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Investigating the Educational Offering in a Quasi-Autonomous Thai Municipality

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ABSTRACT

Through decentralization, via national legislation since 1999, Thai municipal schools have become responsible for all areas of education, including educational facilities and infrastructure, health and lunch programs, pedagogy and teacher training, and curriculum and educational programme development. However, little research has been conducted on this process or on the results of the devolved municipal educational system. This article describes a survey of parental attitudes towards multiple aspects of the educational offering of the department of education in in one of the largest municipalities in Northeast Thailand, Khon Kaen Municipality (KKM). A large-scale mixed-methodology survey investigated parents' reasons for placing their children in KKM schools and their perception of the transport of students to and from schools. It also investigated the perceived factors of quality of education. The survey found that proximity, no tuition fees, and a good environment were the principal reasons, with cost and safety being issues for transporting students. Principal Component Analysis revealed the pedagogy, education program structure, school lunch program, and educational facilities to be important to parents, with a comparison showing differences by school, some critical. The article suggests KKM institute a citizens' dialogue process for educational strategic management to implement the recommendations.

INTRODUCTION

Background

The quality of education in Thailand is generally recognised as being at a crisis point (Maxwell & Peerasit, 2015a, 2015b, 2016).

One of the main problems is statistically significant differences between the quality of education in Bangkok and the rest of the country (Draper, 2011, 2012, 2014). These may be attributable to differences in IQ due to malnutrition, including low salt iodization (Maxwell & Peerasit, 2015a), a lack of resources, and poor teacher training (Draper, 2011, 2014), as well as problems with not teaching in or using the mother tongue (Draper, 2011, 2014). One way forward may be decentralization in order to bring about higher levels of responsiveness and efficiency. Decentralized models of educational administration, such as in Finland, which outperforms most countries in international testing despite a recent decline (Taylor, 2013), suggest educational reforms can best be implemented by dismantling central steering (Rinne, Kivirauma, & Simola, 2002) and giving local administrations and parents more choice, as well as local government units (LGUs) control over their own budgets via fiscal decentralization and, therefore, incentives for cutting costs (West & Ylönen, 2010).

In fact, since 1999, municipalities in Thailand have been increasingly important for children's education, as part of a trend at the time towards decentralization that has included other Asia-Pacific countries. Many Thai municipalities are now devolved municipalities under the main autonomy act which followed the 1997 *Constitution of the Kingdom of Thailand,* i.e., the *Act Determining Plan and Steps of Decentralization* (Ministry of the Interior,

1999). Prior to the Act, local government was more centralized and was chiefly governed by the 1953 Municipality Act, the 1955 and 1997 Provincial Administrative Organization Acts, and the 1994 Tambon [sub-district] Administrative Organization Act (Wongpreedee & Mahakanjana, 2011, p. 57). The increase in decentralization and the rise in pluralism and multiculturalism at the level of municipalities is linked to the 1997 *Constitution of the Kingdom of Thailand* and the period immediately before and following it (Connors, 2005, pp. 531-538), as well as to underlying trends including increased popularity of ethnic music, more Thai university programs studying ethnic identities, and the rise of the parliamentary system (Jory, 2000). Nonetheless, the route to this decentralization and its implementation has been problematic, with the basic paradox being that central government wishes to control the decentralization process (Nelson, 2002).

Together with the *National Education Act* of 1999 (revised in 2002; Office of the National Education Commission, 1999), the *Decentralization Plan and Procedures Act* has led to municipalities being partially responsible for their own development, including school-based management (SBM, see Gamage & Sooksomchitra, 2004) under their own education departments. Municipal schools have therefore become responsible for all areas of education, including educational facilities and infrastructure, health and lunch programs, pedagogy and teacher training, and curriculum and educational programme development.

Decentralised schools also exist under other LGUs, such as districts and sub-districts (Tambon Administrative Organizations or TAOs; see Krueathep, 2004 for a list of TAO responsibilities), though the Ministry of Education (MoE) has historically used delaying tactics to prevent this on the basis that districts and TAOs are not ready for this responsibility (National Economic and Social Development Board & Thammasat University, 2009), a position attributable to a natural inclination not to lose access to budgets and associated power. In fact, TAOs only administer pre-schools, though they do draw on their own resources to supplement MoE primary and secondary schools in their catchment areas, such as by buying computers and establishing uniform requirements, as well as financing school trips (Kamnuansilpa, Wongthanavasu, Ando, & Ness, 2013, p.54). Ultimately, one of the reasons for decentralization in the case of Thailand actually appears to be not the decentralization of power but the maintenance of central effectiveness, as decentralization is not typically associated with popular participation (Dufhues, Theesfeld, Buchenrieder, & Mungkung, 2011). The interactions between the Ministry of the Interior and MoE also create complex interdependencies, especially at the secondary education level, for example the role of Education Service Areas (UNESCO, 2008).

Decentralization has meant Khon Kaen Province municipal schools serving a diverse community of Thai Lao, Thai Chinese, Central Thai, and other minority children, have been able to engage in innovative practices such as the introduction of 'ethnic' uniforms (Draper, 2015a) and curriculums to teach the mother tongue as a subject (Draper, 2015b), though the latter is not without serious challenges (Winfield, 2016). In addition, in-service training of administrators and educators is problematic (Gamage & Sooksomchitra, 2004). Further, education administration continues to be highly politicised. In May 2016, the military government, under the National Council for Peace and Order, dissolved decentralised ESAs nationwide and replaced them with centralised Provincial Education Committees and Sub-committees, supervised by Provincial Administrative Organisations (PAOs) and chaired by unelected provincial governors, to manage primary and secondary schools. Despite these changes, quasi-autonomous municipal schools at present still operate under provincial offices of the Ministry of the Interior, the second most politically influential bureaucracy after the military (Kamnuansilpa, 2013, p. 121), while the MoE still oversees primary and secondary education through the Office of the Basic Education Commission and its core instrument, the 2008 *Basic Education Core Curriculum* (OBEC, 2008). Thus, they have not yet been affected by the NCPO re-centralisation of power, though the situation is still fluid.

Whatever the administrative structure, to what extent municipal schools provide a quality education from the perspective of key stakeholders such as parents and students is a fundamental issue, hence

Khon Kaen Municipality's (KKM) need for a survey. KKM is noteworthy in that it is situated in one of the most densely populated provinces of Northeast Thailand and is one of the most important municipalities in a region of 20 million people. It has also been recognised by the King Prajadhipok Institute for the quality of its administrative practices (Chantranusorn, Jutawiriya, & Mee-Udorn, 2014, p. 84) and has also taken innovative steps to implement mother-tongue language teaching (Winfield, 2016). It is interested in continuous improvement of its schools to benefit its citizens and maintain its reputation for two reasons; that KKM schools are seen as better than rural schools and can compete with urban MoE schools (Kamnuansilpa, Wongthanavasu, Ando, & Ness, 2013, p. 53).

Contextual Framework

The conceptual framework for the study was obtained in consultation with Khon Kaen Municipality as well as from a review of the literature and from the evaluators' own specialist knowledge. In particular, in terms of the general context of the study, the reasons for parents to send children to the KKM schools were deemed important as they exist in a state of competition with Ministry of Education schools (Kamnuansilpa, Wongthanavasu, Ando, & Ness, 2013, p. 53), as was method of transport to school because of the cost (Nicaise, Tonguthai, & Fripont, 2000, pp. 23-24) and high injury and death rate on Thai roads (WHO,

2015). Focusing now on the factors in the educational process, the teaching of the core skills of Mathematics, Thai, Science, and English are of concern in Thailand (Wareerat, Rujroad, Skonchai, Wanintorn, & Sureeporn, 2016; Warotamasikkhadit & Person, 2011; Yuenyong & Narjaikaew, 2009; Noom-Ura, 2013), as are teaching and learning support materials such as textbooks and readers (Suaysuwan & Kapitzke, 2005; Lounkaew, 2013), teaching methods (Tongpoon-Patanasorn, 2011), teacher qualifications (Siribanpitak, 2011), school lunch and milk programs (Kongnoo, Loysongkroa, Chotivichien, Viriyautsahakul, & Saiwongse, 2014; Kanemasu, 2007, pp. 22-25), health promotion programs (Erawan, 2015), cost of uniforms (Nicaise, Tonguthai, & Fripont, 2000, pp. 23-24), class sizes (Noom-Ura, 2013, p.142), and study hours (*Schools*, 2015), To sum up, as some of the factors came from consultation with KKM, the result was a hybrid evaluation model in that it was contextualised and partially goals-based (see Patton, 2008), being informed by some high-priority goals; nonetheless, it did not programmatically analyse KKM educational goals. Instead, the reliance on the literature and the evaluators' own knowledge meant it was a relatively goal-free evaluation (see Stufflebeam & Coryn, 2014, pp. 347-348 for a discussion) of everyday perceived school service quality. The main approach therefore involved a survey of parents.

MATERIALS AND METHOD

Objectives and Research Questions

The objectives of the study were, firstly, to evaluate aspects of the context for parents and guardians to send their children to Khon Kaen Municipality (KKM) schools, namely parental reasons for sending their children to the schools and the transport experience of Thai students at the schools. Secondly, the study aimed to investigate parental perception of the factors of quality of education within Khon Kaen Municipality (KKM) schools. The study also aimed to provide recommendations for KKM regarding how to improve the educational offering. The study had two main research questions:

(1) What is the context for the educational experience in KKM schools in terms of a) parents' reasons for placing their children in KKM schools and b) parents' perception of the transport of students to and from schools?

(2) What are the perceived factors of quality of education provided by the KKM schools evaluated?

This study was implemented through large-scale surveying of pupils' parents.

Location of Study

Khon Kaen Municipality is a local administrative organization under the Department of Local Administration of the Thai Ministry of the Interior and is located in Northeast Thailand at the centre of Khon Kaen Province. KKM is responsible for managing education for children in the Municipality. The municipality was created by a Royal Decree effective from August 20th, 1935, and in 1995, the Municipality received another Royal Decree to formally establish KKM.

Presently, KKM is responsible for a catchment area of 46 square kilometres comprising 11 schools and nine early childhood development centres. It also has nine Pre-study Children Development Centres. There are in total approximately 600 employees, consisting of education officials, municipality school teachers, permanent employees, and contracted employees. There are in total approximately 11,200 students, inclusive of children in early childhood centres. To operate the education management, funding comes directly from the Department of Local Administration at the Ministry of the Interior, and KKM manages activities such as salaries, medical expenses, the construction of school buildings, educational materials, etc.

KKM manages education from basic study at pre-school through high school and provides education in various forms with less of a focus on teaching and learning in the classroom and more of a focus on the importance of individual differences in learning, the integration of learning, various learning forms outside the classroom, and support for the local community to take part in the development of teaching and learning. KKM gives precedence to the conservation of local culture, which has a substantial presence in the curriculum, e.g., the end of

the Buddhist Lent festival, the celebration of Sinsai, a famous epic literary work of Northeast Thailand (see Brereton, 2012); and responsibilities under the Isan Culture Maintenance and Revitalization Programme to introduce the Thai Lao language and culture as a subject (Winfield, 2016).

The Survey

A survey method was applied to assess the quality of education of all 11 municipal schools in KKM from the perspective of parents or guardians of the pupils. The survey team developed and reviewed the questionnaire with the schools' principals to check for clarifications and sensitivity of the wording during the month of December 2015. After that, a pre-test of the questionnaire was carried out with a small group of purposively selected parents of students in schools outside of KKM. Upon the completion of the pilot, the survey team made minor adjustments

to the questionnaires concerning the logical order and the rephrasing or rewording of questions.

A total of 10,363 questionnaires, divided into two sections and with a total of 38 questions, were handed out to all pupils who were attending school on either January 4 or January 5, 2016. They were instructed to bring the questionnaire to their parents or guardians for them to respond and then return the completed questionnaire their teachers by January 11, 2016. On January 12 and 13, the survey team collected the returned questionnaires from all schools. Table 1 shows that out of the total of 10,363 students from all schools, 7,436 pupils returned the completed questionnaires, yielding a return rate of 71.8%. This is high considering the fact that parents with two or more children in municipal schools would probably have returned just one survey. Between schools, the rates range from 87.8% to 51.1%.

Table 1

Number of students by municipal school in KKM and the questionnaire return rate

Name of school	Number of students*	No. of returned questionnaires	Return rate
Suansanuk	3095	2001	64.7
Watklang	2730	2249	82.4
Khomnongkoo	370	273	73.8
Bannonthun	472	340	72.0
Bannongyai	745	576	77.3
Nonnongwat	184	94	51.1
Bannonchai	650	491	75.5
Bansamliam	912	478	52.4
Bannongwang	200	140	70.0
Bantoom	433	380	87.8
Bansrithan	572	414	72.4
Total	10363	7436	71.8

All returned questionnaires were brought to the Social Survey Center, located at the College of Local Administration, for a completion and consistency check before proceeding to the next step of data entry. Since all questions were pre-coded, the required step of data entry could follow immediately. IBM's SPSS was employed for data entry and analysis, which began with a frequency count for all possible responses to check for anomalous or incorrect coding. Both descriptive and inferential statistics were employed in this survey. Percentages were used to describe the demographic and socio-economic characteristics of sampling and the general description of the perceived quality of education in the municipal schools in the opinion of the respondents. The inferential statistics used in this survey were the Chi-square test and Factor Analysis. For open-ended questions, content analysis and coding matrices were employed.

RESULTS

Description of Respondents

To provide a context for the main findings, this section begins with a brief description of the respondents in this survey. First, it is noteworthy that schools under the jurisdiction of the local government do not only serve the residents of KKM, as about 40% of the pupils come from areas outside KKM. Municipal schools are seen as being of higher quality than rural schools, though lower than that of MoE urban schools. Therefore, prior to their enrolment in a school, these pupils either physically moved or they registered in a household in the municipal area with a person who was related to them in order to be eligible. In fact, a five-country study that included KKM which was conducted in 2000 found that enrolment in Khon Kaen primary and secondary schools was four-to-five times higher than it should have been, based on the city's demographics (Chanawongse, Kamnuansilpa, & Wongthanavasu, 2001), causing a financial burden for KKM. This enrolling of children in urban areas is a well-known phenomenon in Thailand (Kamnuansilpa, Wongthanavasu, Ando, & Ness, 2013, pp. 51-52), one which Ness (2012), citing Hirshman (1970), has described as an 'exit strategy' for the parents. As a result, children leaving a rural school and entering an urban one effectively means parents and guardians are less likely to pressure the government for better quality schools. Unfortunately, those parents left with children in rural schools may in fact be those least well prepared to lobby for improvement as they would be the ones with the worst financial resources, education, and status.

About two thirds of the respondents in this survey were female. This is understandable as women, particularly mothers, are the primary managers of family affairs in Thailand and nurture the wellbeing of their children. In terms of age, about half of the respondents were between the ages of 31 and 40 years. Young respondents, aged less than age 30, represented only one-tenth of the group, meaning that nearly 40% of the respondents were older than 40 years.

Regarding marital status and stability, as indicated in Table 3, about 72% of the respondents were married and still living with their spouses. Family disunion by separation, divorce or death of the spouse was indicated in nearly 25% of the sample. A small percentage of the sample consisted of either single mothers or foster parents. Nearly 83% of the respondents were parents of the pupils. About 11% were grandparents. Less than 6% of the respondents had assumed custodian roles for the pupils. Therefore, nearly 95% of the respondents were closely related to the pupils and thus in a good position to provide candid opinions about the quality of the municipal schools.

The majority of respondents in this survey did not enjoy a high social echelon. About three quarters of them finished lower than tertiary education. Professional and government employees together represented only slightly above one-fifth of the sample. More than three-quarters worked in other less privileged occupations. Due to this pattern of low social position, the majority had low incomes, with 68.1% of them earning not more than 20,000 THB per month. It is therefore noteworthy that this survey assesses the quality of education of the municipal schools from the perspectives of people who are less fortunate and for that reason may not be able to send their children to more privileged and more competitive MoE public schools in the urban area of Khon Kaen Province.

Table 2

Demographic and socio-economic characteristics of the sample

Characteristics	n	Percentage (%)
Residence		
Municipal area	4449	59.8
Outside of municipal area	2299	30.9
Other district in Khon Kaen	375	5.0
Other province	313	4.2
Total:	7436	100.0
Gender		
Male	2483	33.4
Female	4953	66.6
Total:	7436	100.0
Age		
Less than 30 years	812	10.9
31 – 40 years	4006	53.9
41 – 50 years	1912	25.7
51 – 60 years	522	7.0
61 years and above	184	2.5
Total:	7436	100.0
Marital status		
Married and living with spouse	5343	71.9
Separated	683	9.2
Divorce	786	10.6
Widow	314	4.2
Other	310	4.2
Total:	7436	100.0
Relationship		
Father/Mother	6139	82.6
Grandparents	788	10.6
Uncle/Aunt	319	4.3
Brother/Sister	63	0.8
Foster Father/Mother	92	1.2
Other Relatives	35	0.5
Total:	7436	100.0
Education		
Below university	5564	74.8
Bachelor's degree	1602	21.5
Graduate degree	270	3.6
Total:	7436	100.0

Table 2 *(continue)*

Occupation		
Unskilled labour	2210	29.7
Vendor or trader	1287	17.3
Agriculture	272	3.7
Employee of a private company	1229	16.5
Professional	836	11.2
Government official	905	12.2
Other	697	9.4
Total:	7436	100.0
Income /THB		
Less than 10,000	1546	20.8
10,001 – 15,000	2826	38.0
15,001 – 20,000	689	9.3
20,001 – 25,000	937	12.6
25,001 – 30,000	475	6.4
30,001 – 35,000	522	7.0
35,001 – 40,000	196	2.6
40,000+	245	3.3
Total:	7436	100.0

Parents' Reasons for Placing the Children in KKM Schools

In answering research question 1a), Table 3 shows the reasons for parents or guardians to send children to the municipal schools, with the top three reasons being proximity to home, the lack of tuition fees, and a good environment.

Table 3
Reasons for sending children to schools under the jurisdiction of KKM (Multiple Responses Possible)

Reasons	Number	Percent
Close to home	4389	59.0
No tuition fee	2796	37.6
Good environment	2300	30.9
Low extra required fees	2059	27.7
Recommended by other people	1907	25.6
No required donation	1833	24.7
Other children are studying there	1830	24.6
Being an alumnus	927	12.5

Parents' Perception of the Transport of Students to and From Schools

The following table (Table 4) answers research question 1b) in that it reflects travel-related issues, which are closely related to the primary reason for sending children to KKM schools, i.e., proximity to home. Travel-related issues are integral to the context of Thai education because of travel costs and because Thailand has the second worst roads in the world for per capita deaths, after Libya. Each year over 24,000 people are killed on Thai roads (*Look*, 2016), with hundreds of thousands more injured, many of whom are students, as is discussed later.

Table 4
Travel-related issues

Issue	n	Percentage (%)
Mode of transport		
Personal vehicle	4874	65.6
School bus	471	6.3
Public transportation with parents	321	4.3
Walking	461	6.2
Other	1308	17.6
Total:	7435	100.0
Child transportation safety		
Safe	6639	89.3
Unsafe	797	10.7
Total:	7436	100.0
Reason for unsafe travel		
Heavy traffic	278	25.8
Too far from home	64	5.9
Unsafe drivers	129	12.0
Child too young	75	7.0
Fear of abduction	54	5.0
Other	477	44.3
Total:	1077	100.0
Problems or difficulties when going to school		
Yes	2066	27.8
No	5370	72.2
Total:	7436	100.0
Reason for problems or difficulties		
Parent(s) does not have enough time	1053	58.9
Parking issues	129	7.2
Heavy traffic	338	18.9
School too far from home	99	5.5
Other	170	9.5
Total:	1789	100.0
Reason for no problems or difficulties		
Have transportation	371	5.7
Close to home	548	8.5
Uses public transportation	281	4.3
Children can go to school by themselves	228	3.5

Table 4 *(continue)*

	n	%
Goes to school with parents	1378	21.3
No heavy traffic	38	0.6
No reasons given	3635	56.1
Total:	6479	100.0
Respondents who prefer school transportation		
Prefer	3888	52.3
Do not prefer	3548	47.7
Total:	7436	100.0
Prefer transportation (previous question) and are willing to pay		85.1
Yes	3309	
No	579	14.9
Total:	3888	100.0
If willing to pay (previous question), how much per month		
0-500 THB	2185	66.0
501-1,000	701	21.2
Over 1,000	423	12.8
Total:	3309	100.0
Students trained in travelling to school safely		
Yes	6836	91.9
No	600	8.1
Total:	7436	100.0

The percentage of respondents and their willingness to pay for school transportation are also reported in Table 4. This table shows that 52.3% of respondents prefer to have the school provide transportation while 47.7% do not wish to use school transportation. The latter group responded that it is not important for them because they would rather accompany and/or drive their children rather than having their children take the school bus. Some also said that their homes are near the school and they

do not require school transportation. While 85.1% of the respondents are willing to pay for transportation, most felt that the bus fee should be dependent on their income and the distance from their home to the school. The table above also shows that 66% of parents would prefer to pay not more than THB500 per month, an additional 21.2% would be willing to pay THB501-1,000, and a further 12.8% would be willing to pay in excess of THB1,000. An additional question on whether parents or guardians felt students had been trained in traveling to school safely found 8.1% disagreed, indicating room for potential improvement.

Perceived Factors of Quality of Education Provided by KKM Schools

To answer the second research question, a threshold analysis was conducted of the respondents' perception of quality of education of the municipal schools by demographic and socio-economic characteristics, using a threshold of 80% for 'High Quality'. Table 6 shows the results of the threshold analysis applied to the respondents' perception of quality of education of the municipal schools by demographic and socio-economic characteristics, using a threshold of 80% for 'High Quality'.

Table 5

Perception of quality of education of schools under the jurisdiction of KKM by demographic and socio-economic characteristics

Characteristics	Quality of Education Threshold		Total: n (%)
	Perceived as Low Quality: n (%)	Perceived as High Quality: n (%)	
Schools**			
Suansanuk School	225 (11.2)	1776 (88.8)	2001 (100.0)
Watklang School	339 (15.1)	1910 (84.9)	2249 (100.0)
Khomnongkoo School	30 (11.0)	243 (89.0)	273 (100.0)
Bannonthun School	26 (7.6)	314 (92.4)	340 (100.0)
Bannongyai School	46 (8.0)	530 (92.0)	576 (100.0)
Nonnongwat School	4 (4.3)	90 (95.7)	94 (100.0)
Bannonchai School	30 (6.1)	461 (93.9)	491 (100.0)
Bansamliam School	19 (4.0)	459 (96.0)	478 (100.0)
Bannongwang School	9 (6.4)	131 (93.6)	140 (100.0)
Bantoom School	13 (3.4)	367 (96.6)	380 (100.0)
Bansrithan School	18 (4.3)	396 (95.7)	414 (100.0)
Total:	759 (10.2)	6677 (89.8)	7436 (100.0)
Place of Residence			
Municipal area	431 (9.7)	4018 (90.3)	4449 (100.0)
Outside of municipal area	250 (10.9)	2049 (89.1)	2299 (100.0)
Other district in Khon Kaen	45 (12.0)	330 (88.0)	375 (100.0)
Other province	33 (10.5)	280 (89.5)	313 (100.0)
Total:	759 (10.2)	6677 (89.8)	7436 (100.0)

Table 6 *(continue)*

Gender			
Male	250 (10.1)	2233 (89.9)	2483 (100.0)
Female	509 (10.3)	4444 (89.7)	4953 (100.0)
Total:	759 (10.2)	6677 (89.8)	7436 (100.0)
Age*			
Less than 30 years	65 (8.0)	747 (92.0)	812 (100.0)
31 – 40 years	424 (10.6)	3582 (89.4)	4006 (100.0)
41 – 50 years	221 (11.6)	1691 (88.4)	1912 (100.0)
51 – 60 years	37 (7.1)	485 (92.9)	522 (100.0)
61 years and above	12 (6.5)	172 (93.5)	184 (100.0)
Total	759 (10.2)	6677 (89.8)	7436 (100.0)
Education**			
No university degree	502 (9.0)	5062 (91.0)	5564 (100.0)
Bachelor degree or higher	257 (13.7)	1615 (86.3)	1872 (100.0)
Total:	759 (10.2)	6677 (89.8)	7436 (100.0)
Occupation**			
Unskilled Labour Employment	158 (7.1)	2052 (92.9)	2210 (100.0)
Vendor or Trader	141 (11.0)	1146 (89)	1287 (100.0)
Agriculture such as farming/fishing / livestock	20 (7.4)	252 (92.6)	272 (100.0)
Employee of a private company	142 (11.6)	1087 (88.4)	1229 (100.0)
Professional (For example doctor, lawyer, architect, engineer or self-employed etc.)	122 (14.6)	714 (85.4)	836 (100.0)
Government official (Including state owned enterprises)	105 (11.6)	800 (88.4)	905 (100.0)
Other	71 (10.2)	626 (89.8)	697 (100.0)
Total:	759 (10.2)	6677 (89.8)	7436 (100.0)
Marital status			
Marital stable	539 (10.1)	4804 (89.9)	5343 (100.0)
Marital unstable	220 (10.5)	1873 (89.5)	2093 (100.0)
Total:	759 (10.2)	6677 (89.8)	7436 (100.0)
Income**			
Less than 20,000 THB	425 (8.4)	4636 (91.6)	5061 (100.0)
20,001 THB and above	334 (14.1)	2041 (85.9)	2375 (100.0)
Total:	759 (10.2)	6677 (89.8)	7436 (100.0)
Relationship**			
Parents	669 (10.9)	5470 (89.1)	6139 (100.0)
Grandparents	45 (5.7)	743 (94.3)	788 (100.0)
custodian	45 (8.8)	464 (91.2)	509 (100.0)
Total:	759 (10.2)	6677 (89.8)	7436 (100.0)

Note. * = p-value < 0.01, ** = p-value < 0.001

Table 6 shows the subset of those respondents who perceived that KKM schools are high quality, broken down by detailed quality indicators, where 1 = Yes and 2 = No.

In order of subjects taught, respondents perceived that mathematics was taught best, followed by Thai, science, and English.

Table 6
Percentage of respondents who perceived That KKM schools are high quality by detailed quality indicators (N=7,436)

Indicators	Number	Percentage (%)
Sufficiently teaches mathematics	7289	98.0
Provides learning support materials to school pupils	7288	98.0
Sufficiently teaches Thai	7258	97.6
Teachers' qualifications	7210	97.0
Appropriate teaching methods	7167	96.4
Provides nutritional lunch	7116	95.7
Provides health service	7108	95.6
Provides school uniform	7071	95.1
Appropriate class size	7013	94.3
Sufficiently teaches science	7008	94.2
Appropriate hours of study	6958	93.6
Appropriate teaching materials	6954	93.5
Provides school milk	6937	93.3
Sufficiently teaches English	6769	91.0
Comparable to Ministry of Education schools	6757	90.9

A Chi-Square analysis was then conducted of respondents who perceived their children's education as high quality and low quality against a wish to transfer. The result, Table 7, illustrates that respondents who viewed the quality of education as low were more likely to wish to transfer their children to MoE schools, as might be expected.

Table 7
Percentage of respondents who expressed a wish to transfer their children to MOE schools

Wish to Transfer	Perception		Total
	Low quality: n (%)	High quality: n (%)	
Yes	435 (57.3)	2817 (42.2)	3252 (43.7)
No	324 (42.7)	3858 (57.8)	4182 (56.3)
Total	759 (100.0)	6675 (100.0)	7434 (100.0)

Chi-Square = 63.2, df=1, p-value <0.001

Bartlett's Test of Sphericity was employed, which confirmed (p < 0.01) the data were suitable for factor analysis. For goodness of fit, the Kaiser-Meyer-Olkin test was employed, with a resulting value of 0.834. Responses to the key variables were therefore examined by Principal Component Analysis (PCA) to determine the main factors involved (Table 8). PCA was employed because it reduces observed variables to a smaller set of important uncorrelated composite variables and therefore eliminates the problem of multicollinearity.

Table 8

Results of variables extraction using principal component analysis

Variables	Component			
	1	2	3	4
Appropriate teaching methods	.814			
Appropriate teaching materials	.786			
Teachers qualifications	.760			
Sufficiently teaches mathematics		.695		
Sufficiently teaches Thai		.629		
Sufficiently teaches science		.597		
Appropriate hours of study		.496		
Comparable to MOE schools		.479		
Sufficiently teaches English		.460		
Provides school milk			.824	
Provides nutritional lunch			.775	
Provides school uniform				.632
Appropriate class size				.630
Provides learning support materials				.438
Provides health service				.428

Note. Rotated by Varimax method with Kaiser Normalization. Rotation converged in 5 iterations. For factor extraction, the Kaiser criterion was applied, with the factors having Eigenvalues of 3.646, 1.504, 1.145, and 1.009.

The four factors identified were pedagogy (Factor 1), educational program structure (Factor 2), school lunch program (Factor 3), and learning facilities (Factor 4). The 11 municipal schools were then re-examined in the light of each of these factors, providing a means of comparison, with the following results:

Table 9
Comparative factor scores of perceived quality of education by schools

Schools	Factors Pedagogy	Educational Program Structure	School Lunch Program	Learning Facilities
Suansanuk	-10.77	-30.37	210.32	-237.11
Watklang	26.74	-1.07	-449.97	-108.95
Khomnongkoo	-119.49	-164.23	188.49	76.63
Bannonthun	-44.82	-5.08	177.07	156.21
Bannongyai	-163.02	37.90	147.71	271.25
Nonnongwat	43.95	91.69	171.71	312.72
Bannonchai	43.43	-52.41	218.12	209.97
Bansamliam	36.96	80.04	174.12	272.20
Bannongwang	-86.36	-36.66	122.14	338.34
Bantoom	95.59	98.35	234.38	267.80
Bansrithan	86.52	83.41	197.48	187.18

This was then plotted to a graph for easier analysis. The results are in Figure 1.
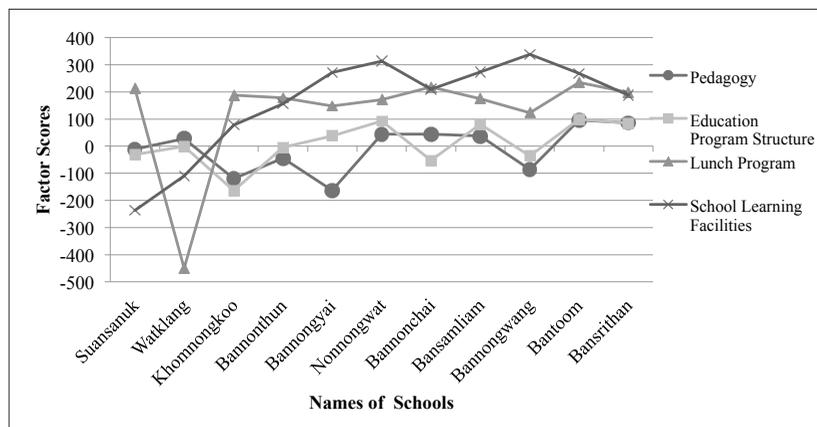
Figure 1. Comparative factor scores of perceived quality of education by school

Given that the methodology involved a survey, this approach enables a comparison by factors as well as a relative comparison of each school, allowing KKM to see the strengths and weaknesses of each school and therefore prioritise resources. It can be readily seen that the municipal schools scored well for the Lunch Program except for Watklang School, which does not provide a school lunch. Municipal schools also generally scored well for School Learning Facilities, except for two schools, Suansanuk School and Watklang School. Municipal schools were rated less highly

for both Pedagogy and Educational Program Structure, which is related to pedagogy, as shown by considerable convergence in the two factors in nine of the eleven schools. This relative comparison of factors and schools forms the basis for discussing the results and devising recommendations.

DISCUSSION

In order to better understand the survey results and devise recommendations for the schools in this ethnically diverse community, two interviews were conducted, on March 29 and May 30, 2016, with Mr. Chatchawan Phonamontham, Deputy Mayor of KKM, together with senior staff from KKM's Department of Education. This provided a greater context for understanding to what extent the findings answered the research objectives. The relatively positive response in the case of school learning facilities was explained by the fact that school infrastructure, primarily classrooms, but also playgrounds, and toilets, had been the first priority of KKM when setting up the municipal schools. KKM's own architect discussed infrastructure requirements with school boards and designed and implemented common municipal infrastructure for the schools. Class sizes were dictated by classroom size and KKM education department policy and were generally not seen as a problem. However, in the open-ended component of the survey, 13.7% of respondents indicated that school infrastructure should be enhanced, with another 5.2% asking for sports and recreation facilities to be upgraded, indicating room

for improvement. Improvement in school facilities should follow international best practices in the areas of school building codes and school structural, infrastructural and environmental vulnerabilities, such as the Hyogo Framework for Action (Unicef et al., 2013), which Thailand endorses nationally.

Regarding the positive perception of school lunches, KKM prioritizes health promotion via school lunch and school milk programs and has recently introduced a limited breakfast program. This is in response to the poor socio-economic backgrounds of its children. Its health check program, a collaborative venture involving the Municipal Education Department, the Municipal Health Department, and Khon Kaen Hospital, the provincial hospital, at present extends to all primary (Grades 1-6) students. The program especially targets students with behavioural disorders such as ADD as well as those with lower IQs, and in order to assist such students, it has a memorandum of understanding with the provincial centre for mental health. The majority of respondents (95.6%) are aware of this program, which is well received by parents and guardians and should be continued and developed. However, development should be carefully targeted due to insufficient funds for a comprehensive program.

Lower scores for pedagogy and educational programs may be attributed to two reasons. Firstly, municipal schools have historically scored lower than MoE schools, which can self-select students. For

this reason, they are sometimes perceived by parents to be inferior to MoE schools, thus they may be rated less highly by respondents. In fact, the response to one survey question indicated that an encouraging 90.9% of respondents viewed the quality of municipal schools as comparable to that of MoE schools, meaning only 9.1% still viewed them as inferior. The second reason is that the intake of municipality schools is of a lower calibre, as municipality schools are obliged to accept all eligible applicants. This effect, together with the lower socio-economic background compared to MoE schools, can create a disparity between the role that schools see for themselves and the role parents and guardians see schools playing. This is exacerbated in the case of municipal schools in the Northeast by two additional social factors, namely high rates of parental urban migration (for example to Bangkok) for work, leaving children with grandparents who may be functionally illiterate (Jampaklay et al., 2012), and the phenomenon of teen mothers, with Thailand having the second highest rate of teen pregnancy in Asia (Unicef, 2015, p. 9). The interviews with KKM senior managers indicated that municipal schools see themselves as directly contributing towards roughly one-third of a student's academic progress, with one-third coming from the pupils themselves and one-third from parents or guardians. However, in the opinion of senior managers, parents or guardians of children see schools contributing approximately 60% of a child's progress, with 20% each from the pupils themselves and from guardians.

In terms of improving educational program structure, the major problem appears to be that students may not understand the syllabus and content. KKM has attempted the design of common tailored curricula for all municipal schools, including Isan language, the mother tongue of the majority of its students. However, one problem is incorporating analytical and critical thinking aspects in educational programs and then teaching it. This, in turn, is due to traditional methods of teacher training and the fact that O-NET (Grade 9) standardized tests are principally multiple choice, hence parents and teachers can be more motivated to prepare for tests. Moreover, for older teachers, the concept of moving away from rote learning and towards teaching analytical and critical thinking skills can be difficult.

Additionally, 13.7% of respondents called for improvement of the educational program so that it is easier to understand, with a further 5.6% calling for more teaching of foreign languages. KKM should focus more resources on pedagogy and educational program structure, except at Suansanuk and Watklang Schools, where school learning facilities need to be improved. This is, in fact, underway. KKM will close the secondary grades in Suansanuk School in 2017 in order to specialise as a primary school, and it will close the primary grades in Watklang School in the same year in order for it to specialise as a secondary school.

In response to a question regarding whether there is sufficient teaching of English, 9.0% stated that the amount of English was insufficient, thus English is one language to focus on. In a recent article, Teng and Singwonsuwat (2015) summarize that problems with Communicative Language Teaching (CLT), the officially promoted means of teaching English in Thailand: include a lack of sustained professional development and teacher fluency; insufficient time to implement CLT activities; a preference for accuracy over fluency; the fact that CLT may be contrary to Thai culture as it involves questioning; and misconceptions that CLT requires native-speaker norms. Focusing on ameliorating these areas may thus provide an avenue for improvement in English language pedagogy. Other language offerings may potentially include Chinese, a priority for the government (MoE, n.d.) and Lao, the language of the nearest ASEAN neighbour, as suggested in the original *ASEAN Sociocultural Community Blueprint*, which recommends the teaching of neighbouring languages (ASEAN Secretariat, 2009, p.2).

In response to pedagogical requirements, KKM has introduced continuous annual training for its teachers in all subject areas over the past three years. For example, in English, traditionally a very low performing subject with weak teacher knowledge and teacher skills being a problem. Municipal teachers were tested three years ago according to the Common European Framework of Reference (CEFR), ahead of the CEFR test conducted by the MoE for its teachers in 2015 (*English*, 2015). They were then allocated individual training development pathways. The result has been that municipal schools, while their students still score lower than MoE schools, have improved more than MoE schools over the last three years, though admittedly from low baselines in some subjects. As only 5.1% of respondents called for municipality schools to improve the quality of teachers, this should be a secondary priority after improving educational program structure. Some parents may not be aware of these developments, suggesting a need for better public relations.

CONCLUSION AND RECOMMENDATIONS

The following conclusion and recommendations are tailored for KKM municipal education but should also be considered for municipal schools in other Thai provinces and for schools in similar systems in Southeast Asia. KKM should publicize the summary results of this survey in the form of a brochure in order to inform parents and guardians and begin a citizens' dialogue process for educational strategic management, as recommended by Wongthanavasu and Ranad (2012), including in the area of transport-related issues. Specifically, KKM should be open and transparent about its plans for improved pedagogy, education, and educational program and curriculum structure. It should show how its students' academic results have improved compared to MoE schools, as evidenced by official MoE 2015 educational

attainment results on standardized tests for 2013-2015, i.e., at a faster rate in all subjects over the past three years. It should also explain how lower scores compared to the national average is a regional problem, a result of compounding effects related to socio-economic background, diseases of poverty such as malnutrition, and IQ and cognitive behavioural problems (Draper, 2011, 2014), i.e., the uneven development between Bangkok and other areas, especially in the Northeast (Glassman & Sneddon, 2003; Doner, 2009). Moreover, it should explain the benefits and results of its teacher and curriculum development programs. In particular, research indicates training programs for administrators should include 'contemporary administrative leadership', 'school and community relations', 'effective communication and decision-making', 'management of human resources', and 'theory and practices of curriculum development' (Gamage, 2004), as well as an appropriate understanding of administrators' roles (Gamage & Pang, 2003, p. 39). In addition, it should investigate and address the low score for pedagogical and educational program structure at Khomnongkoo School, as well as the low score for pedagogy at Bannongyai School. Figure 2, below, highlights specific areas for improvement for each school.
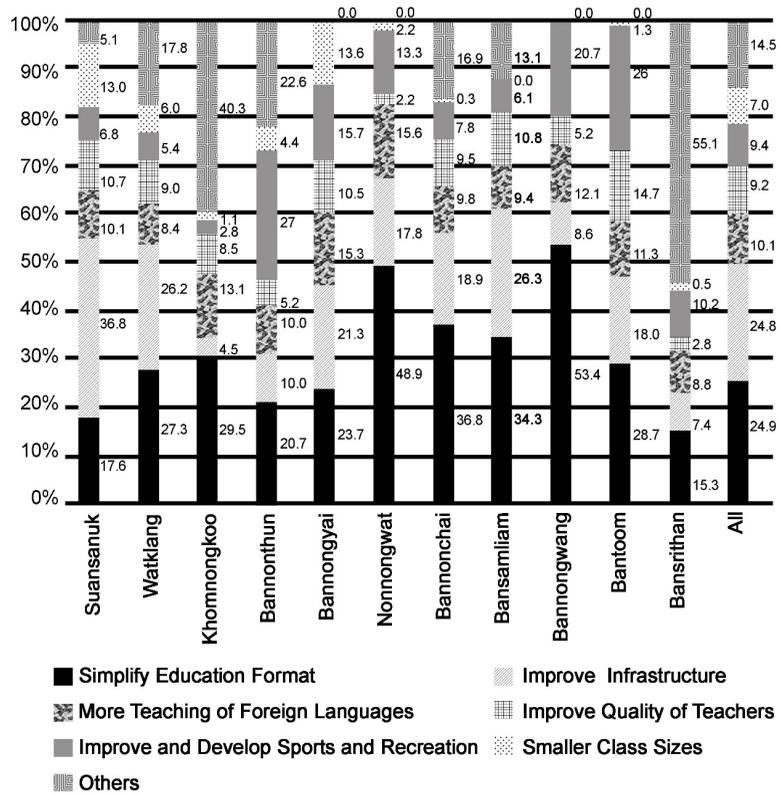

Figure 2. Recommendations for program improvement by school

Analysis of descriptive statistics revealed additional, specific child-safety issues which KKM schools should prioritize. Specifically, 10.7% of respondents reported that it was unsafe for their children to travel to school. Analysis of open-ended responses revealed 3.7% of total respondents were concerned about too many cars in the urban environment, while a further 1.7% were concerned about motorists driving too fast, and 1.0% stated that their children were too young to travel alone. This is a serious problem, as seven children are killed on Thailand's roads every day, with only 7% of the more than a million children riding to school as passengers on parents' or guardians' motorcycles wearing crash helmets (Silverman & Billingsley, n.d., p. 37). According to the World Health Organization (WHO, 2015), Thailand experiences double the average global per capita number of approximately 18 road deaths per 100,000 population per year, i.e., 36.2 deaths/100,000. In KKM, in one hospital's emergency room alone, approximately 10,000 road traffic injured patients visit per year, of whom 4,000 are admitted, with 4.6% of these being permanently disabled (WHO, 2015, p.14). Students, many of whom use motorcycles, therefore face the constant possibility of being injured during their travel, which places an onus of care on municipal schools.

KKM should therefore consider safe crossing programs using well-lit zebra crossings with wardens in mornings and afternoons together with a publicity campaign advising motorists to slow down near schools, including signs and radio adverts. In addition, students should be encouraged to wear motorcycle helmets in cooperation with the Save the Children and AIP Foundation '7 Percent Project' to increase motorcycle helmet usage to 60%. On a similar issue, 27.8% of respondents stated that there were problems with their children commuting to school. Specifically, 14.2% of parents stated that they did not have enough time to take their children to school, with a further 4.5% mentioning the problem of traffic jams. KKM already provides students with subsidized use of the public transport system as well as a tailored school bus system. However, the latter can only be expanded if additional funding is found.

Finally, it would also be informative to conduct a similar, replication survey of MoE urban schools, which are in competition with KKM schools, in order to compare the educational program structures, lunch programs, school learning facilities, and pedagogy in more depth, such as the number and professional background of teachers. Thai teachers' views on these four issues, as well as on teaching and learning problems, should also be solicited.

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