building up learning organization.

1. **Fostering a supportive learning atmosphere:** Learning organizations have environments and atmosphere that support learning of individuals and organizational learning. Passion to learn and mental wellbeing of the teachers and staff should be taken into consideration in planning of any project. Team performance and individuals' competency correlate with their interactions in organizational learning and the working atmosphere in the organization. (Davis and Daley, 2008). Administrators as top management should aware of diversity, respect differences,

always extend their generosity to innovation, and give priority to enable space and time for action and reflection.

2. Concrete learning processes and practices: A learning organization has genuine and lively organizational learning processes (Garvin, 1993). Administrators as top management should facilitate the learning culture and encourage practicing of understanding learning process, knowledge generating, collecting, and distributing of information and knowledge. Management of learning process is essential as it enables and ensures important information flows well in every process and unit in the school. At the end of every project or activity, Team leaders in various levels should perform systematic reflection and assessment base on the dimensions of organizational learning about successes and failures to sustain the practice of organizational learning.

3. Leadership behavior that reinforces learning: Leaders perform an important role in fostering organizational learning (Garvin, 2008). Once the practices of learning culture are integrated to daily routine and had become sustainable, administrators and management team should put their effort emphasizing and insisting on the productiveness of organizational learning process and regularly assess the performance. A leader's enthusiasm to support individuals and teams to continuously increase improvement in work processes and implement innovation will foster a supportive learning environment.

4. Engagement and focus attention: Individual learning is the foundation of team and organizational learning. It was an obvious point of departure for ACN wishing to increase its learning capacity. Everyone in the school must engage and focus their attention on creating continuous learning opportunities. This strategy enables the school to build a mass of learners and refine learning processes.

5. The shift towards continuous learning: teachers and administrators have been accustomed to following routine procedures and to maintaining established policies, rules and regulations. Team leader may become defenders of the status quo and have been slow to respond to the learning challenge on the school's journey towards a learning organization, school administrators will need to open to new ways of doing things and to develop an experimental mind-set which may result rapid learning and high levels of discomfort.

6. Promote commitment to passion of learning: It is a challenge to create high performing learning organization. In ACN, consideration must be given to providing quality time and a suitable environment to allow for the development of learning through individual commitment and conviction. Developing commitment and passion to learn would be a logical and more systematic requirements to lift up the next level of ACN organizational learning.

5.6 RECOMMENDATION TO THE ST.GABRIEL FOUNDATION THAILAND

Since this important research objective is to propose an Organizational Learning improvement OD Intervention for ACN and the schools under the Foundation of St.Gabriel, the researcher had created good and lively impacts in practicing organizational learning in ACN school life. Organizational learning offers a promising vision for future schools. Therefore, the findings of this research would propose Organizational Learning Improvement OD Intervention to sustain all 11 schools of Saint Gabriel Foundation in Thailand beyond following regulations and standardization.

1. Saint Gabriel Foundation in Thailand could support the administrators to implement the organizational learning improvement OD Intervention into practice in all 11 schools of Saint Gabriel Foundation in Thailand.

2. Saint Gabriel Foundation in Thailand could develop the school administrators in all 11 schools of Saint Gabriel Foundation in Thailand to better understand the practice of organizational learning and to continue practicing to become a learning organization.

3. Saint Gabriel Foundation in Thailand could prepare school administrators that realize the importance of organizational learning and are ready to provide direction and opportunities for others to embrace learning toward developing the potential for organizational learning initiatives to be successful increases greatly. This study supports the evidence that it is leaders' passion in promoting and practicing continuous lifelong learning that makes organizational learning a possibility for schools.

5.7 RECOMMENDATION TO THE FUTURE RESEARCHER

This study is based on introducing and activating the organizational learning by applying the Organization Development Intervention (ODI) focusing on a case study of Assumption College Nakhonratchasima (ACN). Researcher performed experimental research on ACN schooling and proposed Organization Development Intervention (ODI) be applied to assess the existing potentials of ACN' organizational learning improvement. The ODI improved individuals, team and organizational learning and enhanced the school toward greater organization learning.

Therefore, based on the findings of this research, the following recommendations for further researcher were suggested;

1. Future research could investigate how the OD Intervention could be modified to the requirements of each Saint Gabriel Foundation school in Thailand in order to develop a better OD Intervention to suit each school.

2. Future research could explore the application of the OD Intervention and its impacts on leadership style of administrators and management team in their operational performance with staff under their care in each individual school.

3. Future research could develop strategies to potentially reveal additional variables that are important to analyzing the impact of OD Intervention to improve organizational learning.

4. Future research could develop strategies to engage clients to continually reflect on what they have learned, their approaches, how they have a dialogue and make decisions, their findings and their reaction.

5. Future research could develop strategies to make use of technology and social communities as learning tools that lead to knowledge sharing and distribution. Developing of a dynamic application or fully developed and maintained web site can collect up-to-date organizational knowledge databases and allow teachers to access and learn from each other. Teachers may integrate new technologies into their teaching. They can improve their instructional strategies and guidelines along with an interactive forum to discuss comments and experiences.

EPILOGUE

My belief system is based on my purpose of life as a religious brother. I have been following the LORD JESUS CHRIST in the footsteps of St.Louis Marie de Montfort by giving my whole heart to practice the three evangelical vows; chastity, poverty and obedience. I embrace the heritage of St.Louis Marie in education mission. Moreover Teaching career is in my blood. I am the only son of a teachers' family. My father is a mathematics teacher while my mother is a primary class teacher and my elder sister is a catechist. In the community of the Brother, I grow up with the background of religious formation and my first obedience is formation work in the seminary. To be appointed to work in Assumption College Nakhornrachasima was my pleasure. My statement upon completing the Path Primer Selfware Instrument actually confirms me to cordially continue in this mission as a good religious brother and put my effort in educative mission.

My interest in the topic of Learning Organization came to my mind while sitting in one of my first Ph.DOD. Classes. As I was introduced to various leadership concepts and OD practices, I recognized that the content in business study was consistent with some religious concepts of administration of the school under our care. Since engaging with Ph.DOD class, I have absorbed general theories and practices of organization development as the process that leads to change the organization with brilliant intervention approaches. And the class always focuses on leadership and successfulness in business and brings the organization to engage the competitive business. The studying of Appreciative Inquiry and related technologies, Whole Brain Literacy, and learning to use Selfware Assessments click my mind. Thanks to the Sets of test instruments that were implemented in learning activities. They are the BrainMap, MindMaker, The M CIRCLE, and Path Primer. I started integrating OD from corporate point of view, education point of view and religious apostolate together and form my own recipe to create ODI for the school, which I would be assigned. Engaging with studying OD did inspire and move me to take part in the Brother's mission with new perspective. The OD concepts, theories and practices can be well integrated in religious apostolic and education. I started to study more in educational administration and look for school effective OD practices. I want to express my deep gratitude to Assumption University and thank all the lecturers and staffs for planting in me this precious seed of being an authentic leader in many ways.

In addition, I began to reflect in OD practice and make connection with my vocation as a religious Brother who has worked as an school administrator and facilitator of the school as living corporate. I began to recall some of the struggles and successes that I had while carrying out both

leadership roles. I have seen events in light of my strong Christian beliefs and my experience as a leader both in school and apostolic mission in the church. I still think of my colleagues Brothers, teachers, staff, collaborators of St.Gabriel who also have to face the same experience of struggling to reach school effectiveness and sustainability. With OD studying, I have learned a lot from the lesson and applied the precious advice from the study to real management situation. I am pretty confirmed that there are many things and solutions that I can learn from the business or organization development perspective to apply to solve or deal with administration and management problems. My secret is that I am a religious brother and I work with a whole heart for the organization without reserving anything for myself. I am free from any accusation of doing for my glory or successfulness.

This study was inspired toward a healthy change and improvement of the school learning culture in a balance way, which is the key finding of this study. It is tailor made for Assumption College Nakhornrachasima. I believe its finding could provide valuable information on how to give important to Organizational Learning in FSG schools without leaving schooling identity. In order to support aspiration to meet world class standard, ACN needs to develop itself toward a school fostering learning atmosphere and must be able to work together with foreigners as cross-team functions. This action research, which involved learning organization, was a good choice as it engaged with interchange of attitudes, working styles from global to local and shift teachers and staff from local to global. I believe this action research would enhance the practice learning continuously and result in the development of individuals, teams and school as an organization.

This study applied organization development in an integrative and holistic approach. I put effort to influence teachers and staff to recognize that they are part of culture of ownership and it is best for them to learn continuously and share the organization destiny in their own hands. The change must begin from the personal level and then expand to team level and finally organization level. It reflects the butterfly effect phenomenon. With this approach, I can deliver positive change management and sustainable performance.

My special contribution to ACN organization and the Brother of St.Gabriel is the OD Intervention that brings about good recipe of passion to learn and teach, working life and family life. It is the kind of OD Intervention to improve Organizational Learning that promotes **confrère** to bring their whole person which includes body, mind, and spirit to work or school life with sense of responsibility to the community with public mind. I believe that the activities of ACN OD will create a positive change that arises from the awareness of members of organization to keen to develop their family organization with openness to inspiration and creativity. The Interventions was

plentiful with consolidation in a collaborative, participative, more democratic and community center approach.

This study drives me a sense of accomplishment that I have left my legacy by promoting the living person of ACN toward of recognition of every single person in organization. I have united every good heart and effort to attain the common goal and shared vision by inspiring a passion to learn and to improve the organization. ACN organization moves toward treating itself as **a living corporate person.**



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Appendices



APPENDIX 1 : QUESTIONNAIRE

ACN Organizational Learning Diagnostic Survey

Explanation: This survey is designed to reflect the perception of ACN’s Organizational Learning capacity. On the following pages you will be asked to respond to 21 survey items which are divided into three categories:

- Part 1: Individual Learning
- Part 2: Team/Group Learning
- Part 3: ACN Organizational Learning

Please respond to each of the following items. For each item, determine the degree to which this is something that is or is not true of your organization. If the items refer to a practice that rarely or never occurs, score it a one (1). If it is almost always true of your department or work group, score the item as five (5). Fill in your responses by marking the appropriate number on the right columns

Always True or occurs	please check	5
Somewhat True or occurs	please check	4
Neutral	please check	2
Rarely True or never occurs	please check	1

Personal Information

Explanation: Please check ☒ into the box ☐

1. Your Department

- ☐ Director’s Office Dept.
☐ Kindergarten Dept.
- ☐ Academic Dept.
☐ Registration and Finance Dept.
- ☐ Student Affairs Dept.
☐ General Admin. Dept

2. Your Position

- ☐ Head of Dept.
☐ Teacher
- ☐ Assistant of Head Dept.
☐ Staff (office)
- ☐ Head of team work

DEFINITIONS AND TERMS

Saint Gabriel Foundation in Thailand (FSG): A federation of schools, colleges and an international university under the direction of the Montfort Brothers of Saint Gabriel, a catholic religious congregation of men.

Assumption College Nakornrachasima (ACN): A private catholic school under Saint Gabriel Foundation which is situated at 3 St.Mary Rd.Muang District, Nakornrachasima Province on the northeast of Thailand.

Organization Development Intervention (ODI): Organization Development Intervention refers to sets of designed planned actions and activities with OD techniques (methods) based on the behavioral sciences designed by the process of study to improve school as an organization to appropriate effectiveness. ODI enhances desired outcomes such as interpersonal relationship, knowledge, productivity, income, satisfaction, both for personal and group/team growth.

Knowledge Management: means efforts to manage the intellectual capital to be organized and utilized then improve toward better performance. KM is utilized as part of intervention to enable innovation and creativeness, to create knowledge at the individual and team levels, and to empower the school as an organization beyond solving current problems. KM leads to capability of progressively improvement to face change and learns from its experiences.

Learning Organization: Learning Organizational refers the state of the school as an organization that have practiced organizational learning and characteristics to collectively improve learning processes of the organization. Members of school as an organization perform an active dynamic learning role within their functions at diverse levels (individual, team or group, and organization) and how research facilitate the learning to develop the learning culture within school as

an organizational practice in order to struggle toward constant improvement in sharing best practices among individual and across team and spreading all over the organization.

Organizational learning: Organizational learning refers to the collective competency of organization learning behaviors at different levels (individual, team or group, and organization) composing of: Systems connection, Empower toward shared vision, Inquiry and dialogue, System to share learning, Embedded KM, Collaborative team learning, Create Continuous learning, Organization learning at individual level, Organization learning at team level, and Organization learning at Organization level.

Individual learning: refer to the performance of individuals' activities such as systematic problem solving, and investigation with new methodologies through effective dialogue to prove their assumptions, to make conclusions, and to reflect upon the emerging ideas and thoughts both individually and collectively. An individual in organization constantly learn from personal experiences, past history, and best practices of others.

Team learning: refers to systematic process of learning that encourages Encourage collaboration of employees to think and contribute their collective knowledge together. Leader of Teams lead dialogue to make reflection on working process, to make decision, to admire achievements and to foster growing mindset to improvements. With well planned strategies and strategic leadership for learning knowledge of the team are transferred systematically for better efficiency within team and across teams as they establish on each other's potencies.

Administrator: refers to the school personnel who perform educational administrator duties

Teacher: refers to the school personnel who perform teaching responsibilities.

Staff: refers to the school personnel who perform educational supportive responsibilities.

Continuous learning : refers learning behavior of school personnel and arrangement or management to allow learning opportunities; Learning activities are designed or integrated into work so that people can learn on the job; opportunities are provided for ongoing education and growth.

Dialogue and Inquiry: refers to school personnel behaviors to develop productive reasoning skills to express their views and the capacity to listen and inquire into the views of others. Arrangement and management are essential to encourage for a culture of positive investigation and sharing knowledge. The culture is changed to support questioning, feedback, and experimentation.

Collaboration and team learning: refers to active utilization of collaborative and cooperative skills. Job is designed to use groups to access different modes of thinking. Workings as team are expected to give value to collaboration by the culture and reward system.

Strategic leadership for learning: refers to supportive leadership roles of the school administrators and management team to change and give direction for the movement of the organization toward a collective vision improves organizational learning.

Empowerment: refers to promoting engagement toward a collective vision. School personnel at every level are involved in setting, owning, and implementing a joint vision; responsibility is distributed close to decision making so that people are motivated to learn toward what they are held accountable to do.

Embedded system: refers to appropriate knowledge management system. Various systems to share learning are created, integrated with work and well maintained.

Systems connection: refers to connecting the organization to its environment by involving both internal and external setting. School personnel are helped to see the effect of their work on the entire school. They scan the environment and use information to adjust work practices to link the school to its communities.

PART 1 Individual Learning					
Description	True Not true				
	5	4	3	2	1
Continuous learning					
1. I give priority to learning and ready to put new knowledge into practice.					
2. I am open to learning new things and use new knowledge to develop myself and my job.					
3. I can freely develop my learning skills for innovation and I attend meetings and seminars outside my school to exchange knowledge and experience.					
Dialogue and inquiry					
4. I help other teachers and staff to foster dialogue and learning atmosphere to develop ourselves and school					
5. I participate with other teachers and staff in bringing new knowledge to use in planning, making decisions and problem solving					
6. I am encouraged to share and learn together in an atmosphere of openness and transparency.					
7. I understand my job description and realize how it is aligned to school organizational vision and culture.					

PART 2 Team Learning					
Description	True Not true				
	5	4	3	2	1
Collaboration and team learning					
8. In my team, we have a systematic process of learning as a team within the same line of work and create new knowledge from existing knowledge by processing data and dialogues.					
9. In my team, we are encouraged to share knowledge and feedback among members of our team and with other teams.					
10. Each teachers and staff as member of each team in the school realize the goals and the technical expertise of their group work.					
11. In my team, we are encouraged to participate in decision-making by consensus, using information and dialogue before making a final decision.					
Strategic leadership for learning					
12. In my team, the leader of the group encourage the team to learn, share knowledge in team dialogue and practice livelong learning.					
13. In my team, the leader encouraged teachers and staff to participate in dialogue to make decision by consensus and respect the opinion of them.					
14. In my team, the leader creates expectation that everyone is responsible for learning, collecting and transferring knowledge.					

PART 3 Organizational Learning

ข้อคำถาม / Description	True Not true				
	5	4	3	2	1
Empowerment					
15. The school provides resources and facilities needed for teachers and staff to perform knowledge management and fosters organizational learning.					
16. The school recognizes people as praise and reward for learning constantly and taking risk to initiative innovation.					
Embedded systems					
17. The school develops a knowledge base around the values and learning needs of the organization.					
18. The school gives priority to the promotion of learning and as part of the evaluation and internal audit.					
19. The school encourages team mixing and job rotation to maximize knowledge transfer across boundaries.					
Systems connection					
20. The school requires teachers and staff to record experiences, knowledge , skillful process and good practices in written documents such as instruction manuals, lesson plans, operational reports in a format that can be reused again later.					
21. The school works together with the outside community to meet mutual needs for organization learning.					

APPENDIX 2 : ACN ORGANIZATIONAL LEARNING DIAGNOSTIC INTERVIEW QUESTIONS

Individual Learning Questions (ระดับบุคคล)

1. Has your daily practices changed since you began working here? How? Who or what has been most influential in making the change?

2. Tell me about your own professional learning experiences?
How do you plan for it? Who else takes an interest in it?

3. Tell me about how a recent professional learning experience has influenced your daily practices.

4. What has been the biggest stimulus to your professional learning and daily practices?

5. What role do administrators play in the professional learning of teachers and staff ?

6. What would happen to the work that you do if you had to leave the school?

7. What would happen to the work that you do if an administrator had to leave the school?

Team Learning Questions (ระดับกลุ่ม)

1. Is it common to see teams or groups of people working together?
If so, why are they formed? How are they formed?

2. How does this group keep up-to-date with the local environment and societal trends?

3. Does the group have any responsibility for reporting to the other staff members?
How are decisions arrived at?

4. Tell me about how group/team members interact with each other? How is group
information/knowledge shared

5. Do you think you have had an influence on any of your colleagues daily practices?

6. Is teamwork emphasized in this school? How do many of your administrators understand
and support teachers and staff to work as a team?

7. Would you describe the role of administrator to support the collection of people to work as a
team?

Whole Organization Learning Questions (การเรียนรู้ระดับองค์กรหรือโรงเรียน)

1. How would you describe the learning culture of ACN school?
What makes it unique and special for you?

2. How do you know what is happening here in the school? How are you kept up to date on things?

3. How do teachers and staff learn new skills, processes, and patterns of action for initiative work?

4. Give me an example and explain the processes that were put in place to facilitate this new learning?

5. What opportunities do you have to share your knowledge with others?

6. How does this school keep up-to-date with the local environment and societal trends?

7. Can you tell me a little about how problems are identified and solved, in the school? Who identifies them?

8. How are they identified? What types of things get discussed in the problem- solving process?

9. Do people actively engage in conversation about and plan for professional learning?

10. Who takes responsibility for professional/lifelong learning?

