Curriculum Leadership Development: Model Development and Validation

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Abstract - **The research objectives were to study and compare curriculum leadership behaviors, analyze the composition of curriculum leadership measurement model, and present a model for developing curriculum leadership for administrators of educational institutions under the Office of the Basic Education Commission, Thailand. This mixed methods research employed basic mixed methods designs using the explanatory sequential design. The sample comprised 721 administrators derived from multistage sampling. The collecting tools were a questionnaire and multi-case study. The data analyses involved descriptive statistics, t-test, and LISREL. The research findings are the curriculum leadership behavior of the school administrators as a whole and detailed dimension are at medium level. The behavior between in primary and secondary level school administrators has no difference. Theoretical model of curriculum leadership factor is congruent with empirical, and curriculum leadership development model and includes three dimensions and one development mechanism.**

Keywords – Curriculum leadership, Model development, Validation.

INTRODUCTION

The curriculum is the heart of education as it is a guideline for organizing learning activities by integrating thought, action, and purpose. Curriculum standards are about curriculum standards as a system, or curriculum system, which organizes all elements of the course process, including drafting, creating, implementing, and evaluating courses, to be related to each other under the framework of three basic concepts. They are social forces, theories of human development, and theories of learning and learning styles (Null, 2017; Parkayetal, 2014). Managing curriculum effectively requires leaders to use leadership to motivate cooperation in their work. The old concept of leadership that emphasized the use of commands and control is no longer appropriate for effective use. However, due to the rapid change in socio/cultural, and organizational changes globally, there is a tendency in the future to focus on the organization's ability to be more resilient, but still highly efficient. This new concept makes it difficult for managers to use the same management practices to achieve the same success as they did in the past. At the same time, in management, whether public or private, there are many factors involved in managing the work to achieve the planned goals. An important factor is a leader or manager who is like a command center for planning and directing tasks similar to the human brain. Executives or leaders must possess distinctive leadership traits that are both knowledgeable, experienced and ethical, and creatively different from others. It is commonly referred to as a professional who transforms visions into action. Management in any organizational system is aimed to reach a goal and everyone agrees that the leader plays an important role in driving the organization towards such success. The emphasis in on leadership styles that are appropriate to their organizational context. Therefore, the main function of the school

administrator is to lead the curriculum, since the curriculum is the entire mass of experience that will effectively determine the success of the educational institution following its goals. "Curriculum leadership" is, therefore, an important role of school administrators to effectively reach the desired goals (Glatthorn et al., 2017).

The results of educational management, which is a product of the past educational curricula, has not yet achieved the results and met the needs of Thai education in the 21st century as it should be. This can be seen from the results of the National Test (ONET) or the Joint International Student Assessment Program (PISA) of students at educational establishments affiliated with the Office of the Basic Education Commission that indicate weaknesses in learners' learning quality. The quality must be improved, and developed to raise the achievement of students. One of the main reasons stems from the ability of the school administrators to put the curriculum into practice at the educational institution level that most administrators give little importance to (Institute for the Promotion of Teaching Science and Technology, 2018).

RESEARCH QUESTIONS

1. What is the level of curriculum leadership behavior among administrators of primary and secondary schools under the Office of the Basic Education Commission and is there any difference?
2. How are curriculum leadership measurement models created and developed in consistence with empirical data?
3. What are the components of Curriculum Leadership Development Model for School Administrators under the Office of the Basic Education Commission?

RESEARCH OBJECTIVES

1. To study and compare curriculum leadership behaviors of administrators of primary and secondary schools under the Office of the Basic Education Commission.
2. To analyze the composition of curriculum leadership measurement model of administrators of basic educational institutions under the Office of the Basic Education Commission.
3. To present a model for developing curriculum leadership for administrators of educational institutions under the Office of the Basic Education Commission.

LITERATURE REVIEW

1. Curriculum Leadership

"Curriculum Leadership" is a term widely used internationally and became apparent in 2001 as a result of the US NCLB policy that enacted the No Child Left Behind Act of 2001 (NCLB), which adheres to the responsibility of those who are responsible for the courses that were more relevant to educational achievement. States and communities have more freedom in organizing education, encourage the use of proven teaching methods and provide parents with more options for their children. It is a policy that emphasizes quality development and encourages educational institutions to take responsibility for the educational achievements of learners.

The process of curriculum, teaching, teacher potential development, as well as implementing the curriculum to be effective to close gaps in educational achievement is the source of the saying "our children will not be left behind. (no child left behind)" (US Department of Education, 2004). and because the use of executive leadership leads to the effective achievement of curriculum goals (Bradley, 2004). Although curriculum leadership is rather difficult to define, scholars define it from a wide and narrow perspective. It can be concluded that curriculum leadership is a process that supports system-wide goals by connecting the curriculum, instruction, assessment, and evaluation, leading to the development of cognition and learning. Thus, the curriculum leadership model has internal relationships in many dimensions, including curriculum theory, the role of politics, leadership identity within the context of social-cultural political influence, community involvement, and school culture (Wiles, 2009; Glatthorn, et al., 2017; Sorenson, et al., 2011; Ylimaki, 2011).

However, in the rapidly changing Thai education context, at present, the Ministry of Education has set a policy for educational institutions to implement STEM (science, technology, engineering and math) Education by systematically training to develop teachers under the Office of the Basic Education Commission, However, it does not give importance to the curriculum leadership of the educational institution administrators, which is the most important mechanism for the achievement of such goals. As a result, school administrators do not understand the connections between the curriculum (connecting, instruction, assessment, and evaluation that will lead to the development of students' understanding and learning effectively. This leads to a fragmented view of the curriculum and teaching and a lack of ability to lead the curriculum which is central to curriculum management. This is because curriculum leadership of administrators is crucial for effective course management to achieve its goals. As the saying goes, "The principal as curriculum leader" (Kangpheng, 2017; Glarhorn et al., 2017).

Therefore, to achieve this policy, the curriculum leadership of the school administrators is the key to the effective implementation of the curriculum. In Thailand there are not many educators mentioned and most of them focus on curriculum management. After 21st century skills were studied and presented, academics and educational institutions became interested and focused on courses that would produce learners with such skills. To manage the curriculum effectively and efficiently requires both management that is relevant to job responsibilities, and leadership, which is a persuasion process. Willingness and satisfaction to help practitioners or involved in the educational institution to realize and cooperate in the course of course work with a willingness to take responsibility for achieving or achieving goals. that is defined in the joint course. The Curriculum Leadership Development

Model is therefore an important conceptual framework and information for the development of educational institute administrators or agencies to plan leadership development and is also used as an important tool for curriculum management of institutional administrators. Effective education leads to inspiring and empowering teachers, and stakeholders working together towards a common goal of success (English & Steffy, 2005; Brubaker, 2004).

2. *Leadership Development Model*

Having studied domestic and international research papers, scholars propose many ideas about leadership development. One is by Astin and Alexander (1996) that discussed the concept of leadership development in the Social Change Model of Leadership Development. The points are as follows:

1. Inclusiveness. The model is designed to enhance leadership development in all participants, whether they are in formal leadership positions, or non-leaders. The model has a comprehensive development process and allow everyone to participate.
2. Leadership as a process rather than a position.
3. Emphasis on values of equality, justice, self-awareness, self-empowerment, citizenship cooperation, and service.
4. Meanings through life experience. The model enables students to develop leadership abilities in a coordinated environment. Learning takes place through the creation of meanings of life experiences.
5. Self-managed leadership. While the model is designed to help professional to direct the development of student leadership, the model can be useful for educational administrators, or students who want to manage their leadership development.
6. Option for development. The model presents just one of several possible leadership development ideas that leaders may adapt to an organization's mission or user experience.

In addition, Rabin (2014) proposed the concept of 70-20-10 leadership development. This concept was developed by the Center for Creative Leadership. The concept divides the leadership development into 10% formal, and 90% informal. In informal development, 70% of learning, experiential learning, and hands-on learning are recommended, and 20% of learning is stimulated and encouraged. Others are being coached by their boss. The other 10 percent of formal leadership development is learning in the distance learning classroom through e-learning or guest-led learning.

METHODOLOGY

This research is mixed methods research by the basic mixed methods designs using the explanatory sequential design. This is because the variables studied have enough relevant documentation to define a conceptual framework for research into two phases. Phase 1, quantitative data collection and analysis, was processed by survey research from a sample group of administrators of educational institutes under the Office of the Basic Education Commission. The sample of 721 persons was obtained by multistage randomization. Phase 2, qualitative data collection and analysis, was carried out by multi-case study research from educational institutions under one secondary education service area office and one primary education service area office, totaling two units. The two offices were selected from the performance evident in academic administration or educational institutions at the national level. The data collected were analyzed to get conclusions (inferences drawn) to present Curriculum Leadership Development Model (Creswell, 2015; DeCuir-Gunby & Schutz, 2017; Kangpheng, S. & Kunlong, S., 2017).

The tools used to collect quantitative data were the 5-level assessment scale questionnaire, the Curriculum Leadership Behavior Questionnaire with a confidence value of 0.978, and an open-ended questionnaire on how to develop the leadership of school administrators. The data were analyzed using descriptive statistics, independent sample t-tests, and reference statistics using ready-made computer programs and the LISREL program. The qualitative data collection tool used a case study record form and analyzed the data by analyzing the content as shown in the research pattern shown in Figure 2.
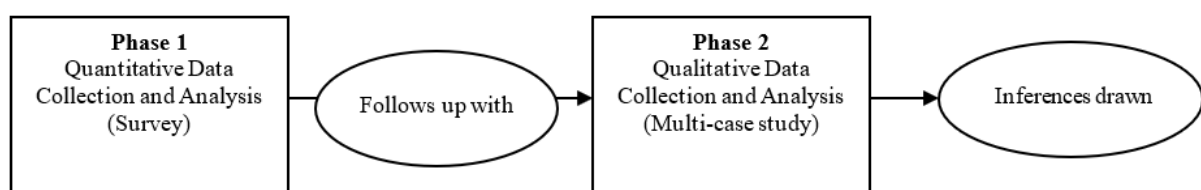

FIGURE 1
THE EXPLANATORY SEQUENTIAL DESIGN

1. The results of the study and comparison of curriculum leadership behaviors of administrators of educational institutes under the Office of the Basic Education Commission in general and in each aspect were at a moderate level ($\overline{X}$=3.34). Management has the highest average ($\overline{X}$= 3.50), followed by empowerment ($\overline{X}$=3.37), and conductivity ($\overline{X}$=3.15) respectively. When comparing curriculum leadership behaviors between administrators of educational institutes under the Office of Primary and Secondary Education Service Areas, no differences were found.

2. The results of the analysis of curriculum leadership measurement model. It is found that the model is consistent with the empirical data; with a chi-square value (χ^2) of 4.58, the degree of freedom (df) 6, statistical significance (P-value) 0.60, the Level of Compliance Index (GFI) 1.00, the Adjusted Consistency Index (AGFI) 0.99, the parameter estimation error (RMSEA) 0.00, and the main component weights were statistically positive at the.01 level. All values for conductivity had the highest component weight (0.85), followed by empowerment (0.84), and management (0.81) as shown in Table 1.

TABLE 1
RESULTS OF CONFIRMATORY FACTOR ANALYSIS OF CURRICULUM LEADERSHIP MEASUREMENT MODEL

Indicator	Factor Loading			t	R^2	Factor Score Coefficient
	b	(SE)	(β)			
First place element analysis results						
1. Leading						
1.1 Use of power	1.00		.77		.59	.15
1.2 Influence	1.27	.07	.81	18.80	.65	.14
1.3 Persuasion	1.10	.06	.85	20.01	.73	.21
2. Empowering						
2.1 Teacher Empowerment	.99		.83		.69	.27
2.2 Team Empowerment	.98	.03	.82	18.61	.66	.14
2.3 Parental Empowerment	.84	.03	.81	17.48	.66	.20
3. Managing						
3.1 Curriculum supervision	1.04		.80		.64	.12
3.2 Developing and implementing curricula	.97	.03	.77	17.67	.59	.15
3.3 Consistency building	1.09	.03	.82	18.21	.67	.17
3.4 Course Assessment	1.14	.04	.85	20.17	.73	.21
Second order element analysis results						
1. Leading	1.10		.85		.72	
2. Empowering	1.02	.05	.84	19.98	.71	
3. Managing	.82	.04	.81	19.07	.65	
Chi-Square= 4.58, df=6, P =.60, GFI=1.00, AGFI=0.99, RMR=0.00, RMSEA=0.00						

3. Presentation of Curriculum Leadership Development Model for School Administrators Under the Office of the Basic Education Commission.

From the results of a multi-case study of basic educational institutes under the Office of Primary and Secondary Education Service Areas and the synthesis of relevant literature from the concept of English & Steffy (2005); Brubaker (2004); Bradley (2004); Wiles (2009); Zemelman and Ross (2009); Glatthorn, et al. (2017); Sorenson, et al. (2011); Ylimaki (2011); Law (2017); Skendall, et al. (2017); Phillips and Schmidt(2004); Robin (2014); Kangpheng, S. & Kunlong, S. (2017); and Kangpheng, S. (2018) It was found that the curriculum leadership development model has the main components of the 3D development mechanism as follows:

The first dimension. The seven core values are (1) individual level -- consciousness of self, congruence, commitment; (2) group level -- collaboration, common purpose, controversy with civility; (3) social/community level -- citizenship.

The second dimension. The three components of curriculum leadership are (1) leading -- is the use of power that is a form of using influence for persuasion to allow others to understand the reason and be willing to work together to achieve the objectives of the organization and that all members benefit at the same time in personal, professional and spiritual development; (2) empowering -- a key feature of leadership with the philosophy that modern leadership is to encourage everyone to have the leadership to work together according to their unique abilities resulting to empowered teachers, empowered teams, and empowered parents; (3) management -- the delegation of authority or the distribution of responsibilities to those involved in the responsibility, such as teachers, a team of administrators, and or representatives of parents.

The third dimension. 70:20:10 proportion is an effective leadership development method -- 70% from on-the-job experience and off-the-job experience, 20% from counseling, mentoring, coaching, personal feedback, and 10% from education/training.

The mechanism for developing curriculum leadership is for leaders to open their minds to schools as open organizations. Since curricular leadership is the behavior of those responsible for the educational institution to perform the duties of the curriculum, the

goal is to provide learners with experience to gain knowledge, understanding, skills, and positive attitude towards the learning that is defined. With three overlapping behavioral elements -- leading empowerment and management, development needs to be viewed holistically concerning the internal environment: curriculum and learning management, quality system management, student quality management for global citizenship, and external environment: society, economics, politics, culture, and natural environment as shown in   Figure 2.
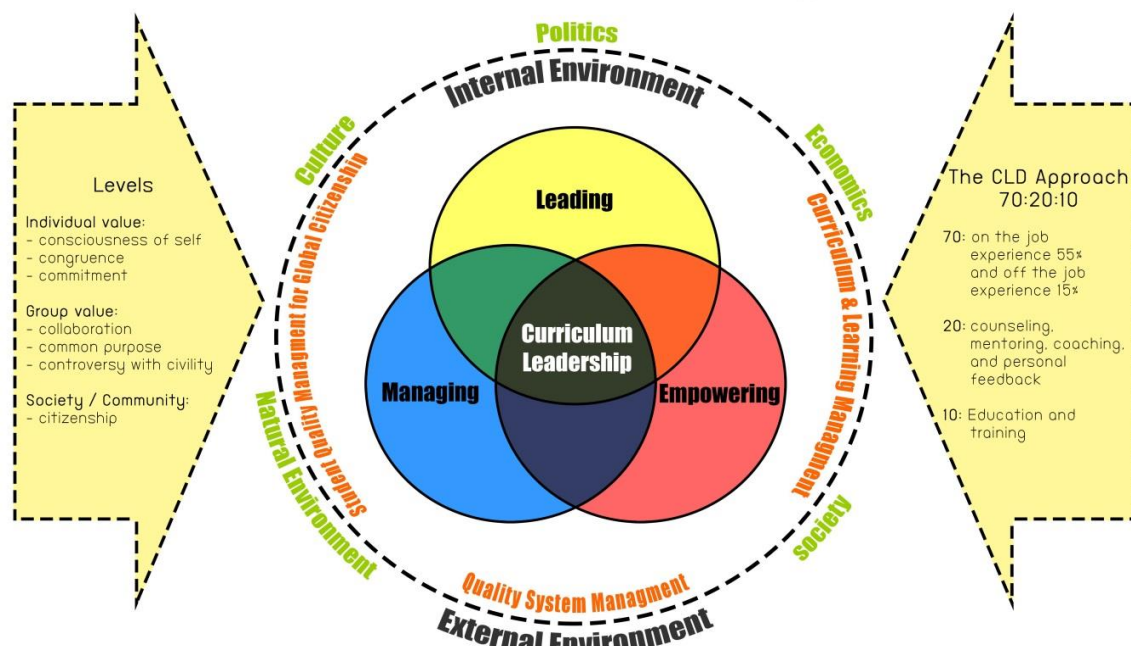

FIGURE 2
THE CURRICULUM LEADERSHIP DEVELOPMENT MODEL: CLD MODEL

DISCUSSION

From the findings in the research, there are important issues that should be discussed as follows. In terms of curriculum leadership, it can be seen that overall and individual aspects are at a moderate level, with managerial behavior having the highest average while conduction had the lowest average of behavior. Research results show that, in the context of curriculum administration in educational institutions under the Office of the Basic Education Commission, management is more important than leadership. This is because school administrators, by position, place greater emphasis on processes or methods of work than on desired outcomes, or on efficiency rather than on outcomes or effectiveness. It is also a descending line of command that is tasked with implementing or implementing policies set by the original affiliation. The findings are consistent with Harvard Business School (2005, 2006); Maxwell (2011) which stated that position is the lowest level of leadership because persuasion comes from position alone that people need to follow. Under the position based on the "rights" derived from the position of the leader itself, which can only be "executive" or "leader" but cannot be a "leader" because anyone has the right to enter the position (people follow you because they have to), thus this type of leader will stick to rules, regulations, policies and organizational charts to control others who people will act only within the scope of executive powers (Kangpheng & Kunlong, 2018).

When considering the element weights, it is found that all values are statistically significant at the .01 level, and are close to being between 0.81-0.85. It shows that Curriculum Leadership Development Model should balance all three aspects to improve leadership effectiveness. The effectiveness is gained from the process of obtaining the desired results through the participation of all parties involved, with an emphasis on the visionary achievement of the organization or group resulting from the leadership or achievement of the desired goals. satisfactorily such as productivity, quality, satisfaction, and situation. Therefore, for the most effective management of the curriculum, school administrators should understand the three concepts of effective leadership as follows.

The first is leader characteristics and traits. Leaders need to study and understand their characteristics and personality as what is their background, what is inherent, and how they should be developed further. Leaders should have a special ability to promote good leadership qualities.

Second is leader behavior and style. Leaders should study and understand the behavior of leaders, how to lead, how to build a good relationship. Effective behavior must be people-oriented or work-oriented. Leaders should focus on both sides, including having to study the style or management style that good leaders should possess and how to manage.

Third is group member characteristics. This concept must be studied and understood on team management such as recruitment, team building, team motivation, etc.

Lastly, internal and external environment, Leaders must study and understand the environment or context both outside and inside the organization such as the economic, social, political, and personal aspects that support and oppose it, as well as being able to connect various contexts to form a vision and strategy of the organization (DuBrin, 2010; Glatthorn et al., 2017).

In addition, successful leadership development should focus on three key development principles: (1) knowledge and skills related to leadership through a variety of experiential learning, both on- and off-job experience, as well as the curriculum environment and curriculum and learning management, quality system management; (2) student quality management for global citizenship; and (3) social, economic, political, cultural, and natural environment (society, economics, politics, culture, and natural environment), including real-world assessment (Campbell & Samiec, 2005; Hemdemhall et al., 2013; DuBrin, 2010; Day et al., 2009; Glatthorn et al., 2017) Therefore, due to the change in today's increasingly complex world, the current curriculum leadership development should therefore cover all dimensions in terms of fundamental values, individual, group, and social or community levels. More over, the model should include the dimension of leadership that emphasizes both internal and external environmentally conscious leadership and empowerment, and various development methods and suitable to the context.

RECOMMENDATION

1. Research Using Recommendation

From the research findings, it is found that the curriculum leadership behaviors of the school administrators are expressed at a moderate level. In terms of conductivity, it has the lowest average. Comparing the overall and individual behaviors of the administrators of educational institutions under the Office of Primary and Secondary Education Service Areas, there is no difference. Therefore, those involved in the policy level should have a curriculum development plan that can use a shared leadership development model. At the same time, in each aspect, the behavioral expression of the executives with the lowest average, should be encouraged, or raised more awareness of behavioral expression as follows:

1.1 Leadership. It should focus on persuading or motivating the team by providing clear information, telling both the advantages and disadvantages of the stories honestly, strictly fulfilling promises, and upholding morals and own value.

1.2 Empowerment. It should focus on empowering parents by defining community-appropriate guidelines, structuring open governance and accepting diversity, and defining or defining the role of community coordinator.

1.3 Management. It should pay more attention to curriculum assessment, especially in-process assessment to examine various operational processes that will lead to further improvement and development.

1.4 Educational institution administrators or agencies responsible for developing curriculum leaders. It should cover all dimensions, including fundamental values, individual, group, and social or community levels. This includes elemental dimension of leadership that emphasizes management, leadership, empowerment, with an analysis of the internal and external environment. Moreover, the dimensions of various development methods to be consistent in each context should be considered.

2. Further Research Recommendation

2.1 There should be research to develop a tool to measure curriculum leadership of school administrators to promote the development and learning of school administrators in terms of leadership, empowerment, and management.

2.2 There should be research on the structured equation model of curriculum leadership of basic education administrators or other levels.

2.3 In this research, the researcher collected information only for the administrators of the educational institutions. Subsequent research should collect information from teachers or learners to examine the invariance of the research models. In addition, the researcher collected only the issues at the level of behavior or practicality in educational institutions. In future research, data on the probabilities of the indicators should be collected to differentiate between the probabilities and the practical behaviors.

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