Administrative Factors and Learning Organization in Primary School

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Abstract

The overall purpose of this study was to analyze the Administrative factors and Learning Organizations in primary schools in Educational Region 9. Specific issues considered were to assess the level of development in learning organization and administrative factors, and to ascertain this relationship in small, medium and large sized schools in Educational Region 9. The study also sought to determine if there was a cause-effect relationship between these factors either directly or indirectly and if it was possible to make predictions based on this relationship.

Data were collected from questionnaires sent to 388 primary schools with responses from 377 schools for a return rate of ninety seven percent return rate (97.16%). The study found that learning organization rated slightly higher than the established minimum criterion. There was no significant difference in learning organization level. For administrative factor development, it was found that small size schools showed lower levels of performance for school effectiveness, self-managed groups and communication, and development of transformational leadership compared with larger schools. It was determined that the ten administrative factors could predict learning organization 46.3 percent of the time. Three factors in learning organization were statistically significant, namely, school development effectiveness, curriculum and instructional administration, and self-managed groups and communication development.

According to casual relationship structure analysis it was found that there were both direct and indirect influential lines of independent variable toward dependent variable. Considering the overall path coefficient, it was found that there were seven administrative factors affecting learning organization in rank order: 1) school effectiveness development, 2) creative organizational culture and climate, 3) transformational leadership, 4) shared decision making and vision, 5) curriculum and instruction administration, 6) professional organization development and 7) human resource development.

Keywords: Administrative factor, Learning Organization, Primary school.

Background

According to Sanrattana (2002) in the text "School: Learning Organization (Educational Administration Approach)" (4th edition) learning organization is described as modern administrators need to develop, demonstrate leadership in providing or searching for opportunities in order to develop new learning on a continuing basis. This is based on the belief that "the more we learn, the larger extent of ones ability level, the more the learning organization would grow and develop endlessly" (Senge, 1990 cited in Hughes, 1999). Hoy and Miskel (2001) stated 'learning organization is an organization in which the members could improve their competency in order to create their work and achieve continuous goals". It is a place where new ideas are stimulated, members ambition and aspiration are supported and maintained. It is also a place where the members could learn how to learn from each other and where the organization expanded potential in order to solve problems and develop continuous innovation. In the case of schools, learning organizations provide both teaching and learning to staff and students alike. Since the ultimate goal of school is student learning, schools can be classified as having the characteristics of learning organizations to a higher level that any other type of organizational structure.

In the book, the author analyzed factors affecting learning organizations especially administrative factors from research studies and viewpoints from many administrative educators. He found that there was at least ten administrative factors affecting learning organizations : 1) school effectiveness development, 2) professional organization development, 3) shared decision making and vision, 4) self-managed group development and communication, 5) creative motivation, 6) transformational leader development, 7) creative organizational culture and climate development, 8) change and innovation administration, 9) curriculum and instruction administration, and 10) human resource development.

After the publication was in circulation for a period of time, the researcher received feedback from many readers via discussion, letter, e-mail, and serving in an invited guest lecturer capacity. The general analysis of the text was that it presented many interesting research questions in the Thai context such as 1) to what extent do schools in Thailand possess the, ten factors of administrative learning organization, 2) what is the relationship between administrative factors, and learning organization in schools, 3) if the ten factors of administrative factors influence learning organization in school, which factor(s) could best predict what influence administrative factors have on learning organization. The researchers developed a conceptual framework in order to try to answer those questions by determining the ten factors as independent variables, and the concept of learning organization as a dependent variable. The target population in this research study were primary schools in Educational Region 9, including schools in Khon Kaen, Udornthani, Leoi, Nongkhai, Sakorn Nakorn, and Nong Bua Lampu provinces. Students enrolled in Master Degree and Doctoral Degree in Educational Administration from those provinces collected data which was used for analyzing the data. These students were sensitive to and congruent with the economic, social and cultural context of those geographic regions. It was determined that the research findings could be applied to Secondary Schools or Higher Education Institutes in the future in order to create a body of knowledge in Thai context.

Research Questions

1. What were the levels of learning organization and administrative factors;
2. Were there differences in levels of learning organization and administrative factors development in small sized, medium sized, and large sized;
3. What was the relationship between administrative factors, and between administrative factors and learning organization;
4. What were administrative factors which could predict learning organization and;
5. What was the cause-effect relationship between administrative factors and learning organization.

Research Objectives

The purpose of this research was to study administrative factors and learning organization in primary schools in Educational Region 9 in the following issues: 1) the level of development in learning organization and administrative factors, 2) the difference in level of learning organization and administrative factors of small sized, medium sized, and large sized schools, 3) the relationship in administrative factors, and between administrative factors and learning organization, 4) assess predictable administrative factors on learning organization and appropriate equation pattern and, 5) the cause-effect relationship structure of administrative factors and learning organization both direct and indirect.

Variable and Symbol of Variable

For this study, the research team determined "learning organization" to be the dependent variable, and administrative factors as independent variables. Y was designated the symbol of dependent variable, or learning organization. X1 was the designated symbol of the independent variable or school effectiveness. X2 represented professional organization. X3 represented shared decision making and vision. X4 represented self- managed group and communication. X5 represented creative motivation. X6 represented transformational leader, X7 represented creative cultural and climate organization. X8 represented change and innovation. X9 represented curriculum and instruction administration. X10 represented human resource development.

Research Hypothesis

The research team proposed research hypotheses in order to predict answer, and statistical hypothesis to be tested as follows:

1. There was a high degree of learning organization and ten factors of administrative factors development;
2. There were differences in level of learning organization and administrative factors in some; (H_o: $\mu_1 = \mu_2 = \mu_3$ H_a: as $\mu_i \neq \mu_j$ at least 1 pair, $I \neq j$, $\alpha = 0.05$)
3. There was a significant relationship between administrative factors, and learning organization; (H_o: $\rho = 0$ H_a: $\rho \neq 0$, $\alpha = 0.05$)

4. The ten administrative factors had a strong affect on learning organization and; (H_o: $\beta = 0$ H_a:$\beta \neq 0$, $\alpha = 0.05$)
5. There was congruency of cause and effect relationship structure between administrative factors and learning organization, and theoretical relationship structure. (H_o: $\Sigma = \Sigma (\theta)$ H_a: $\Sigma \neq \Sigma (\theta)$, $\alpha = 0.05$)

Research Methodology

Population and Sample

The target population of this study was 3,883 of primary schools in Educational Region 9. Those schools were classified as those situated in Khon Kaen, Udornthani, Leoi, Nong Khai, Sakon Nakorn, and Nong Bua Lampu Provinces numbering 1106, 845, 471, 498, 640 and 323 schools respectively. The samples were provided by using 10 % criterion (Wanya Wisaloporn, 1988), 388 schools sampled. In order to have representation, the research team classified the sample according to proportion of target population in Khon Kaen, Udornthani, Leoi, Nong Khai, Sakon Nakorn, and Nong Bua Lampu Province numbering of 110, 84, 47, 50, 64 and 33 schools respectively.

Instrument

The Researchers constructed the research instrument based on data provided in the text titled: Learning Organization: Educational Administration Approach. The rating scale ask five levels of opinion: the most strongly agreed, strongly agreed, moderate agreed, less agreed, and least agreed. There were 80 items altogether. It was validated both for content and congruence of appropriateness and analyzed by 14 doctoral students in Educational Administration, who were studying learning organization. Then it was pilot tested in 30 primary schools in Maha Sarakam Province. In each school, one teacher responded the questionnaire. Using Cronbach's Coefficient Alpha, it found that the reliability of the questionnaire was .8965

Data Collection

The researchers used Simple Random Sampling by non returned lottery the school lists in each province from Internet Network of the Ministry of Education. A letter was written to school administrator to request that they assign a teacher to answer the questionnaire. For data collection, Master Degree Students in Educational Administration who lived or worked in each province were enlisted to collect information on 377 issues, 97.16% of the total number of questionnaires distributed.

Data Analysis

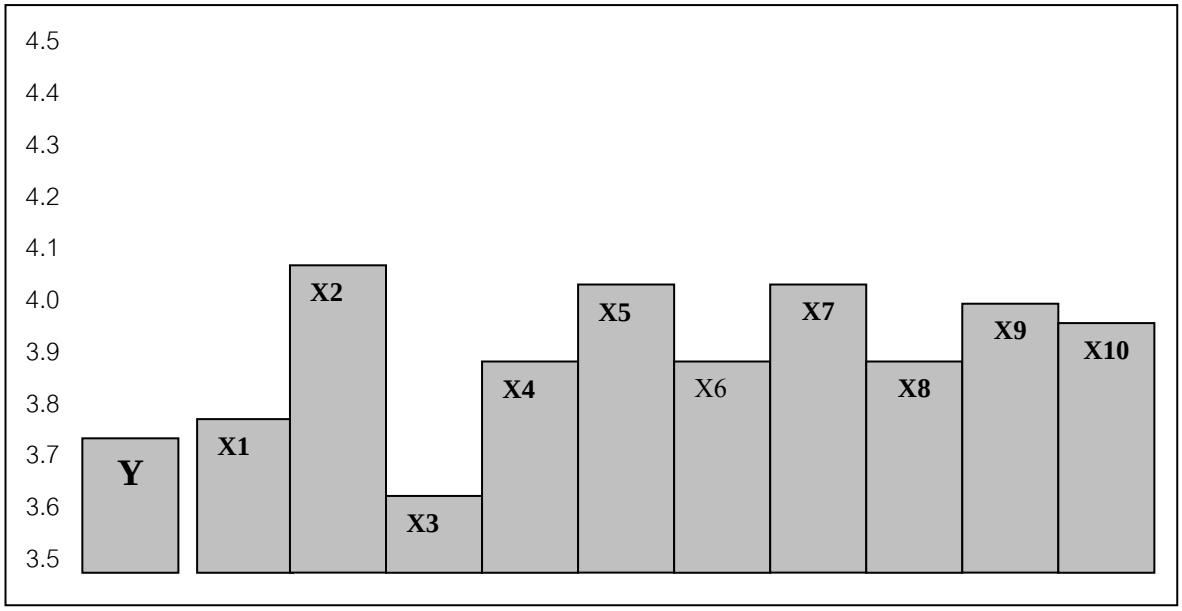
Descriptive statistics for mean, and standard deviation was used for the purposes of this study. Additionally, the following inferential statistics were used: 1) one way ANOVA and Multiple Comparison to test the mean difference in case there was at least of one pair statistically significant using Scheffe, 2) Correlation Coefficient Analysis and significant testing by the t-test, 3) Multiple Regression Analysis and significant testing by F-test, 4) Linear Coefficient Analysis and significant testing by t-test.

Findings

1) Level of development

According to the study it was found that primary schools in Educational Region 9, learning organization was in slightly higher than minimum criterion. For each administrative factor the data were at the high level as is graphically represented in the following illustration below.

An illustration of developmental levels of learning organization and administrative factors



According to research studies, there was a "satisfying" level of learning organization development in primary schools in Educational Region 9 (3.72 points from 5.00 points of full score). However, there should be consistency and permanence of development in schools because results from schools was student based. Because students continuously circulated each academic year, if development was not consistent, it would impede students' quality development. If we expect development to improve continuously, the target development objective would improve from 3.72 to 4.00, 4.50, and 5.00. It would show gain scores and be more positive. According to the theoretical approach and many research studies, it demonstrated clearly that there was the important stimulus of concise and high expectation and development for the objective. This would cause increased capacity in cognitive thinking and dedication to goal achievement.

In case of overall administrative developmental factors, although there was a high level demonstrated, schools should focus on continuous development and regularly. According to the above principle, the shared decision making factor and shared vision (X3) was an important factor in which every school should attempt because of a lower average than other factors.

2) Comparison

When the researchers compared learning organization and ten factors of administrative factor development between school size, it was found that there was no statistically significant difference in learning organization level. For administrative

factors development, it was found that small sized school demonstrated low level of development, lower than other sizes of school statistically significant in these case. ***The first case*** development of school effectiveness was lower than the large size school. In ***the second and third case(s)*** development self-managed group and communication, development of transformational leader, both were lower than medium sized schools. Therefore, small sized primary schools should place special emphasis on the importance of development in the three factors of development.

3) Relationship

According to research studies of the relationship between ten factors in administration, it was found that each factor correlated in the highest statistically significant level, and demonstrated a positive relationship. Data indicated that, for administrative factors development if one factor was developed, other factors tended to also be developed. Between administrative factors and learning organization, it was found that there was medium statistically significant relationship in rank order as follows: X1 = .676, X3 = .567, X9 = .537, X2 = .529, X6 = .511, X4 = .503, X10 = .495, X7 = .492, X8 = .478, and X5 = .459 respectively.

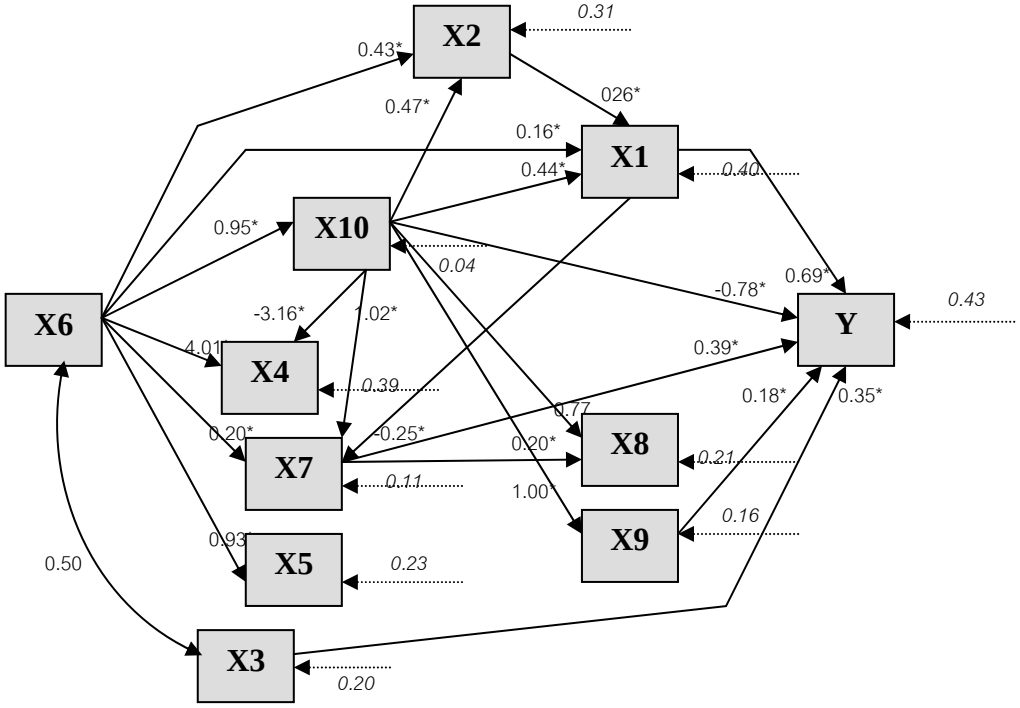
4) Affecting

According to the results from Multiple Regression Analysis, it was predicted that 46.3 % of learning organization came from the ten administrative factors. According to data analysis of the predictive equation of appropriate learning organization, it was found that there were only three statistically significant factors affecting learning organization: 1) school effectiveness development factor, 2) curriculum and instructional administration factor, and, 3) self-managed group and communication development factor. Findings indicated that if we want a higher level of learning organization in school, focus should be placed on the primary three factors. Specifically, if these three factors are developed, they will cause positive development in all ten factors to be increased because of the symbiotic relationship between all factors.

5) Causal relationship structure

According to causal relationship structure analysis, it was found that the theoretical relationship structure was fitted to the empirical data. The statistic values of the final model were: $\chi^2 = 13.29$, df = 23, p-value = .94533, GFI = .994, AGFI = .982, RMR = .0085 and, there were both direct and indirect lines of influence from independent to dependent variable. Considering overall path coefficient, it was found that there were administrative factors affecting learning organization in following rank order: 1) school effectiveness development factor, 2) creative organizational culture and climate factor, 3) transformational leader factor, 4) shared decision making and vision factor, 5) curriculum and instruction administration factor, 6) professional organization development factor, 7) human resource development factor. See diagram below:

A diagram of causal relationship between administrative factors and learning organization based on data analysis



α = 0.05

** : numerical number values were path coefficient*

However, considering a learning organization developmental path, it was demonstrated that the first casual factor of transformational leadership would cause a positive influence for all other twelve (12) interconnected paths. One important affected factor, the human resource developmental factor, positively affected six (6) other paths. The professional organization development factor affected other factors for 2 paths. The school effectiveness developmental factor affected factors for 1 path. Other factors having direct influence were: school effectiveness development factor, creative organizational culture and climate factor, human resource development factor, shared decision making and vision factor, and curriculum and instruction administration factor.

According to the findings of this research study, the introductory framework of thinking and developmental systems of learning organization in primary schools should be started by developing administrators to be transformational leaders. Findings indicate that a transformational administrator-leader would positively affect many aspects of developmental factors especially in 1) human resource development, 2) professional organization development, 3) school effectiveness development (which would cause many aspects development following), 4) creative organization culture and climate development, 5) shared decision making and vision and, 6)curriculum and instruction administration.

From this study, it can be said that every research hypothesis is confirmed whereas all null hypotheses were rejected at the significant level $\alpha = 0.05$

Recommendations for Development from the Findings

1) Perspectives on Learning organization development: Possible Choices

According to this research problem, different research objectives, and statistical data analysis suggest that for learning organization development in primary schools in Educational Region 9, there were four possible choices as follow:

- ***The first,*** Develop low average factor to higher average respectively, in order to maintain and increase the developmental level continuously and permanently whereas small sized school should develop school effectiveness, self-managed groups and communication, and transformational leader more than the other size schools.

- ***The second,*** Focus the ten administrative factors equally because all factors are interrelated in the high level and indicates positive direction. As a result, one factor development tended to cause another factor to be higher.

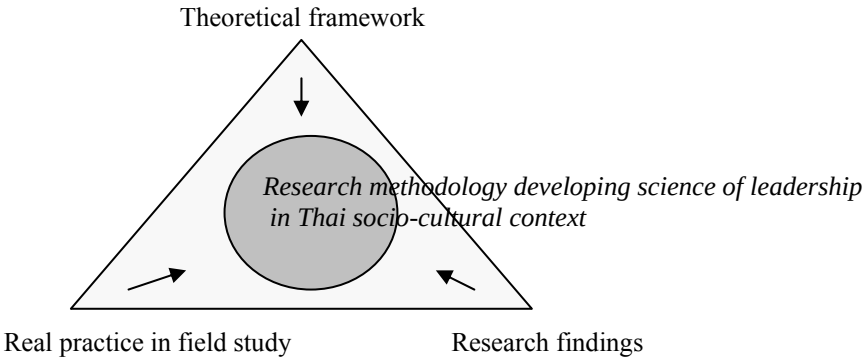
- ***The third***, Support three factors which could predict learning organization as statistically significant: school effectiveness developmental factor, curriculum and instruction administration factor, and self-managed group and communication factor. Development of the three primary factors would positively affect other factors because each of them is correlated in high level and a positive direction.

- ***The fourth,*** Strengthen the cause factor into a result factor, especially the development of the transformational leader factor. This process would lead to develop of a variety of supportive factors. Likewise, human resource development would affect development of a variety of factors including those directly affecting other learning organization according to causal relationship structure as determined from research findings. Whereas development of overall coefficient from high to low could also be considered.

2) Transformational leader: Primary factor for development

Both the theoretical framework and empirical research data support the importance of the transformational leader factor for school administrators. Data also indicated that the "cause factor" would create development in a variety of factors, especially human resource developmental factor. Therefore, in an administrator's professional development, the transformational leader should be considered in school administration Correspondingly, a body of knowledge or the related science of leadership should be improved in Thai social and cultural context. This concept should be based on research methodology linking theoretical framework, applied field study, and the research findings as illustrated in the diagram below.

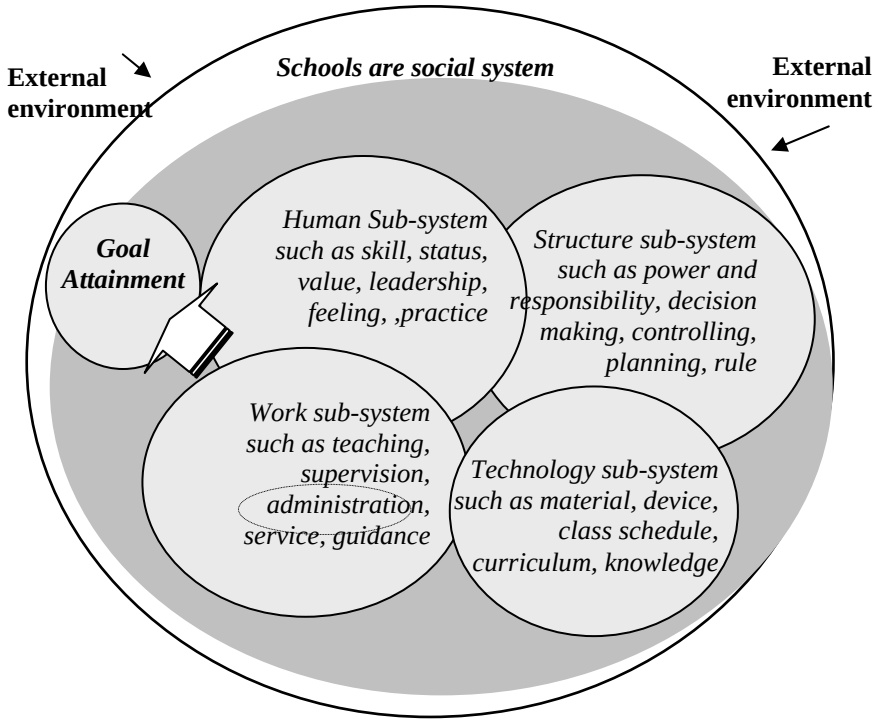
A diagram linking theoretical framework, applied field study, and research findings to develop the science of leadership in a Thai socio-cultural context



3) Learning organization: administrator factor is not enough

According to the research data the total of administrative factors affected learning organization development only 46.3 %. The other 53.7 % resulted from other factors which were not studied. There are likely other administrative or related factors such as sub-factors in technology, school structure, human, and work related issues. According to the graphic of the conceptual framework below, administrative factors were not the only factors at work. There were still be many sub-factors at work and a variety of them should be studied and analyzed in additional research.

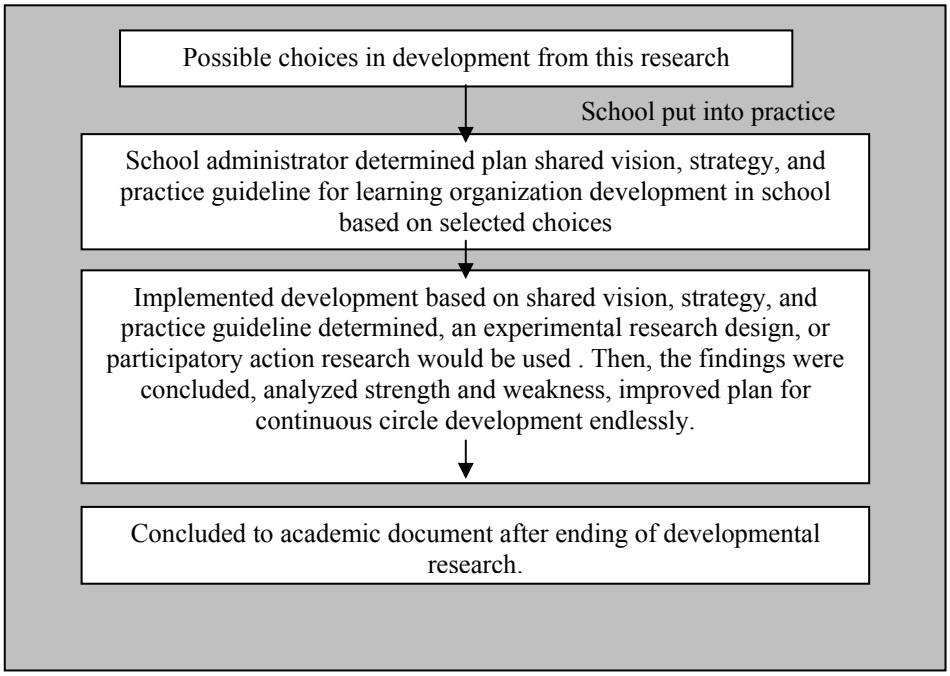
A graphic illustration of sub-factors in school cultures (systems)



4) The research findings: starting point for creation of developmental research circle in school development

According to this research study there were at least four (4) possible choices for learning organization development. School administrators (or educational office of provincial level or educational region) could use research findings of this study to create new policies and practices based on a research and development process linking research based data. See the illustration below.

Illustration of an school based applied research framework



5) Development X4, X5, X8 as dependent variable: the by product from research

According to research findings from path analysis, it was found that there were 3 administrative factors that were not statistically significant: 1) self-managed group factor (X4) , 2) creative motivational factor (X5) and, 3) change and innovation administrational factor (X8). However, it was found that each of these factors had some other administrative factors which acted as independent variables and which affected the three factors both directly and indirectly. Therefore, if schools are interested in developing these factors as dependent variables they can create a causal relationship structure pattern for each variable which could be developed into a conceptual framework for development. This process would be based on research linking academic performance development from the fourth recommendation suggested above.

6) Putting research findings into practice: Limiting area as primary school of ONPEC, Educational Region 9.

This research was conducted in the primary schools in Educational Region 9, Northeast Thailand. Research findings are limited only to the target population and should not be generalized to any other population, educational region, or country.

Recommendations for further Research

This research focused on theoretical framework testing, only. The purpose was to present a body of knowledge derived from an empirical analysis in Thai socio-cultural context. New research can be conducted to analyze variables in many ways in order to analyze learning organizations in greater depth. Each variable can be analyzed in more depth and correlations between variables analyzed for relationship and influence on school environmental leadership and administration.

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