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AN EVALUATION OF THE QUALITY DEVELOPMENT OF PRIMARY SCHOOLS UNDER THE JURISDICTION OF NONTHABURI PROVINCIAL ADMINISTRATION ORGANIZATION

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Abstract: *The purposes of the study were 1) to develop the quality development indicators of primary schools under the jurisdiction Nonthaburi Provincial Administrative Organization during the academic year of 2014-2016, 2) to evaluate the quality development of primary schools under the jurisdiction Nonthaburi Provincial Administrative Organization during the academic year of 2014-2016, and 3) to provide policy recommendations regarding quality development policy of primary schools under the jurisdiction Nonthaburi Provincial Administrative Organization. The research methodology consisted of 3 phases: Phase 1: The development of indicators and evaluation instruments for 4 development plans according to CIPPIEST Model by implementing documentary research and expert verification on draft indicators and evaluation instrument structural validity; Phase 2: The quantitative and qualitative evaluation of quality development of primary schools under the jurisdiction Nonthaburi Provincial Administrative Organization applying indicators developed in 23 schools. The findings revealed that, first, there were 9 evaluation elements consisting of 40 indicators, and 3 types of evaluation instrument; second, the evaluation results of primary schools under the jurisdiction Nonthaburi Provincial Administrative Organization quality development during the academic year of 2014-2016 showed that all schools passed the evaluation at high level regarding to context, input, process, and transportability for all 4 development plan, while most schools passed the evaluation in respect of output, outcome, effectiveness, and sustainability.*

Keywords: *Project Evaluation, School Quality Development, Enhancing Student Quality, Primary Schools, Provincial Administration Organization*

INTRODUCTION

The decentralization policy for education in Thailand is assigned to the local government having the authority to manage the education systems within their own districts. Nonthaburi province was one of the local government organizations which emphasized the role of educational management and developed their own policies wherein they strived to achieve a higher level of improvement with their primary school systems. Subsequently, there are 22 primary schools which have been incorporated under this umbrella system. The ministry of education decentralized its role within this district as they have, hence, handed over the management implementations to local administration -- Nonthaburi Provincial Administration Organization. To ensure equality and sustainable education for the students of Nonthaburi province, the local administration sought the support from Chulalongkorn University to facilitate research aiming at improving the educational administrational standards within the province. The research began in 2009 and has been ongoing. Chulalongkorn's main responsibility was to develop and facilitate academic development of all 22 primary schools under the Nonthaburi Local Administration Organization. Chulalongkorn wanted to ensure standardization of equality implementation [1].

Between 2014 and 2016 Chulalongkorn engaged in four action plans and seven projects in cooperation with the Nonthaburi Local Administration Organization

The first action plan was to engage in uplifting teaching facilities for teachers to ensure the best quality of teaching and learning for students. To achieve this action plan, Chulalongkorn developed four projects to support this. The first project looked at the accountability of O-NET (The Ordinary National Educational Test) results to ensure that all

students were able to improve their individual scores from this form of assessment. The second project focused more on NT (The National Test), again to ensure that all students were able not only to access this test, but also to achieve better results herein. The third project focused more on the teachers (only for Nonthaburi Provincial Teachers) looking not only at professional development as a whole, but also how each department could be supported to ensure better outcome. The final project within this action plan aimed to evaluate the results of the Mathematics and Science subjects taught within an English Programme environment for the early primary level (Prathom 1-3).

The second action plan focused more on the delivery of English Teaching Skills within the province. There was only one project under this plan: Intelligence Development Programme.

The third action plan focused more on the improvement of learning environment within the schools. Again, there was only one project to support this action plan. This was to develop and improve the aesthetics of the learning environment beyond the classroom. Play areas, outside buildings, field and school boundaries were all considered herein. The main concern was that all parts of the learning environment had to be conducive to effective learning of students.

The fourth action plan was to turn its focus beyond the school to look at the relationship of the community learning environment. They wanted the school to promote themselves more, thus encompassing the community in providing facilities for learning. There was only one project to support this action plan being called the "Wan Dok Nonsi Ban" Project.

These four action plans did affect the quality improvement of schools within Nonthaburi district. All seven projects were not only aligned, but also met with the initial outlined objectives. From 2004 – 2006, it was found that academic results of the students had notably improved. Not only were academic achievement noted, but also the non-academic development competencies of the students recorded a notable increase. These competencies had been outlined by the Ministry of Education [2] and were used as benchmarks in this project. The most obviously noted improvement came from the student's level of English proficiency. These action plan improvements were not only shared by the students, but also by the teachers and the community as a whole.

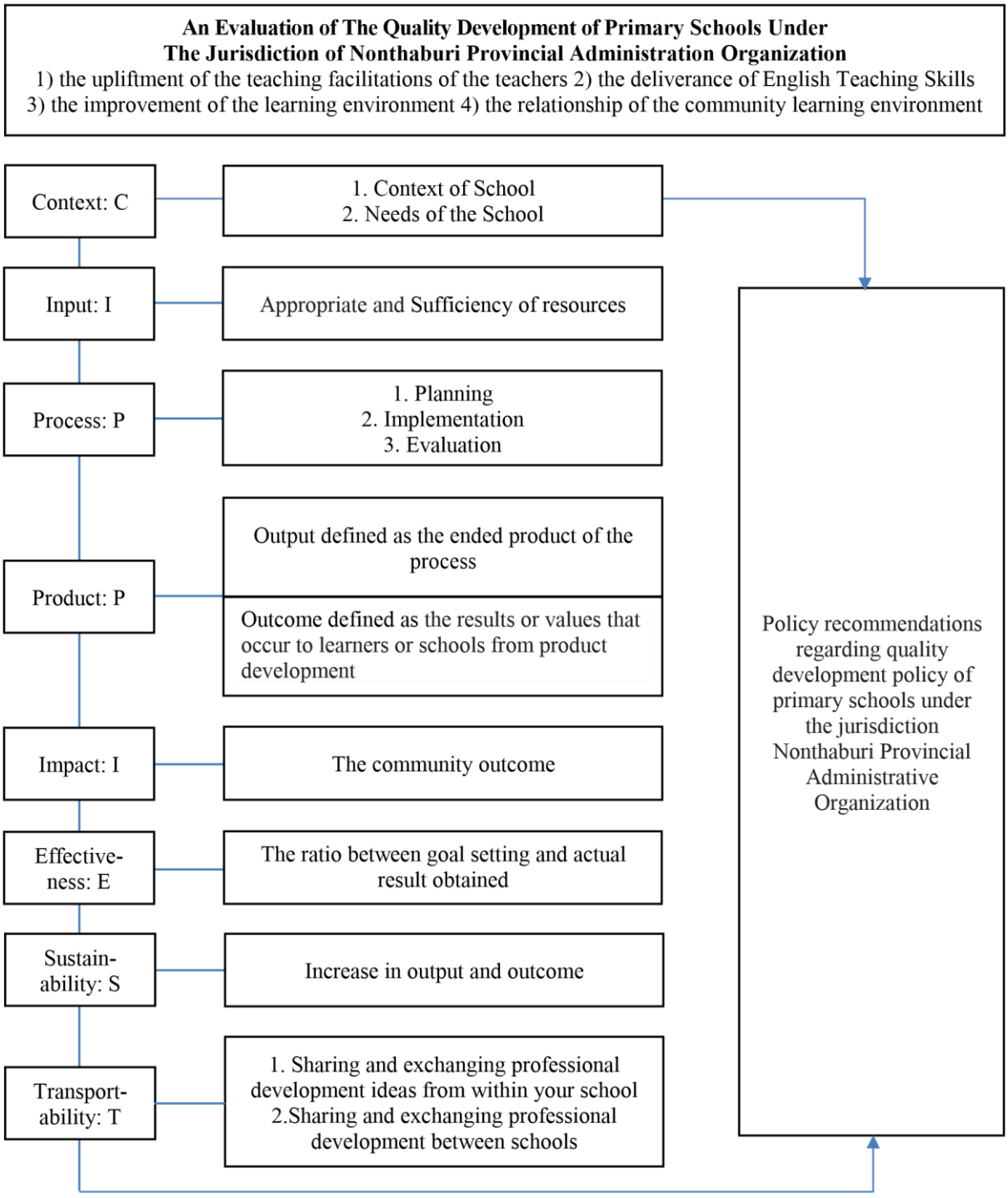
Although there was a notable increase in the student's level of achievement, this had not been linked to any performance indicators. Results now needed to be ratified using quality development indicators for primary schools to compare the changes that had been recorded as pre and post projects. The purpose of the study was to firstly development quality development indicators for primary schools under the jurisdiction of the Nonthaburi Provincial Administration Organisation during the academic years 2014 – 2016. Secondly, they needed to evaluate the quality development of primary school under the jurisdiction of the Nonthaburi Provincial Administration Organization during the academic years 2014 – 2016. The third objective was to provide policy recommendation regarding the quality development of primary schools under the jurisdiction of the Nonthaburi Provincial Administration Organisation.

CONCEPTUAL FRAMEWORK

In order to evaluate the quality development of primary schools under the jurisdiction of Nonthaburi Provincial

Administration Organizations, performance indicators needed to be developed using the CIPPIEST Model developed by Stufflebeam et al [3] to develop these indicators for the conceptual framework of this research. The CIPPIEST Model was deemed the best for it not only assessed whether the objectives were achieved, but also assessed in terms of the processes used for achieving the objectives. Thus, the information gained from this model could be used in planning strategies which would be required throughout the process should modification to the initial research protocols be necessary. Throughout the scale and scope of the project, the CIPPIEST model would be able to identify within each indicator whether any changes needed to be made. These indicators were explained in the acronym of CIPPIEST: 1 – 'C' anodizing for Contest, 2 - 'I' for Input, 3 – P for

Process, 4 – 'P' for Product, 5 – 'I' for Impact, 6 – 'E' for Effectiveness, 7 – 'S' for Sustainability and 8 – 'T' – Transportability. However, it was thought that a final letter 'O' - -Outcomes be added to ensure further quality. Furthermore, it was noted that acronyms S & T needed subsidiary actions as they required more time (at least one year) to achieve their outcomes.



Research Conceptual Framework

THE AIM OF THE STUDY

The purposes of the study were to:

1. develop quality development indicators for primary schools under the jurisdiction of the Nonthaburi Provincial Administration Organization during the academic years 2014 – 2016.

2. evaluate the quality development of primary school under the jurisdiction of the Nonthaburi Provincial Administration Organization during the academic years 2014 – 2016.

METHODOLOGY

In order to undertake an evaluation of the quality development of primary schools under the jurisdiction of Nonthaburi Provincial Administration Organizations, a mixed-method research was conducted – a mixture of qualitative and quantitative research. There two procedures outlined here:

First, to develop quality development indicators for primary schools under the jurisdiction of the Nontaburi Provincial Administration Organization which used the conceptional framework ideas developed through knowledge gained from the literature review. All types of design: sampling design; measurement design and analytical design, were all obtained from the literature review. To obtain the basis for these indications, there were many facilitators who contributed to this. Notably, the researcher as well as the school's 22 directors all served as a think-tank obtaining the outlines for the criteria set for the evaluation process. Following from this meeting, indicators were set, including 9 aspects, 40 indicators as well as 4 research instruments. Before any research was conducted, it has to be accepted by a senior supervisor.

Once the supervisor had given their support for the research, the indicators were used as part of the research in the Nonthaburi Provincial Primary schools under the jurisdiction of the Nonthaburi Provincial Administrative Organization.

The research population encompassed 22 primary schools under the jurisdiction of the Nonthaburi Provincial Administrative Organization.

The research sample consisted of 21 school directors, 292 subject heads and teachers, 501 students, 454 parents. The sample selection was obtained through purposive selection undertaken by Chulalongkorn University.

METHODOLOGY

1. In order to obtain quality results, 40 indicators needed to be evaluated according to the CIPPIEST Model. These 40 indictors were subdivided into further categories namely: 1) Context – 1 indicator 2) Input – 1 indicator 3) Process – 3 indicators 4) Product – 10 indicators 5) Impact – 5 indicators 6) Effectiveness – 6 indicators 7) Sustainability – 6 indicators 8) Transportability – 2 indicators. As was discussed above, further indicators were added to include: 9) Output – 10 indicators 10) Outcome – 6 indicators.

2. Following the use of the abovementioned indicators, the following results were obtained:

Fig 1 : The evaluation results according to the CIPPIEST model

Development plan / Evaluation improvement	The first action plan	The second action plan	The third action plan	The fourth action plan
Aspect	To engage in uplifting teaching facilities for teachers to ensure the best quality of teaching and learning for students.	To develop the English teaching skills.	To improve the learning environment within the schools.	To increase the quality of schools within Nonthaburi district.
C: Context	Every school passed the criteria at high level and had positive continuous outcomes in years 2014 - 2016.			
I: Input **P**: Process **P**: Product	Output - There were 4, 16, and 1 school passed O-NET test in 2014, 2015, and 2016 respectively. - There were 5 schools passed the MEP evaluation criteria with the score ≥50%. - The stakeholder's satisfaction score showed at high level with positive continuous every year. Outcome - There were 15 and 19 schools that have the ONET score higher than the average score of country-wide in 2015 and 2016 respectively. - There were 6 schools that have the NT score higher than the average score of the countrywide in 2016.	- There were 6 schools that have score more than expectation in MEP programme.	score progress of O-NET score in English. - The parent satisfaction score has showed at the high level with positive continuous every year. - Every school have the English score of O-NET test higher than the average score of province and country level in 2015.	showed at high level with positive continuous every year.
S: Sustainability	- There were 4 schools that have steady or increased O-NET score. - There were 3 schools that have steady or increased NT score.			- There were 15 and 19 schools that have the O-NET score higher than the average score of country-wide in 2015 and 2016 respectively. - There were 6 schools that have the NT score higher than the average score of country-wide in 2016.
I: Impact	- Every schools have the score progress in MEP programme. - Every school have the O-NET score ≥50%. - Every school have the NT score ≥50%.	- There were 11 and 19 schools that have steady or increased score in Prathom 1 and 2 of MEP programme.	- There were 19 schools that have the English score more than expectation.	- The stakeholder's satisfaction score has showed at high level with positive continuous every year.
E: Effectiveness	- Every school have the score ≥50% in MEP programme. - There were 12 schools that have the O-NET score more than expectation. - There were 4 schools that have the NT score more than expectation.	- Every school have the English score of O-NET test ≥50%. - There were 2 schools that have the	- There were 2 schools that have steady or increased O-NET score in English. - The learning environmental satisfaction score has	- Every school have the O-NET and NT score ≥50%.

N/A	- The stakeholder's satisfaction and school acceptance & appreciation score have showed at high level with positive continuous every year.	- The parent and community cooperation score showed at high level with positive continuous every year.	N/A
- Every schools have steady or increased satisfaction score of learning environmental improvement. - The Wan Dok Nonsi Ban Project's satisfaction score has showed at high level with positive continuous every year.			- Every schools have steady or increased satisfaction score of learning activity improvement.
T: Transportability	Every school passed the criteria at high level and had positive continuous outcomes in years 2014 - 2016.		

DISCUSSION

1. This study was about developing indicators used to evaluate the 4 action plans and the accompanying projects. The research was undertaken as a result of the co-operation of the Jurisdiction of Nonthaburi Provincial Administration Organization and the Faculty of Education at Chulalongkorn University. Within the 4 actions plans, there were 9 aspects, 40 indicators – this will now be divided into 4 sub-groups.

The first group indicator evaluated all the 4 actions plans. These were: indicator 1 (context), indicator 2 (input), indicator 3,4,5 (process) and indicator 39 and 40 (transportability). These groups would give a better summative report of the action plan and the project. The evaluation in the form of a rating scale consisted of levels 1 – 5.

The second group indicator evaluated 2 actions plans. These were: indicator 17 (outcome), indicator 22 and 23 (effectiveness) could evaluate action plan 1 and 3. As action plans 2 and 3 are related, they can be evaluated simultaneously. This is because the learning environment supports the academic outcomes of the students which in-turn had had a positive impact on the learning outcomes.

Group 3 indicators can only evaluate one action plan. This are indicator 6 – 15 (Product), indicator 16, 18, 19, 21 (Outcomes), indicator 24 – 26 (Impact), indicator 27 – 32 (Effectiveness) and indicator 33 – 38 (Sustainability). In each action plan, there had to be specific outcomes which had to be accompanied by the specific indicator for product evaluation. The product evaluation was the main reason behind the difference in each action plan because the CIPPIEST had to work with other subsidiary models [4].

Group 4 indicators can evaluate more than one action plan. However, the advantage of this indicator is that it could evaluate not only more than one action plan, but also accomplish cross action plan evaluations. Thus, indicator 20 (admiration of the parents and community bodies of the learning environment) relate to output of action plan 1, but at the same time could be the outcomes for action plan 2 and 3. This was relative as if the parents and community bodies' admiration had a good output, the indictor would in-turn have positive outcome.

2. An evaluation of The Quality Development of Primary Schools under the Jurisdiction of Nonthaburi Provincial Administration Organization which has 4 actions plans will now be concluded.

2.1 The first action plan was to engage in uplifting teaching facilities for the teachers to ensure the best quality of teaching and learning for students. After the evaluation process, the results were as follows: the context, input, process and transportability all had positive continuous outcomes in years 2014 – 2016. However, the academic results attained through O-NET and NT did not meet with the required criteria. The possible reasons behind this could have been that extenuating factors had added into the possible outcomes they could have had on the results. This was evident from research obtained from Chanida Yodsali and Kanchana Boonsung [5]. The research revealed the factors which had impacted academic attainment results of primary students from Pratchup Kiri Khan Province were teacher factors, student factors and administrator factors. However, the ongoing projects only focused on student and teacher development, lacking the critical issues concerning administrator development. Therefore, it can be concluded that in order to increase the academic quality of students there had to be a project aimed at professional development of school directors to enable them to understand their focal part they play in academic outcomes of students within the undertaken research. Thus it can be concluded that the schools under jurisdiction of Nonthaburi Provincial Administration Organization should implement a project aimed at academic leadership of school directors.

However, it has been impossible to find individual assessment scores of the individual competency indicators 7, 11 and 13. This makes it impossible to develop an individual development program for each student, but no data available. According to the Ministry of Education, individual development programs are vitally important because of the aim of this program is to support the students and develop competencies of students. This would then help the teachers to plan a more effective lesson and thus offer further support to the students. The IDP program also encompasses the needs of the differentiated as well as students with special educational needs to help them all achieve the needs set out in the individual learning outcome framework. One of the responsibilities of the teachers is to analyse and understand the needs of all their students, just best being able to promote of a more child-centered learning system. It is because of the importance of the above that it is imperative that we have all the individual scores of all the students so as best to know what the way forward for supporting these students. Having this student data, teachers, as well as the school director could be more effective in their strategies for supporting the students learning needs. The schools under jurisdiction of Nonthaburi Provincial Administrative Organization should focus more on obtaining this information from students, which should then be used to set up in an information system or database which would be not only easy to access, but also to the benefit of the teaching and learning process.

Most of schools in the study within this province, noted a failing grade in the students O-NET and NT grades. The reason for this was that the attainment scores were under the 50% threshold. However, this was more than the recorded mean average of the entire country. This then showed that the project had had a positive impact on the teaching and learning environment, although it had not successfully met with all the criteria. The Office of the Basic Education Commission [6] have policy to support every school for this action plan included: 1) Improving the academic scores of the O-NET Project. 2) Improving the academic scores of the NT Project. 3) Professional Development Plans to be offered to teachers within each department. 4.

Evaluation of the academic outcome of teaching Mathematics and Science within English Programme Schools for primary 1 – 3.

According to the MOE they had already incorporated a pre O-NET project to facilitate the student readiness for this test. After reviewing the relationship between the pre O-NET and the O-NET scores of the schools under jurisdiction of

Nonthaburi Provincial Administrative Organizations, it was noted that only some of the subject scores were correlated. The

Nonthaburi district should however continue with the pre-O-NET projects to fully prepare the students to this ultimate O-NET test.

2.2 The second action plan focused more on the delivery of English Teaching Skills within the province. There was only one project under this plan: Intelligence Development Programme.

From the action plan, the improvement of the quality of primary schools in Nonthaburi district noticed a dramatic increase. The qualitative and quantitative information are thus related. However, it was noted that the quality of the foreign employed educators were not of a sufficient caliber. It was found that the Thai teachers offering English language courses did not graduate in English. Furthermore, the research found that the schools were undersubscribed in teachers for the amount of students they had in their classrooms. The forwarded solution to this problem was supported by Pimtip Duangjit and Saowaluck Rattanawich's research [7]. It showed that a more inclusive from of Information Communication Technology (ICT) in cooperated into classroom in primary 5 had a measurable positive impact on the students' English listening and speaking skills. Thus, it can be concluded that CAI was definitely a solution to the problem for the schools under the jurisdiction of Nonthaburi Provincial Administrative Organization. Wichvisit Raksapatrawong [8], who had been teaching English in primary 5 had incorporated the resourcefulness of cartoons. His academic results have been remarkable. Thus, it can be concluded that ICT definitely could have a positive impact on student learning in the environment where teachers were not adequately provided.

2.3 The third action plan focused more on the improvement of the learning environment within the schools. From the action plan study, the primary school which are under supervision of Nonthaburi Provisional Administration, meet all the action standard criteria for evaluation with proficiency throughout the three-year period. They also noted a comprehensive growth curve in the evaluative scores. This can be linked to the information supplied by school directors. The school directors confirmed that they had implemented the required policies as stated in the action research plan which focused on the learning environments associated with the specific needs of each school. Therefore, the school's facilities as well as the educational teaching resources were of a sufficient standard to support a proper learning environment. One of the factors which stood out from the positive outcomes noted in the action research is that the school was able to receive sufficient budgets from the Nonthaburi Provincial Administration Board which enabled them to determine the best use of these funds in offering the best opportunities to support the teaching and learning benefitting not only the students, but also the teachers as well. The fiscal spending was in-turn supported by the national government enabling the school to develop a better aesthetic learning environment. Examples of this included the school network, the school internet connections, smart TV's in the schoolrooms as well as subsidiary supporting learning materials. All students, teachers and parents were not only supportive of these offerings but were also encouraged by the improvements made to the learning environment.

According to the evaluation results obtained from the third action plan, the study found that all shareholders were deeply impressed by the recorded improvements. The main reason for this was that they were happy that the school has obtained the necessary budgeting requirements to develop the required improvements. According to Sapna Cheryan et al [9] who conducted research entitled "designing classrooms to maximize student achievement," of which the findings indicated two important factors.

Factor 1. Building structural facilities positively affected students learning (for example, there should be no noises during the teaching and learning periods, the lightening should offer sufficient luminescence, the air quality as well as the air temperature should make learning a positive experience). They were able to determine these variables as having a positive impact because they were compared against a control group. Other controlled variables included the family backgrounds and nationalities of both the experimental group as well as the control group. Further research coming out of the USA, found that the building structural facilities were insufficient. It was also noted that the schools provided education to lower income AfricanAmerican families.

Factor 2. The classroom symbolic features also had a direct impact on the students learning abilities. These included the academic work displays as well as the students' work displays.

2.4 The fourth action plan was to turn its focus beyond the school and now look at the relationship of the community learning environment. The primary schools under supervision of Nonthaburi Provincial Administration Organization, meet all the action standard criteria for evaluation with proficiency throughout the three-year period. They also noted a comprehensive growth curve in the evaluative scores. The main project to support this action plan was the "Wan Dok Non Si Ban" Project. This project created the opportunities for both students and teachers to showcase their achievement and to share with the community. It not only benefitted the community but served as a community learning environment which enabled other schools to share in the ideas of the project school. Part of the action plan was to make

sure that it was part of a public learning environment which enabled the sharing of ideas amongst communities. However, even though this was an open function, it was noted that only a small percentage of the community attended this open project. In order to increase the community involvement, it was suggested that students be more involved in projects as it is only through a more focused student involvement that parents would then want to support their children, thus getting more involved. Further suggestions included a greater time allocation for more community projects. Simply have once-off projects limited the amount of time the community would involve itself in the school projects. To encourage this, it was suggested to the Provincial Administration that schools that were in closer proximity to each other needed to engage more in close-tie activities, by developing more interschool cooperative activities.

This sharing of ideas and experiences would then lead to a better upliftment of schools in Nonthaburi Province.

The action plans 1 – 4 have been not only related together, but their output and outcomes have had an interrelated effect. It has been determined that there was indeed a correlation between the teaching standards of Science and Mathematics in the English Programme linked to the scores obtained in the O-NET examinations, especially English Language subject. Thus, we can see that the O-NET score can be linked to the teaching and learning environment. When the academic achievements are good, a noted improvement between the school and the community is increased. Therefore, we can conclude is that the learning environment at the schools is pivotal when understanding the factors which lead to academic successes. This conclusion was drawn using the research conducted by Kenworthy (1962, cited in Modemanee [10]). He maintained that the to obtain the optimum learning outcome, there needs to be a good teaching and learning environment because this would be the most important variable in determining success. This also linked to further research conducted by Sasikan Suwansaeng [11]. She looked at factors influencing parents' decision when they were choosing the best school for the children to attend. She identified three important factors: 1) Curriculum and Academic Management. 2) The Teaching and Learning Environment. 3)The Quality of Teachers

It can thus be determined that if the school management met with the above qualities, parents would be more supporting in sending their children to a school. If the school management was prepared to invest in these three qualities, there would not been much need for the school to spend money on further forms of public relation advertising. Thus, it can be concluded the there is a direct link between school management and the academic outcomes of the students. Furthermore, the development of a sufficient learning environment would then enable better learning and a better quality of education of the students. A combination of this would be sufficient for no further marketing to be conducted by the school.

RECOMMENDATIONS

A. Recommendations for using the research results:

1. Primary schools are able to use the indicators mentioned herein to enable further quality assurance. The evaluation results can be used as a learning tool by school directors when planning their strategic development policies.

2. The indicators mentioned herein can be not only be applied in the action research primary schools but can be applied in any other primary schools in any other province to ensure quality standard development. From this study, the Director of Nonthaburi Provincial Administrative Organization can use this research data gathered herein to implement other development policies in other primary schools within the province.

B. Recommendations for further studies:

1. This research took place at during the period 2014 – 2016, thus it was more focused on summative evaluations. To bring in greater quality assurance to further research, it is suggested that the CIPPIEST model should be once again used, but it should be done on a more formative basis. That saying it should be conducted using current situation which would allow for any adjustments to any protocols as and when needed.

2. During this research only the CIPPIEST Model was used, but to gain further quality assurance it is suggested that different conceptual paradigms be used to ascertain the best results.

3. To guarantee further quality assurance in the next research phase, it is suggested that more or different research protocols should be used. As only a questionnaire was used as part of the qualitative study, it is suggested to broaden this to encompass of qualitative variables like observations and interviews (this should include more of the shareholders including the students, parents and teachers). To ensure greater indicators a better variety of data can be gathered, which would bring in better reflects for all the parties concerned.

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