

## Factors Affecting the Effectiveness in Educational Management of Schools under Office of the Basic Education Commission in the Roi-Kaen-Sarn-Sin Provincial Cluster

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### บทคัดย่อ

การวิจัยเรื่องนี้มีวัตถุประสงค์ 1) เพื่อศึกษาประสิทธิผลของการจัดการศึกษาของสถานศึกษา 2) เพื่อศึกษาปัจจัยที่ส่งผลกระทบต่อประสิทธิผลของการจัดการศึกษาของสถานศึกษา 3) เพื่อสร้างรูปแบบเชิงนโยบายการพัฒนาการบริหารจัดการศึกษา โดยทำการศึกษาโรงเรียนในสังกัดสำนักงานคณะกรรมการการศึกษาขั้นพื้นฐาน ในกลุ่มจังหวัดร้อยแก่นสารสินธุ์กลุ่มตัวอย่างที่ตอบแบบสอบถามเป็นผู้ให้ข้อมูลโรงเรียนกำหนดผู้ให้ข้อมูลโรงเรียนละ 3 คน ได้แก่ ประธานกรรมการสถานศึกษาขั้นพื้นฐาน ผู้อำนวยการ และตัวแทนครู จำนวน 260 โรงเรียน ในสังกัดสำนักงานคณะกรรมการการศึกษาขั้นพื้นฐาน ในกลุ่มจังหวัดร้อยแก่นสารสินธุ์ กำหนดขนาดจากสูตร Taro Yamane และการสุ่มแบบแบ่งชั้นภูมิ ส่วนกลุ่มประชากรเป้าหมายในการสัมภาษณ์ ได้แก่ ประธานกรรมการสถานศึกษาขั้นพื้นฐาน ผู้อำนวยการ และตัวแทนครู รวมแล้ว 30 คน เครื่องมือในการเก็บรวมข้อมูลเป็นแบบสอบถามมาตราส่วนประมาณค่า 5 ระดับ มีความเชื่อมั่นเท่ากับ 0.93 และแบบสัมภาษณ์แบบมีโครงสร้าง การวิเคราะห์ข้อมูลเชิงปริมาณโดยใช้สถิติ ความถี่ (Frequency) ค่าร้อยละ (Percentage) ค่าเฉลี่ย (Mean) และค่าส่วนเบี่ยงเบนมาตรฐาน (Standard deviation) และการวิเคราะห์พหุคูณถดถอยเชิงเส้น (Multiple regression analysis) ส่วนข้อมูลเชิงคุณภาพใช้วิธีการวิเคราะห์เนื้อหา (Content Analysis) ในการวิเคราะห์ข้อมูล

ผลการวิจัยพบว่า 1). ประสิทธิภาพการจัดการศึกษาของสถานศึกษา พบว่า กลุ่มตัวบ่งชี้พื้นฐานโดยรวมอยู่ในระดับดีมาก (86.48%) เมื่อพิจารณาตัวบ่งชี้ พบว่า ประสิทธิภาพการจัดการศึกษาของสถานศึกษา ระดับดีมาก จำนวน 10 ตัวบ่งชี้ และ ระดับดี จำนวน 2 ตัวบ่งชี้ 2). ปัจจัยที่ส่งผลกระทบต่อประสิทธิผลของการจัดการศึกษาของสถานศึกษา การบริหารงานมุ่งผลสัมฤทธิ์ ผู้นำการเปลี่ยนแปลง และการบริหารแบบโดยกำหนดตัวชี้วัด การวัดความก้าวหน้าของการบรรลุปัจจัยหลักแห่งความสำเร็จ หรือผลสัมฤทธิ์ขององค์กร โดยเทียบผลการปฏิบัติงานกับมาตรฐานหรือเป้าหมายที่ตกลงกันไว้ องค์กรสามารถใช้ผลของการวัดและการประเมินความก้าวหน้าของการบรรลุวิสัยทัศน์ขององค์กร เพื่อปรับปรุงประสิทธิภาพการปฏิบัติงานขององค์กร โดยตัวแปรดังกล่าวสามารถพยากรณ์ความแปรปรวนของประสิทธิผลของการจัดการศึกษาของสถานศึกษา ได้ร้อยละ 29.50 ( $R^2=0.295$ ,  $F=16.805$ ) และ 3). รูปแบบการนโยบายในการบริหารจัดการศึกษา ประกอบด้วย (1) แนวทางเชิงนโยบายโดยกำหนดยุทธศาสตร์การส่งเสริมขีดความสามารถ ยุทธศาสตร์ส่งเสริมการมีส่วนร่วมของผู้ได้เสีย ยุทธศาสตร์การพัฒนาการจัดการเรียนรู้ ยุทธศาสตร์การส่งเสริม และสนับสนุนจากหน่วยงานภาคี และ (2) แนวทางเชิงปฏิบัติการได้แก่ กลยุทธ์การเพิ่มประสิทธิภาพการบริหารจัดการโรงเรียน กลยุทธ์การเพิ่มประสิทธิภาพการจัดการเรียนรู้ และ กลยุทธ์การมีส่วนร่วมของชุมชน

**คำสำคัญ :** ประสิทธิภาพการจัดการศึกษา / รูปแบบเชิงนโยบาย / สถานศึกษา / กลยุทธ์

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## ABSTRACT

The purposes of the research were to 1) assess the effectiveness in educational management of schools under office of the Basic Education Commission in the Roi-Kaen-Sarn-Sin Provincial Cluster, 2) to analyze the factors affecting the effectiveness in educational management, and 3) to design a policy model for improving the effectiveness in educational management of schools under office of the Basic Education Commission in the Roi-Kaen-Sarn-Sin Provincial Cluster. The samples were seven hundred and eighty key informants consisting of school directors and teachers from two hundred and sixty schools under office of the Basic Education Commission in the Roi-Kaen-Sarn-Sin Provincial Cluster. Taro Yamane method was used to calculate the sample size and the samples were selected by stratified random sampling. The target population was thirty interviewees consisting of chairmen of the basic education commission, school directors and teachers. The instrument was a five point rating scale questionnaire with .93 reliability index and a structured interview form. The statistics used were the percentage, frequency, mean, and standard deviation. Multiple regression analysis and content analysis were used for the study.

The research results showed that the average effectiveness in educational management of schools under Office of the Basic Education Commission in the Roi-Kaen-Sarn-Sin Provincial Cluster was at a very high level (86.48%). Regarding indicators for the effectiveness, the findings indicated that ten indicators for the effectiveness in educational management were in a very high level, and two indicators for the effectiveness were in a high level. The factors affecting the effectiveness in educational management were result-based management, transformational leadership and management of *Key Performance Indicators*. Measuring the progress of achieving key success factors. Or the achievement of the organization. By benchmarking performance against agreed standards or targets. Organizations can use the results of measuring and evaluating the progress of achieving organizational vision. To improve the performance of the organization. *These variables could predict the variance of effectiveness in educational management was 29.50% ( $R^2=0.295$ ,  $F=16.805$ )*

3. The policy model for developing the educational management effectiveness of school was; (1) the policy approaches were the strategy of promoting competitiveness, promoting the participation of stakeholders, the learning process development, the promotion and support from partners. (2) The implement approach was the optimizing of school management, the optimizing learning, the community participation.

**Keywords:** Effectiveness in Educational Management, Policy Model, Schools, Strategies

## Introduction

Education is a key process for human resource development including development of nation. It is inevitable that the country with high-educated people affects development the country (Witayakorn Chiangkul, 2001: 16-18). The national report of Thailand (2007) shows that well-being and the quality of educational management of Thailand is not successful. The reasons may be caused by social, economic and political conditions which influence the average income and low quality of people in Thailand. Additionally, the global economy

is extremely competitive and the imbalance of the global economy including the decreased production of Thailand. These factors affect the growth of economy of Thailand. It is obvious that the economic problems of Thailand have a negative impact on both the quality and education of Thailand. Education is an important process for human resource development and economic development. Therefore, efficient educational management is necessary for problem solutions of Thailand. The current conditions and problems of educational management in Thailand indicate that the government has not emphasized

clearly pre-school education which pre-school children are important primary human resource for the national development in the future. Additionally, this issue affects the quality and quantity of further education of both primary education and secondary education including tertiary education. Moreover, knowledge, motivation of teachers and budget are major issues of educational management in Thailand. The major evidence shows that most of teachers in Thailand are in debt and lack of competency and motivation for work performance. Additionally, good teaching materials are not sufficient for educational management of pre-school education, primary school education and secondary school education. Therefore, knowledge and professional skills of teachers or educational personnel and school administrators should be improved for the efficient and effective educational management of Thailand. Therefore, human resource development should be based on the current social and economic changes of the country and all stakeholders should participate in both local and national educational management. According to the previous educational management of Thailand, the evidence indicates that the success and failure of educational management are caused by unclear framework and more workloads mission of educational personnel which affect the achievement of policies on educational management in Thailand.

From the concepts and problems mentioned, the author had studied on factors affecting the effectiveness in educational management of schools under office of the Basic Education Commission in the Roi-Kaen-Sarn-Sin Provincial Cluster for practical guidelines of educational reform under the current circumstance of the provincial cluster.

### **Objectives:**

1. To assess the effectiveness in educational management of schools under Office of the Basic Education Commission in the Roi-Kaen-Sarn-Sin Provincial Cluster
2. To analyze factors affecting the effectiveness in educational management of schools under Office of the Basic Education Commission in the Roi-Kaen-Sarn-Sin Provincial Cluster
3. To design a policy model for improving educational management in schools under Office of the Basic Education Commission in the Roi-Kaen-Sarn-Sin Provincial Cluster

### **Hypothesis**

Transformational leadership, professional administrator, result-based management, time management, management of key performance indicators, participatory management affect the effectiveness in educational management of schools under Office of the Basic Education Commission in the Roi-Kaen-Sarn-Sin Provincial Cluster.

### **Research Framework**

The framework adopted from the concepts of the educational standards of the education quality assessment round 3 (2011-2015). The standards were used for the basic education level based on the regulations of the Ministry of Education. The standards consist of three major groups of indicators: eight basic indicators, two identity indicators and two supporting indicators. (Office of National Education Standards and Quality Assessment 2011). The author wrote the research framework as follows (Sanya Khenapum. 2014:35-39):

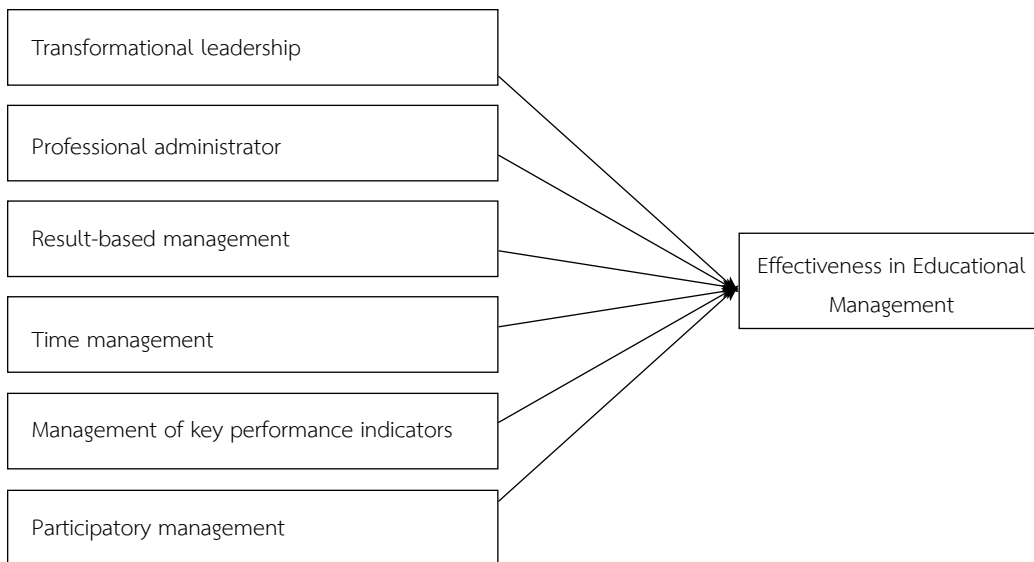


Diagram 1 Research Framework

**Definitions**

1. School refers to kindergarten schools up to secondary schools offered grade 9 level under Office of the Basic Education Commission in the Roi-Kaen-Sarn-Sin Provincial Cluster.

2. Educational management refers to the act of operating and controlling education based on the educational standards of the Ministry of Education.

3. Effectiveness refers to the outcomes of educational management assessed by the indicators for education quality assessment of the Office of National Education Standards and Quality Assessment.

4. Administration refers to integration of administrative resources such as man, money, material, equipment etc. for the success in educational management.

5. Factors affecting educational management refer to conditions or variables in improving the competency of educational management based on the education quality and standards.

**Research Methodology**

Population and Samples

1. Population was seven hundred and thirty six schools under Office of the Basic Education

Commission in the Roi-Kaen-Sarn-Sin Provincial Cluster.

2. Samples were two hundred and twenty six schools under Office of the Basic Education Commission in the Roi-Kaen-Sarn-Sin Provincial Cluster. Taro Yamane was used to calculate the sample size, and the samples were selected from three participants of each school by stratified random sampling. Seven hundred and eighty participants consisted of school directors and teachers and key informants.

**Instrument**

1. Five point rating scale questionnaire was used to survey the opinions of all stakeholders of basic educational management research participants toward. The author analyzed and synthesized the concepts, theories and the opinions of the experts to create a frame of questionnaire. The questionnaire was divided into three parts.

Part 1: Personal information: age, gender, educational background, work experience and work position.

Part 2: Opinions of the respondents on the factors affecting the effectiveness in educational

management of schools under Office of the Basic Education Commission in the Roi-Kaen-Sarn-Sin Provincial Cluster.

Part 3: Assessment of the effectiveness in educational management of schools Office of the Basic Education Commission in the Roi-Kaen-Sarn-Sin Provincial Cluster based on the indicators for education quality assessment of the Office of National Education Standards and Quality Assessment.

2. Unstructured interview form was used to collect the data from key informants, and the data was synthesized with the data of documentary study to create a conceptual framework of the factors affecting educational management in schools under Office of the Basic Education Commission in the Roi-Kaen-Sarn-Sin Provincial Cluster.

#### Data Collection

1. The author wrote a letter to the dean of Faculty of law and Government for asking an official letter from the Graduate school, Rajabhat Maha Sarakham University to collect data from school directors, teachers and experts.

2. The opinions of school directors and teachers toward the factors affecting the effectiveness in educational management was collected by five point rating scale questionnaire from two hundred sixty schools in schools under Office of the Basic Education Commission in the Roi-Kaen-Sarn-Sin Provincial Cluster.

3. The data of the factors affecting the effectiveness in educational management was collected by unstructured interview form from the experts. They experts consisted of chairmen of the basic education commissions in the Roi-Kaen-Sarn-Sin Provincial Cluster, school administrators and teachers concerned with the excellent educational management.

#### Data Analysis

1. The data was analyzed and interpreted by the descriptive statistics: the percentage, frequency, mean and standard deviation, and multiple

regression analysis and content analysis were employed for hypothesis testing.

2. A policy model for improving the effectiveness in educational management was designed based on the exploratory data and the concepts and theories for strategic design of Sanya Khenapum (2015), and the appropriateness of the practical model was verified by the experts.

#### Conclusion

1. The research results showed that the average effectiveness in educational management of schools under Office of the Basic Education Commission in the Roi-Kaen-Sarn-Sin Provincial Cluster was at a high level (86.48%). The overall effectiveness in educational management of schools uner Office of the Basic Education Commission in the Roi-Kaen-Sarn-Sin Provincial Cluster Group found as overall was at the highest level (86.48%). Regarding indicators for the effectiveness, the findings indicated that ten indicators for the effectiveness in educational management were in the highest level, and two indicators for the effectiveness were in a high level. The 10<sup>th</sup> indicator for the outcomes of improving the strength of school affecting the identity of the school was 97.40%. And the 9<sup>th</sup> indicator for improving educational management based on philosophy, vision, mission and goal of school was 96.60%. The 11<sup>th</sup> indicator for the outcomes of extra projects of school responsibilities was 95%. The 1<sup>st</sup> indicator for health and mental health was 93.70%. The 2<sup>nd</sup> indicator for the required moral and ethics was 93.40%. The 8<sup>th</sup> indicator for progress of the quality assurance of schools was 93%. The 12<sup>th</sup> indicator for the outcome of school standard improvement based on the national education reform was 92.60%. The 7<sup>th</sup> indicator for efficiency in educational management and development was 91%. The 4<sup>th</sup> indicator for creative thinking students was 90.90%. The 3<sup>rd</sup> indicator for enthusiastic students was 88.20%. The 6<sup>th</sup> indicator for the effectiveness of student-centered instruction was 84.50% and the 5<sup>th</sup> indicator for learning achievement of the students was 65.65%.

**Table 1** Assessment of the Effectiveness in Educational Management in Schools under Office of the Basic Education Commission in the Roi-Kaen-Sarn-Sin Provincial Cluster

Effectiveness in Educational Management in Schools	Total Score	Achieved score	Percentage of success	Quality Level
<b>Basic Indicators</b>				
1 Students with good health and mental health	10	9.37	93.70	Very high
2 Students with required moral and ethics	10	9.34	93.40	Very high
3 Enthusiastic students	10	8.82	88.20	Good
4 Creative thinking students	10	9.09	90.90	Very high
5 Learning achievement of students	20	13.13	65.65	Good
6 Effectiveness of student-centered instruction in teaching and learning management	10	8.45	84.50	Very high
7 Efficiency in educational management and development	5	4.55	91.00	Very high
8 Development of quality assurance of schools	5	4.65	93.00	Very high
<b>Indicators for School Identity</b>				
9 Outcomes of school development based on philosophy, vision, mission, and goal of schools	5	4.83	96.60	Very high
10 Outcomes of improving the strength and outstanding points for feedback on school identity	5	4.87	97.40	Very high
<b>Indicators for Supporting Standards</b>				
11 Outcomes of extra projects for school responsibility development	5	4.75	95.00	Very high
12 Outcomes of school development for upgrading the standards based on the national education reform	5	4.63	92.60	Very high
Total Score	100	86.48	86.48	Very high

2. The overall opinion of the respondents toward the factors affecting the effectiveness in educational management was at a high level ( $\bar{x}=3.96$ ). The high rated items of the effectiveness were participatory management ( $\bar{x}=3.99$ ), professional administra-

tor. ( $\bar{x}=3.98$ ), transformational leadership ( $\bar{x}=3.97$ ), result-based management ( $\bar{x}=3.95$ ), time management, ( $\bar{x}=3.95$ ) and indicator-based management ( $\bar{x}=3.93$ ) respectively.

**Table 2** Opinions of Administrators and Teachers toward the Factors Affecting the Effectiveness in Educational Management in Schools under Office of the Basic Education Commission in the Roi-Kaen-Sarn-Sin Provincial Cluster

Factors Affecting the Effectiveness in Educational Management in Schools	Degree of Opinion		
	$\bar{x}$	S.D.	Assessment level
1. Participatory Management	3.99	0.38	High
2. Result-Based Management	3.95	0.45	High
3. Key Performance Indicator Management	3.93	0.44	High
4. Time management	3.95	0.45	High
5. Transformational leadership	3.97	0.34	high
6. Professional Administrators	3.98	0.42	High
<b>Total</b>	3.96	0.41	high

3. The factors affected the effectiveness in educational management at the .05 level of the statistical significance. They were result-based management, Key Performance Indicator and Trans-

formational leadership. These variables could predict the variance of effectiveness in educational management of schools under Office of the basic Education Commission was 29.50% ( $R^2=0.295$ ,  $F=16.805$ ).

**Table 3** Factors Affecting the Effectiveness in Educational Management in Schools under Office of the Basic Education Commission

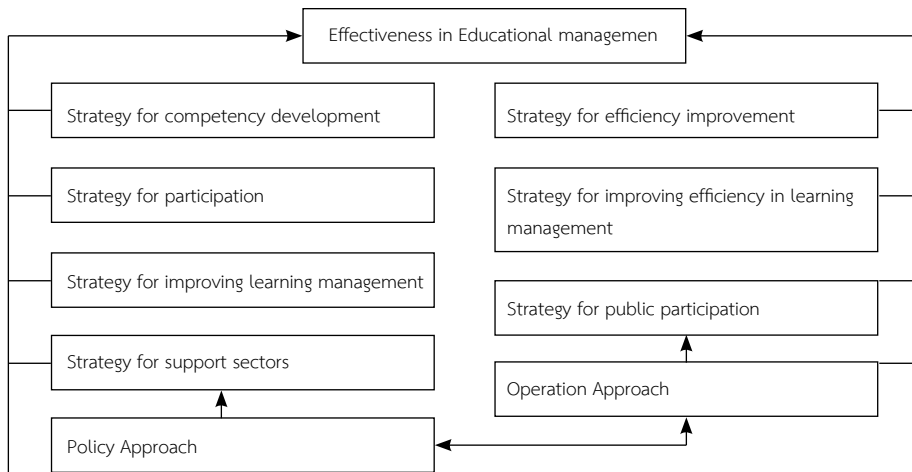
Predictor Variables	B	S.E.	Beta	t	Sig.
Constant	-.057	.637			
Participatory Management	.118	.082	.099	1.437	.152
Result-Based Management (MRBA)	.187	.070	.188	2.671	.008*
Predictor Variables	B	S.E.	Beta	t	Sig.
Key Performance Indicator Management	.132	.063	.131	2.102	.037*
Time Management	-.063	.070	.059	-.910	.364
Transformational Leadership	.438	.094	.331	4.650	.000*
Professional Administrators	.172	.110	.088	1.572	.117

$R= 0.543$  ,  $R^2=0.295$ , Adjusted  $R^2= 0.277$  S.E.= 0.378,  $F=16.805$

4. The policy model for developing educational management of schools under Office of the Basic Education Commission in the Roi-Kaen-Sarn-Sin Provincial Cluster consisted of 1) policy approach: strategy for competency development, strategy for

participation, strategy for improving learning management and strategy for support sectors, 2) operation approach: strategy for efficiency improvement, strategy for improving efficiency in learning management and strategy for public participation.

### Strategy for improving efficiency in learning management



**Diagram 2** A Policy Model for Improving Educational management of Schools under Office of the Basic Education Commission in the Roi-Kaen-Sarn-Sin Provincial Cluster

### Conclusion and Discussion

The research results were concluded and discussed as follows:

1. The research results showed that the average effectiveness in educational management of two hundred and sixty schools under Office of the Basic Education Commission in the Roi-Kaen-Sarn-Sin Provincial Cluster was at a very high level (86.48%). Regarding indicators for the effectiveness, the findings indicated that ten indicators for the effectiveness in educational management were at a very high level, and two indicators for the effectiveness were at a high level. The 10<sup>th</sup> indicator for the outcomes of improving the strength of school affecting the identity of the school was 97.40%. And the 9<sup>th</sup> indicator for improving educational management based on philosophy, vision, mission and goal of school was 96.60%. The 11<sup>th</sup> indicator for the outcomes of extra projects of school responsibilities was 95%. The 1<sup>st</sup> indicator for health and mental health was 93.70%. The 2<sup>nd</sup> indicator for the required moral and ethics was 93.40%. The 8<sup>th</sup> indicator for progress of the quality assurance of schools was 93%. The 12<sup>th</sup> indicator for the outcome

of school standard improvement based on the national education reform was 92.60%. The 7<sup>th</sup> indicator for efficiency in educational management and development was 91%. The 4<sup>th</sup> indicator for creative thinking students was 90.90%. The 3<sup>rd</sup> indicator for enthusiastic students was 88.20%. The 6<sup>th</sup> indicator for the effectiveness of student-centered instruction was 84.50% and the 5<sup>th</sup> indicator for learning achievement of the students was 65.65%. The results were consistent with the study of Somchai Putha. Somchai Putha (2009) analyzed the components and improved the factors for educational management of basic education schools. The study showed that nine major components for basic educational management consisted of eleven indicators for the confidence of service providers, seventeen indicators for stability and developing a system for administrative management, seven indicators for knowledge and skills in educational management, nine indicators for vision competency in educational management, eight indicators for transformational leadership, five indicators for professional teacher, five indicators for organizational culture and five indicators for structure of the organization.



Moreover, the results were consistent with the three national education standards consisting of required quality and characteristics of students, which the education standards were employed to monitor, and assess the education quality (National Education Act of 1999: section 4).

2. The overall opinion of the school administrators and teachers toward the factors affecting educational management was at a high level. The indicators consisted of participatory management, professional administrator, transformational leadership, result-based management, time management and key performance indicator management. The results may be caused by:

1. The national policy on educational development emphasized all components of educational management. Particularly, the criteria for education quality assessment focused on the performance quality of students and the performance quality of teachers and administrators. As a result, the national policy affected positively the factors for education quality management.

2. The school administrators realized their responsibilities with positive attitudes and managed their school based on the national policy and standards. Consequently, the administrators had positive attitude toward their regular work and they can prove their competencies in analyzing factors, trends, abilities and experiences in appropriate educational management efficiently. It is obvious that the competencies in analysis and decision making affect transformational leadership of the administrators at a high level. Pimpan Suriyo and other (2008) asserted that the administrative factors affected significantly the effectiveness in educational management of municipality schools in group 9 under Department of Local Administration. The factors consisted of transformational leadership, decision making, vision, and communication.

3. The participation of the teachers and educational personnel in educational management was at a high level. They were provided the opportunity

to design and develop school curriculums especially student-centered instruction based on needs and problems of students and communities. Additionally, lesson plans of student-centered instruction are necessary for improving reading skills and moral of the students including learning environment.

### **Suggestions for Practical Application**

Two approaches to policy

Policy approach consists of strategy for improving competency in management, strategy for participation of all stakeholders, strategy for learning management, and strategy for support sectors,

Operation approach consists of strategy for improving the effectiveness in educational management, strategy for improving learning management, and strategy for public participation.

The data collection of the study was only collected from schools under Office of the Basic Education Commission in the Roi-Kaen-Sarn-Sin Provincial Cluster: Roi-Et, Khon Kaen, Mahasarakham and Kalasin. The further study should be conducted in other regions of Thailand.

The model for improving the effectiveness in educational management of schools under Office of the Basic Education Commission in the Roi-Kaen-Sarn-Sin Provincial Cluster should be applied for educational management of other regions.

### **Acknowledgement**

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## References

- Office of National Education Standards and Quality Assessment. (ITD). 2011. **Guide to the third round external assessment (AD 2554-2558), the level of basic education**. The Education Act 2554. Bangkok : Office for National Education Standards and Quality Assessment
- Phimphan Suriyo. 2008. **The School Administrators Factors Affecting the Effectiveness of Municipality School, Local Study Group 9, Department of Local Government**. Master of Education Thesis (Educational Administration) of Loei Rajabhat University
- Sanya Kenaphoom. 2014. "The Writing Format of Research Conceptual Frameworks on Management" **Rajabhat Maha Sarakham University Journal Humanities and Social Sciences: 8 (3)** September – December, 2014 : 36-39.
- Sanya Kenaphoom. 2015. "Establish the Strategy from the management Survey research" **Journal of Humanities and Social Sciences Mahasarakham University: 35 (1)** January-February, 2016
- Somchai Buddha. 2009. **The Elements Analysis And the administration Indicators Development base on school of the Basic education**. The Doctoral Dissertation (Educational Administration). Graduate School : Silpakorn University Witthayakorn Chiengkool. 2001. "**The Development of the Structural Poverty Indicators Models**". Bangkok : Office of the National Economic and Social Development.