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An Exploratory Study of Singaporean Primary Pupils' Desirable Activities for English Lessons

TAN AI-GIRL

National Institute of Education, Nanyang Technological University, Singapore

An instrument was developed mainly from responses of primary school pupils (8-12 years old) to an open-ended question. It aimed at finding out types of activities that primary school pupils wish to have in English lessons. Two hundred and ten primary four and five pupils (10-12 years old) of three schools in Singapore rated the activities individually according to their preference. There were three interpretative factor structures. The first factor (F1) comprised items related to the conventional classroom activities (e.g., doing worksheet, spelling words). The second factor (F2) consisted of items related to unconventional learning activities in and outside classrooms (e.g., games, computer learning, outdoor activities). The third factor (F3) comprised items related to activities that demand expressive and linguistic competence (e.g., showing and telling, role play). Using cluster analysis, the pupils were re-grouped according to these factors. Within a class there were pupils who demonstrated a high desirability for all activities. There were also pupils who showed less desirability for all activities. Implications of the findings for teachers were elicited.

English is the main language of instruction in schools and colleges and the most frequently used official language in Singapore. English in the Singaporean context is the working language, and language for intra- and inter-ethnic communication (Kuo & Jernudd, 1994). Except learning the mother tongue (Mandarin, Malay, and Tamil) and moral education (in the mother tongue), English is the main language of communication between teachers and pupils. In the first four years of the primary education, pupils focus their attention on English (33% of the curricular time), the mother tongue (27%), mathematics (20%), and other subjects (20%) such as arts and crafts, music, and physical education. Science is introduced in primary three, whereas social studies in primary four (Ministry of Education, 1998b). Acquiring a good command of English is one of the greatest responsibilities of primary school pupils.

At the end of primary four, pupils' performances in English, the mother tongue and mathematics will be assessed. Accordingly, they are grouped to various streams. Pupils who perform well in the three subjects will be placed in the EM1 stream, in which they learn English and the mother tongue at the first language level. The EM2 stream is for pupils who take English at the first language level and the mother tongue at the second language level. They represent the majority of the pupils. For the low achievers, the school recommends pupils for the EM3 stream, in which English and the mother tongue are learnt at the basic level. Upon the parental request, the ME3 stream will be offered to pupils in the EM3 stream, in which pupils learn the mother tongue at the first language level and English at the basic level.

The implementation of the bilingual education, English and the mother tongue, since 1979 (Gopinathan, 1994) has changed the demography of languages used at home (Beardsmore, 1994; Tham, 1990). In the nineties there is an increase in the use of English by the Chinese (Gupta & Siew, 1995), Indian (Saravanan, 1994), and Malay (Bibi Jan Mohd Ayyub, 1994) communities. The Speaking Mandarin campaign is one of the efforts of the bilingual education. Under this campaign many children of the Chinese families speak Mandarin which replaces various dialects. Some families impose a bilingual policy on the children. Whilst one parent insists on using one language (English), the other parent employs the mother tongue (e.g., Mandarin) (Wung, 1983).

The Singaporean English or Singlish assimilated words of local dialects or languages (Butler, 1997; Pakir 1997) with a special accent (Saravanan & Poedjosoedarma, 1997). Though there is an increase in speaking English at home, for many children schools and classrooms are the indispensable places for learning the proper usage of English. To make learning English an effective activity in schools, innovative pedagogical methods and classroom arrangement have been introduced since the eighties (Khoo & Ng, 1985; Ng, 1980). Lower primary pupils are seated in clusters. The tables and chairs are arranged in a U-shape leaving a common

space for interaction between the teacher and pupils. In many occasions, pupils are physically gathered in the communal mat, close to their teacher. They read story from an enlarged book, as well as exchange ideas, thoughts, and views. They also share real life experiences with their classmates before group and individual writing. In every classroom there is a library corner providing reading resources. Pupils' work is displayed regularly on the wall.

From primary three onwards pupils are seated in rows. The culture of learning can be different as pupils prepare for a school-based streaming examination taking place at the end of primary four and a national streaming examination at the end of primary six, the Primary School Leaving Examination (PSLE). Whilst high academic achievement constitutes the culture of learning, Singapore leaders and educators initiated several programs aiming at preparing an informational and technological learning environment (Teo, 1997), implanting the sense of community (Lee, 1997), and cultivating creative thinking and independent life-long learning (Goh, 1997). The initiatives intend to strike a balance between high academic achievement and innovative discovery. Such a goal is spelt out clearly as the desired educational outcomes addressed by the Ministry of Education (1998a). The change of classroom culture following these initiatives is indefinite. Roles of education and educators for the twenty-first century were discussed (Tan, 1997).

Improving learning conditions is one of the major educational concerns. There have been extensive studies on pupils' learning styles (Lim, 1995; Riding & Cheema, 1991), learning activities such as games (Kaye, 1995; Koran & McLaughlin, 1990) and play (Trawick-Smith, 1989), classroom environment (Cheah, 1997; Shade, Kelly & Oberg, 1997), and factors that motivate learning (Deci & Ryan, 1992; Gracia & Pintrich, 1996; Paris & Turner, 1994). However, there are limited resources on innovative classroom learning elicited from the pupils' perspective.

Pupils' experience, socio-cultural diversity, and views should be considered for any educational reform (Nieto, 1994). Pupils' views and opinions are sources of information about what they like and dislike, what they have experienced, and what they perceive as positive, interesting, and motivating. Considering pupils' preferences and wishes is likely to nurture a positive learning environment. When their preferences and wishes are integrated effectively into lessons, pupils are likely to commit themselves to the learning activities. The sense of ownership of the learning activities can be a motivating force for effective learning. Recognizing the significance of pupils' views and opinions, this paper intends to uncover activities that primary school pupils wish to have in English lessons. It is believed that pupils' desirable activities are not predetermined by their achievement levels. Variations in desirable activities can be observed within a class, among pupils of the same achievement level and among pupils of the mixed achievement levels, as well as across classes. Subjects of the study are primary school pupils in Singapore. Whilst the official streaming takes place at the end of primary four, some schools group their high achievers in a class a year prior to the streaming exercise. There are two major aims of this study. First, the study intends to find out types of activities that Singaporean pupils wish to have in English lessons. Second, the study aims at uncovering variations in desirable activities demonstrated by pupils of the same achievement level or of mixed achievement levels in the same class, and across classes. Three research questions are formulated:

- 1. What kinds of learning activities do primary school pupils wish to have in English lessons?
- 2. Do desirable activities of primary school pupils vary within a class of the same achievement level or within a class of mixed achievement levels?
- 3. Are primary pupils' desirable activities different across classes?

Method

Two hundred and ten children participated in a survey, which aims at uncovering their desirable activities in the English language classes.

The instrument

An instrument comprising twenty-seven items of which some appeared frequently in a pilot study carried out between August and September 1997 was used. The subjects of the pilot study were 140 primary pupils (8–12 years old) of a school in Singapore. In responding to an open-ended question, the pupils described (in 20 minutes) activities that they wished to be carried out in English lessons. The ten highest ranked items according to the mean and those included in interpretative factor structures were selected for this study. The items were games (#1), quiz (#27), group work (#8), acting or showing and telling (#25), constructing something or hands on experience (#18), telling or listening to story (#3), solving puzzles (#6),

competition (#11), riddles (#2), learning computer skills (#4), asking questions (#9), project work (#12), video show (#11), spelling words correctly (#13), doing worksheet (#19), writing (#28), reading (#16), and correcting mistakes (#15). The numbers in brackets are item numbers. Also included in the instrument were frequent ideas mentioned by 25 student teachers (19-23 years old) in a series of brainstorming sessions on ways to promote thinking in the Singaporean classrooms. The items were taking a rest (#24), debate (#26), role play (#17), and telling or listening to jokes (#7). IQ questions is a general term referring to questions that challenge thinking beyond the classroom learning. Together with the IQ questions (#21), learning outside the classroom (#14) and verbal presentation (#5) occurred frequently in a survey designed to extract 140 student teachers' (18-24 years old) perception of creative activities for the Singaporean pupils. Teachers' demonstration (#20) and test (#22) are two usual classroom activities, and hence they were also included. Short phrases that clarified the intent of an item were incorporated: Visit museum, library (#14), the teacher shows how to complete a task, solve a problem (#20), and stand in front of the class and share your ideas (#5). The subjects denoted their preferences with numerical values (1-5).

Sample

The subjects comprised 210 children, 56% female and 44% male. They were six principal groups of pupils studying in three schools. Two groups consisted of primary five pupils, 37 of them in the EM1 stream and 31 of them in the EM2 stream. Four groups were primary four pupils of which two groups were pupils of a school that informally streamed pupils according to their academic achievement in primary three. One group consisted of 39 high achievers (H4B), and the other group comprised 34 low achievers (L4C). Two other groups consisted of primary four pupils of various abilities, 34 pupils in a class (M4B) and 35 pupils in another class (M4G). The average age of the subjects was 9.9 years (9–12) with a standard deviation of 0.6 year. According to the pupils' reports, English was the most frequently used language at home (65.7%), followed by Mandarin (62.9%), Malay (11.4%), Tamil (4.3%), and other languages (8.1%).

Procedure

The instrument was administered to the pupils during English lessons at

different time intervals between January and March 1998. The average duration for completing the instrument was 15 minutes. Before the subjects responded, the researcher read the instructions. The subjects then rated the degree of activities that they wished to have in English lessons. To avoid subjective interpretation of the 5-Likert scale, descriptors of the scale were defined. The number 5 meant a wish for an activity in every lesson, 4 referred to almost every lesson, 3 twice a week, 2 once a week, and 1 once a month. If an activity was not of the subject's interest, no answer should be given. The instrument was in English.

Data Analysis

The Cronbach's alpha reliability of the instrument was high, 0.93. Mean, standard deviation, kurtosis, and skewness of all responses were computed. There was no item with a value of kurtosis or skewness 1.64 and above. Accordingly, the assumption that the data were normally distributed can be held. Factor analysis was employed to reduce pupils' responses to manageable portions. It provided a general overview on various types of desirable activities that primary pupils wished to have for English lessons (research question 1). The factors were extracted from the principal component analysis using the oblique rotation with Kaiser normalization. The Kaiser-Meyer-Olkin measure of sampling adequacy of the instrument was high, 0.91. The Barlett Test of Sphericity was large (2070.04) and the associated significant level was low (0).

The researcher performed cluster analysis on the interpretative factors to re-group pupils according to their desirable activities, but not the achievement levels (research question 2). Pupils were grouped into clusters of desirable activities. Discriminant analysis on the clusters displayed percentages of the correctly classified groups. For comparison, discriminant analysis was also performed on the original groups according to the achievement levels. Finally, multivariate analyses of variance were employed to find out differences in desirable activities across classes and/or clusters (research question 3).

Results

Types of activities that primary pupils wished to have in English lessons (research question 1): There were three interpretative factors contributing to a total of 52.3% variance. The first factor (F1) comprised items related

to the conventional classroom activities: Doing worksheet (#19, 0.81), spelling words (#13, 0.75), writing exercise (#28, 0.73), correcting mistake (#15, 0.68), teacher demonstration (#20, 0.61), and examination (#22, 0.56). Figures in the brackets refer to the item numbers and the factor loadings of the items, respectively. The second factor (F2) consisted of items related to unconventional learning activities in and outside classrooms: Video show (#10, 0.74), recess (#24, 0.66), games (#1, 0.62), computer learning (#4, 0.62), jokes (#7, 0.56), and outdoor activities (#14, 0.56). The third factor (F3) comprised items related to activities that demand expressive and linguistic competence: Showing and telling (#25, -0.74), verbal presentation (#5, -0.61), asking questions (#9, -0.50), and role play (#7, -0.49). Results of the paired *t*-test showed that the factors were significantly different (p < 0.005 and p = 0). Correlation between two factors was low: 0.28 (F1 and F2, F1 and F3) and 0.23 (F2 and F3). Table 1 displays mean and standard deviation of the items across classes.

Variations in primary pupils' desirable activities within a class (research question 2): The subjects were re-grouped into three clusters according to the interpretative factors. The first cluster (C1) comprised 85 (40.5%) children, the second cluster (C2) consisted of 91 (43.3%) children, and the third cluster (C3) comprised 34 (16.2%) children. The distance between final cluster centers was 2.15 (C1 and C2), 2.54 (C1 and C3), and 4.40 (C2 and C3). Figure 1 illustrates the distribution of children in various classes according to the clusters.



Figure 1 Variations of Children's Desirable Activities Within a Class

| | | | | Mean (SD) | | | |
|-----------------------------|------------|------------|------------|------------|------------|------------|------------|
| Item | AII | EM1 | EM2 | H4B | L4C | M4B | M4G |
| F1 | 2.18(1.29) | 2.14(1.12) | 3.59(0.75) | 1.77(1.07) | 0.89(0.94) | 2.69(0.99) | 2.27(1.10) |
| Do worksheet (#19) | 2.63(1.87) | 2.81(1.71) | 4.19(0.98) | 2.21(1.89) | 1.26(1.86) | 3.09(1.64) | 2.40(1.70) |
| Spell words (#13) | 2.20(1.74) | 1.89(1.07) | 3.61(1.20) | 1.54(1.35) | 1.12(1.74) | 2.97(1.82) | 2.31(1.92) |
| Write (#28) | 2.34(1.87) | 2.68(1.65) | 3.87(1.23) | 1.92(1.95) | 0.91(1.42) | 2.56(1.76) | 2.29(1.84) |
| Correct mistake (#15) | 1.94(1.77) | 1.97(1.48) | 3.65(1.43) | 1.33(1.36) | 0.38(1.21) | 2.59(1.74) | 1.94(1.66) |
| Teacher demonstration (#20) | 2.34(1.94) | 2.38(1.59) | 3.71(1.47) | 1.82(1.85) | 0.50(1.11) | 3.03(2.08) | 2.80(1.80) |
| Examination (#22) | 1.64(1.62) | 1.11(0.99) | 2.52(1.65) | 1.82(1.73) | 0.65(1.25) | 1.91(1.62) | 1.91(1.76) |
| F2 | 3.40(1.16) | 3.42(0.89) | 3.90(0.76) | 3.32(1.13) | 1.94(1.05) | 3.86(0.86) | 3.97(0.85) |
| Video show (#10) | 3.26(1.76) | 3.03(1.55) | 3.58(1.43) | 2.95(1.86) | 2.06(2.09) | 3.79(1.45) | 4.23(1.26) |
| Rest (#24) | 3.20(1.87) | 3.14(1.62) | 4.29(0.90) | 2.95(1.95) | 1.44(1.88) | 3.65(1.79) | 3.86(1.54) |
| Games (#1) | 3.89(1.37) | 4.11(0.94) | 3.84(1.19) | 3.92(1.49) | 3.21(1.75) | 4.32(1.01) | 3.91(1.50) |
| Computer learning (#4) | 3.83(1.66) | 3.38(1.77) | 4.23(1.15) | 3.85(1.63) | 2.82(2.25) | 4.26(1.24) | 4.51(1.01) |
| Jokes (#7) | 3.22(1.79) | 3.46(1.35) | 4.32(0.87) | 3.08(1.88) | 1.32(1.80) | 3.35(1.65) | 3.89(1.45) |
| Outdoor activity (#14) | 2.96(1.89) | 3.41(1.40) | 3.16(1.51) | 3.18(1.68) | 0.79(1.47) | 3.76(1.79) | 3.40(1.90) |

| Classes |
|-----------|
| Across |
| Items |
| the |
| 5 |
| Deviation |
| Standard |
| and |
| Mean |
| Table 1 |

| 7175) 316/169 | 10 200 0 | | | | |
|--|--|--|--|--|--|
| | (02:1)22:5 (| 3.13(1.59) | 2.27(2.02) | 3.15(1.67) | 2.94(2.00) |
| 4(1.51) 2.03(1.62 |) 2.19(1.33) | 1.54(1.71) | 0.38(1.02) | 1.44(1.52) | 1.06(1.03) |
| 1(1.89) 2.27(1.61 |) 3.55(1.31) | 2.00(2.00) | 0.82(1.57) | 2.85(1.71) | 2.09(1.72) |
| 1(1.79) 3.00(1.70 |) 3.65(1.14) | 2.59(1.77) | 1.35(1.63) | 4.03(1.24) | 2.97(1.90) |
| | | | | | |
| 3(1.78) 2.92(1.62 |) 2.90(1.54) | 2.56(1.76) | 0.97(1.62) | 2.65(1.79) | 1.97(1.65) |
| 1(1.66) 1.27(1.07 |) 2.06(1.18) | 2.28(1.59) | 1.26(1.81) | 2.67(1.55) | 3.11(1.79) |
| 0(1.71) 3.81(1.15 | 3.94(1.06) | 3.36(1.65) | 1.21(1.51) | 3.50(1.75) | 3.94(1.35) |
| 5(1.91) 2.11(1.66 |) 3.13(1.36) | 2.21(1.82) | 0.74(1.54) | 3.56(1.78) | 3.06(1.92) |
| 8(1.74) 2.38(1.48 |) 3.16(1.34) | 2.51(1.82) | 0.59(1.16) | 2.79(1.59) | 2.89(1.71) |
| 8(1.86) 3.11(2.35 |) 2.81(1.60) | 1.67(1.95) | 0.24(0.61) | 2.35(1.81) | 2.34(1.80) |
| 3(1.81) 2.73(1.54 |) 3.32(1.42) | 2.85(1.80) | 0.21(0.61) | 2.65(1.70) | 2.37(1.90) |
| 3(1.72) 3.22(1.34 |) 3.13(1.48) | 2.95(1.78) | 1.00(1.44) | 3.06(1.63) | 2.97(1.62) |
| 5(1.73) 3.30(1.49 |) 3.29(1.47) | 2.69(1.69) | 1.74(1.99) | 2.50(1.69) | 2.43(1.61) |
| 3(1.71) 3.65(1.32 |) 3.65(1.14) | 3.31(1.73) | 1.47(1.86) | 3.35(1.50) | 3.34(1.64) |
| 0(1.71) 3.05(1.39 |) 3.65(1.11) | 3.05(1.39) | 1.56(1.88) | 2.88(1.68) | 2.29(1.53) |
| 1(1.79) 3.00(1.70) 3(1.78) 2.92(1.62) 1(1.66) 1.27(1.07) 0(1.71) 3.81(1.16) 5(1.91) 2.11(1.66) 5(1.91) 2.11(1.66) 8(1.74) 2.38(1.46) 8(1.74) 2.38(1.46) 3(1.81) 2.73(1.54) 3(1.72) 3.22(1.34) 3(1.72) 3.30(1.49) 3(1.71) 3.65(1.32) 3(1.71) 3.05(1.32) | ······································ | .65(1.14) .90(1.54) .06(1.18) .94(1.06) .13(1.36) .16(1.34) .16(1.34) .32(1.42) .32(1.42) .13(1.48) .29(1.47) .65(1.14) | .65(1.14) 2.59(1.77) .90(1.54) 2.56(1.76) .06(1.18) 2.28(1.59) .94(1.06) 3.36(1.65) .13(1.36) 2.21(1.82) .16(1.34) 2.51(1.82) .32(1.42) 2.85(1.80) .13(1.48) 2.95(1.78) .29(1.47) 2.63(1.69) .29(1.47) 3.31(1.73) .65(1.11) 3.05(1.39) | .65(1.14) 2.59(1.77) 1.35(1.63) .90(1.54) 2.56(1.76) 0.97(1.62) .06(1.18) 2.28(1.59) 1.26(1.81) .94(1.06) 3.36(1.65) 1.21(1.51) .13(1.36) 2.21(1.82) 0.74(1.54) .16(1.34) 2.51(1.82) 0.59(1.16) .81(1.60) 1.67(1.95) 0.24(0.61) .32(1.42) 2.85(1.80) 0.21(0.61) .13(1.48) 2.95(1.78) 1.00(1.44) .29(1.47) 2.69(1.69) 1.74(1.99) .65(1.14) 3.31(1.73) 1.47(1.86) .65(1.11) 3.05(1.39) 1.56(1.88) | .65(1.14) 2.59(1.77) 1.35(1.62) 4.03(1.24) .90(1.54) 2.56(1.76) 0.97(1.62) 2.65(1.79) .06(1.18) 2.28(1.59) 1.26(1.81) 2.67(1.55) .94(1.06) 3.36(1.65) 1.21(1.51) 3.50(1.75) .13(1.36) 2.21(1.82) 0.74(1.54) 3.56(1.78) .16(1.34) 2.51(1.82) 0.59(1.16) 2.79(1.59) .81(1.60) 1.67(1.95) 0.24(0.61) 2.35(1.81) .32(1.42) 2.85(1.80) 0.21(0.61) 2.65(1.70) .13(1.48) 2.95(1.78) 1.00(1.44) 3.06(1.63) .29(1.47) 2.69(1.69) 1.74(1.99) 2.50(1.69) .65(1.11) 3.05(1.39) 1.56(1.88) 2.88(1.68) |

Primary pupils' desirable activities across classes (research question 3): Results of the discriminant analysis showed that 97.6% of the original group cases were correctly classified when the subjects were re-grouped according to the three clusters, compared to 42.6% when they were classified according to their classes. Canonical discriminant function 1 was defined as pupils' likeability for all types of activities, whereas canonical discriminant function 2 was defined as pupils' likeability for unconventional learning activities carrying out in and outside classrooms. The eigenvalue of the canonical discriminant function 1 was 4.19 (95.3% of variance), and function 2 was 0.21 (4.7% of variance), respectively. The Wilks' Lambda for test of function 1 through function 2 (chi-square 375.9, df.6) and function 2 (chi-square 38.5, df.2) was significant at the p = 0level, respectively. Group centroids of the clusters are displayed in Figure 2. The results of a 2 (gender) \times 6 (class) \times 2 (English, no English) and a 2 $(gender) \times 3$ (cluster) $\times 2$ (English, no English) multivariate analyses of variance showed that there were main class and cluster effects. Table 2 displayed alpha reliabilities, percentages of variance, eigenvalues, final cluster centers, and canonical discriminant function coefficients according to the factors. Children of C2 favoured all activities at the highest level of the above-mentioned rank, followed by children of C1 and C3.

| | | % | Eigen- | Final cluster centers | | | Canonical | |
|----|-------|-------|--------|-----------------------|------|------|-------------|-------------|
| | Alpha | var | value | C1 | C2 | C3 | function of | coefficient |
| F1 | 0.81 | 32.73 | 5.24 | 1.61 | 3.25 | 0.74 | 0.77 | -0.63 |
| F2 | 0.75 | 12.36 | 1.98 | 3.52 | 4.00 | 1.55 | 0.77 | 0.98 |
| F3 | 0.70 | 7.22 | 1.16 | 2.10 | 3.41 | 0.75 | 0.82 | -0.18 |

Table 2 Statistics for the Clusters and Discriminant Function Coefficients

Cluster analysis was also performed on the items (#2, #3, #6, #8, #11, #12, #16, #18, #21, #26, #28) that were not included in the factor structures. The distance between final cluster centres 1 and 2 was 6.39. Except item 12 which possessed a value of 2 for the two clusters, other items possessed a higher value for cluster 1 (3 or 4) than cluster 2 (1 or 2). 147 (70%) student teachers were classified to cluster 1 and 63 (30%) of them to cluster 2. Class EM2 (30, 96.8%) has the highest number of student grouped to cluster 1, followed by M4B (30, 88.2%), EM1 (32, 86.5%), M4G (27, 77.1%), H4B (24, 61.5%), and L4C (4, 11.8%).



Figure 2 Territorial Map for the Clusters

* Indicates a group centroid, C1 (-0.60, 0.53), C2 (1.96, -0.27), and C3 (-3.76, -0.59)

Discussion

Unconventional, relaxing and hands-on activities: Children who aged between 9 and 12 years favoured activities that were unconventional and conducted in and outside the classroom (F2), activities that demand expressive and linguistic competence (F1), and conventional classroom activities (F3) (Table 1). The pupils in general favoured the use of technology (#1 and #4), relaxing activities (#24 and #7), and activities that are different from the normal routine (#1, #14 #17, #25). They singled out examination (#22) and verbal presentation (#5) as undesirable activities. We may understand the findings from the perspective of the learning culture of the upper primary school years when two streaming examinations take place. The pupils are likely to experience learning styles that are driven by academic achievement. The culture of learning is likely to change from group activities such as games, role play, and showing and telling which occur relatively frequently in the lower primary school years to individual work using worksheets which occurs relatively frequently in the upper primary school years. Expressing viewpoints in English seemed to be an extremely challenging task. Verbal presentation (#5) was rated lower than role play (#17) and showing and telling (#25). The former challenges pupils' competence in formulating their opinions and thoughts in English and their public speaking skills. In contrast, when participating in the latter pupils recite scripts and can employ body movement to express their thoughts.

Though items that challenged problem solving competence (#2, #6, #18, #21, #28), linguistic competence (#3, #16, #26) and group efforts (#8, #11, #12) were not included in the factor structures, they contained useful information. Competition (#11) and project (#12) were not perceived as highly desirable activities. The means of the items were higher for primary five (EM1 and EM2) than those of primary four (H4B, M4B, M4G, L4C). Of the same academic year, a high percentage of moderate achievers rated the activities higher than their counterparts of high achievement (EM2 > EM1, M4B > H4B). It seems that high academic achievers were less open than moderate achievers in receiving challenging activities.

Variations in desirable activities within a class and across classes: Are there differences in the perceptions of desirable activities among pupils of the same class? Figure 1 shows that there are different perceptions of desirable activities among pupils of the same class. Pupils of the EM1 stream and the H4B class who were informally streamed were distributed over two clusters, the moderate degree of desirability (cluster 1, about two-thirds) and the high degree of desirability (cluster 2, about onethird). The patterns of desirability for different activities shown by the pupils in the two mixed ability classes resembled those of the EM1 (M4G) and EM2 (M4B) classes. Pupils of class L4C demonstrated a unique response, 21 of them were grouped to cluster 3, and 12 to cluster 1. They showed a low degree of desirability for all the activities. On the contrary, class EM2 had the highest number of pupils (28) showing a strong degree of desirability for all categories of activities. Similar patterns of responses were found with items that were not included in the factor structures.

Does the use of English as one of the home languages influence the responses? Class H4B had the highest number of students (76.9%) who use English as one of the home languages, followed by class M4B (76.5%), M4G (68.6%), EM2 (67.7%), EM1 (51.4%), and L4C (52.9%). A 2 (gender) \times 3 (cluster) \times 2 (English, no English) and a 2 (gender) \times 6 (classes) \times 2 (English, no English) multivariate analyses did not report a significant main effect for using English at home, but significant main class and cluster effects.

There is a salient feature between responses of pupils in EM2 and in L4C. Pupils of the EM2 class rated the items relatively high, including the conventional activities such as doing worksheet (#19), spelling words (#28), and correcting mistakes (#15). In contrast, pupils of the L4C class did not show a strong preference to most of the activities except games (#1) (see Table 1). We examine variations in desirable activities across classes from the perspective of the school culture: EM2 and M4G (school 1), EM1, H4B, and L4C (school 2), and M4B (school 3). School 1 is one of the best neighbourhood schools under the special assisted program in which advanced Chinese (Mandarin) is taught to some pupils and the school authority works closely with the local community. Teachers of this school receive tasks that are explicitly defined. Expected scores of the pupils in various subjects at each level are spelt out clearly. The strong academic culture can be one of the reasons why EM2 pupils showed a great concern for all activities, including conventional activities.

According to the student teacher's report, pupils in school 2 were streamed informally in primary three. Class H4B, for instance, comprised relatively high academic achievers compared to class L4C. The cluster patterns of class H4B (the second best class of primary four) resembled that of class EM1 (the best class of primary five). The low responses from class L4C could be their lack of exposure to various types of activities. Another reason could be the nature of the instrument developed from responses of moderate and high achievers. Future study should examine the teachers' attitudes towards suitable activities for low achievers, and the impact of early streaming on pupils' interest on various learning activities.

Pupils of a mixed achievement class possess patterns of desirable activities that resembled those of classes EM1 and EM2. Class M4G (school 1) consisted of mixed achievement pupils. According to the report of the English teacher, school 1 places primary four pupils randomly into different classes. The alphabet G attached to the class does not imply the achievement level of the pupils. Four pupils of class M4G scored 80 and above in the recent formative assessment for English (March 1998). They majority scored between 60 and 70. One may predict that the majority of the pupils of class M4G will be streamed to EM2 next year and several of them to EM1. Similar prediction may be true for pupils of class M4B in school 3. School 3 holds a practice of streaming the high achievers to class G (the best class of a level) and places the other students randomly to other classes. Hence, the alphabet B does not denote the meaning of the second best.

If we consider there is a relationship between pupils' desirable activities and their interest in participating in the activities, we may learn that not all pupils of the same class, be they high, moderate, or low achievers, possess a unitary interest. The assumption that high achievers are highly motivated and low achievers less motivated may not be valid. In a class there are pupils who show interests in all kinds of activities and at the same time there are pupils who do not show strong interest in any activity. A pupil's degree of desirability toward a learning activity may vary according to the pupil's experience, the learning style, the learning subject, and the teacher's teaching style. The uniqueness of a person's learning needs is a complex phenomenon that demands further investigation.

Implications of the study for educators: A teacher should establish the competence to evaluate the effectiveness of introducing learning activities that are suitable for pupils of various levels. Even within the same class, the degree of enthusiasm of individual pupils may be different. A teacher should be able to identify various types of wishes within a class. Classroom learning culture should benefit highly enthusiastic, moderately enthusiastic, and lowly enthusiastic children. It is unfair to assume that pupils of high achievement are more enthusiastic than their counterparts of low achievement. It is also not true to generalize that all pupils in the high achievement class are interested in all kinds of activities.

A pleasant classroom attempts to integrate pupils' choices and learning autonomy. Organizing a variety of activities is important for exposing children to activities that may be effective and enjoyable. Pupils' views entail information that can help improve classroom learning. Activities that challenge pupils' problem solving (#18), public speaking (#26, #5) and organizational skills (#12) should be introduced gradually. The findings did not show that pupils were strongly affiliated to activities that promote these skills. Further investigation is needed to uncover the reason. Do pupils lack exposure or are they not interested in the activities? For students whose home languages are languages other than English, effective classroom learning is extremely important. The teacher educational institution should design programs that help novice and experienced teachers identify suitable and effective learning strategies and activities for pupils of various achievement levels.

The present study has several limitations. The study was conducted while the author visited her student teachers in three Singaporean neighbourhood schools. To have a comprehensive profile of pupils' desired activities across various achievement levels, the samples of the study should be expanded both within an academic year and across academic years. The same study should also be replicated with pupils of schools in the city. The actual learning activities and the learning time for each activity as well as the teachers' perception of desirable and effective activities should be taken into consideration in designing pedagogical activities.

The instrument was developed from the responses of high and moderate achievers. It may not be suitable for low achievers. The instrument can be improved by allowing pupils of average and low achievement to respond in the language with which they are most comfortable. The instructions and items should be presented in mother tongue in addition to English. For pupils who have difficulties in expressing themselves in written form, interview should be conducted. Teacher observations should also be referred to as they can provide insights into understanding pupils' wishes. While the instrument considers only activities for English lessons, it should be complemented by instruments which can be used to identify desirable activities for other academic subjects. It should also be used with instruments that detect self-concept, motivational problems and home environment.

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