

CAUSAL STRUCTURAL RELATIONSHIP FACTORS AFFECTING
EFFECTIVENESS OF BASIC EDUCATION SCHOOLS
IN THE LOWER NORTHEAST REGION UNDER THE OFFICE OF BASIC EDUCATION COMMISSION
ปัจจัยความสัมพันธ์โครงสร้างเชิงสาเหตุที่ส่งผลต่อประสิทธิผลการจัดการศึกษาขั้นพื้นฐานของสถานศึกษา
ภาคตะวันออกเฉียงเหนือตอนล่าง สังกัดสำนักงานคณะกรรมการการศึกษาขั้นพื้นฐาน

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บทคัดย่อ

การศึกษาค้นคว้านี้มีวัตถุประสงค์เพื่อ 1) ศึกษาปัจจัยเชิงสาเหตุที่ส่งผลต่อประสิทธิผลการจัดการศึกษาขั้นพื้นฐานของสถานศึกษาภาคตะวันออกเฉียงเหนือตอนล่าง สังกัดสำนักงานคณะกรรมการการศึกษาขั้นพื้นฐาน 2) ศึกษาประสิทธิผลการจัดการศึกษาขั้นพื้นฐานของสถานศึกษาภาคตะวันออกเฉียงเหนือตอนล่าง สังกัดสำนักงานคณะกรรมการการศึกษาขั้นพื้นฐาน และ 3) สร้างรูปแบบปัจจัยความสัมพันธ์เชิงสาเหตุที่ส่งผลต่อประสิทธิผลการจัดการศึกษาขั้นพื้นฐานของสถานศึกษาภาคตะวันออกเฉียงเหนือตอนล่าง สังกัดสำนักงานคณะกรรมการการศึกษาขั้นพื้นฐาน ประชากรในการวิจัยได้แก่ครูผู้สอนในสถานศึกษาขั้นพื้นฐาน สังกัดสำนักงานเขตพื้นที่การศึกษา ประถมศึกษาและสังกัดสำนักงานเขตพื้นที่การศึกษามัธยมศึกษา รวมทั้งสิ้นจำนวน 4 เขต ปีการศึกษา 2557 จำนวน 837 โรงเรียน ประกอบด้วยครูผู้สอนในระดับประถมศึกษาและมัธยมศึกษา จำนวน 9,923 คน กลุ่มตัวอย่างใช้วิธีสุ่มแบบหลายขั้นตอนได้แก่ครูผู้สอนในระดับประถมศึกษาและระดับมัธยมศึกษาจำนวน 385 คนเครื่องมือที่ใช้ในการเก็บรวบรวมข้อมูลเพื่อการวิจัยครั้งนี้เป็นแบบสอบถามชนิดมาตราส่วนประมาณค่า 5 ระดับ วิเคราะห์ข้อมูลโดยหาค่าความถี่ ค่าร้อยละ ค่าสัมประสิทธิ์ความแปรปรวน ค่าความเบ้ ค่าความโด่งและค่าสัมประสิทธิ์สหสัมพันธ์ของเพียร์สัน (Pearson's Correlation) วิเคราะห์เส้นทางการไหล (Path Analysis) ด้วยโปรแกรมสำเร็จรูป

ผลการวิจัยพบว่า 1) ปัจจัยเชิงสาเหตุที่ ส่งผลต่อประสิทธิผลการจัดการศึกษาขั้นพื้นฐานของสถานศึกษาภาคตะวันออกเฉียงเหนือตอนล่าง สังกัดสำนักงานคณะกรรมการการศึกษาขั้นพื้นฐาน ได้แก่พฤติกรรมของผู้บริหาร การประกันคุณภาพการศึกษาพฤติกรรมของครู และการพัฒนานวัตกรรม ในภาพรวมและรายด้านพบว่าอยู่ในระดับมาก 2) ประสิทธิผลการจัดการศึกษาขั้นพื้นฐานของสถานศึกษาภาคตะวันออกเฉียงเหนือตอนล่าง สังกัดสำนักงานคณะกรรมการการศึกษาขั้นพื้นฐาน ได้แก่ความพึงพอใจในการทำงานของครู ผลสัมฤทธิ์ทางการเรียนของนักเรียน ความรับผิดชอบของนักเรียน การคิดอย่างมีวิจารณญาณ ผลการวิจัยพบว่าในภาพรวมและรายด้านอยู่ในระดับมาก 3) รูปแบบปัจจัยความสัมพันธ์โครงสร้างเชิงสาเหตุที่ส่งผลต่อประสิทธิผลการจัดการศึกษาขั้นพื้นฐานของสถานศึกษาภาคตะวันออกเฉียงเหนือตอนล่าง สังกัดสำนักงานคณะกรรมการการศึกษาขั้นพื้นฐาน พบว่า อิทธิพลโดยรวมที่ส่งผลต่อประสิทธิผลการจัดการศึกษา คือ พฤติกรรมของครู และการประกันคุณภาพการศึกษา ทั้งสองปัจจัยเป็นอิทธิพลทางบวกที่มีนัยสำคัญทางสถิติ ที่ระดับ 0.01 ค่าน้ำหนักองค์ประกอบ เท่ากับ 0.46 และ 0.44 ตามลำดับ ซึ่งแสดงว่าพฤติกรรมของครูส่งผลต่อประสิทธิผลการจัดการศึกษา มากกว่า การประกันคุณภาพการศึกษา อิทธิพลโดยรวมของพฤติกรรมของผู้บริหารสถานศึกษา ส่งผลต่อการพัฒนานวัตกรรมและเทคโนโลยีเพื่อการศึกษาที่มีค่าน้ำหนักองค์ประกอบเท่ากับ 0.72 ส่งผลต่อการประกันคุณภาพการศึกษาที่มีค่าน้ำหนักองค์ประกอบ เท่ากับ 0.97 ส่งผลต่อประสิทธิผลการจัดการศึกษาขั้นพื้นฐานที่มีค่าน้ำหนักองค์ประกอบ เท่ากับ 0.79 ส่งผลต่อพฤติกรรมของครูที่มีค่าน้ำหนักองค์ประกอบ เท่ากับ 0.77 พฤติกรรมของผู้บริหารส่งผลทางอ้อมต่อ การประกันคุณภาพการศึกษาที่มีค่าน้ำหนักองค์ประกอบ 0.22 ส่งผลทางอ้อมต่อพฤติกรรมของครู เท่ากับ 2.70 ส่งผลต่อประสิทธิผลการจัดการศึกษาขั้นพื้นฐานที่มีค่าน้ำหนักองค์ประกอบ เท่ากับ 0.79

คำสำคัญ ปัจจัยความสัมพันธ์ โครงสร้างเชิงสาเหตุ ประสิทธิผลการศึกษา ภาคตะวันออกเฉียงเหนือ การศึกษาขั้นพื้นฐาน

Abstract

The purposes of this research were to: (1) study the causal factors affecting effectiveness of Basic Education Schools in the Lower Northeast Region under the Office of Basic Education Commission, (2) study effectiveness of Basic Education Schools in the Lower Northeast Region under the Office of Basic Education Commission, and (3) validate the structural model of causal factors affecting effectiveness of Basic Education Schools in the Lower Northeast Region under the Office of Basic Education Commission. The population for the research was 9,923 teachers. As for the samples, a Krejcie and Morgan table was obtained with the multi-stage sampling method, resulting in 385 teachers. An instrument used for collecting the data was a 5-point rating scale questionnaire. The data were analyzed by the statistics of frequency, percentage, mean, and standard deviation, coefficient of variance, skewness, kurtosis, Pearson's correlation, and Path Analysis.

The results revealed that: (1) the causal factors affecting the effectiveness of Basic Education Schools in the Lower Northeast Region under the Office of Basic Education Commission as a whole were executive's behavior, quality assurance, teacher's behavior, and innovation development for education, and each aspect was at high level. (2) the effectiveness of Basic Education Schools in the Lower Northeast Region under the Office of Basic Education Commission included teacher's satisfaction in career, learning achievement, student responsibility, and critical thinking was at a high level. (3) The structural model of causal factors affecting the effectiveness of Basic Education Schools in the Lower Northeast Region under the Office of Basic Education Commission was teacher's behavior and quality assurance, which both were positively influencing with the statistical significance at 0.01 level. The factor loadings were 0.46 and 0.44, respectively. It showed that the teacher behavior influenced the effectiveness of Basic Education Schools more than quality assurance. The total effect of executive's behavior influenced to innovation and technology development for education with the factor loading of 0.72, influencing quality assurance with the factor loading of 0.97, influencing the effectiveness of Basic Education with the factor loading of 0.79, and influencing teacher's behavior with the factor loading of 0.77. The indirect effect of executive's behavior indirectly influenced quality assurance with the factor loading of 0.22, indirectly influencing teacher's behavior with the factor loading of 0.70, and indirectly influencing the effectiveness of Basic Education with the factor loading of 0.79.

Keywords: relationship factors; causal structure; effectiveness of education; northeast region; basic education.

1. INTRODUCTION

The state of current education administration is now emphasizing on a large amount of making the education quality decrease, which make the students come in active in their intelligence development in progress. Preceding Thai education torn equilibrium in building person, give weights with feeding knowledge to students but not giving extremely weights with building skills, have good life, life-long learning, and to cover lifetime limits of the students. The current education administration now consists of: 1) the achievement character of education system that has the aiming

specification and emphasizes on the large amount of numbers more than the quality, and bound for giving the student in obvious practice, 2) the educational elements do not excellently build intellectual aspects, the students could not discover the talent of themselves including inferior in building morals, 3) school courses are using in over all of the country. The course curricula are imitated from the foreign countries and more importantly, they are outmoded curricula and also hard to change as well, 4) the education administration has the state as a core and emphasizes on formal education, 5) teacher knowledge is outmoded, and they have little income, 6) the

instruction concentrates on remembrance: for example, a teacher dictated to students and students are obedient, memorize, and do not emphasize in writing [1]. The school must have education development for survival and stability, and the survival factors are the effectiveness of schools [2]. Whether the effectiveness of schools are achieved or not depends on various important factors, such as, school, executive, teacher, and student [3], especially when the school may deliver a speech that the aforementioned element is significant and is getting into school administration because school executive has a role and the power to decide freely in school, including teacher supervision. The assessment indicators of the education effectiveness are the abilities in adapting of schools and the abilities in integration within schools [3]. Education administration in the future will be focused on the goal as well as the measurement and it will evaluate that it should have the: 1) achievement character of education system emphasizing on the aim of the quality in the education administration, for a life-long learning, creativity minded, and for a job runner, 2) the educational elements have the equilibrium in skills and knowledge of life, omniscience in academic, excellence in every field and get the universal level, including the fact that the students can discover and develop the latency of themselves to be at most and also activate the pride as well, and student life encouragement, 3) in terms of course characters, there are varieties of courses, such as follow the aptitude of the student, follow intelligence level, follow a kind of each area and person, and have applicability appropriated of the sociality dynamic, 4) the education administration that has the private sector as a mainstay, means that everybody participates in the education administration which emphasizes on formal education, non-formal education, and informal education, 5) the instructors and teachers accompany to lead the society. Teacher occupation would have high salary, and teacher would

do research for modern knowledge, 6) instruction creates a thinking system for students that encourage self-learning. There are speech, discussion emphasizing understanding, writing, measurement, and evaluation that use the examination in both subjective and objective ways [1].

School administration will be effective depending on various factors. The big factor that is formed to be the most important of administration effectiveness has 4 aspects as follows: executive's behavior factor, including academic leadership behavior and transformational leadership behavior. Quality assurance factor, for example, internal quality assurance, and external quality assurance. Teacher's behavior, including with teacher's profession development, student-centered, and participating factors. The factor of innovation and technology development for education, for example, innovation and technology for education, which is effectively administrated or not it may depend on variable factors.

Thus, the researchers conducted the research for studying the causal structural relationship factors affecting the effectiveness of Basic Education Schools in the Lower Northeast Region under the Office of Basic Education Commission and to be the guideline for schools and executives to conduct development planning in standardized and good quality to respond to the intention of the Office of Education Foundation Committee, which is an institute assigned to take care of the education of the government sector as well as to support, encourage protect, and also run the standard and qualified education for a better choice of people that will bring to good quality and standard in education.

2. OBJECTIVES

2.1 to study the causal factors affecting effectiveness of Basic Education Schools in the Lower Northeast Region under the Office of Basic Education Commission,

2.2 to study the effectiveness of Basic Education Schools in the Lower Northeast Region under the Office of Basic Education Commission,

and 2.3 to validate the structural model of causal factors affecting the effectiveness of Basic Education Schools in the Lower Northeast Region under the Office of Basic Education Commission.

3. CONCEPTUAL FRAMEWORK

The conceptual framework of causal structural relationship factors affecting the effectiveness of Basic Education Schools in the Lower Northeast Region under the Office of Basic Education Commission was integrated by the ideas, the theories and research results of many researchers [3][4][5][6] that have mentioned the important factors affecting school effectiveness: such as school , executive , a teacher and a student, assemble with the ideas, theories, and

research results from many researchers that will be mentioned later.

From the ideas, the theories and the research results as mentioned above, the researchers have summarized the conceptual framework of causal structural relationship factors affecting the effectiveness of Basic Education Schools in the Lower Northeast Region under the Office of Basic Education Commission as in figure 1.

4. METHODOLOGY

4.1 Population and Samples:

4.1.1 Population was 9,923 teachers out of 837 schools in 4 regions of Basic Education Schools in the Lower Northeast Region under the Office of Basic Education Commission of Thailand, in the academic year of 2014.

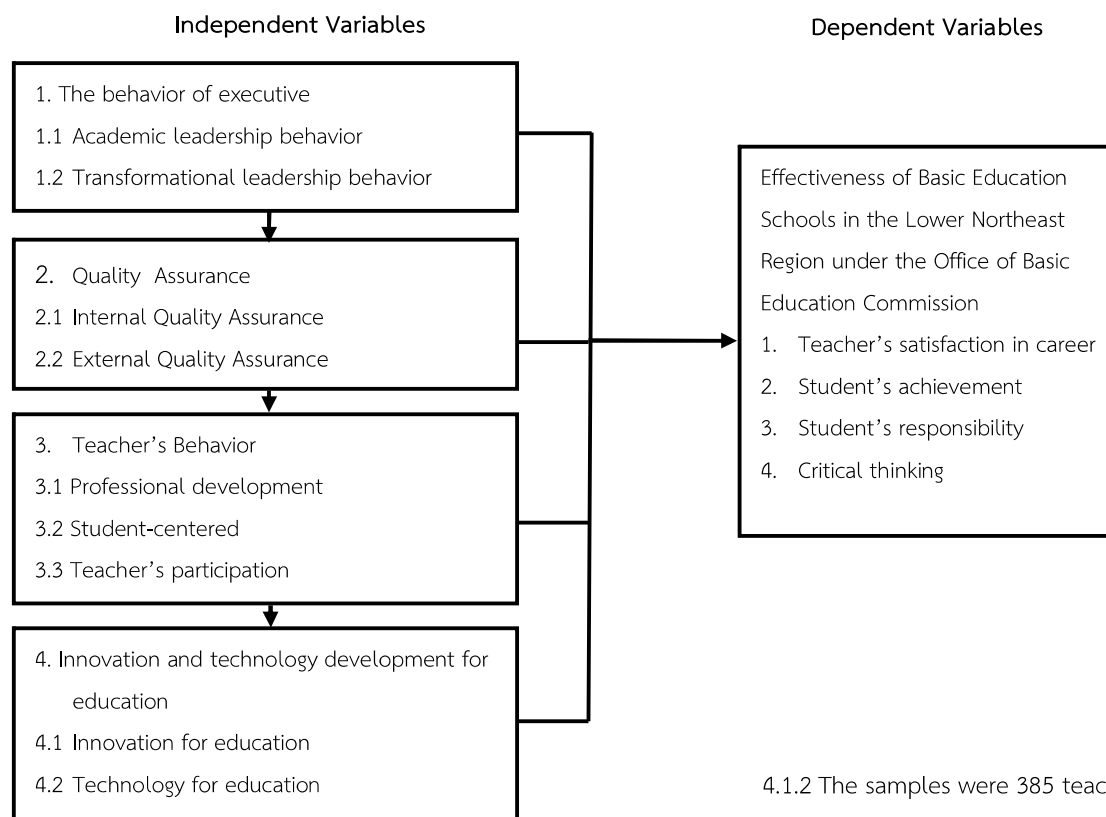


FIGURE 1: Conceptual Framework

4.1.2 The samples were 385 teachers, a Krejcie and Morgan table was obtained with the multi-Stage sampling method [7], out of 193 schools in the academic year of 2014.

4.2 The variables were divided into 2 groups:

4.2.1 Independent variables: executive's behavior, quality assurance, teacher's behavior, innovation and technology development for education

4.2.2 Dependent variable: education effectiveness of Basic Education Schools in the Lower Northeast Region under the Office of Basic Education Commission

4.3 Research Tools

Tools and tool construction that were used for collecting the data with total reliability of 0.98 were divided into 3 parts. The first part was the interviews of 5 experts. The second part was the interviews of 9 experts. The third part was a 5-point rating scale questionnaire to collect the data from teachers.

4.4 Data Collection

The data collection was divided into 3 parts. The first part was the interviews of 5 knowledgeable people for knowing the elements of factors that affected effectiveness of the schools. The second part was the interviews of 9 knowledgeable people for insisting of elements and the structural factors that affected the effectiveness of schools. The third part was a 5-point rating scale questionnaire that was used to collect the data from 385 teachers of Basic Education Schools in the Lower Northeast Region under the Office of Basic Education Commission, to find the effectiveness and the structural model of school administration.

4.5 Data Analysis

The descriptive statistics employed were frequency, percentage, mean and standard deviation. Structural Equation Model (SEM) was used for model verification with a package program by considering Chi-Square value differing from zero with no statistical significance at 0.05 level or Chi-Square/df value with lesser than or equal to 2, P-value with no statistical significance at 0.05 level and RMSEA (Root Mean Square Error Approximation) value with lesser than 0.05, including index level of model congruent value, GFI

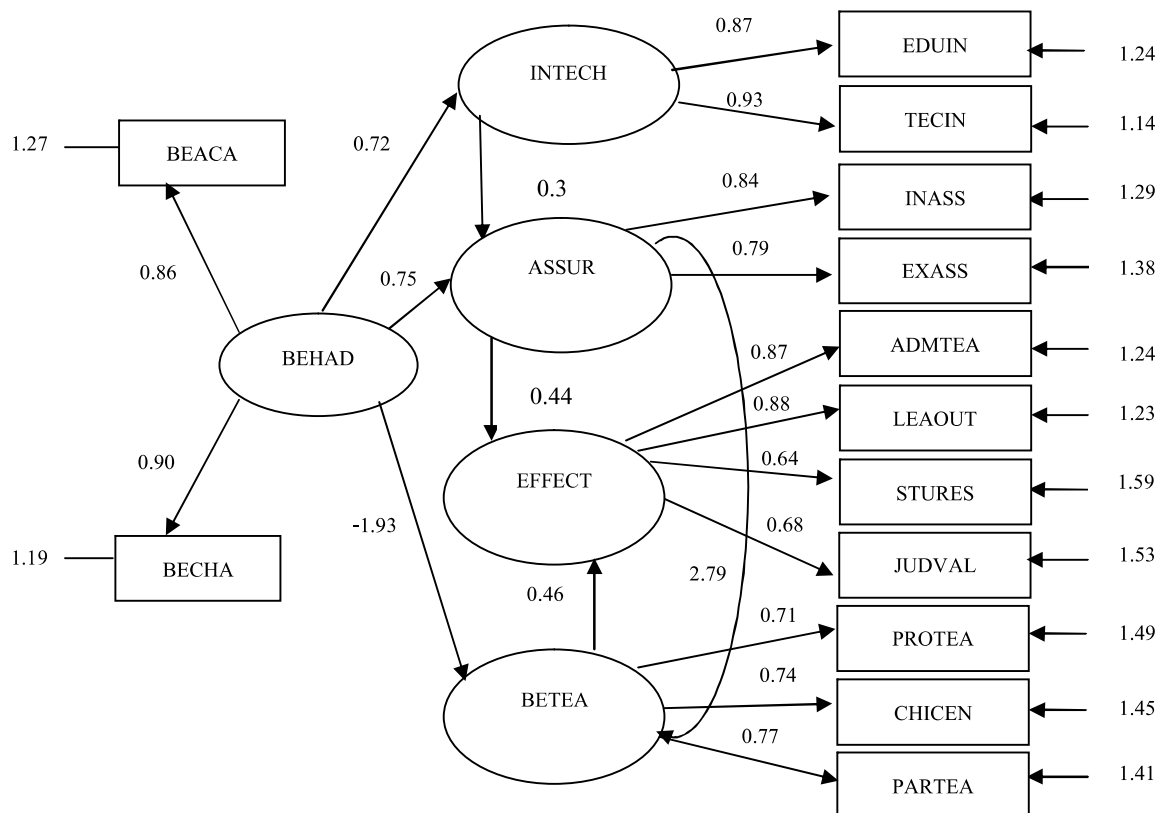
(Goodness of Fit Index) and index level of model congruent value, AGFI (Adjust Goodness of Fit Index) between 0.9-1.00 and the critical number was more than 200 [8].

TABLE 1: Research results of causal factors affecting the effectiveness of education administration of Basic Education Schools in the Lower Northeast Region under the Office of Basic Education Commission.

Variables	\bar{X}	SD
BEHAD-Executive's behavior		
1. BEACA-Academic leadership behavior	4.04	0.63
2. BECHA-Transformational leadership behavior	4.05	0.74
Total	4.05	0.63
ASSUR-Quality assurance		
3. INASS-Internal quality assurance	4.13	0.61
4. EXASS-External quality assurance	4.26	0.71
Total	4.14	0.61
BETEA-Teacher's behavior		
5. PROTEA-Professional development	4.23	0.59
6. CHICEN-Student-Centered	4.12	0.65
7. PARTEA-Teacher's participation	4.18	0.64
Total	4.17	0.55
INTECH-Innovation and technology development for education		
8. EDUIN-Innovation for education	3.94	0.63
9. TECIN-Technology for education	4.01	0.73
Total	3.95	0.61
Total of totals	4.08	0.60

TABLE 2: Research results of the effectiveness of education administration of Basic Education Schools in the Lower Northeast Region under the Office of Basic Education Commission.

Variables	\bar{X}	SD
EFFECT-Effectiveness of education administration of Basic Education Schools		
10. ADMTEA-Teacher's satisfaction in career	3.92	0.79
11. LEAOUT-Student's achievement	3.87	0.66
12. STURES-Student's responsibility	4.10	0.61
13. JUDVAL-Critical thinking	3.78	0.70
Total	3.94	0.58



Chi-Square = 29.80, df = 51, P-value = 0.99229, RMSEA = 0.000

FIGURE 2: Structural model of causal factors affecting the effectiveness of Basic Education Schools in the Lower Northeast Region under the Office of Basic Education Commission in consistent and harmonious terms with the empirical data.

5. RESULTS

The research results on causal structural relationship factors affecting the effectiveness of Basic Education Schools in the Lower Northeast Region under the Office of Basic Education Commission are as follows:

From the objective 1 to study the causal factors affecting the effectiveness of Basic Education Schools in the Lower Northeast Region under the Office of Basic Education Commission, in the aspects of executive's behavior, quality assurance, teacher's behavior, and innovation and technology development for education, the research results showed that the causal factors in overall view and each aspect were at high levels.

From the objective 2 to study effectiveness of Basic Education Schools in the Lower Northeast Region

under the Office of Basic Education Commission, in the aspects of teacher's satisfaction in career, student's achievement, student's responsibility, and critical thinking, the research results indicated that the effectiveness was in overall view and each aspect were at high levels.

From the objective 3 to validate the structural model of causal factors affecting the effectiveness of Basic Education Schools in the Lower Northeast Region under the Office of Basic Education Commission and found that it has consistency and harmony along with empirical data. (Chi-Square = 29.80, df = 51, GFI = 0.99, AGFI = 0.98, P-value = 0.99229, RMSEA = 0.000) and also found that the general influences that affected the effectiveness were teacher's behavior, and quality assurance. The teacher's behavior and quality assurance for education were bilateral factors that

positively influenced with statistical significance at 0.01 level. The factor loadings were equal to 0.46 and 0.44 respectively, which showed that the teacher's behavior affected education administration effectiveness more than the quality assurance. The total effect of school executive's behavior impacted innovation and technology development for education with the factor loading of 0.72, quality assurance with the factor loading of 0.97, education administration effectiveness with the factor loading of 0.79, teacher's behavior with the factor loading of 0.77. Executive's behavior had a indirect affect on quality assurance with the factor loading of 0.22, an indirect effect to teacher's behavior with the factor loading of 2.70, and the indirect effect to the effectiveness of education administration with the factor loading of 0.79.

6. DISCUSSIONS

The research results indicated that there are important discovered issues. From the research on the causal structural relationship factors affecting the effectiveness of Basic Education Schools in the Lower Northeast Region under the Office of Basic Education Commission, results can be discussed as the following objectives:

6.1 The factors affecting the effectiveness of Basic Education Schools in the Lower Northeast Region under the Office of Basic Education Commission consisted of executive's behavior, quality assurance, teacher's behavior, innovation and technology development for education. Also, the research results found that the causal factors in the overall view and each aspect were at high levels. This may result from the fact that because the schools have good administrated by following the Act of National Education Legislation, 2542 Buddhist eras, 2nd correction 2545 Buddhist eras, and Ministerial Education Regulations. The school executive has good education administrated corresponding to the current situation. A teacher could easily give opinions with extreme work and have vocational development with others that was related in

time of changing and for most advantages to students. The development of education achievement, the integration of virtue and the morality for students are applied for everyday life happiness which corresponded to Sammonds, J. Hillman, and P. Mortimore [9] who researched key characteristics of effective schools, a review of school effectiveness research, and found that the factors were professional executive, positive reinforcement from teachers, and student's responsibility.

6.2 In terms of effectiveness of education administration of Basic Education Schools in the Lower Northeast Region under the Office of Basic Education Commission in the aspects of teacher's satisfaction in career, student's learning achievement, student's responsibility, and critical thinking, it was found that the effectiveness of education in the overall view and each aspect were at high levels. This may be a result of schools having systematically and clearly administrated, and the teaching management of teachers give students in omniscient morality and virtue together. A teacher used various ways of teaching systems for student's thinking with skill procedures. Students learned by doing and using media innovation and technology to engage in learning management as well as make students interested and enthusiastic in education leading to the development in education achievement. Teacher's teaching administration have been developed regularly, which corresponded to Kitima Preedidiloak [10] who said that education achievement was the behavior or ability of person from self learning.

6.3 The structural model of causal factors affecting the effectiveness of Basic Education Schools in the Lower Northeast Region under the Office of Basic Education Commission was consistent and harmonious with the empirical data. (Chi-Square = 29.80, df = 51, GFI = 0.99, AGFI = 0.98, P-value = 0.99229, RMSEA = 0.000). It was also found that general influences affected the effectiveness were teacher's behavior, and quality assurance. The teacher's behavior and quality

assurance for education were bilateral factors that positively influenced with statistical significance at 0.01 level. The factor loadings were equal to 0.46 and 0.44 respectively, which showed that the teacher's behavior affected the effectiveness of education administration more than the quality assurance.

The total effects of school executive's behavior were in the aspects of innovation and technology development for education with the factor loading of 0.72, affecting to quality assurance with factor loading of 0.97, education administration effectiveness with the factor loading of 0.79, and teacher's behavior with the factor loading of 0.77. Executive's behavior had an indirect affect on quality assurance with the factor loading of 0.22, an indirect effect on teacher's behavior with the factor loading of 2.70, and an indirect affect on effectiveness of education administration with the factor loading of 0.79. This may be caused by the fact that the quality assurance factor had high positive influence on the effectiveness of education administration, followed by teacher's behavior, and innovation and technology development for education with statistical significance at 0.01 level, respectively. Moreover, quality assurance had directly affected teacher's behavior and effectiveness of education administration. Teacher's behavior had directly affected the effectiveness of education administration, except in the fact that the executive's behavior had indirectly affected to effectiveness of education administration of Basic Education Schools in the Lower Northeast Region under the Office of Basic Education Commission by passing through innovation and technology development for education, quality assurance, and teacher's behavior. Innovation and technology development for education had indirectly impacted the effectiveness of education administration by passing through quality assurance and teacher's behavior that was in line with the hypothesis. In order that, it may be because of the fact that the executive had managed the school by following the Act of

National Education Legislation, 2542, Buddhist eras, 2nd correction 2545 Buddhist eras, in pertaining to education administration, and executives still gave precedence to education administration for student's omniscient development with virtue and morality. Students could use the experiences in living with happiness on the basis of education administration by using the resources with good reasons and economy for having efficiency and effectiveness of their schools. These corresponded to Pongsak Thongpunchang [11] who researched on the causal structural relationship model on transformational leadership of president affecting to the effectiveness of Rajabhat University and found that transformational leadership behavior of president affected the effectiveness of Rajabhat University with consistency and harmony with the empirical data.

REFERENCES

- [1] Kriengsak Charoenwongsak. (2000). National Brain Storming: Educational Reform Strategies. **Bangkok: Success Media.**
- [2] Panom Pongpaiboon . (1999). "What is Basic Education 12 Years. **Academic Journal**, 2(2),46-50
- [3] Hoy, W.K., &Miskel, C. G. (1991). Educational administration: Theory research and Practice. (4nd ed.). **Singapore:McGraw-Hill.**
- [4] Halpin A.W. and Winner, B.J. (1957). "A factorial study of the leader behavior descriptions". **Columbus, OH: Bercau of Business Research, Ohio State University.**
- [5] Hall,G. et al. (1984,February). Effects of three principal styles on school improvement. **Educational Leadership**, 41(5), 22-29.
- [6] Carnall Collin A. (1990). Management Change in Organization. **New York: Prentice Hall.**
- [7] Krejcie, R.V., & Morgan, D.W. (1970). Determining sample size for research activities. **Educational and Psychological Measurement**, 30(3), 607-610.

- [8] Dejkunchorn, D., Prasertsri, N., Thiengkamol Khoowaranyoo, T. (2014). Development Model of School Landscape Management for Environmental Conservation. **Journal of Industrial Education**, 13 (3), 157-164.
- [9] Sammonds, J. Hillman, and P. Mortimore. (1995). Key characteristics of effective schools a review of school effectiveness research. **A report by the institute of education** for the office for standards in education, 8.
- [10] Kitima Preedidiloak, (1976). Organizational Management Theory. **Bangkok Thana Printing**.110
- [11] Pongsak Thongpunchang. (2010). causal structural relationship model on transformational leadership of president affecting to effectiveness of Rajabhat University. **A doctoral research in Educational Administration, Graduate School, Burapha University.**