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Explaining Hong Kong Students' International Achievement in Civic Learning

Abstract This study identifies predictors of Hong Kong students' civic learning. It has adopted a cross-sectional quantitative design using secondary data from the 2009 International Civics and Citizenship Education Study (ICCS 2009; Schulz et al., 2010). Multi-level analysis reveals that most of the variance in student achievement can be accounted for by school level rather than individual level factors. Student background variables are largely insignificant suggesting the resilience of many Hong Kong students. Regarding Hong Kong students' achievements in civic learning, a possible explanation is made and implications are developed for both theory and practice.

Keywords political socialization, civic learning, agents, school context, multi-level analysis

Introduction

Asia's high performance in academic subjects such as mathematics, science, and reading has drawn the attention of scholars and the public. It also led to the debate about education systems and their effectiveness. In one sense this is understandable given the emphasis in these contexts on academic learning and success. Yet this emphasis does not represent the entire learning experience of students during their school years. The social development of citizens also has high priority, especially in the post-colonial context that has characterised much of Asian development after the Second World War. Globalization has also led to a heightened interest in citizenship issues as Asian societies have sought to benefit from a freer economic market while also protecting traditional values

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(Kennedy, 2008). While this broader social learning does not get the same exposure as what might be called “the basics,” it can be argued, especially in the current international context, that it is equally important in the development of young people who are to be the future citizens in one of the most dynamic regions of the world.

A series of studies conducted by the International Association for the Evaluation of Educational Achievement (IEA) have focused on Civics and Citizenship Education (CCE) as one aspect of broader social learning. In the first study there were no Asian participants (Torney, Oppenheim, & Farnen, 1975), in the second there was just one, Hong Kong (Torney-Purta, Lehmann, Oswald, & Schulz, 2001) and in the third there were five: Korea, Taiwan, Hong Kong, Indonesia, and Thailand (Schulz et al., 2010). Hong Kong was ranked fifth out of 28 in the third IEA Civic Education Study and in the top five in the third study¹ In doing so, it kept pace with the other East Asian societies that were also ranked in the top six. Thus Asian students appear to do as well in CCE as they do in other school subjects. Yet little is known about the reasons for this success. An important purpose of this paper, therefore, is to investigate those reasons using secondary data from International Civics and Citizenship Education Study (ICCS; Schulz et al., 2010).

In particular the paper will focus on Hong Kong as a single example of a high performing Asian education system. It will provide a theoretical framework in which civic learning will be characterised as one aspect of broad political socialisation processes. It will draw on Hong Kong data from ICCS 2009 to develop a model to explain Hong Kong students’ achievement in civic learning. Finally it draws implications for further research that might better inform both scholars and policymakers about this important area of the school curriculum.

Civic Learning, Schools, and Political Socialization

Political learning as a broad process of socialization takes place across the lifespan resulting in the development of political attitudes, behaviours, and

¹ Hong Kong was not “officially” ranked due to sampling issues but Hong Kong students’ Civic Knowledge score was among the top five scores achieved out of 38 participating societies. W. Schulz, J. Ainley, J. Fraillon, D. Kerr, & B. Losito (2010). *ICCS 2009 international report: Civic knowledge, attitude and engagement among lower-secondary school students in 38 countries*. Amsterdam, The Netherlands: IEA.

cognitions (Campbell, 2006, 2008; Powell & Cowart, 2003). Individuals in general develop a political self and become politically mature (Conover, 1991). They gradually understand their civic role, find their social position, and construct their political identity through interaction with people and institutions in society (Hahn, 1998). This process of socialisation starts early when the focus is on the civic life of a society rather than the political sphere directly.

In most education systems, for example, schools do not enter directly into what is commonly known as “politics” or the everyday political life of a country or a community. Yet schools have a role in preparing students to understand the political system that governs their society, how they can participate in it and how to make judgements about issues that might confront their societies. This kind of school-based learning can be referred to as “civic learning.” It may be part of a dedicated school subject (e.g., civics education or civic and moral education) or it might be taught across the curriculum or in extra-curricular activities.

For adolescents, who are the subjects of the current study, civic learning is integrated with academic learning as part of the school experience. Yet civic learning is not confined to schools but is influenced by multiple agents. Parents have been identified as important agents as have peers (Kennedy, 2011). Political and social issues can be part of family and peer discourse (McIntosh, Hart, & Youniss, 2007; Wilkenfeld, 2009). Students can be further influenced by teachers and principals in schools, the media, and social groups from the wide community. These influences can encourage students to develop an interest and to be engaged in civic activities that will enhance their civic learning. The study to be reported here will take account of these multiple influences on civic learning.

Contextual Effects on Students' Civic Learning

Parents

Frequent civic discourse with parents appears to increase adolescents' levels of civic knowledge and engagement (Andolina, Jenkins, Zukin, & Keeter, 2003; Hart, Atkins, Markey, & Youniss, 2004; McIntosh et al., 2007). Through the modelling effect of parents' civic behaviours at home, e.g., discussion of political and social issues, young people unveil their earliest civic life (Hart et al., 2004; Wilkenfeld, 2009).

Schools

Au's (2014) study examined the role schools play in Hong Kong students' civic learning via three agents, i.e., intended civic curriculum, classroom climate, and student perception of the value of school participation. In this study, "agents" were used in a narrow sense and were defined as elements embedded in the "microsystem" of the school. Wilkenfeld (2009) argued that schools provide the most influential context for students' civic learning. Lave and Wenger (2002) have referred to this as "situated learning." Schools provide the avenue for students to engage with civics and citizenship education, rehearse their civic rights and fulfil obligations. The education process mostly takes place in classrooms, where teachers and students exchange political information, express their views and debate their own propositions. Also students can vote subject and class officers and run class-level or school wide campaigns to start their journey of civic participation. Students active at class and in school activities are more likely to become active participants in social and political events in their adult life (Campbell, 2007, 2008; Hart, Donnelly, Youniss, & Atkins, 2007). In schools, well-crafted curriculum for CCE lifts students' eyes from subject knowledge to focus on the development of the community, the society and the world (Kennedy, 2012).

Teachers

Teachers play an important role in supporting student civic learning both inside the classroom and across the school. Frontline teachers are the ones to highlight norms for the new generation. Where students have formed civic beliefs and values during childhood as a legacy of their parents' ideologies and beliefs, the induction from schools and teachers will more likely be a restructuring act or a compromise. In this sense, adolescents' constant interaction with teachers and peers in the school surroundings might be seen as an extended exposure to civic issues and ideas. In classrooms, students are generally at similar levels of civic maturity. Students' relations with peers and teachers influence their participation in class and consequently the classroom climate. While being educated themselves students may also affect teachers' political views and action

(McDevitt & Chaffee, 2002). Through this socialization function of schools, young people are “inducted into the political culture” and form their orientations towards political objects (Varkey, 2003).

In many societies schools organize students' civic learning through formal classroom activities. The teaching content can be integrated into subject knowledge such as history, geography, politics, moral education, etc. In some other societies integrated subjects such as liberal studies or general studies are used to support civic education. In yet others, extracurricular activities such as assemblies, visits and community-based service learning are used. In whatever curriculum format, the introduction to civic knowledge and values is seen to be necessary to prepare students for their future roles as citizens (Kennedy, 2012, June 14). In spite of the importance of CCE, in most schools worldwide it only accounts for limited teaching hours, and its effects on students' civic learning have been questioned (Lay, 2006).

Accounting for Hong Kong Students' Achievement in Civic Learning

Given the variety of influences on students' civic learning referred to above, how might we account for Hong Kong students' international achievement? There has been some focus recently on Asian students' civic learning (Chow & Kennedy, 2013, June, 2015; Kennedy, 2011; Kennedy, Kuang, & Chow, 2013) but the current study will focus specifically on the contexts influencing Hong Kong students' civic learning—family, school, teachers and individual student values—in order to develop a model that accounts for Hong Kong students' success in international assessments of civic learning.

A single research question (RQ) guided the study: To what extent do demographic variables, student's civic values and dispositions and school context variables affect Hong Kong students' civic learning?

Conceptual Framework

As mentioned above, a number of previous studies have examined the contributions of family (e.g., Dennis & Owen, 1997; Saphir & Chaffee, 2002), schools (e.g., Campbell, 2007, 2008; Flanagan, Stoppa, Syvertsen, & Stout, 2010;

Niemi & Junn, 1998), peers (e.g., Harris, 1995, 2000), and mass media (e.g., Kaiser Family Foundation, 2006) on students' civic development and learning. Some studies report the contribution of schools to young people's civic engagement (Campbell, 2007, 2008; Torney-Purta & Barber, 2005; Zaff et al., 2011). Likewise, schools are found to play a key role to enhance the socialization of students' civic values (Au, 2014). A number of recent studies using Asian student samples have reported significant school effects on students' civic attitudes (Fairbrother, 2008, 2010; Fairbrother & Kennedy, 2011; Kennedy, Mok, & Wong, 2011; Leung, Yuen, & Ngai, 2014; Sim, 2012).

Based on this previous research, schools are often likened to "laboratories" for students to develop civic values and practice civic engagement. Within schools it is people such as principals and teachers who influence the civic learning process. As direct agents, teachers interact with students on a daily basis. Under the leadership of principals, teachers implement the CCE curriculum, design teaching content and activities, and create learning and engagement opportunities for students (Zaff et al., 2010). Hahn (1998, 2010), for example, confirms that teachers with good pedagogical techniques and the capacity to build an open and democratic classroom climate positively influence student attitudes to later civic involvement (see also Au, 2014).

Yet disentangling these effects is by no means easy, especially because the ICCS 2009 data is multi-level in nature consisting of individual students and the classrooms in which they are nested. For the purpose of this study, we have used an analytic technique (described later) that will in broad terms examine two different sets of predictors that might have the potential to influence Hong Kong students' achievement in civic learning. One set can be described as classroom level effects such as pedagogy and classroom that might impact student learning. A second set consists of the personal values and dispositions of students and the way they respond to classroom environments.

Methodology

This study used Hong Kong data drawn from ICCS 2009 principal, teacher, and student surveys and the student cognitive test of civic knowledge. The specific measures are outlined below. Secondary data analysis was used to identify potential individual, family and school factors that affected students' civic learning.

Secondary data analysis plays “a central role in contemporary social research” (Kiecolt & Nathan, 1985, p. 10). In particular, secondary analysis enables new analyses to be conducted on existing data and this can lead to new theoretical perspectives. The study adopted a cross-sectional quantitative design taking into account the multi-level nature of the data.

Sample

Details of the sample can be found in Schulz et al. (2011) and have been summarized in Table 1.

Instruments

Instruments used in the study for students, teachers and principals can be found in the ICCS 2009 Technical Report (Schulz et al., 2011). The exception is the students' cognitive test that is not released by IEA.

Measures

(1) Hong Kong students' achievement in civic learning was based on the results of a cognitive test of civic knowledge, —what ICCS 2009 called the civic achievement scale (Schultz et al., 2011). This scale consisted of 79 test items. A test booklet design was used and the median test reliabilities across booklets for Hong Kong had a Cronbach's α of 0.84. A measure of civic knowledge was derived from this student data as a weighted likelihood estimate (WLE).

(2) Self-reported demographic information was supplied by each student completing the survey. This included gender, immigrant background, and various measures of family socioeconomic background and parents' *Interest in Political and Social Issues*.

(3) Individual student values and dispositions were measured by *Student Influence at School* ($\alpha = .87$), *Student-teacher Relations* ($\alpha = .84$), *Value of Student Participation* ($\alpha = .77$), *Support for Democratic Values* ($\alpha = .72$), *Influence of Religion on Society* ($\alpha = .88$), *Interest in Political and Social Issues* ($\alpha = .88$), *Internal Political Efficacy* ($\alpha = .83$), and *Citizenship Self-Efficacy*

Table 1 Sample Sizes and Weighted Participation Rates in the Surveys (after School Replacement)

	School Type			No. of Participating Schools	No. of Participants	Weighted Participation Rate		
	Government school	Aided/ caput school	Direct subsidy scheme school			School participation rate	Individual participation rate	Overall participation rate
Student questionnaire	9	58	9	76	2,902	50.7 %	97.0 %	49.2 %
Teacher questionnaire	9	83	9	101	1,446	67.3 %	95.8 %	64.3 %
School questionnaire				84	84			

Note. Adapted from Schultz et al., 2011, pp. 78–79, 81–82.

($\alpha = .88$). Also included are two student self-reported manifest variables, *Students' Belonging to a Religion* and *Students' Participation in Religious Service*.

(4) School and classroom context variables were measured by *Openness in Class Discussion* ($\alpha = .84$), *Discussion of Political and Social Issues* ($\alpha = .79$), *Civic Participation in the Community* ($\alpha = .74$), and *Civic Participation at School* ($\alpha = .72$).

(5) Teachers' perceptions of school and classroom environment were measured by *Perceptions of Social Problems* ($\alpha = .81$), *Perceptions of Student Behavior* ($\alpha = .89$), and *Perceptions of Classroom Climate* ($\alpha = .91$), *Confidence in Teaching Methods* ($\alpha = .77$), *Use of Assessment* ($\alpha = .84$), *Reports of Student Participation* ($\alpha = .85$), *Reports on CCE in Class* ($\alpha = .83$), and *Confidence in CCE Teaching* ($\alpha = .91$).

(6) Principals' perceptions of school climate and stakeholders' sense of belonging to school were measured by *Student Behavior at School* ($\alpha = .92$), *Social Problems at School* ($\alpha = .72$), *Teachers' Sense of Belonging* ($\alpha = .88$), *Students' Sense of Belonging* ($\alpha = .86$), and *Other Staff's Sense of Belonging* ($\alpha = .88$).

(7) Single item measures, as reported by, students, principals and teachers, included *Expected Years of Further Education*, *School Type*, *School Size*, *Student Teacher Ratio at School*, and *CCE Assessment at School*.

Analytical Methods

We used MPlus 7.1 to conduct two separate analyses. Initially, we constructed random intercept and fixed slope two-level regression models since this enabled us to identify both school level and individual effects in relation to Hong Kong students' civic learning. Each measure referred to above was entered separately as a single level predictor of students' Civic Knowledge scores (this study's measure of civic learning).

Drawing on this initial analysis, we identified both statistically and conceptually significant predictors of students' civic knowledge scores and conducted a second multi-level regression analysis. Thirteen potential predictors were entered into the regression model at the same time to estimate "the direct effects of each independent variable on the dependent variable" (Keith, 2006, p. 76).

Results

Civic Learning in Hong Kong Schools

The first set of results reported below resulted from the initial multi-level regression analysis. As part of that analysis, intra-class correlations (ICCs) for all predictors ranged from .225 to .328. This indicated that overall approximately 30 % of the total variance in students' civic knowledge scores could be attributed to school membership. This is a large school effect. It signaled considerable differences in students' civic knowledge Scores across schools and these differences in turn can be attributed to diversified school contexts (Hedges & Hedburg, 2007; Preacher, Zyphur, & Zhang, 2010). This is important to keep in mind as the results are reported below.

Demographic Variables

Student *Gender* ($\beta = -.012$) and *Immigration Background* ($\beta = .021$) did not make any difference as single predictors. This was also true with *Family Socioeconomic Status* (SES) ($\beta = -.059^{**}$) showing a small but negative effect. As the basic components that account for the composite indicator family socioeconomic status, *Mothers' Education Level* ($\beta = -.063^{**}$) and *Occupational Status* ($\beta = -.061^{*}$) also revealed negative effects, so does *Father's Education Level* ($\beta = -.049^{*}$). *Mothers' and Fathers' Interest in Political and Social Issues* exerted small but negative and significant effects ($\beta = -.064^{*}$ and $\beta = -.041^{*}$, respectively).

Individual Student Values and Dispositions

Democratic Values exerted a positive and significant influence ($\beta = .167^{***}$) as did *Internal Political Efficacy* ($\beta = .099^{***}$) although to a lesser extent. *Attitudes toward the Influence of Religion in Society* ($\beta = -.157^{***}$) exerted a significant but negative effect. *Citizenship Self-Efficacy* ($\beta = -.0005$) exerted no significant effects. Notably, *Students' Belonging to a Religion* was influential ($\beta = -.082^{*}$), while their *Participation in Religious Service*, was not ($\beta = -.036$).

School and Classroom Context Variables

Openness in Class Discussion ($\beta = .138^{***}$) and *Value of Student Participation*

($\beta = .153^{***}$) contributed positively to students' civic learning at school. *Civic Participation at School* showed a small but significant impact ($\beta = .061^{**}$) on civic knowledge scores. The effects of *Discussion of Political and Social Issues* ($\beta = .037$) and *Civic Participation in the Community* ($\beta = .025$) were small and non-significant. Conversely, *Students' Influences on Decisions about School* were significant but negative ($\beta = -.105^{***}$).

Teachers' Perceptions of School and Classroom Environment

The way teachers perceived school and classroom climate indicated significant and positive impacts on student civic achievement. *Perceptions of Student Behavior* ($\beta = .478^{***}$), *Perceptions of Classroom Climate* ($\beta = .455^{***}$) and *Confidence in Teaching Methods* ($\beta = .232^{***}$) were moderate and significant single predictors. On the other hand, *Perceptions of Social Problems* ($\beta = -.611^{***}$) exerted a significant and negative effect on civic learning. *Use of Assessment* ($\beta = .196$), *Reports on Student Participation* ($\beta = .045$), *Reports on CCE in Class* ($\beta = .048$) and *Confidence in CCE Teaching* ($\beta = -.164$) were not significant.

Principals' Perceptions of School Climate

For the most part, principals' perceptions of school climate exerted neither positive nor significant effects on student' civic learning. The one exception was *Perceptions of Students' Sense of Belonging to the School* ($\beta = .354^{**}$) that was both a positive and significant influence on students' civic learning. *Perceptions of Social Problems at School* ($\beta = -.307^{**}$) exerted a negative and significant effect. *Perceptions of Student Behavior at School* ($\beta = .129$), *Perceptions of Teachers' Sense of Belonging* ($\beta = .211$) and *Perceptions of Other Staff's Sense of Belonging* ($\beta = .004$) were non-significant influences on students' civic learning.

Single Measures

The student self-reported measure *Expected Years of Future Education* showed a significant and positive effect on civic learning ($\beta = .184^{***}$). *School Size* ($\beta = .430^{***}$) and *Student-Teacher Ratio at School* ($\beta = .303^{***}$) made differences

to a large extent, while school type made no difference.

Based on these results we developed a multi-level model that extended the simple path model used by Torney-Purta et al. (2001) to show what accounted for Hong Kong students’ achievement in civic learning. The model is shown in Figure 1.

Fig. 1 Predictors of Hong Kong Students' Civic Knowledge Scores

Discussion

This study identified multiple influences on Hong Kong students’ achievement in civic learning. These influences included schools, classrooms, teachers and students’ individual values. This provided the basis for the model shown in Figure 1. Based on this model, how do we account for Hong Kong’s students’ international achievement in civic learning?

While we do not want to discount the effects of families on civic learning, it is clear from the results reported above and reflected in Figure 1 that traditional measures of socioeconomic status did not have significant effects and therefore were not included in the model. It was the same for other structural variables such as gender and immigrant background. This outcome resulted in a model that basically highlighted the importance of what happens in schools. Because of the

analytic method we used we were able to estimate the proportion of variance in civic learning that could be explained by two distinct sets of predictors:

- (1) Individual student dispositions and responses to classroom influences;
- (2) School level influences that characterized the environment of the school.

The result reported in Figure 1 showed that while the model accounted for 49.2 % of the variance in civic learning, only 8.6 % of that was attributed to individual students' values and dispositions while 40.6 % was attributable to the school's structure and environment. Thus it would seem that schools made a considerable difference to Hong Kong students' civic learning either because of the general environment they created or because of what students experienced directly in classrooms. This general result is consistent with Au's (2014) study of Hong Kong students but there are a number of notes of caution.

While the variance accounted for by the model was considerable (49.2 %), there was still over 50 % of the variance unaccounted for. Thus this study was not able to identify all the influences on Hong Kong students' civic learning. Second, the intra-class correlation (ICC) for the model was .176 indicating that 17.6 % of the variance in the model was accounted for by differences between schools. That is to say, it cannot be assumed that all Hong Kong schools are the same when it comes to civic learning. Some schools do much better than others, indicating that school environments and students' classroom experiences are different across the system. This is not an unusual finding given Hong Kong's streaming practices for secondary schools (there are three "bands" of schools with top achievers going to Band 1 schools and lower achievers going to Band 2 and Band 3 schools). This suggests that further work is needed to identify the school level factors that contribute to high levels of achievement in civic learning. Before addressing that issue, however, some comment is necessary on the non-significant role of background variables.

It was noted earlier that family background was not included in the model because the initial results indicated it had relatively little effect on Hong Kong students' civic learning. This is consistent with the earlier IEA Civic Education Study (Torney-Purta et al., 2001) as well as the results of other large scale assessments. For example, in PISA 2012 Hong Kong was ranked as a society whose students had above average performance and above average equity, meaning that "all students, regardless of gender, family background or socio-economic status, [were provided] with similar opportunities to benefit from

education” (OECD, 2014, p. 27). Yet this does not mean that parents, for example, do not influence students’ learning. Rather it means that the measures used failed to capture any effects. Thus we need to look outside the model proposed here for possible explanations.

Several attempts have been made to do this. Lee and Manzon (2014) developed a two pronged explanation for the lack of influence of socioeconomic status in particular. On the one hand, they argued that “the macro-educational system... offers objective opportunities that seek to promote educational quality for all, as demonstrated by the systemic education reforms introduced by the postcolonial government since 2000” (p. 831). This attribution of the education system to student success in PISA is very much in line with OECD’s concept of “high performing education system.” On the other hand, Lee and Manzon also alluded to the cultural influences that make education a sought after and valued commodity in Hong Kong irrespective of social class. Kennedy (in press) has offered a similar explanation but with a more critical attitude to what he has called the “cultural thesis,” attributing somewhat more agency to parents and students but with little recognition of the role of the education system.

His argument, like that of Lee and Manzon (2014), was based on the cultural pressures for students to do well in a Confucian Heritage Culture (CHC) such as that of Hong Kong, the proximal influence of parents as a direct CHC influence on students and reciprocally students’ effort and hard work as a CHC response to parents and their duty towards them. With this explanation, high parental expectations, and in some cases pressure, coupled with a “hard work” ethic, contribute to achievement and wipe out what are undoubted differences in socioeconomic well-being in Hong Kong. The empirical evidence for both cultural and system arguments is not yet forthcoming but what is undoubted is that Hong Kong students are provided with learning contexts, both within school and in families that enable them to do well in international assessments. An important question is whether these opportunities are facilitated more by the education system that students experience or the cultural context that influences families—both parents and students—to strive for high levels of achievement. This is an important area for future research with the focus more on the interaction between school values and those of families.

One outcome of this discussion on intangible influences on Hong Kong’s

students' achievement in civic learning relates to the concept of student resilience. Craw (2013) referred to OECD's resilience index where resilience is "defined as those students who, though they are in the most disadvantaged quartile of students in their country, nevertheless score in the top quarter on the PISA assessments of student achievement." IEA studies such as ICCS 2009 do not have a similar measure. Yet the point was made that "almost eight out of 10 of our participating students from 76 schools reached the top two proficiency levels (out of four) of civic and citizenship knowledge in the international survey. The international average was 58.3 %" (Hong Kong Government, 2010). When this result is matched with a lack of any significant effect of background variables such as socioeconomic status, gender and immigrant background, it can be assumed that when it comes to civic learning Hong Kong students are as resilient as they are in assessments related to other subjects, Hong Kong students from less advantaged background consistently do well. Some explanations have been advanced above for this phenomenon but clearly it remains a significant area for future research.

While the above discussion focuses on the somewhat intangible influences on achievement in civic learning, the remainder of this section will focus on the structural influences. At the individual level students' aspirations for the future in terms of their *Expected Years of Future Education* had a positive effect on their civic learning. The finding was consistent with the earlier IEA Civic Education Study (Torney-Purta et al., 2001). This is a variable that reflects the "future educational aspirations of the individual student" which in many cases were "influenced by parents, schools and peers" (Torney-Purta et al., 2001, p. 150). Given the value of education in a Confucian society such as Hong Kong, it makes sense that this aspirational variable for more education would have a direct effect on students' civic learning, indeed the most significant effect of all the individual predictors. Students with a higher goal will work hard to achieve good results. Hong Kong students did so for their PISA mathematics results and they have done so for their civics and citizenship results as well.

At the same time, students' with positive democratic dispositions—democratic values, valuing of participation, and interest in social and political issues—tended to perform better than those without these dispositions. This result may reflect that the ICCS 2009 was based largely on the principal characteristics of liberal democracy. Yet it cannot be assumed that these values

characterized all Hong Kong schools and students. The ICC for the model was over 17 % suggesting there is considerable variation across schools and some of this variation might be accounted for by variations across schools in scores for *Democratic Values* and *Interest in Social and Political Issues* and *Value Participation in School*. Since these are individual values it is unknown how students acquired them, perhaps from home, peers, the media or even at school. Yet the effect of these values, while significant, was small. As indicated above, students' aspirations for further education were more important as predictors of achievement than their democratic dispositions. It seems that Hong Kong students' achievement is driven more by their aspirations for the future than their current civic values and attitudes. It may be that Hong Kong students' achievement motivation is related more to their long term goals that provide more incentives for hard work than their short term values. Future research could profitably explore this area of achievement motivation and Hong Kong students' civic learning.

Individual students are also members of classrooms and therefore subject to influences that affect all students. Students' positive perceptions of an open classroom climate were a well-documented outcome in the second IEA Civic Education Study (Torney-Purta et al., 2001) and were confirmed in ICCS 2009. This result affirms the importance of pedagogy and its relationship to learning; openness is a value that encourages students to debate and ask questions and in the study reported here, it also helps them to learn important content. These results confirm Vieno, Perkins, Smith, and Santinello's (2005) results that students' individual perceptions and overall school climate are important predictors of school and civic engagement.

Civic Participation in School was not a significant predictor of civic learning in the model. It was significant in the first multi-level analysis although the size of the effect was small. In an earlier study (Kennedy, Li, & Chan, 2014) *Civic Participation in School* was shown to be related to civic learning, but in that context it was a mediator. The exact contribution of civic participation as a mediator may have been confounded with the effects of the other variables in the model. Given the importance of participation as a learning process further research is needed to explore the potential contribution that civic participation in school can make to student learning.

In addition to the influence of students' perceptions of their classrooms, this

study also highlighted the importance of teachers' perceptions of their classrooms. A surprising result, however, was that whereas in the initial analysis teachers' perceptions of student behavior, classroom climate and confidence in teaching methods were significant, their effect was not significant in the model shown in Figure 1. This focus on teachers' perceptions of classroom environment has been somewhat neglected in research on civic learning but has been explored in other school research (Mitchell, Bradshaw, & Leaf, 2010). Here it has been argued that teachers are more inclined to make global assessments of their classroom while students are more likely to make individual assessments. It is these global teacher assessments that have varied depending on the variables in the model and this suggests that further work is needed to understand better how teachers can influence civic learning.

The general issue of positive classroom climate, indicated by teachers' perceptions as well as students' experiences, and its effect on civic learning has also been highlighted by this study. In the first analysis teachers' and principals' perceptions of social problems in the school were significant and negatively related to students' civic learning. This suggests that stability in both schools and classrooms may be an important ingredient for student success. Civic learning seems to be facilitated best in those environments where there is openness, respect, mutual exchange and tolerance for others.

This view was supported by the retention in the model of only one significant school level variable related to the principals' perceptions of students' sense of belonging to the school. Granted that this is a very indirect measure of students' sense of belonging, it nevertheless suggests that the psycho-social environment in the school may play a part in enhancing student learning. This result supports the view expressed earlier that civic learning opportunities are enhanced in conducive learning environments. Yet in the present study it seems that such environments should not be confined to the classroom. It is important, therefore, to understand that school characteristics themselves can influence students' civic learning.

Conclusion

This study set out to account for Hong Kong achievement in civic learning as

shown in ICCS 2009 where Hong Kong students showed that they were among the top ranked. Hong Kong student, teacher and principal data from the International Civic and Citizenship Education Study (ICCS) were used to explore potential influences in civic learning. The study identified multi-level influences that included students' individual values and dispositions as well as school environmental factors. The general conclusion was that Hong Kong schools made a difference to civic learning. This is an important finding because it places considerable responsibility on schools in the preparation of Hong Kong's future citizens. Teachers have a responsibility to develop their classrooms as open learning environments that value discussion and interaction as well as encouraging participation and a general interest in social and political issues. At the same time, students will also benefit from a school environment where students feel they belong and which is stable and conducive to learning. This means that principals also have a responsibility at the school to create such environments that can enhance civic learning. This study has provided a foundation for further work that can identify success factors for civic learning and help to fulfill what Leung, Yuen, Cheng, and Chow (2014) have called the "civic mission of schools." This is an important task for Hong Kong schools and hopefully this study has been able to contribute to it.

At the same time, this research has raised some important theoretical issues that deserve further study. Background variables appeared to have little effect on Hong Kong students' achievement in civic learning. Several explanations were advanced for this including the use of OECD's discourse related to resilient students from poor backgrounds who can overcome their disadvantage in high performing education systems. This issue needs to be investigated further probably using more grounded and qualitative research methods. At the same time cultural explanations have been advanced for Hong Kong students' achievement but such explanations lack a strong empirical basis and need to be tested further. Finally, the study reported here showed that school level influences seemed to account for most of the variance in student achievement and student individual values and dispositions accounted for a much smaller amount of variance. As indicated above, schools have a "civic mission." Yet much more work is needed to show how schools can exercise this responsibility especially in these troubled times. In this sense, achievement in civic learning is more than an ordinary academic achievement, it is also a social achievement that

can contribute to a better world. Helping students to do this remains a significant challenge for the future.

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