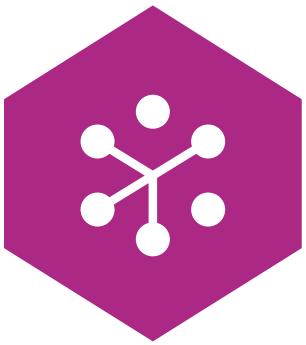
Behind the High-stakes Testing Results: Hong Kong Children Report on Aspects of Their Schooling Experiences



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Behind the High-stakes Testing Results: Hong Kong Children Report on Aspects of Their Schooling Experiences

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Abstract: In this article we explore East Asian students' lives beyond performance in high-stakes testing regimes. We surveyed 123 P5 students (eleven years old) from one school in a low socioeconomic area of Hong Kong about what they liked doing at school. We linked these questions to others asking what they wished they could do more of, as well as if they felt their teachers and friends showed that they liked them and if they enjoyed school. The results showed that the majority of students reported that they both liked school (83%) and felt liked by their teachers and friends (81.3%). Further, the data showed that if students indicated that they liked an activity "a lot," this was linked to their perception that their teachers and friends liked them. The top three items that the students wished they could do more of were using computers for learning (59.3%); playing sports (52.8%); and playing in a bigger play area (43.9%). Girls tended to like the school activities more than the boys.

Keywords: Hong Kong Students, School Perceptions, Attitudes to School in Hong Kong, Student Self-efficacy, High-stakes Education

Introduction

There has been significant interest and commentary regarding the high performance levels of East Asian students (Mervis 2010), and more recently, of students in Shanghai (Peoples Republic of China) in high-stakes international tests, namely: Program for International Student Assessment (PISA); Trends in International Mathematics and Science Study (TIMSS); and Progress in International Reading Literacy Study (PIRLS). Additionally, there is increasing concern being voiced about how such high-stakes tests have become the default for assessing the effectiveness of national education systems (e.g. Zhao 2012; Zhao 2014). For example, the PISA test focuses on only three curriculum areas, or competency fields—mathematics, science, and reading—and it is claimed that it measures how these relate to, or are translated into, the everyday lives of fifteen-year-old students across the globe. Similarly, TIMSS focuses on the content of the mathematics and science curricula (Year Four and Year Eight) in forty-one nations, while PIRLS provides data on students' reading literacy achievement. Bulle (2011, 503) has lamented: "The comparison of educational systems through rankings and their interpretation are guiding national school policies in a normative fashion." While all tests include problem-solving items, suggesting that knowledge application is foregrounded as a critical component of effective learning is problematic. Bulle (2011, 505) points out that the tests are designed to "evaluate competencies related to solving academic types of problems…These tests, therefore, are not able to allow us to judge abilities of coping with real-life situations more correctly than the actual academic competencies themselves do." Bulle contends that within East Asian nations, there is concern about the ways in which focusing on tests encourages passive learning that stifles students' creativity. Zhao (2012) concurs, maintaining that test scores do not show strengths and deriding education systems that reduce student lives to employable skills. He argues that while the West is envious of East Asia's testing performance, Asian nations have

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become concerned about how innovation and creativity can be encouraged in their students and how to engage their students in deep learning.

In order to interrogate this phenomenon, researchers and commentators have attempted to isolate aspects of schooling that they believe have contributed to the persistently high performance levels of East Asian students for over a decade in an effort to see if they can emulate them in various contexts (e.g. McKinsey & Company 2007). Researchers have analysed the secondary data from the PISA, TIMSS, and PIRLS data sets and endeavored to isolate some of the variables that educators and governments believe contribute to the differences in performance. Studies have, for example, considered the length of school year (Cheung and Chan 2009), the impact of out-of-school tuition and amounts of homework (e.g. OECD 2014), school quality (Ng 2008), the extent of local autonomy for schools (McConney and Perry 2008), the major impact of family variables (Ho 2010; McGaw 2010), and the quality and type of homework given to students (e.g. Zhu and Leung 2011).

There have only been a few research studies that have explored the culture and perceptions of East Asian students, despite the fact that researchers such as Goldhaber, Brewer, and Anderson (1999) have maintained that background factors account for 60 percent of student achievement in school. Our own work (e.g. Yelland 2014; Yelland, Muspratt, and Gilbert 2013; Yelland, Muspratt, and Gilbert 2017; Yelland et al. 2013) has called for a broadening of the contexts to include out-of-school factors and investigated and described the lifeworlds (student lives both in and out of school) of children from low socioeconomic family contexts in Hong Kong. The popular discourse that Hong Kong students spend all, or the majority, of their time studying has not been borne out in these works, and we have documented the wide range of activities and amount of time that this cohort of Hong Kong children spent in various pursuits, as indicated by their responses, and their parents', to survey questions.

Here, we turn to other data that we have collected, reported by the children themselves. We wish to share the children's voices about how they feel about their school experience and the ways in which they feel supported in the classroom and in their learning. We regard this as another area of neglect in this area of research, where rarely have these students been asked to comment on their school experiences. This is important because it has been suggested by Currie (2006, 1) that "school experiences influence the social and health behaviours of young people as well as their educational development. Liking school contributes to overall life satisfaction and quality of life among young people, and thus is important for healthy development." The WHO global study (e.g. Currie et al. 2001, 42) from which these findings came from also contended: "Studying the school environment for its effects on the health and well-being of young people, both at school and in general, is valuable. The school setting is a key arena for children for at least 9–10 years of their lives." It is thus evident that young people's experiences in school can be regarded as critical to their learning achievements in school and their self-esteem, which is an important component of school learning.

Student Perceptions of Learning: Context and Climate

While the most recent results of TIMSS (2015) revealed that East Asian countries are once again the top performers in the world in mathematics and science,[2] the secondary data on student engagement, attitudes toward mathematics and science, and school climate uncover attitudes, perceptions, and feelings about learning environments that are well below the average of the forty-one participating countries. Indeed, for many variables, the Hong Kong students are near the bottom of the scale. For example, in the TIMSS mathematics sample, almost all the students from the forty-one participating nations felt positive about their mathematics instruction (94%), and most of the students (77%) were confident about their mathematical ability and liked learning mathematics (81%). However, the Hong Kong cohort were consistently at the low end

[2] For TIMSS 2015 international results, see: http://timss2015.org/#/?playlistId=0andvideoId=0.

of these parameters, being thirty-six out of forty-one in confidence, thirty out of forty-one in enjoying learning, and thirty-one out of forty-one in terms of valuing mathematics. Similarly, in science, their confidence levels put them at the position of thirty-four out of forty-one, and in terms of valuing science, they were thirty-three out of forty-one. Most significantly, in the measure for "sense of belonging" to their school, Hong Kong students were second to last. In effect, while Hong Kong students are consistently high academic performers, in terms of general well-being and feelings about mathematics, science, and their school climate, the latest data is not encouraging.

According to Doyle, Gavin, and HBSC Ireland Team (2006), the reasons for investigating student perceptions about learning can be related to the following:

1. Students' school experience influences the social and health behaviours of young people as well as their educational development.
2. Liking school contributes to overall life satisfaction and quality of life of young people and is important for a healthy development trajectory.
3. Children who like school are less likely to feel pressured by schoolwork (31% vs. 46%) than those who do not.
4. Children who like school are more likely to report excellent health (30% vs. 22%) and feeling happy about their life (50% vs. 32%) than those who do not.

Doyle, Gavin, and HBSC Ireland Team (2006) also noted that children from higher social classes are more likely to report that they like school (social classes one and two, 40%; social classes three and four, 43%; social classes five and six, 17%).

While it has been noted that students who enjoy school tend to perform better (e.g. Currie et al. 2001), it would seem that Hong Kong students are an exception to this trend since their academic performance has been consistently in the top five in the world in a variety of high-stakes testing scenarios. In stark contrast to this, their enjoyment, confidence, ability, and sense of belonging is so low that it places them near the bottom of the list of forty-one nations in TIMSS, for example.

While the importance of having positive perceptions about schooling and learning more broadly has been highlighted in a number of commissioned reports and research projects (e.g. Currie 2006; Currie et al. 2001; Jabal 2013; Lowyck, Lehtinen, and Elen 2004), these studies have mainly been related to the health and well-being of students in the upper primary, or more often in secondary schools, where levels of engagement have been found to taper off. Further, no research projects were found that have studied the perceptions of a cohort of Hong Kong students from low socioeconomic schools. Hence, the need for the current study.

Method

Context

In this research project, a survey was designed as part of the overall study (Millennial Kids Learning), which was conducted in Hong Kong over a period of two years. The study sought to gather empirical information about the lives of students in Hong Kong from students in kindergarten (three years old) and their first and fifth year of primary school (ages six and eleven years old respectively) and from their parents. The imperative for the project came from the fact that while we found research studies with secondary school children from middle class cohorts (e.g. Jabal 2013; Kangas 2010), we could find none with low socioeconomic students in their primary years of schooling. This was especially the case in Hong Kong, where school-based studies are rare and if they do take place, it is usually in international schools or in the most prestigious of secondary schools. The overall project research question pertinent to these issues was—what are the students' views about aspects of their lives and schooling?

Here, we present the findings from survey questions completed by the P5 students, with a focus on their reporting of what they liked learning in their school classroom experience.

Survey

The survey was designed so that it contained both direct (factual) and indirect (attitudinal) measures about their lifeworlds (Sapsford 1999); that is, their lives in school and out of school contexts. In terms of their schooling, we wanted to find out how they felt about their experience, if they were confident learners, and if they thought what they were being taught was relevant to their lives. These questions were in the final part of the survey, and here we focus on students' responses to the question "what do you like doing at school?" The statements and response categories are listed in Table 1. We refer to these statements as the substantive variables. Table 2 lists other variables (we refer to them as exogenous variables), and they focus on gender, whether or not they enjoy going to school, whether or not their friends and teachers show they like them, and what types of activities they would like to see happening more often at school. We examine the relationships among the substantive variables as well as the relationships between the substantive variables and the exogenous variables.

Table 1: List of Statements for the Question: *What Do You Like Doing at School?*

Code[1]	Statements	Response Categories (and Codes)[1]
s1	Learning new things	Like this a lot (LL)
s2	Playing with friends	Like this a bit (LB)
s3	Playing sports and games	Don't like this (LD)
s4	Doing art and craft	Don't do this at school (na)
s5	Being in plays and acting games	
s6	Playing music	
s7	Singing	
s8	Making podcasts	
s9	Making powerpoints	
s10	Making animations	
s11	Using an electronic/interactive white board	
s12	Creating blogs, wikis	
s13	Using digital camera/video and make iMovies	

[1] The codes are used later in Figures 2, 3, and 4.

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Student Cohort

The students attended one school in the Tsuen Wan district of Hong Kong and nearly all the children lived in the local district. Their parents were mostly low- to middle-income earners. Drawing on the responses of a survey completed by the parents of this cohort of P5 students (completed by 110 parents), approximately 28 percent reported a combined household income of less than HK$10,000 per month, while only six parents (5.5%) claimed a combined household income of more than HK$40,000 per month. Two large groups of households reported incomes between these extremes: thirty-seven (33%) indicated their income was between HK$10,000 and HK$20,000, and another thirty-seven (33%) reported their income as being between HK$20,000 and HK$40,000. The median monthly income in Hong Kong is HK$20,200 (Govt. of HK 2012a; Govt. of HK 2012b).

Data from the parent survey, which was mainly completed by mothers (72%), indicated that a large group (39%) listed their occupation as "housewife" and another large group (43%) listed a clerical or a manual or service occupation. For their spouses, occupations included a range of blue-collar and industry/transportation (e.g. driver/delivery, factory worker) constructions. Only 13 percent indicated that they hired domestic helpers.

While the student sample comprised 127 students, three students were omitted because they did not answer any of the substantive questions ("what do you like doing at school?"), and another one was dropped because he did not answer any of the exogenous questions. Thus, the sample size was reduced to 123 (49% were male and 51% were female).

Method of Analysis

Our interest lies with examining the relationships within a set of variables—the "what do you like at school" set. The response categories for the variables contain an ordered sequence: "like this a lot," "like this a bit," and "don't like this," but the fourth category ("don't do this at school") is not part of that sequence. Therefore, usual techniques such as principal components analysis are inappropriate for these data. Multiple Correspondence Analysis (MCA) is a multivariate technique, but one that allows the analysis of multiple categorical variables (Greenacre 2007).

One way to interpret the results of MCA is to plot the categories of the variables in a two-dimensional space—a geometric analysis. Interpretation proceeds by examining the patterns of points—there is something common among clouds of points close together—or by contrasting clouds of points at opposite ends of the plot. MCA distinguishes between "active" and "supplementary" categories. "Active" categories, the categories of the substantive variables, determine or construct the space. "Supplementary" categories, categories of the exogenous variables, can be plotted on top of the "active" categories. The "supplementary" categories play no role in determining the space, but a supplementary category among a given cloud of active categories means that there is an association between the two.

Another feature of MCA is the notion of "subset" analysis (Greenacre and Pardo 2006a; Greenacre and Pardo 2006b). We can hold a set of categories out of the analysis, and thus examine the relational patterns among a subset of categories. For instance, subset analysis can be used to partial out the influence of the fourth category ("we don't do this at school") to allow an examination of the patterns among the categories of primary interest ("like this a lot," "like this a bit," and "don't like this"). It is also possible to partial out the influence of more than one category so that, for instance, focus can be directed toward "we don't do this at school" without having to cope with the other categories. Further, the method allows the supplementary categories of the exogenous variables to be displayed.

There was a small amount of missing data among the substantive variables. Four pieces of data were missing among the "things you like doing at school" statements. One imputed data set was obtained using the regularized iterative MCA algorithm (Josse et al. 2012).

The R statistical environment (R Core Team 2016) was used for analyses, imputation of missing data, and rendering visualisations. MCA and subset analysis were conducted using the ca package (Greenacre, Nenadić, and Friendly 2017); imputation of missing data was conducted using the missMDA package (Josse and Husson 2016; Josse and Husson 2017), and visualisations were rendered using the ggplot2 package (Wickham and Chang 2016; Wickham 2016).

Results and Discussion

Descriptive Overview of the Data

Figure 1 presents stacked bar charts for the substantive variables—"things you like doing at school." The items are arranged down the page in decreasing order of the number of students who claimed to "like this a lot." Toward the top, large numbers of students "like a lot" and small numbers of students "don't like" activities such as playing sports and games, playing with friends, and doing art and craft; whereas toward the bottom of the Figure, somewhat smaller numbers of students "like a lot" making podcasts, creating blogs, wikis, and using digital camera, videos to make iMovies.

The Figure suggests that there are two sets of items to note—a set of technology-related items (s8 through s13) toward the bottom of the Figure and a set of other activities (s1 through s7) toward the top. A larger number of students claimed that for items s8 to s13, they "don't do this at school," and thus the percentages for the remaining categories are smaller. However, even when the percentages are calculated as valid percentages (i.e. dropping those who selected "don't do this at school" from the totals), the percent of students who "liked a lot" the technology-related activities was still less than the corresponding percentage for the other activities.

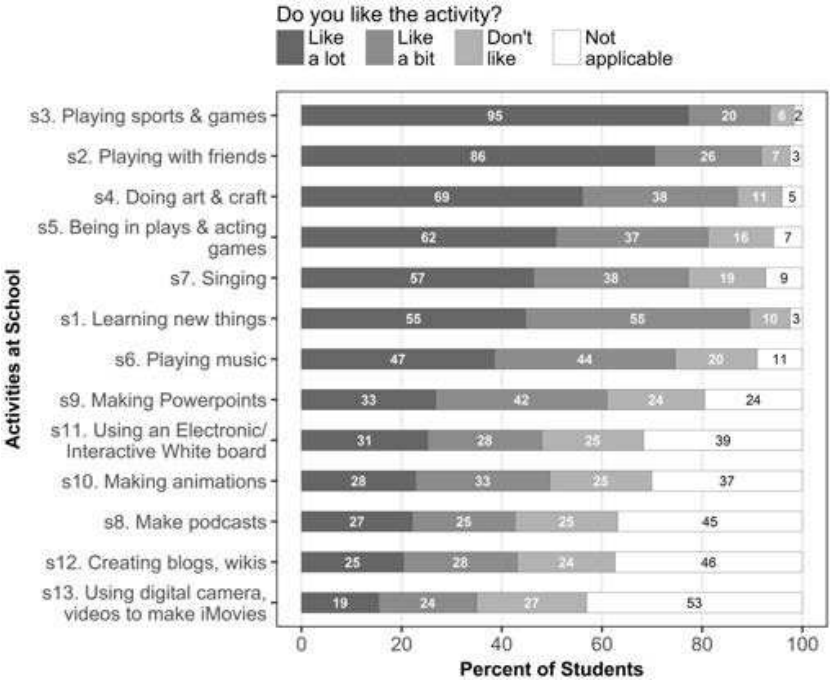

Figure 1: Students' responses to the set of questions: "things you like doing at school."
NB: The horizontal axis shows the percentage of students responding in each category;
the numbers within each segment give the number of students responding in each category.
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Table 2 shows the categories and frequencies for the exogenous variables. A small number of students claimed that they did not enjoy school at all and small numbers also claimed that none of their friends, or their teachers, showed that they liked them. The overwhelming majority of students claimed that their teachers and their friends showed that they liked them, or sometimes showed that they liked them (83.0% and 81.3% respectively). Similarly, a majority of students claimed they the liked school or sometimes enjoy school (61.8%). With two exceptions,

only a minority of students wished certain activities happened more often at school. Not surprisingly, only 9.8 percent wanted to see more tests. For the other activities, the percent ranged between 24.4 percent for writing (own topic choice) and 43.9 percent for playing in a bigger area. The two exceptions, playing sports and using computers for learning, were nominated by 52.8 percent and 59.3 percent of the sample respectively.

There were also some interesting findings that warrant further investigation, as it is not clear what is happening from the questions posed here. For example, while the majority of students felt "liked," there was also quite a number (38%) who indicated that they did not enjoy school. Also, with respect to the "what do you want to see happening more often" question, less than half of the students said "yes" to most items. It might be possible that they did not understand or misread this question. We might think that an item like more time for "own choice reading/writing" might be appealing as opposed to being told what to write by the teacher. But one possible explanation might be that the students read it as simply "more writing" and "more reading."

Similarly, nearly 60 percent of the students indicated that they would like more use of "computer for learning." Yet, the technology-related items were "liked" only by relatively few students. One possible explanation might be that they are not enjoying what they are doing with computers in their classes but that they like using computers in their own time at home. It has been noted that East Asian countries use computers less in their classrooms than their Western counterparts (e.g. Jerrim 2014; OECD 2015).

Table 2.1: List of Endogenous Variables (and Codes), and Category Counts and Percentages

Variable	Number	Percent
Gender (G)		
Male (M)	60	48.8
Female (F)	63	51.2
Do you enjoy school (ES)		
Yes all the time (all)	37	30.1
Sometimes (st)	39	31.7
Not always (na)	41	33.3
Not at all (no)	6	4.9
Do the people at school show you that they like you		
Teachers (T)		
Yes (yes)	51	41.5
Not sure sometimes (st)	51	41.5
Few of them (few)	15	12.2
None of the them (none)	5	4.1
Missing	1	0.8
Friends (F)		
Yes (yes)	66	53.7
Not sure sometimes (st)	34	27.6
Few of them (few)	17	13.8
None of the them (none)	4	3.25
Missing	2	1.6

Table 2.2: List of Endogenous Variables (and Codes), and Category Counts and Percentages

Variable	Number	Percent
What do you wish happened more often at school*		
Art activities (m1)	44	35.8
Music and dance (m2)	47	38.2
Playing sports (m3)	65	52.8
Playing in a bigger area (m4)	54	43.9
Using computers for learning (m5)	73	59.3
Writing own topic choice (m6)	30	24.4
Reading own book (own choice) (m7)	48	39.0
Tests to see if you are learning (m8)	12	9.8

*The count for the "yes" (Y) category only is shown.
The percentages are out of the total sample of 123 students.
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Linking the Substantive and Exogenous Variables

MCA of the "Things You Like Doing at School" Set

Figure 2 shows the category map for the "things you like doing at school" set of variables. It is typical of the pattern that arises when a "not applicable" or similar category is included in the MCA analysis. The "n/a" categories are separated from the substantive categories and form an elongated stream of points into the lower right quadrant. It is possible to discern some patterns among the substantive categories. For instance, the "like a lot" (LL) categories are aligned along the upper part of the vertical axis; the "don't like this" (LD) categories are aligned along the left part of the horizontal axis; and the "like a bit" (LB) categories are somewhere between. However, the spread of the "n/a" categories has squashed the substantive categories and the overcrowding of the categories makes it difficult to discern more subtle patterns.

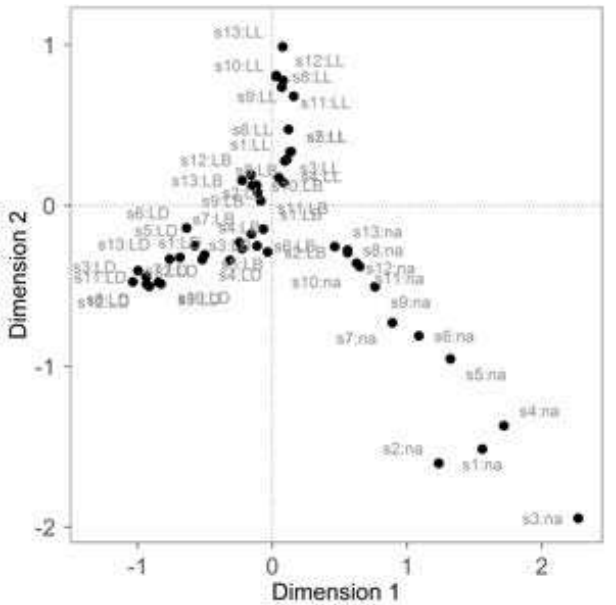

Figure 2: MCA map of all four response categories for each of the "what do you like at school" set of variables.
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Figure 3 shows a subset map of the "like a lot" (LL), "like a bit" (LB), and "don't like" (LD) categories (that is, the "n/a" categories have been partialed out). The LL categories line up diagonally in the upper right quadrant, the LD categories line up diagonally in the upper left quadrant, and the LB categories line up along the lower part of the vertical axis. The horizontal axis is interpreted as showing the strength with which students say they like the activities, with dislike (LD) to the left and like a lot (LL) to the right. The vertical axis is interpreted as separating the extreme categories (LL and LD) from the intermediate (LB) categories. With respect to the LL and LB categories, it is also possible to discern a separation of a set of technology-related activities (L8 through to L13) from a set of other school activities (L1 to L7).

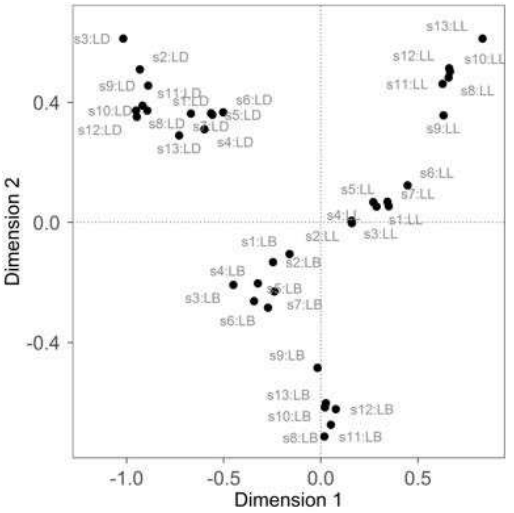

Figure 3a

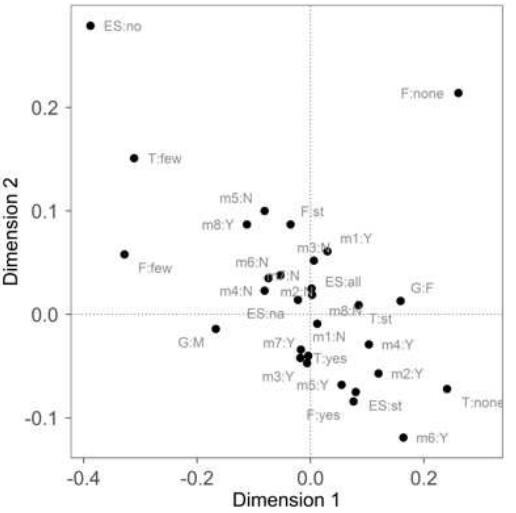

Figure 3b

Figure 3 (a & b): (a) MCA map of three primary categories of interest (LL, LB, LD) for each of the "what do you like at school" set of variables (omitting the "n/a" categories); (b) The supplementary categories of the exogenous variables (plotted on enlarged scales).
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Figure 4 shows the positioning of the supplementary categories of the exogenous variables in the space determined by the three active categories—LL, LB, and LL. First, if we consider the gender categories, they are displaced horizontally along Dimension 1—G: M (male) is to the left (toward the LD categories) and G: F (female) to the right (toward the LL categories). Overall, the girls tended to "like a lot" (LL) all of the activities more so than the boys. Taking some examples from the more popular activities: 77.8 percent of girls "liked a lot" s2: playing with friends compared to 63.3 percent of boys; 82.5 percent of girls "liked a lot" s3: playing sports and games compared with 71.7 percent of boys; and 76.2 percent of girls "liked a lot" s4: doing art and craft compared to 35.0 percent of boys. Taking some examples from the less popular technology-related activities: 19.0 percent of girls "liked a lot" s13: using digital camera/videos to make iMovies compared to 11.7 percent of boys; and 23.8 percent of girls "like a lot" s8: making podcasts compared with 20.0 percent of boys. Similarly, the boys tended to say "don't like this" (LD) more often than the girls for all of the activities, though the percentages are smaller. For instance, 10.0 percent of boys "don't like" s2: playing with friends compared with 1.6 percent of girls; 8.3 percent of boys "don't like" s3: playing sports and games compared with 1.6 percent of girls; 25.0 percent of boys "don't like" s13 using digital camera/videos to make iMovies compared with 19.0 percent of girls; and 26.7 percent of boys don't like s8: making podcasts compared with 14.3 percent of girls.

These findings are interesting and worthy of note. The girls in this sample like all of the activities more than the boys and the boys answer "don't like" to all the activities more than the

girls. Further, while the technology-related activities are not that popular, the girls seem to like them more than the boys. Additionally, more girls than boys indicated that they like playing sports and games than the boys in this sample of Year Five students.

There are supplementary categories for other exogenous variables that are somewhat displaced from the pack of responses. There are the "few" and "none" categories for the items "teachers..." and "friends show they like you…" (T: few, F: few, T: none, F: none). It is noted that very few students selected the "none" categories for either item, but for nearly all the activities, these students either liked the activities "a lot" or "a bit" and none "didn't like" the activities (the T: none and F: none categories are displaced to the right). That is, for this small group of students, it does not seem to matter to them that their teachers and friends do not show that they like them. The reasons behind this finding would also warrant further investigation to determine if, for example, the students just do not care about this or if they are so engrossed in the activity that they do not care if their friends or teachers are ambivalent toward them and can still like the activities.

With respect to the "few," "yes," and "sometimes" (st) categories for "teachers show they like you," the positioning suggests that of the students who selected "few," a relatively small number selected the "like a lot" (LL) categories; of those who selected "sometimes" and "yes," a relatively larger number selected the LL categories. For instance, only 6.7 percent of students who selected the "few" category selected LL for s1: learning new things compared to 39.2 percent and 62.7 percent who selected the "sometime" (st) and "yes" categories respectively. Or, expressing it the other way round, if students selected "sometimes" or "yes," that is, if teachers showed they liked you at least sometimes, then the student is more likely to select LL for s1: learning new things. This is similar for s5: being in plays (33.3% compared to 54.9% and 52.9%), s6: playing music (26.7% compared to 39.2% and 45.1%), and s7: singing (33.3% compared to 51.0% and 43.1%). There is also a similar trend for s2: playing with friends, s3: playing sports, and s4: doing art and craft. With respect to the technology-related items (s8 through s13), the differences in the percentages are almost negligible. Thus, the data reveals that teachers need to show that they like the students if the students are to like an activity "a lot" for the more "regular" schooling activities, but it does not seem to matter for the technology-related activities.

With respect to "friends showing they like you," a similar pattern applies for the "regular" school activities (s1 to s7), but it also applies to the technology-related activities, although less pronounced. In summary, the students need their friends to show that they like them if they are going to like an activity "a lot." This is the case for the regular school activities and less so for the technology-related activities.

Very few students selected the "not at all" (no) category for "do you enjoy school" (Table 2), but for this small group of students, they were also more likely to select "don't like this" for all activities. But there is a small association for the "sometimes" category—it is associated with "like a lot" of the regular school activities (s1 to s7) but less so with the technology-related activities (s8 to s13).

The "yes" category for m6 (wanting to see more of writing own choice topics) is associated with the LL categories of the regular and more traditional school activities (s1 to s7), but not with the technology-related activities (s8 to s13). Instead, the "yes" category for m6 is associated with the "like a bit" categories for the technology-related activities. Also, a similar trend applies to the more traditional school activities (s1 to s7) with respect to m2: music and dance activities, m4: playing in a bigger area, and m5: using computers for learning. But for the other variables dealing with "what you wished happened more often at school," the contrast is less pronounced, and at times the effect is non-existent or even reversed.

The discussion so far has focused on the categories of primary interest—LL, LB, and LD—but now we turn to the "n/a" categories. Figure 4 shows a subset map of the "n/a" categories only; that is, all the other categories have been partialed out. The Figure shows all of the "n/a"

categories on one side of the vertical axis; that is, Dimension 1 is interpreted as an overall response of "n/a" (we don't do this at school). In addition, the "n/a" categories for s1, s2, and s3 are vertically separated along Dimension 2 from the other "n/a" categories. The "n/a" categories for s4, s5, s6, and s7 are separated from the "n/a" categories for the remaining technology-related items. There is some alignment of groups of activities with the number of students who used the "n/a" category; a small number used the "n/a" category with s1, s2, and s3, whereas a larger number used the category with the technology-related items. It seems there could be two ways in which the "n/a" category was used. Most students did not use the "n/a" category with activities s1 to s7, but they used the "n/a" category with the technology-related activities because those activities were not available in their school. There was a small group of students who used the "n/a" category across a large number of activities, including more traditional school activities (e.g. singing, doing art and craft, playing with friends). It is unlikely that those activities would not be available in their schools. Thus, it appears this small group of students were possibly using the "n/a" category to indicate that they had not thought about the item, or perhaps did not want to think (or communicate in the survey) about whether or not they liked the activities.

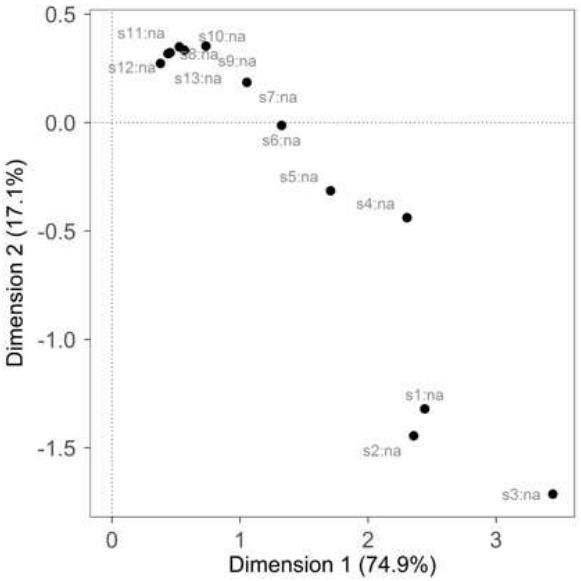

Figure 4: Subset MCA map showing the "n/a" categories for each of the "what do you like at school" set of variables. *Yelland 2018*

Conclusions

In this study we wanted to broaden the conversation about student performance beyond scores in high-stakes tests such as PISA, TIMSS, and PIRLS in which historically, East Asian students have always been placed in the top five. We were also aware that secondary data from these test-taking experiences revealed that East Asian students' views about and engagement with their schooling has been reported as being somewhat negative.

This survey provided us with insight into the perceptions of schooling among a cohort of 123 Year 5 (aged eleven years old) students in Hong Kong from a public school that can be characterised as being located in mainly public housing. The main findings from this study indicate that:

1. The majority of the Year Five students liked school (83.0%). Thirty-eight percent of the students reported that they did not enjoy school.
2. Most students felt liked by their teachers and friends (81.3%).
3. In terms of what they would like to do more of in their school, the students' top three activities were: using computers for learning (59.3%); playing sports (52.8%); and playing in a bigger play area (43.9%). Only 9.8 percent wanted more tests.
4. Further, the data shows that teachers and friends needed to show that they liked the students if the students were to like an activity "a lot." Yet, this was the case only for the more regular or traditional schooling activities (such as writing); it did not seem to matter for the technology-related activities.
5. Girls reported liking all activities more than boys in this group. In fact, boys reported not liking more activities.
6. There is the possibility that computers are used minimally by the students, and thus they did not comment on them. Yet, they did indicate that they wanted to use computers for learning more often.

There were some ambiguities in interpretation of some of the findings. It is not clear, for example, how the connection between being liked by teachers and friends links with liking activities "a lot." Further, the use of technology by the students is differentiated from other activities. The students do not seem to use them a lot, and thus they say they would like to see them used more. At the same time, what they do use computers for are not activities that they place high on their list of activities they "like a lot." The nature of this relationship warrants further investigation.

Only small numbers of students indicated that they "liked" playing games and sports or doing art and craft. An even smaller number chose "liked a lot" for making podcasts, blogs, wikis, and using a digital camera. It is not clear if this was the case or if they did not actually do these activities in school and thus chose this option as a default.

In the future, it might be useful to include open-ended items in a survey where the activities are not predetermined and the students can include items of their own choice. This might alleviate instances where the nature of the activity is more complex, such as with the use of computers for learning.

The findings from the survey have given us some insight into what the Year Five cohort feel about the activities that they do in classrooms in Hong Kong and lay the foundation for future studies to extend the investigation into the nature of the relationship between their perceptions about their schooling and how this makes them feel about their learning environment more specifically. They present a more positive view of school than the secondary data from TIMSS (2015) conducted with Year Four students.

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