

# Improving the Learning Organization Effectiveness through Developing Knowledge Management and Self-Efficacy

(Empirical study at elementary public school in Bogor, Indonesia)

Dian Wulandari, Widodo Sunaryo  
Education Management Doctoral Program  
Pakuan University  
Bogor, Indonesia  
widodosunaryo@yahoo.com

**Abstract**—Continuous learning among teachers has an important role to enhance the effectiveness of teacher's daily learning activities in the organization, in order to improve teacher's knowledge and competencies, and ultimately for achieving educational strategic goals. Based on a preliminary survey, it had been found that many teachers had low activities of learning in the organization, limited activities in managing knowledge, and low-level of self-efficacy. Based on that issues we formulated the objectives of this research as to improve the learning organization effectiveness through developing knowledge management and self-efficacy. This research was carried out at Elementary Public School Teachers, in Bogor. A total of 230 from 45 schools were sampled to collect data. This research was used correlational technique to assess the degree of relationship among those variables. The findings of this research can be summarized that there is a positive and significant correlation (1) between knowledge management with learning organization effectiveness ( $r=0.814$ ,  $p<0.01$ ), (2) self-efficacy with learning organization effectiveness ( $r=0.214$ ,  $p<0.01$ ), and between knowledge management and self-efficacy simultaneously with learning organization effectiveness ( $r=0.819$ ,  $p<0.01$ ). This finding supported the recommendations to improve learning organization effectiveness through teachers' knowledge management and self-efficacy.

**Keywords**—learning organization effectiveness; knowledge management; self-efficacy

## I. INTRODUCTION

Education is the most important pillar in human resource development process that enable people to not only to survive, but to be more competent and superior in controlling the situation to improving their quality of life. The magnitude of the process in order to achieve excellent educational output requires all members of educational institutions, especially teachers, to perform their role effectively. As Peter Senge, one of the initiators of learning organization states that learning institutions (schools) can be designed and implemented as a learning organization through involving all parts of the school system (teachers, parents, students, business people and community) in the expression of their aspirations, build

awareness and joint capabilities through the development of five (5) learning discipline in order to encourage the achievement of the organization and a better future, namely personal mastery, shared vision, mental models, team learning and system thinking [1]. Teachers need to develop continuous learning activities or known as learning organization, including developing a positive and constructive perspective to be the learners, take an optimum effort to constantly learn various methods and facilitation techniques, enrich and updating learning resources, and mastering their skill to utilizing information and communication technologies in learning process. Learning organization is an organization that deliberately designing, constructing the structure, atmosphere, culture, and strategy in a way that enhance and maximize the potential of organizational learning, implement lifelong learning, and optimizing learning process in order to transform themselves into a more effective organization [2-7].

Learning organization should be fully support by all members with optimizing their own role. Learning organization is an organization in which everyone is engage in identifying and solving problem, enabling the organization to continuously experiment, improve, and increase its capacity. All activities in school to transform into learning organization with implement regular training program for teacher, practicing problem solving systemically and improving best practices, will impact significantly on competitive advantage of the school.

Unfortunately, based on our preliminary survey (2016) at the area of elementary public schools in Bogor, it was found that the activity of continuous learning among teachers is not optimal, teachers have not been consistently used the personal ability, the habit to develop positive construction to view phenomenon and solving problem was not build up yet, the teachers are not use management support for interaction, communication and collaboration among members at the maximum effort, teachers have not fully participated actively in formulating and implementing the vision and mission of the organization, and especially in using the framework of systemic thinking in problem solving and effort to improve the achievement of the school. Based on theoretical review, it can

be synthesized that learning organization refers to activities that teachers do to participate to create a climate of learning, use the facilities of learning activities of the school, and continuous learning to improve problem-solving abilities. The learning Organization has some indicators: a) the behavior of a commitment to lifelong learning, b) the consistent use of personal abilities, c) the use of constructive thinking in understanding the phenomena around, d) use a positive approach to problem solving, e) the participation of members in the formulation of a vision together, f) behavioral commitments to implement the vision of the organization, g) utilization management support for interaction between groups, h) collaboration between teachers in the learning and i) the use of templates systemic thinking in solving problems.

Learning organization improvement can achieve by developing knowledge management. A research by Chen and Chen generalized conclusions that all indicators of knowledge management had moderately relationship with learning organization (average  $r = 0.41$   $p < 0.01$ ) [8]. Knowledge management can simply define as getting the right information for the right person in the right time, facilitating proper tools to analyze information, giving authority to response to that information, so they can do their work better [9,10]. Knowledge management is a systematic and integrative process of coordinating the organization-wide activities to retrieve, use, share, create and store knowledge, actionable information and expertise of individuals and groups in pursuit of organizational goals [11,12]. It also known that knowledge management related with efforts to provide learning process within organization so the better decision can be make, enhancing innovation, and effective operational activities can be implement [13]. Knowledge management actually the activities of planning, organizing and controlling the people, processes and systems within the organization to ensure that all assets of the relevant knowledge are developed and used effectively. These activities are: 1) acquisition 2) creation (through socialization, combination, externalization and internalization), 3) refinement: selecting, extracting, purifying and optimizes knowledge, 4) storage, 5) transfer, 6) sharing and 7) utilization [9,14,15]. Based on exposure to earlier theories, can be synthesized that in educational organizations, the knowledge management of teachers is the assessment of the activities that teachers manage and add value to the school through increased knowledge of the school, and are actively acquiring, repairing, storing, evaluating, distributing, and using the knowledge and experience inside and outside the organization, measured using the instrument in the form of a questionnaire based on the indicators: 1) knowledge acquisition, 2) knowledge refinement, 3) knowledge storing, 4) knowledge evaluation, 5) knowledge distribution, and 6) knowledge application.

Another way we can do to improve learning organization is by developing self-efficacy. Self-efficacy as a person's beliefs about the ability or its ability to cope with a particular situation or behave as expected. Factors that affect self-efficacy are: a) the previous experience, in this case the experience of successful previous tends to increase self-efficacy, b) modelling of social, self-efficacy tend to increase when a person observes others are considered equivalent capable of

performing the same action, c) persuasion social, meaningful expression of influential people who could decrease or increase self-efficacy, and d) physical and emotional state, anxiety, fear and excessive stress potentially lower self-efficacy, while mild anxiety and being able to improve efficacy [16-20]. Fred Luthans formulated self-efficacy as a person's beliefs about his ability to mobilize the motivation, cognitive resources and concrete actions needed to successfully carry out special duties on certain situations [21]. Self-efficacy is simply "can do attitude".

Based on the exposure, it can be synthesized that in organizational education, self-efficacy of teachers is the self-assessment of teachers regarding the abilities to work and to complete tasks as teachers with a specific successful rate, measured using the instrument in the form of a questionnaire based on the indicators: 1) challenging tasks, 2) the complexity of the task, 3) reward for task completion, 4) the previous experience, 5) social persuasion, 6) physical and emotional state, 7) models of successful practices, 8) prestige on the success, 9) optimism to succeed with high self-efficacy.

A research by Bitu Parsa et al. generalized a conclusion that self-efficacy had moderately relationship ( $r = 0.35$   $p < 0.01$ ) with learning organization [22]. High self-efficacy person tend to learning more, eager to use the result of learning to improve their performance, and directing their effort to be more success [23]. High self-efficacy people more open to new ideas, willing to adopt innovations. Vicarious experience is learning from observation other teachers' successes; this will generate expectations that teachers can learn from successes of colleagues. Teachers can learn effectively by watching the other behaviors being effective [24]. High self-efficacy people are more optimistic to coping with challenging situation, not easy to give up, learn from their failure as an opportunity to learn, this condition will develop positive and constructive perspective to lifelong learning. Self-efficacy has powerful effects on learning because people try to learn only those behaviors that they think they will be able to perform successfully [25].

This condition drives us to study the learning organization in relations with teachers' knowledge management and self-efficacy. Based on the literature review and evidence from prior researches above mentioned, it can be stated research hypotheses as follows:

- There is a positive relationship between knowledge management with learning organization.
- There is a positive relationship between self-efficacy with learning organization.
- There is a positive relationship between knowledge management and self-efficacy simultaneously with learning organization.

## II. RESEARCH METHODOLOGY

This study applied quantitative method and used the questionnaires as an instruments for data collecting. Descriptive statistics and correlational analysis are used for finding initial solution to the problem encountered. The entity of this study were 1079 public teachers spreading out in 45 (forty-five) elementary school (with an "A" Accreditation) in Bogor, Indonesia. By using multistage proportional random sampling, and formula of Slovin, 230 teachers were taken as sampling unit. Data and information was gathered by questionnaires of learning organization, knowledge management and self-efficacy. The questionnaires validity was tested by Pearson Product moment and the reliability was tested by Cronbach's Alpha to be 91%, 92.8% and 89.7% respectively. The normality assumption is prerequisites to proceed to further test calculated with Lilliefors' formula. Analysis is conducted with multiple linear regression and hypothesis testing is performed at a significance level of 0.05 using Product-Moment Coefficient of Correlation.

## III. RESULTS AND DISCUSSION

### A. Knowledge Management and Learning Organization

Hypothesis testing confirmed that knowledge management has a positive relationship with learning organization, with correlation coefficient value of 0.814 ( $p < 0.01$ ) and the coefficient of determination = 0.663. This means that 66.3% of learning organization is determined by knowledge management, while the other 43.7% is contributed by other variables. This finding indicates that with knowledge management, principal of the school can develop the learning organization to develop the organization into a better direction for the present and the future. The close linkages according to Marquardt, that when members of the organization working on something related to knowledge, basically they are learning [2]. Increased activity of learning organization will be effective if the entire school community is committed to implementing knowledge management activities that support the atmosphere and member of the school learning activities.

Knowledge acquisition activity will broaden teacher's knowledge so that will help them to develop positive perspective in understanding situation. This is in line with Gupta in Jennex statement that reframing knowledge is one of instrument or technique in learning organization. Improving information acquisition broaden individual knowledge which help them to build constructive perspective about their roles in the organization and positive mental model to understanding problem and find effective solutions [26].

The results of the study supported the idea that higher knowledge management lead to higher learning organization. Similarly, in the study of learning organization and knowledge management by Mohammad Jamalzadeh in Faculty members at Islamic Azad University, Iran, show the same result, that knowledge management activities have positive relationship with knowledge management, such as knowledge acquisition, knowledge application, sharing knowledge, knowledge evaluation, and knowledge confirmation [27]. Our research add up two indicators, namely knowledge refinement and

knowledge storing. In the school where teachers regularly updating their knowledge, sharing the new knowledge between them, and especially practicing new knowledge, the personal mastery also high.

### B. Self-Efficacy and Learning Organization

Self-Efficacy had a positive relationship with Learning Organization, with correlation coefficient value of 0.214 and the coefficient of determination = 0.046. This shows that 4.6 % of Learning Organization is determined by Self-Efficacy, while the other 95.4% is contributed by other variables. This finding indicated that Self-Efficacy had low contribution to the Learning Organization. Thereby increasing teacher's self-efficacy will slightly lead to the high level of learning organization in school.

The other finding of this research is that higher self-efficacy lead to higher learning organization. The value of correlation coefficient between self-efficacy with learning organization is quite low. This finding was in line with the statement of Ivancevich et al that high self-efficacy will make someone learn more and willing to transfer learning to improve performance and the level of goal setting and performance will higher [23].

To get stronger effect of self-efficacy to learning organization, the action has to be support by knowledge management activities. When teacher has bigger opportunity to take more complex task, higher level responsibility supporting by proper guidance and model from their principal or senior peer, and pouring with newest knowledge, they will more optimistic and eager to show an extra effort to accomplished the target. The process will improve personal mastery. When teacher suggest positively to collaborate more, their team learning will significantly improve. If the teacher regularly learns from their previous experience, the success or even from their mistakes, they will have more positive and constructive mental model to see the Self-efficacious teachers seem to take greater initiative in their self-development and produce ideas that help them to promote the work processes and leveraging the school goal achievement.

### C. Knowledge Management, Self-Efficacy and Learning Organization

The hypothesis testing results show that there is a significant relationship between knowledge management and self-efficacy simultaneously to learning organization, with correlation of coefficient values = 0.819 and the coefficient of determination = 0.671. This means that only 67.1% of Learning Organization is caused by knowledge management, and self-efficacy while at 32.9% is contributed by other variables not included in the model [27].

## IV. CONCLUSIONS

The research findings showed that there were positive and significant direct effect between teachers' knowledge management and self-efficacy with learning organization. Based on the initial design of the constellation between variables, the results showed that the contribution of knowledge management variable on learning organization was

66.3%, indicating a high contribution to the teachers' learning organization. But the self-efficacy itself had low (4.6%) contribution to learning organization. When combined together, knowledge management and self-efficacy reached 67.1% indicating the contribution of other variables not included in the model to predict on learning organization were 32.9% confirming this model is of moderate goodness. This results suggest that to improve learning organization can be arranged by developing (through intensive training) the teachers' knowledge management in their organization.

As an implication, improving learning organization by developing knowledge management can start with providing more access for teachers to get new information, having training and education, research and collaboration to produce something new in delivery subject at class. These activities will enhance personal mastery. Improving knowledge acquisition will strengthen constructive perspective and mindset among teachers. Integrated and well managed knowledge storing will help teachers to get use full information they need to problem solving. Continues knowledge refinement will improve their mastery and knowledge quality. Knowledge distribution regularly among teachers will improve team learning. Knowledge application with refining and knowledge sharing habit will improve their systemic thinking which will increase effectivity in more strategic activities.

Based on this research, improving learning organization can also achieved by developing self-efficacy, for example by giving bigger opportunity for teacher to take responsible for more difficult and challenging tasks, that will increase personal mastery so they can perform successfully. The opportunity to accomplish complex task, collaboration with several division, letting them to learn and listen the other perspective will improve team learning. Increasing efficacy by coaching and mentoring especially for new tasks will develop collaboration. When teachers try to review and learn from their past experiences with strengthening optimism, they will improve their positive mental model. Strengthening teacher's efficacy by fulfilling prestigious tasks for him and their school will endorse them to enhance their competencies and showing extra effort to achieve wider goals. For further research, it will be useful if the instrument of self-efficacy design into more specific behavior so the action plan will to enhance it will be more effective.

As a professional teacher, they must be able to give an example of how to be a creative person, scientific attitude, eager to find out new things, consistently uses a variety of learning resources, and especially teachers need to set an example as a lifelong learner.

This research will be more fruitful if supporting with qualitative method to deepen the result.

#### REFERENCES

- [1] P. M. Senge, N. Cambron-McCabe, T. Lucas, B. Smith, J. Dutton and A. Kleiner, *Schools That Learn: A Fifth Discipline Field book for Educators, Parents, and Everyone Who Cares about Education*, New York: Doubleday, 2012.
- [2] M.J. Marquardt, *Building the Learning Organization: Mastering 5 Elements for Corporate Learning*. Palo Alto, CA: Davies-Black Publishing, Inc., 2002.
- [3] M. Millmore, P. Lewis, M. Saunders, A. Thornhill, and T. Morrow. *Strategic Human Resources Management: Contemporary Issues*. London: Pearson Education Limited, 2007.
- [4] P.C. Schelchty, *Leading for Learning: How to Transform Schools into Learning Organizations*, San Fransisco: Jossey-Bass, 2009.
- [5] G. Jones, *Organizational Theory, Design and Change*, Harlow: Pearson Education Limited, 2013.
- [6] R.A. Noe, J.R. Hollenbeck, B. Gerhart, and P.M. Wright, *Human Resources Management: Gaining a Competitive Advantage*, 9th Ed. Berkshire: McGraw-Hill, 2015.
- [7] S.P. Robbins and T.A. Judge, *Organizational Behavior*, 16th Ed. Global Edition, Harlow: Pearson, 2015.
- [8] M.L. Chen and K.J. Chen, "Relationships among organizational innovation, learning and knowledge management in the information technology industry," *African Journal of Business Management*, vol. 4, no. 14, pp. 3191-3200, 2010.
- [9] M.W. McElroy, *The New Knowledge Management: Complexity, Learning, and Sustainable Innovation*, Amsterdam: Butterworth, 2003.
- [10] J. Honeycutt, *Knowledge Management Strategies*, Washington: Microsoft Press, 2000.
- [11] P. Quintas, *Managing Knowledge in a New Century*, In Stephen Little and Paul Quintas (Eds.), *Managing Knowledge for Readers*, London: Sage Publications, 2002.
- [12] A. Tiwana, *The Knowledge Management Toolkit: Practical Techniques for Building a KM System*, New Jersey: Prentice Hall, 2000.
- [13] T. Hawley, *Making Knowledge Management Work for Your Organization*, London: Ark Group, 2012.
- [14] W. R. King, *Knowledge Management and Organizational Learning*. *Annals of Information System* 4, Pittsburg: Springer Science Business Media, 2009.
- [15] J. Wellman, *Organizational Learning: How Companies and Institutions Manage and Apply Knowledge*, New York: Palgrave Macmillan, 2009.
- [16] N. Holt, A. Bremner, E. Sutherland, M. Vlieg, M.W. Passer, and R.E. Smith, *Psychology: The Science of Mind and Behavior*, 3rd Ed., Boston: McGraw-Hill, 2007.
- [17] M.W. Eysenck, *Fundamentals of Psychology*, New York: Psychology Press, 2009.
- [18] D. Boyd and H. Bee, *Lifespan Development*, 5th Ed., Boston: Pearson International Edition, 2009.
- [19] J. Feist, G. Feist, and T-A Roberts, *Theories of Personality*, New York: McGraw-Hill, 2013.
- [20] J.S. Nevid, *An Introduction to Psychology*, 4th Ed., Toronto: Wadsworth Cengage Learning, 2013.
- [21] F. Luthans, B.C. Luthans, K.W. Luthans, *Organizational Behavior: An Evidence-Based Approach*, 12th Ed., New York: Mc Graw-Hill, 2011.
- [22] Parsa, B., Idris, K.B., Samah, B.B.A., Wahat, N.W.B.A., and P. Parsa, *Relationship between quality of work life and career advancement among Iranian academics*. *Procedia-Social and Behavioral Sciences*, vol. 152, pp. 108-111, 2014.
- [23] J.M. Ivancevich, M.T. Matteson, and R. Konopaske, *Organizational behavior and management*, 1990.
- [24] J. Webster and P. Hackley, "Teaching effectiveness in technology-mediated distance learning," *Academy of management journal*, vol. 40, no. 6, pp. 1282-1309, 1997.
- [25] J. Hattie and G.C. Yates, *Visible learning and the science of how we learn*. Routledge, 2013.
- [26] V. Anantatmula and S. Kanungo, "Structuring the underlying relations among the knowledge management outcomes," *Journal of knowledge management*, vol. 10, no. 4, pp. 25-42, 2006.
- [27] M. Jamalzadeh, "The relationship between knowledge management and learning organization of faculty members at Islamic Azad university, Shiraz branch in academic year (2010-2011)," *Procedia-Social and Behavioral Sciences*, vol. 62, pp. 1164-1168, 2012.