The administrative factors affecting school effectiveness of municipal schools in Udon Thani Province

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Abstract

School effectiveness is a main goal of all schools because it means organisational success that must be achieved. This study explored the level of the administrative factors and school effectiveness including investigated administrative factors effecting the management of school effectiveness. The 5-level rating scale questionnaire was applied for collecting data from 217 teachers in municipal schools in Udon Thani province, Thailand. The descriptive statistics, Pearson product-moment correlation coefficient and stepwise multiple regression analysis were used for data analysis. The research findings indicated that the school culture, technology, school climate and budgeting were the best predictors. This may lead to policy of developing the school administration to achieve the school goals.

Keywords: School effectiveness, school factor, municipal schools.

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1. Introduction

According to the educational management and administration based on section 41 of National Education Act B.E. 2542 (1999) and Amendments (Second National Education Act B.E. 2545 (2002)) specified that local administration organisations shall have the right to provide education at any or all levels of education in accord with readiness, suitability and requirements of the local areas and afterward Determining Plans and Process of Decentralization to Local Government Organization Act B.E. 2542 (1999) and Amendments (Second Determining Plans and Process of Decentralization to Local Government Organization Act B.E. 2549 (2006)) in sections 16, 17 and 18 specified that municipality, the City of Pattaya, Subdistrict Administrative Organization, Provincial Administrative Organization and Bangkok Metropolitan Administration shall be in authority to manage the public administration for the benefit of local people. Educational management is deemed to be one of public services.

School effectiveness refers to the level of goal attainment of a school that school effectiveness is seen as a research activity while school improvement could be taken as the dynamic application of the research results. School effectiveness research attempts to deal with the causal aspects inherent in the effectiveness concept by means of scientific methods (Scheerens, 2013). Kyriakides, Creemers, Antoniou and Demetriou (2010) explored the impact of school factors on student achievement has provided some further support to the validity of the model at the school level. Moreover, Creemers and Kyriakides (2010) explained stability and changes in school effectiveness by looking at changes in the functioning of school factors and found that school policy for teaching and school policy for creating a learning environment at school reflected school effectiveness in the way of each school-level factor. Other important factors are technology and school culture because they used to support the kinds of instruction believed to be most powerful (Ertmer & Ottenbreit-Leftwich, 2010). In addition, Kythreotis, Pashiardis and Kyriakides (2010) indicated that student achievement gains were found to be related with organisational culture. More factors are school climate and organisational citizenship behaviour (OCB) that found a strong link between them (DiPaola & Tschannen-Moran, 2001). Many empirical studies shown that OCB also played a very significant role in the organisation’s success at both the individual and organisational levels (Organ, Podsakoff & MacKenzie, 2006) in helping to generate and support the overall organisation for positive effects (Moorhead & Griffin, 2010). Furthermore, school climate is a relatively enduring quality of the entire school that describes the collective perceptions of participants of routine behaviour and which affects their attitudes and behaviour in the school (Hoy, Tarter & Kottkamp, 1991 cited in DiPaola & Tschannen-Moran, 2001). Research suggests that creating a positive, open climate has many benefits including increased student achievement (Hoy, Hannum & Tschannen-Moran, 1998 cited in DiPaola & Tschannen-Moran, 2001) as well as ratings of school effectiveness (Hoy et al., 1991 cited in DiPaola & Tschannen-Moran, 2001).

Schools under the municipality are one of the organisation which provides educational services through the education division that support schools to manage the education efficiently. Nevertheless, the management of education has encountered many problems (Office of the National Education Commission, 1999). Communities and society would be relied on schools if schools were effective that caused parents made decision to send their children to which one. The consideration is based on schools effectiveness. The level of effectiveness depended on key factors like school, administration, personnel of school; school administrators, teachers and students (Tongpho, 2005). The effectiveness of the organisation would be achieved through the goals when it could be operated efficiently by using limited resources appropriately (Kaewdaeng & Suwannasan, 2004). Furthermore, research report of educational management assessment of the municipality by Auawong (2010) summarised that support factors to enhance the educational management of the municipality comprised the vision of the municipal administrators, awareness on the importance of education, friendly character, leadership, systematic management, budget allocation for media, technology to schools, readiness of buildings, flexible and quick budget management. While the obstacle factors were the administrators’ lack of vision in educational management, less support of media and technology, the environmental factors supported by using technology for teaching and learning including management.
According to the above importance, this research tried to study the administrative factors effecting school effectiveness of municipal schools in Udon Thani province. The purposes were to study the level of the administrative factors and school effectiveness including investigating the administrative factors effecting the management of municipal school effectiveness. This would be applied for the administrators and concerned agencies who could use the information to define the policy to develop municipal schools effectively.

2. Method

2.1. Participants

The population in this research consisted of 499 teachers of municipal schools in Udon Thani province and the sample group was 217 teachers. The sample size was employed by Krejcie and Morgan table that calculated the sample by proportion of teachers in each school. Then, random samples from each school population were proportionally calculated by simple random sampling through drawing lots.

2.2. Measures

The instrument used in this study was a questionnaire comprised three parts which consisted of background data of the participants, the school administrative factors and the school effectiveness. Part 1 was the list to inquire general data of the participants that consisted of gender, age, education level, work experience and type of municipal schools. Part 2 composed of 40 questions to inquire concerned six aspects of factors in administration with the reliability of 0.97. It was about 1) factor of school administrators’ leadership, 2) factor of school atmosphere, 3) factor of technology, 4) factor of budget, 5) factor of internal communication in schools and 6) factor of school culture. Part 3 was 25 questions concerned with the effectiveness of schools with reliability of 0.96. It comprised four aspects: 1) competence of production of the higher students’ achievement, 2) competence of the development in students’ positive attitude, 3) competence of school adjustment and development and 4) competence of solving the internal problems in school.

2.3. Procedure and design

This study was a survey research collecting data by a questionnaire. The data were collected after the researcher has got the application letter to collect data from the Graduate Program Office. The questionnaire and the application letter were proposed to the school administrators of target group and defined the return date. The researcher has 217 questionnaires in return as a 100%.

2.4. Statistical analysis

The data were analysed by using Statistical Package for the Social Sciences (SPSS). The descriptive statistics were applied for frequency, percentage, mean, standard deviation, Pearson’s product-moment correlation coefficient and stepwise multiple regression analysis.

3. Results

1. The administrative factors of schools in Udon Thani municipality were at a high level for overall. It showed a high level when considered each aspect i.e., the factor of school climate, school culture and technology, respectively.
2. The effectiveness of schools in Udon Thani municipality was at a high level for overall. It showed a high level when considered each aspect i.e., the competence of production of the higher students’
4. The result of stepwise multiple regression analysis and the creation of a predictive equation of school effectiveness of municipal schools in Udon Thani province used administrative factors as a predictive variable. It was showed as Tables 2 and 3.

Table 1. The correlation of the administrative factors and effectiveness of schools in Udon Thani municipality

<table>
<thead>
<tr>
<th>Effectiveness of schools</th>
<th>X1</th>
<th>X2</th>
<th>X3</th>
<th>X4</th>
<th>X5</th>
<th>X6</th>
<th>X0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y1</td>
<td>0.504**</td>
<td>0.569**</td>
<td>0.554**</td>
<td>0.434**</td>
<td>0.508**</td>
<td>0.597**</td>
<td>0.623**</td>
</tr>
<tr>
<td>Y2</td>
<td>0.628**</td>
<td>0.659**</td>
<td>0.611**</td>
<td>0.589**</td>
<td>0.596**</td>
<td>0.675**</td>
<td>0.740**</td>
</tr>
<tr>
<td>Y3</td>
<td>0.635**</td>
<td>0.655**</td>
<td>0.739**</td>
<td>0.649**</td>
<td>0.725**</td>
<td>0.683**</td>
<td>0.803**</td>
</tr>
<tr>
<td>Y4</td>
<td>0.633**</td>
<td>0.665**</td>
<td>0.647**</td>
<td>0.830**</td>
<td>0.626**</td>
<td>0.707**</td>
<td>0.769**</td>
</tr>
<tr>
<td>Y0</td>
<td>0.696**</td>
<td>0.740**</td>
<td>0.739**</td>
<td>0.669**</td>
<td>0.711**</td>
<td>0.774**</td>
<td>0.852**</td>
</tr>
</tbody>
</table>

**Statistical significance at 0.01 level

According to Table 1, the overall of the administrative factors (X0) correlated with the overall of the effectiveness of schools (Y0) in Udon Thani municipality was statistically significance at 0.01 level and highly correlated (r = 0.852).

Each aspect of administrative factors correlated positively with the overall of the effectiveness of schools in Udon Thani municipality at 0.01 level of statistical significance. Those factors; school culture (X6), school climate (X2), technology (X3) and internal communication in schools (X5) correlated with the overall of the effectiveness of schools (Y0) in Udon Thani municipality at a high level (r = 0.774, 0.740, 0.739 and 0.711, respectively). While the factor of leadership of school administrators (X1) and the factor of budget (X4) correlated with the overall of the effectiveness of schools (Y0) in Udon Thani municipality was at a medium level (r = 0.697 and 0.669, respectively).

Each aspect of the effectiveness of schools in Udon Thani municipality correlated positively with the administrative factors (X0) in overall aspect at 0.01 level of statistical significance. The aspect of competence of school adjustment and development (Y3), competence of solving the internal problems in school (Y4) and competence of the development in students’ positive attitude (Y2) correlated with the administrative factors at a high level (r = 803, 0.769 and 0.740, respectively). While the aspect of competence of production of the higher students’ achievement correlated with the administrative factors at a medium level.

4. The result of stepwise multiple regression analysis and the creation of a predictive equation of school effectiveness of municipal schools in Udon Thani province used administrative factors as a predictive variable. It was showed as Tables 2 and 3.

Table 2. The statistic of predictive variable used to predict the effectiveness of schools under Udon Thani municipality

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R^2</th>
<th>Adj R^2</th>
<th>Std.E.</th>
<th>Sig.FChg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (X6)</td>
<td>0.744</td>
<td>0.599</td>
<td>0.597</td>
<td>0.31947</td>
<td>0.000**</td>
</tr>
<tr>
<td>2 (X6) (X3)</td>
<td>0.834</td>
<td>0.695</td>
<td>0.693</td>
<td>0.27920</td>
<td>0.000**</td>
</tr>
<tr>
<td>3 (X6) (X3) (X0)</td>
<td>0.851</td>
<td>0.724</td>
<td>0.720</td>
<td>0.26622</td>
<td>0.000**</td>
</tr>
<tr>
<td>4 (X6) (X3) (X2) (X4)</td>
<td>0.863</td>
<td>0.745</td>
<td>0.740</td>
<td>0.25652</td>
<td>0.000**</td>
</tr>
</tbody>
</table>

**Statistical significance at 0.01 level
Table 3. The stepwise multiple regression analysis of the effectiveness of schools under Udon Thani Municipality

<table>
<thead>
<tr>
<th>The effectiveness of schools</th>
<th>Raw score</th>
<th>Standard score</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant (a)</td>
<td>0.682</td>
<td>0.142</td>
<td>4.822</td>
</tr>
<tr>
<td>School culture (X₆)</td>
<td>0.291</td>
<td>0.042</td>
<td>0.354</td>
</tr>
<tr>
<td>Technology (X₇)</td>
<td>0.173</td>
<td>0.044</td>
<td>0.216</td>
</tr>
<tr>
<td>School climate (X₈)</td>
<td>0.200</td>
<td>0.043</td>
<td>0.245</td>
</tr>
<tr>
<td>Budget (X₉)</td>
<td>0.164</td>
<td>0.039</td>
<td>0.194</td>
</tr>
</tbody>
</table>

**Statistical significance at 0.01 level

According to Tables 2 and 3, it showed that the administrative factors in the aspect of school culture, technology, school climate and budget were best predictive variable that affecting the effectiveness of schools under Udon Thani municipality at 0.01 level of statistical significance. The multiple coefficient was 0.863 that predicted 74.50% of the effectiveness of schools under Udon Thani municipality. The predictive equations for effectiveness of schools under Udon Thani municipality were as follows:

Equation of raw scores:

\[ \hat{Y} = 0.682 + 0.291 \text{ (school culture)} + 0.200 \text{ (school climate)} + 0.173 \text{ (technology)} + 0.164 \text{ (budgeting)} \]

Equation of standard score:

\[ \hat{Z} = 0.354Z \text{ (school culture)} + 0.245Z \text{ (school climate)} + 0.216Z \text{ (technology)} + 0.194Z \text{ (budgeting)} \]

4. Discussion and conclusion

1. The administrative factors of schools in Udon Thani municipality were at a high level for overall. According to the factor of school climate that good relationship among school administrators, teachers and educational personnel caused warm and sincere relation including listening to controversial comments and amending agreement. It corresponded with the article of the Faculty of Education, Chulalongkorn University (2010) said that every performance would be achieved the vision or the goal if the administrators enhance and created good atmosphere for work. Moreover, the factor of school culture was at a high level because of the uniqueness of school that gathered from various sectors in school by encouraging the school target, planning and defining the direction and goal together. The factor of the administrators’ leadership was at a high level too. It was because the administrative skills of the administrators was appropriate, farsighted, accurate and instantly decide including supported teachers to work potentially. Furthermore, the factor of internal communication in schools was at a high level because of the ability of school administrators to communicate and interpret the information or the truth to the receivers into the same direction and opened for other comments, clarification meeting and various and appropriate communication ways. Teachers and educational personnel were encouraged and pay attention to work and carried on their duties. In addition, the factor of budget was at a high level because of the ministerial rule, B.E. 2551 (2008) of the Ministry of Interior regarding rules and procedure to allocate the revenue income to be the expenditure for educational management in schools under the municipality. The school administrators, teachers, educational personnel and related person could work properly. Therefore, the budget management of schools under the municipality was obvious and accountable. Finally, the factor of technology was at a high level because of planning to use technology in administration, development of media, tools, technique, method and new innovation for teaching and other responsibilities. The information system was organised through up to date and appropriate technology.

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2. The effectiveness of schools in Udon Thani municipality was at a high level for overall. According to the National Education Act B.E. 2542 (1999) and Amendments (Second National Education Act B.E. 2545 (2002)) has defined educational quality assurance both internal and external, especially the internal one was a part of educational management process that should be operated continually. The report should be presented to their affiliation, related agencies and public disclosure. It could be supported for the assessment of external quality assurance. Schools had to be developed in order to pass every standard criterion, so that the school effectiveness was at a high level. It corresponded with the research result of Boonkert (2005) that studied the effectiveness of small size schools under Sa Kaeo Educational Area Service Office 2. The result revealed the effectiveness of small size schools under Sa Kaeo Educational Area Service Office 2 was at a high level for overall.

3. The correlation of the administrative factors and the effectiveness of schools in Udon Thani municipality were positive at a high level at 0.01 level of statistical significance. It showed the correlation between the administrative factors and the effectiveness of schools in Udon Thani municipality. The six important factors in educational management of schools in Udon Thani municipality like factor of school culture has indoctrinated good value concerned the performance for teachers and educational personnel. A good relationship among school administrators, teachers and educational personnel caused warm and sincere relation for the factor of school climate.

4. Moreover, the factor of technology was planned to use up-to-date technology in administration, development of media, tools, technique, method and new innovation for teaching and other responsibilities continually. For the factor of internal communication in schools, school administrators communicated with teachers and educational personnel obviously and currently. The internal communication with original affiliation and external communication with other agencies was in time. The administrator leadership has showed the capacity of management skills, vision, development origination, accurate decision and support teachers to work efficiently. For the factor of budget, schools had planned practical budget expenditure that conformed to annual work plan including personnel, supplies, media for school operation, management, control, supervision, monitoring and auditing of budget.

5. The result of stepwise multiple regression analysis and the creation of a predictive equation of school effectiveness of municipal schools in Udon Thani province used administrative factors that showed the administrative factors in the aspect of school culture, technology, school climate and budget which were best the predictive variable that affecting the effectiveness of schools under Udon Thani municipality at 0.01 level of statistical significance. The prediction was at 74.50 percent. The researcher would discuss as follows:
   a. The factor of school culture was the first predictive variable that affecting the effectiveness of schools under Udon Thani municipality because of the uniqueness of school that gathered from various sectors in school by encouraging the school target, planning and defining the direction and goal together.
   b. The factor of school climate was the second predictive variable that affecting the effectiveness of schools under Udon Thani municipality because of team works of the administrators, teachers and educational personnel.
   c. The factor of technology was the third predictive variable that affecting the effectiveness of schools under Udon Thani municipality because of planning to use technology in administration, teachers and educational personnel, development of media concerned teaching and learning included other method and new innovation for responsibilities continually.
   d. The factor of budget was the last predictive variable that affecting the effectiveness of schools under Udon Thani municipality because of school planning a practical budget expenditure that conformed to objectives comprised personnel, supplies, media for school operation, management, control, supervision, monitoring and auditing of budget.
5. Recommendations

5.1. Recommendations for application of the research results

1. The teachers’ opinion on administrative factors showed an effect on the effectiveness of schools under Udon Thani municipality at a high level. School administrators, municipal administrators and administrators of the Department of Local Administration including the concerned agencies should support and focus on the importance of school climate administration that was the highest average of those factors. The educational management in municipal schools should be developed. A good relationship among school administrators, teachers and educational personnel should be enhanced. The second factor was school culture. Team work of teachers and educational personnel should be carried to achieve school goals and at higher level. The last factor on teachers’ opinion was factor of technology should be administrated intensively by school administrators, municipal administrators and administrators of the Department of Local Administration and related person in educational management through supporting of budget, material and tools both for the management and teaching and learning.

2. School effectiveness of schools under Udon Thani municipality was at a high level, especially the effectiveness of student generation with higher achievement and positive attitudes. School administrators and teachers should support the development of teaching and learning to improve higher students’ achievement in every academic year including the participation in academic competition with other agencies. Moreover, remedial teaching or academic camp should be held to develop the learning achievement in school. The activities was arranged to develop students’ rules and disciplines including positive attitude toward school educational management. Students would behave in school disciplines; develop themselves actively in physical, emotion, social, conscious, intellectual, moral and ethical aspects. The last school effectiveness in opinion of teachers was the development and adjustment of school. Teachers should be encouraged to improve, develop and apply technology or new innovation to their teaching methods regularly including test results of students to plan for higher learning achievement.

3. The effectiveness of schools in Udon Thani municipality correlated positively with the administrative factors at a high level. School administrators, municipal administrators and the administrator of concerned agencies with local educational management were recommended to develop each administrative factor and to apply for the highest effectiveness; in the meantime, school effectiveness would be developed in each aspect. As a result, the administrative factors would be balance.

4. According to the predictive equation of school effectiveness of municipal schools in Udon Thani province, school administrators and municipal administrators should focus on the factor of school culture that was the strength to develop educational management in municipal schools for efficiency and effectiveness. Good value concerned the performance was indoctrinated with teachers and educational personnel and promoted for team work to achieve schools goal. The second factor was internal school climate that should be arranged for warmness and sincerity. They would be willing to do as rules, regulation and command including listening to conflict of opinion and discuss for collective agreement.

Moreover, the factor of technology should be used widely including a plan to use up-to-date technology in administration, development of media, tools, technique, method and new innovation for teaching and other responsibilities continually. Finally, the factor of budget should be planned to get along with the objectives of plan comprised personnel, supplies and media that enhanced school implementation. The administrative system could be arranged, controlled, monitored, evaluated and the budget could be accountable.
5.2. Recommendations for further studies

The further study should be studied for other factors that affect school effectiveness of municipal schools in Udon Thani province such as the factor of teacher and educational personnel, factor of learning resources and factor of participation. Moreover, the research should focus on different context such as schools under the provincial administrative organizations, or the sub-district administrative organizations, other provinces or other region in order to apply the result of the research in other occasion. Finally, the study should be based on the opinion of parents, the basic education commission and other related agencies that concerned with municipal educational management both quantitative and qualitative research. Moreover, the results could be continued as research and development.

References


