

Pull and push factors affecting school relocation in Singapore: the past and the present

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Abstract

In history and at present, some schools have been and are still being relocated for one reason or another. Putting all the factors together and sorting them into categories: some are pull and some are push factors. Relocation of schools has seldom been fully documented and researched. One reason is, perhaps, there are a lot more other important issues in education that have more direct impacts on education, and on people than relocation business. This paper attempts to argue that school relocation deserves more serious attention than it has usually been given, and it affects the people as well as the education of the children as much as any other changes in education. It also seeks to unravel the theoretical and practical reasons, which influence the location and relocation of a school.

Taking the history of school relocation of some old schools in Singapore, especially those built in the late 19th and early 20th century, it can be noticed that these schools might have moved 3 to 7 times in history. Most of them have achieved a rather stable location today, unlikely to be subjected to relocate in the near future. It may be argued that these schools have arrived at an equilibrium stage. The reasons for relocation of these schools have been identified as mainly push factors, such as poor building, noise problem, congested environment and the lack of space for expansion. This paper also discusses the planned relocation of schools in Singapore today under the main program, called PRIME. It can be noticed that Singapore has developed a very neat system of education today, including its plans for school improvement, expansion, upgrading and relocation. The factors for school relocation are certainly different in the past and at present. However, we can certainly learn from the past to make future decisions regarding school relocation. An ideal school location is one that provides an ideal learning environment; relocating disturbs the whole school population. The final result of this study shows 6 categories of factors and their relationships with each other as shown in the outcome space diagram.

Introduction

There are many factors affecting a school to be relocated. Ho (1995) wrote about relocation of secondary schools in Hong Kong several years before and after 1990. He discussed relocation of schools at that stage as a result of urban planning and demographic change due to the rapid growth of urban centers and other geographical factors. On the broader sense, this kind of change is man-made and planned. The authors suspect that in most developed countries, relocation of schools is mainly under the charge of an administrative body such as the Ministry of Education. The instruction and plan to relocate a school,

therefore also comes from this governing body. In the case of private schools, there are different rules governing the decision and process of relocation.

In the late 19th century, most schools in Singapore were privately owned. Relocation of these schools was therefore private issues, and mainly due to insufficient space, that a new school was badly needed. In this situation, the owner of the private school would apply for the school to be government aided in order to have enough funding to build a new school, usually resulting in relocation. The government would usually offer a new site, and thus the school was relocated. This was the common way to relocate a school in the old days, from the 1880s until Singapore's independence in 1959. There was no case of overall planning to relocate all the schools requiring a new space and environment in those days. Most school relocations could be considered as pull and push factors arose in a piecemeal manner.

However, there were some programs and good activities associated with upgrading of schools in the three decades after 1960 (Powell, 2001). The Ministry of Education has been the body in charge of schools in Singapore since independence. The process to relocate a school is very different from the olden days.

Geographically, the relocation of schools, similar to the relocation of business, would follow the theory of relocation of cities in some ways. Decline in school going age population would force a school to close down or to relocate (Flemming, 1980). On the contrary, an increase of young population such as the growth of new towns, would generate new schools. Some of these new schools could also be old ones being relocated.

A new factor has recently affected the relocation of some schools in Singapore since 1999. This was the plan to provide information technology infrastructure to schools. It has never occurred before anywhere in this world that a perfect planning was drawn to rebuild, expand and relocate schools in order to provide up-to-date information technology infrastructure for teaching and learning. The results of the effect of such a planned relocation could be seen several years down the road. If this plan proves successful, it could add new knowledge leading to the future planning of school relocation for a specific purpose.

Brief history of the relocation of schools in Singapore

Relocation is not the main agenda in administering education in the State in any period of time. Historical records of some schools show evidence that relocation took place for several reasons: school expansion, increase in student number, forced out of urban development, lack of facilities e.g. building/classroom, congestion, noise problem, unsafe building, and government grant of new site for relocation.

In the brief history of educational development in Singapore, many policies were implemented, many issues resolved and many problems remain unresolved even after the Republic gained its independence in 1959. It was only the first major step to build more schools during this period (P.W.D., 1984, p.6). A five-year program based on the 1956 White Paper included the accelerated school building program with the objective of providing a place in school for every child of school going age (Yip and Sim, 1994).

After this period of expansion in building schools, providing a place for every child has never been a serious problem in Singapore again. On and off new schools were built to cater for the needs of the growth of population. It was a result of the establishment and growth of new townships throughout the last century. Occasionally, decisions were made to relocate some schools to better areas according to educational policies of that particular period. Older schools were also restored and new schools were built in some areas during this process. However, building of schools in a major way was never a necessity or a plan again. Only a

few schools were relocated since the major expansion of school project in the 1960s. Lack of space, town planning, major change in urban demography were reasons for relocation.

Fairly recently, relocation of a few schools took place for the reason of moving the boys and girls school together; moving the junior and high schools, and junior colleges next to each other. It was a re-organization rather than a planned relocation. The reason for the move could be several, including the aim of providing more opportunities for these students to mix and learn from each other, as well as providing more chances for male and female students to mix with each other. There has been a serious national concern about too many young people staying single or marrying late. The long-term aim of school relocation in this case, is certainly positive to achieving this aim.

At the close of the 20th century, the challenge of information technology in education, a new concept in school relocation to reconstruct, merge or relocate schools in order to provide sufficient information technology infrastructure for each student in the nation has taken place (<http://www.moe.edu.sg>). In 1999, the Ministry of Education had a new 10-year plan to relocate and expand schools on the basis of upgrading and improving the information technology infrastructure. This most recent plan is affecting a considerable number (290, about 81% of the primary and secondary schools) of schools. It is a very well structured and planned, nation-wide reconsideration of closing, upgrading, expanding, merging, rebuilding and relocating schools (Powell, 2001).

Method

There was very little written about school relocation, even less on the factors affecting it. This is an historical cum phenomenographical study of factors affecting school relocation in Singapore. This study began by conducting a literature review on relocation of schools, then factors that affect relocation of cities and organizations that may also apply to the relocation of schools. A search on the history of education in Singapore was conducted with the main focus on the rebuilding and relocating factors. It was followed by a study of the details of the history of 8 selected schools, 5 of them were built between 1850 and 1890, 2 were built in the 1910s, and one relatively new school, built in 1956. They were randomly selected from all schools built before Singapore achieved its independence in 1959. Historical information was gathered from history books, school web-sites, as well as educational documents. This information was examined individually to tease out the factors affecting its relocation. Phenomenographic research methodology was applied to compare and group them in a hierarchical order. The outcome space diagram that represents the factors affecting school relocation in Singapore, forms the main result of the study.

Phenomenographic approach

Phenomenography is a qualitative research method. The approach aims to reveal different factors affecting the relocation of schools, in a similar way as it aims to reveal different ways in which people experience and understand phenomena in their world (Marton, 1988). This approach has usually been applied to analyze interviewed data concerning a phenomenon (Wong & Gerber, 2001). There is no reason why it can't be used to analyze historical data.

This is the first time the authors believe it has been used to study historical data in a qualitative way. Combined with an historical research method, phenomenographic researchers experience historical information and analyze historical data to find out the number of ways in which the phenomenon is understood. There is no need for phenomenographic researchers to use a large sample for their study. They believe that whatever phenomenon people encounter, there is a limited number of ways in which it is understood. It is the categories of descriptions and the development of an outcome space

diagram that demonstrates the relationships amongst these conceptions that constitute the main result of the study (Gerber, 1993).

Method of analysis

Dahlgren and Fallsberg's (1991) approach of analyzing phenomenographic data was modified and used in this study. The following steps were followed:

1. Familiarization – the researcher read the historical accounts very carefully, to get acquainted with them in detail.
2. Condensation – the most significant statements in the records are selected to give a brief but representative version concerning the phenomena.
3. Comparison – the selected statements are compared to find sources of variation or agreement.
4. Grouping – answers which are similar are put together.
5. Articulating – a preliminary attempt is made to describe the essence of the similarity within each group. This will be done several times to establish credibility of the analysis.
6. Labeling – the various groups are being labeled.
7. Contrasting – the groups are compared for similarity and differences.

Results: relocation history of some old schools in Singapore

In this section, the authors wish to present a short summary of the relocation history of the eight schools studied as the basis to the background knowledge regarding these schools. Some old schools in Singapore have had as many as five to seven moves before sitting comfortably at the current location over its more than one hundred years of history. Newer schools built after independence have seldom been relocated.

Schools founded in the 19th century

1. Gan Eng Seng School

This school was an example of the old school which had moved seven times till today. It was opened in Telok Ayer Street in 1885 to offer free education to the children of poor parents in the vicinity. Mr Gan Eng Seng was the founder and owner of the school. It was first located in a shop-house. It became an aided school in 1888. In 1889, the government gave a site at Telok Ayer Street. It then moved from the shop-house vicinity to the actual school building in 1893. By 1937, the building was too old and could not be repaired. The plan to build a new school at Anson Road did not go ahead due to the war. In 1938, Gan Eng Seng School became a government school. In 1941 the old school was truly unsafe and had to be abandoned. Alternative accommodation was hard to find, but eventually the Education Department decided to house the school temporarily in the Sepoy Lines Malay School in Park Road, where it was given the morning session. There was still insufficient space, and the primary classes had to be accommodated in a section of Pearl's Hill School close by.

When the War broke out, the school was closed. It was reopened and relocated at Outram school after the war in 1946. In 1947, it was shifted to Waterloo Street. In May 1951, Gan Eng Seng was relocated to Anson Road. The school was again relocated in 1986 to the new building in Raeburn Park and officially opened in 1989. Since then, it stays there (<http://www.schools.moe.edu.sg/gess>).

2. Anglo-Chinese School

The school, opened in 1886, relocated five times in its history of 115 years. It was first located in a shop-house at 70, Amoy Street. Bishop William F. Oldham was the founder. It experienced an increase of student population from just 13 to 104 the following year. Therefore it had to move to a bigger building in the first Methodist Chapel established on Coleman Street then. The secondary school was moved to Cairnhill between 1925-1929. In 1947, Dr Herbert H. Peterson, the principal, embarked on an ambitious campaign to relocate the school from Cairnhill to Barker Road in 1950. After several decades, plans were drawn up for a new campus at Dover Road between 1987 and 1989. Anglo-Chinese School (Independent) was relocated to Dover Road in 1992. Anglo-Chinese Secondary School (Barher Road) remained at Barker Road. The Dover Road Campus was big enough for further expansion. With its new infrastructure and large land area, the school would not need to relocate for a long time to come (<http://www.acs.ach.edu.sg>)

3. St Andrew's School

The school was started on Chin Chew Street in 1850. It was the work of two Anglicans. In 1862, the Anglican Church adopted the school. In 1863, it was relocated to Upper Hokkien Street due to the need for a better building and more space for expansion. In 1872, it became a grant-in-aid institution and moved to Victoria Street. The government gave 4 acres of land on the then Government Hill, with a frontage on Stamford Road. In 1875, the first building was ready and the school moved in. In 1934, this site was too small for the growing school. It was relocated to Woodsville. The school was closed in 1940 because of the war. It started again in 1946, a junior school was added. In 1978, a proper St. Andrew's Junior college was opened in Woodsville. In the 1980s, the plan to develop Potong Pasir, with a 4.18 hectare site earmarked for education, gave St. Andrew's School a chance to relocate its premise to a more spacious location. Thus the new St. Andrew's Secondary School at Potong Pasir was opened in 1986. In a history of 151 years, St. Andrew has been relocated five times. Each move was to a better location. Today, its new campus has rooms for expansion for the time being, perhaps for another 10 years. (<http://www.saints.com.sg>)

4. Fairfield Methodist School

The school has 113 years of history, founded in 1888 and located at Cross Street. It was known as Telok Ayer Girls' School then. In 1912, the government provided a piece of land at Neil Road to construct a new school. The school was thus relocated to 178 Neil Road and was renamed as Fairfield Girls' School. At the same location, the school was renamed as Fairfield Methodist Girls' School again in 1958. Since the campus was inadequate and the facilities became substandard, Fairfield Methodist Girls' School was then relocated to its Dover Road site and became co-ed. It was restructured under its new name, Fairfield Methodist Primary and Fairfield Methodist Secondary School. It has undergone a drastic expansion in 1990 at this location. This school has been relocated 3 times throughout history. It is believed that it will stay at its current address for many more years to come.

(<http://www.moe.edu.sg/schools/fmps/>)

5. St. Anthony's Canossian Secondary School

The school has a long history of 122 years. However, it has a different history of relocation from the other schools discussed so far. It has only moved one time from its first location at Middle Road to its current address at Bedok North Avenue 4. On the other hand, it has changed names several times. In 1879, it was known as St. Anna's School, situated at Middle Road. It was changed to St. Anthony Boys' and Girls' School in 1886. In 1894, the boys' and girls' schools were separated. In 1906, it became St. Anthony's Convent. In 1994,

it was relocated to Bedok North Avenue 4, leaving behind the congestion and noise problem of Middle Road. (<http://www.moe.edu.sg/schools/sacc/>)

Schools founded in the 20th century

1. Chinese High School

The school relocated only one time in its long history. It was first opened as Hua Chiao Middle School on 21 March 1919 at Niven Road. Six years later (1925), it was relocated to Bukit Timah Campus in a luxurious 79 acres of land, standing on a hill – one of the best locations for a school. It survived the Second World War, and continued to expand its infrastructure. Today it is one of the best-wired school in Singapore, with modern computer and telecommunication facilities. (<http://www.moe.edu.sg/schools/sch7309/>)

2. Paya Lebar Methodist Girls' School

In the initial years, it was a branch of Anglo-Chinese School in Boundary Road. It stayed in Boundary Road vicinity until 1930. It was moved to Kampung Sirah and then moved back two years later. The school was relocated to its brand new campus and premise at 296, Lorong Ah Soo in 1986. It is one of the most popular schools in Singapore, being excellent in all fields of education. It has moved 3 times in its history. There is no plan to relocate the school in the near future. (<http://www.plmgss.moe.edu.sg/>)

3. River Valley High School

It is a younger school that has been relocated 3 times. It was first opened at the premises of Seng Poh Primary School in 1956. It was the first Chinese school set up by the government, known as Singapore Government Chinese Middle School. In the same year, it was relocated to Strathmore Avenue in Queenstown, and changed its name to Queenstown Chinese Middle School. In 1961, it was relocated to Jalan Kuala, and renamed River Valley Government Chinese Middle School. The school achieved its name, River Valley High School in 1980. It was moved to its new campus at West Coast Road in 1986. It has a complicated history of changing names.

(<http://www.moe.edu.sg/schools/rvhs/>)

The Outcome

The phenomengraphic analysis ensures a valid outcome of the phenomena under study, presented in an outcome space diagram. With all the historical information about the relocations of the 8 schools, many factors, both pull and push factors have had played a vital role in deciding when and where each school had been relocated. While all the factors differed from each other, they were associated to each other in some ways. And they could be grouped under just 6 different headings. These 6 groups are:

1. When/time factor
2. Urbanization and growth of the city
3. Ownership, change of status of the school
4. Unsafe building, for the better
5. Establishment of secondary school
6. Government planning/intervention

According to this study, these groups of factors represent the limited number of reasons why a school was relocated. It could be used as the basis of future study of factors affecting school relocation. The following outcome space diagram forms the main result of this study and shows the categories of factors and their relationships.

Insert Figure 1 here

There are 3 parts in the outcome space diagram. The main result is shown as the central column. It shows the 6 categories of factors affecting school relocation. They are organized from the lower or less complicated level to highly organized level. Therefore it begins with the time factor and ends with the factor related to government planning or intervention.

The time factor explains the location and relocation of a school as determined by time, by history, and by the advancement of society. Therefore in the early history of Singapore, schools were located and relocated around the city area. They experienced, over time, relocation further and further out of the city to its peripheral area. This can be explained as pure history. The city was where people lived, and therefore schools were located there. Level 2 is related to level 1. Soon after Singapore experienced growth and urbanization, the demand of land, congestion and noise problem as a result of progress and development, forced the existing schools in the city to move further and further away from the center.

Level 3 and 4 examines the social factors. When a school building became unsafe, the children had to be moved until the building was repaired and became safe again. It happened in early Singapore that the unsafe school was beyond repair, and the location too small for a new building, then the school had to be relocated. Sometimes, the school opted to be a grant-in-aid institution in order to rescue this situation, and resulted in a change of status. This could allow the government to offer a free site, which determined the location of the new school. The ownership of the school, for example, the missionary schools, had options of using missionary land, church and so on. In a way it determined the location and relocation of a school in the past.

Level 3 and 4 are social factors, therefore, it could also be located between level 1 and 2 in the outcome space diagram. There is no significant reason as to when these factors should affect the relocation of any school. Careful analysis of the 8 schools under study shows, however, that some of the schools had experienced unsafe buildings, and change of status and therefore received government's free land for a new site before the schools were displaced out of the city as a result of urbanization. Therefore we should read the outcome space diagram in a flexible manner: the ordering of level 3 and 4 should be exchangeable with level 2.

Level 5 and 6 are factors associated with planning of the ministry of education or the government. The plan to establish a secondary school related to an existing primary school is usually planned by the government. This development occurred later in the history of a school. In the olden days, the Colonial Government did not have any comprehensive plans to relocate existing schools. However, there were several programs initiated by the Singapore Government in the 1970s and 1980s, which had resulted in some schools being relocated. The major plan, known as PRIME, which was fairly recent, has resulted in many schools being relocated. Therefore it is fair to say that Level 5 and 6 are more sophisticated factors involving large scale planning. Schools in Singapore are affected by these 2 factors to relocate only in more recent years.

The left column indicates whether a factor is categorized as pull or push factors. Pull factors are considered as an attraction to relocate. Push factors are considered as forcing the schools to relocate. Some factors are denoted with push and pull and some as push or pull.

That means sometimes these factors are both push and pull factors, sometimes, they are either push or pull factors depending on the individual case.

The right column attempts to categorize the factors into 3 different categories. Level 1 and 2 are considered purely geographical; Level 3 and 4 are considered social, and level 5 and 6 are considered the results of government planning.

Arranging the factors in such a way in the outcome space diagram allows us to see the phenomenon of the factors affecting school relocation in a meaningful way.

Discussion and summary

By analyzing and synthesizing the history of school relocation in Singapore provides us a basis to argue that school relocation had not been given its due importance, and the knowledge on why schools had been relocated was not organized. There was irregularity of such discussions in the past (Ho, 1995). This paper has done the job to organize this matter in a way it should be. The result of this study has its importance. It provides new knowledge on factors affecting school relocation, which has never been fully documented. At a glance, it tells us that push factors were the major players resulting in a school being relocated in the past; pull factors are more dominant in modern decision for relocating an existing school.

It is common knowledge that a school is just an organization consisting of physical buildings and run by people. It can be relocated due to some reasons in the same way as a family or any other organization, moving from one place to another. Whether it existed in the past or present, a school is subjected to relocate at some point in time, due to some reasons. On the other hand, a school only exists where there are students. When a school is situated in a location faced with aging population and few children of school going age, it has to decide to close down or to relocate to a new place (Shaw, 1990). This is one thing that forces a school to relocate. It happens anywhere in the world throughout the history of education. This is called a dying school, just like a dying city when a city could no longer function as a city.

The 6 categories of factors revealed in this study had affected the relocation of schools in Singapore in the past. Some of the factors such as insufficient space for expansion, school buildings beyond repairable condition, bad environment (noises etc), urban development, etc. were more dominant in a less developed situation. Probably they are still the main factors affecting school relocation in the less developed areas of the world.

The situation in Singapore has changed dramatically since its independence. Not all schools today are near perfect, but the fact is that all schools provide a reasonable good learning environment. Some schools will still need to be relocated for some reasons, however, the overall situation is stable. The ministry of education launched the PRIME program in 1998. In a big way, this program will result in many schools to be relocated.

How many times is a school likely to move in its life-time of, say, about 100 years? This study concludes that there is no straight-forward answer to this question. An analysis of the history of school relocation in Singapore reveals that some old schools in Singapore had been relocated as many as five to seven times within a fairly short period of time. Then they appeared to be stable and remained in their sites for a longer period of time until today. Newer schools built in the 1970s and 1980s seemed to stay in their initial location for a longer period of time.

How frequently a school was relocated seemed to have a direct relationship with the time in history. In the earlier days, a school had to move within one or two years after it was set up. Then within another few years, it might move again. Not until the 1960s, then a school could

remain in their site for 20 years or more before it needed to be relocated. One explanation for this is that a decision to relocate a school had been more and more carefully considered as time passed. A site for a school today would have to take consideration how long it could stay before there would be a need to relocate it to another site.

This study tries to answer several questions regarding school relocation in Singapore. It has certainly achieved its objectives. However, there is still scope for further study in this area.

References

Dahlgren, L. and Fallsberg, M. (1991). Phenomenography as a qualitative approach to social pharmacy research. **Journal of Social and Administrative Pharmacy**, 8(4), 150-155.

Fleming, M. (1980). School closing policy report. Ohio: Cleveland Public Schools. (ERIC document no. ED 191931)

Gerber, R. (1993). A sense of quality - qualitative research approaches for geographical education. In H. Jager, (ed) *Liber Amicorum Gunter Niemz*. Frankfurt Main: Johann Wolfgang Goethe University Press. pp. 38-51.

Ho, K.K. (1995). Relocation of secondary schools from the urban area: the Hong Kong experience. **Hong Kong Educational Research Journal**, Vol.10, No.1.

Marton, F. (1988). Phenomenography: exploring different conceptions of reality. In Fetterman (ed), *Qualitative approaches to evaluation in education: the silent revolution*. N.Y.: Praeger. Pp. 176-205.

Powell, R. (2001). *Architecture of learning, new Singapore schools*. Singapore: Akimedia.

Public Works Department (1984). *25 years of school building*. Singapore: P.W.D.

Shaw, K.E.(1990). Financial aspects of school closure in the United Kingdom. **Journal of Education Finance**, 15, pp.558-571.

Wong, Y.Y.J., Gerber, R. (2001). Conceptions of self-directed learning of social studies teachers in Singapore. **Asia Pacific Journal of Education**. 21(1), pp. 75-87.

Yip, J.S.K. and Sim, W.K. (1994) *Evolution of education excellence*. Longman: Singapore.

<http://www.acsbr.net>

<http://www.acs.ach.edu.sg>

<http://www.schools.moe.edu.sg/gess>

<http://www.saints.com.sg>

<http://www.moe.edu.sg>

<http://www.moe.edu.sg/schools/sch7309/>

<http://www.moe.edu.sg/schools/fmps/>

<http://www.moe.edu.sg/schools/rvhs/>

<http://www.chs.edu.sg/main/ind2001/>

<http://www.plmgss.moe.edu.sg/>

<http://www.moe.edu.sg/schools/sacc/>



Figure 1 : Factors affecting school relocation in Singapore