



<i>Presentation Title</i>	<b>Primary School Students' Conceptions of Citizenship: A Longitudinal Analysis Using GEE</b>
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## **Primary School Students' Conceptions of Citizenship: A Longitudinal Analysis Using GEE**

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### **Abstract**

This paper investigates factors affecting the conceptions of good citizenship of primary school kids over their primary school education. The analysis is based on the data from the Life Pathway Project, conducted by the Centre for Research in Pedagogy and Practice, which was collected from year 2005 to 2007. It includes 1,722 representative primary school students randomly selected from the national primary student population. Using Generalized Estimating Equation (GEE), we examine the temporal effects of student's conceptions of citizenship. The results show that for single variable analyses, differences between races, genders, SES, language competencies, religiosity, social skills and competencies are statistically significant on student's conceptions of citizenship. However, at the multivariate context, only gender, social skills and competencies show significant differences. These results suggest that students' understanding of good citizenship is more related to their social skills and competence rather than influence from family.

**Keywords:** Citizenship concepts, Generalized Estimating Equation, Longitudinal analysis, Primary Education

## INTRODUCTION

Interest in citizenship has increased in the past two decades, in part due to concerns about the decline in the turnout of the young adults in election. Evidence of such decline in the US and Europe has raised debates about what such behaviors of young adults reflect as well as affect their understanding of citizenship norms and responsibilities as a citizen (Blais, Gidengil, and Nevin, 2004; Kimberlee, 2002). The issue of civic disengagement has in fact been raised as a major concern within established democracies and reasons that underlie such outcomes have been extensively discussed (e.g. Putman, 2000). Two major explanations in the literature have attempted to explain the decline in voting turnout. The decline thesis refers to young adults as the source of such trends, specifically, their alienation, apathetic and uninvolvement in their communities (e.g. Putman, 2000; Dajaeghere and Hooghe, 2009). However, there is evidence that many young people may find other routes in political actions to show their social concerns to the community (Roker et al, 1999). For example, they might abandon the institutional and traditional forms of political participation and branch into voluntary associations and civic groups (Cohen, 2005; Zukin et al, 2006). Dajaeghere and Hooghe (2009) refer to such phenomenon as the replacement thesis as an explanation of how the younger generation finds alternative ways to express their political involvement. However, there is fear that the young adults' lack of involvement in politics could signal the possibility of an ultimate rejection by the new generation of political activities and such disengagement could lead to and result in a total failure of the democracy. The alienation of the younger generation could well be related to the outcome of globalization reflecting the uncertainty they face and hesitation to get involved due to the ever changing complexity of the community they live in. Furthermore, as elections is just one of the ways of expressing their concerns as being a citizen to the community but not the only way, they are hence reluctant to involve in "unproductive" activities they could not see as having immediate and direct benefit to the community. There is also deep concern for another sub group of young adults who are not concerned at all about happenings in the political world and avoid engagement in politics altogether. Given this situation, the responsibility of getting students and young adults to grasp the idea of good citizenship and practice at a young age is thus a crucial imperative. How do we make sure that they have possessed sufficient knowledge at a young age in order for them to practice their involvement along their life pathways and hold on to these conceptions? This paper surveys the primary school kids over a three years period on this subject and examines factors affecting their formation of conceptions of good citizenship. We first discuss the meanings and significance of citizenship in view of the globalization and its importance and relevance on students and young adults. The meanings of the conceptions of good citizenship are elaborated on, paying particular attention to students and children. It has been argued that the need of students and children to be involved in political events at an early age is not so much to acquire mere concepts but to build up the sense of responsibility of being a citizen in order to have a long impact on their development in their later years. As such, understanding their conceptions of citizenship at their earlier age is thus crucial. However, what are the crucial factors affecting students' grasp of ideas? The current empirical findings unveil the various factors affecting student's conceptions on good citizenship using a longitudinal statistical analysis method, the generalized estimating equation (GEE), that takes consideration of changes and correlation of students' perceptions of citizenship over time. This paper ends up with a discussion on the issues on the conceptions of good citizenship in view of the current findings.

## CITIZENSHIP

Before we proceed to discuss about the conceptions of good citizenship, we probably would like to ask what citizenship is about and its meaning and the significance attached to it. Citizenship is a term commonly known to us because it is closely linked to our daily life practices. It is related to the rights we are entitled to and its exercise within the community we are living in. In this view, citizenship is the civil status one receives in a society to enable one to exercise one's rights. Ownership of a citizenship status should not be viewed as a given. There exists in fact a spectrum of rights in our legal system to give different groups of people different level of rights in our community. Legally, there is a continuum that classifies people living in a community from non-citizen to citizen. It ranges from no legal status of an illegal resident to a permanent resident who enjoys greater rights and those who have a citizenship who entitle to the full rights (Ben-Arieh and Boyer, 2005). Marshall (1950) refers citizenship as a status conferred upon people with full membership of a community. People who own the citizenship status enjoy equality in respect to certain rights and duties the community they live in. Marshall (1949) divides citizenship rights into three categories namely civil, political and social rights. Civil rights encompass the rights for freedom. For instance, the right to own property, freedom of speech, the right to privacy, the right to justice, the right to education, the right to change religion, and the right to legal representation in civic proceedings, just to name a few. Political rights are related to electoral process, for instance, the right to vote, and the right to participate in political demonstrations. Social rights include economic welfare, security, right to parental care, right to state protection, right to health insurance and the whole spectrum of them that enable individual to live a full life (Ben-Arieh and Boyer, 2005; Torres, 1998).

Most government since the end of the 19<sup>th</sup> century have seen national identity as one of their prime duties and there have been large funding in public education to promote it. The reasons behind the developing of a national identity within the national systems of education is in part to foster and develop a sense of national identity so as to sustain national economic, and create an efficient labor force in order to have a loyal, and homogeneous citizenry (Green, 1990; Smith, 1995). These results create the sense of being "the same as others" within the country and "different from other" for non-members, so that the formation of a national identity becomes unquestioning and continuously exist for the members within the nation. This effect, as Miller (1989) points out, is to hold citizens together so that the idea of a community of people to determine their own future views could be fulfilled by the citizens. As the status of citizenship provides the rights, protection and benefits one could enjoy within the country that grant the status, this unique identity also distinguishes one from those who do not possess it. As such, the status signifies the identity of the group. This identity formation does tie one to the nation he or she belongs to and create sense of belonging when one exercises his or her rights as citizenship even if it is symbolically carried out. The inclusion of civic education into curricula further enhances this sense of identity through iconic symbols of nationality. This national identity in fact comes in various forms and shapes, from maps teach in school to postage stamps we use in our communication, from corporation images of national airlines to participation in national events such as the national day parade.

Globalization changes the world and the way we look at citizenship. The state-centered argument conceives citizenship as social and political inclusion guaranteed by social rights within the boundary state may no longer be universally applicable. Citizenship now appears in many forms and we have to be open to new ways of interpretations because the structure of nation-based identities has become less relevant and its practical importance has and would diminish over time. The issues of citizenship can become complex when one owns several citizen statuses as it can either be generational or acquired. The twentieth century has

seen waves of international immigration and this has tremendous impact on the boundary of citizenship. This added complication of citizenship is by and large a result of globalization. As globalization would not likely to be a trend toward homogenization but against it, citizenship becomes a more complex notion as its boundary and concerns turn fluid. The boundary of citizenship is no longer the physical location where we live in. It could be a cultural, an ecological, and a cosmopolitan based conception. The boundary for the community becomes vague and fluid. It could change according to the way we perceive it, whether be it cultural, ecological or cosmopolitan. As the nation lose its capacity to control the economic outcomes to sustain social cohesion, the notion of citizenship has also grown less clear. A global citizenship that is cosmopolitan, cultural oriented, socially interdependent and information based is emerging. It has broken national boundaries and this has great implications on our students and children. What is taught in schools, transmitted within family and in other social institutions about citizenship ought to adjust to take into account such changes. For the students to understand citizenship thus becomes ever more important as their perceptions will affect their actions and the molding of their future communities. Now, let us turn to discuss the conceptions of good citizenship and the positioning of students in acquisition of these conceptions.

## **UNDERSTANDING IDEAS ABOUT CITIZENSHIP**

Understanding the basic conceptions of citizenship would enable one to exercise their rights as a citizen within a proper frame for the basis of making decision for the good of the community. The degree of understanding about the conceptions of good citizenship would affect the way one applies them. The significance of acquiring the conceptions at early age through education comes into view as not paying attention to it would affect the school kids in later years when they have the full rights in exercising their obligation. It is not so much about their current comprehension on the knowledge of civics, but the ability to translate their understanding to affect their current and future actions by their political involvement and participation. The fundamental crux of the issue is that the degree of understanding would eventually shape their national, ethnic, gender, religious identities, and various identity formations. The students need and ought to acquire the fundamental notion of citizenship is to have vision for the community they live in and for them as one of the members to contribute to the large community. The community should be viewed as a wider scope of fluid nature and no longer restricted to nation boundary. The idea of being a citizen is to exercise self responsibility for the community, to tolerate and work together with people who are different from themselves for the good of the community. Globalization has indeed converted nations into multi-racial, multi-religious, and multi-cultural to ever changing communities with physical and restricted legal boundary. The new generation of young and students has to experience these changes. The question is how do we ensure that they would act as a responsible citizen in the community they live in? The ability and willingness to exercise self-restraint and personal responsibility as a good citizen in adulthood would have to be more or less established in their earlier understandings about the civil, political and social rights. The capacity of students to socialize based on rational principles when they grow into adulthood is closely related and partly due to the ability of the educators to put in a proper frame within the formal educational system to mold the students' characters and value system to acquire the necessary value system they ought to acquire.

As the twentieth century has marked the wave of immigration, it has tremendous implication on the curricula as far as civic education is concerned. School curricula may become out of date as quickly as the communities the students live in often change faster than the curricula. As globalization is unlikely to be a trend toward homogenization but otherwise,

understanding the basic fundamental idea behind citizenship becomes more important for students to grasp its essence. The global and ultimate objective is not so much of what they learn in school according to the requirements stated in the curriculum in terms of factual knowledge but to ensure they understand their present and future roles within the community so that they can better position themselves within the legal, political, religious, social and economic institutions of the community they live in in order to exercise their rights for the good of the community at large. Osler and Starkey (2003) suggest that young people in cosmopolitan societies should be exposed to citizenship of cosmopolitan. This cosmopolitan approach for citizenship is not new. The concern is whether students understand and agree upon the value system of good citizenship and are able to exercise greater tolerance and care in handling various issues such as cultural, racial, and gender when differences arise. The rights and entitlements given to us as citizens come together with the responsibility to exercise such rights and entitlements within the community so that the well being of the people living in the community are protected and upheld. An adequate conception of citizenship requires a balance of rights and responsibilities (Kymlicka and Norman, 1994). Being a citizen is not just to fulfill a voting right responsibility as the legal status is given. It goes beyond the legal responsibility, for one to be a good citizen requires caring and participating in decision making within one's own community. The idea of active involvement is to ensure and safeguard the well being of all citizens within the community. These conceptions have to be transmitted to our students. Hence, for students to understand the conceptions of good citizen is essential for them to get involved and participate in activities to develop their responsibility and caring for the community. Concepts such as respects the rights of others, voting in election, and trying to change unfair laws are values should be cultivated in schools. This paper lays the empirical evidence of primary students understanding about the conceptions of good citizenship by examining them over 3 time period, and gives the findings of the essential factors that affecting their understandings.

## **POSITIONING THE STUDENTS AND CHILDREN**

There is an increasing awareness of the need to develop children and teenagers as citizens who are capable of participating in the social, political, and economic affairs. Council of Europe (2003) states the essence of youth participating:

“The active participation of young people in decisions and actions at local and regional levels is essential if we are to build more democratic, inclusive and prosperous societies. Participation in the democratic life of any community is about more than voting or standing for election ... Participation and active citizenship is about having the right, the means, the space, and the opportunity — and where necessary the support — to participate in and influence decisions and engage in actions and activities so as to contribute to building a better society.”

The message of getting the youth to be involved in the political process and have greater voice with regard to their concerns has raised apprehension especially when youth welfare has been overlooked. In terms of political rights, children do not have the right to vote, strike, and have limited and generally condescending access to the media. As much of the attention on children in the past has stressed on the intellects, personalities, physical and psychological development, these future potentials and possibilities of children have in fact belittled what children can do in terms of political actions at an early age. We are indirectly implied that they are not capable of making decisions and get involved in activities that are not within the reach of their capacities. They are generally regarded as ‘otherness’, and often coded as irrational, incapable and undeveloped in connection with their incompetence in political responsibilities (Cockburn, 1998). Alderson (1993) questions the relationship of

competence and chronological age and her study illustrates children's competence is linked to experience rather than age. The belief is that adult could act on behalf of children but the more relevant question is whether we the adults act best for children interest without their involvement. Children and students often do not have chance to voice up their opinion unless social spaces are provided for them to experience it. More importantly, if they are not encouraged to make decisions in their early years, they might become more irresponsible in their later years. Cockburn (1998) argues for a socially interdependent model of citizenship where we should view interdependence between children and adults rather than dependence of children on adults. Children are not only dependent on their parents and adults, the society is also dependent upon children for its reproduction and without them this process is impossible. There is a greater call for political participation for children and we should not put them as a distinct social class so much so that their current marginalized position is over run by issues of race and class and gender (Qvortrup 1994). There is evidence of successful children participation in political decision. Guerra (2002) reports children's participation in the governance and municipal budget of Barra Mansa in Brazil. Children of aged between 8 and 13 were chosen as child secretaries based on competition participate in a municipal program of activities entitled Citizenship Knows No Age.

We need to understand the role of students and children in the political processes to make them eventually get involvement in the political participation. Political socialization, as Hyman (1959) puts it is an individual's "learning of social patterns corresponding to his societal positions as mediated through various agencies of society", and is about examining the process of socialization and how learning from each other shape our political ideology and practices. We need to gather evidence of political socialization to know how students acquire their knowledge and put them into usage later in their life. An education that creates the sufficient conditions for students to acquire the necessary knowledge of civics is a necessary state for them to participate later in adulthood. Understanding their general conceptions of citizenship would fortify their practical activities in their school day. By examining their current status gives us ideas about how young adolescents' view citizenship. And what is this initial formation related to? Is it related to their family background? Or, is it with their personal traits? This paper examines the relationships of student's conceptualization of good citizenship over a period of 3 years to their demographic, self perception of academic and language ability, religiosity and social skills and competence. This paper examines these various factors affecting student's view of conceptions of citizenship over time during their primary education, provides a preliminary understanding about the political socialization of these students, not the whole but in part, about their attitude and the changes and relates to the attributes that could have affected these changes.

## **DATA AND METHODS**

### **Sample and Sources**

The analysis is based on the first three waves of the life pathway project conducted by the Centre for Research in Pedagogy and Research (CRPP), Nanyang Technological University, Singapore. The total sample consists of 1,772 Singapore students from 36 schools which is representative sample of the national primary school student population. The first wave of the data starts in the year 2005 when the students are in primary four (Grade 4) and continues annually till students are in Grade 6 in 2007. A stratified sampling frame is used in the study. The schools are classified into three strata according to their past academic performance and equal number of schools randomly selected from each of the stratum.

## Variables

In the survey, citizenship concepts are tapped by a question on “A good citizen is someone who ...”, and follows by the five statements listed below. Although we are aware that these statements tap at different views about citizenship, for the purpose of this paper, we have taken them as a set. The scale reliability was high and we believe that this could be because among younger students, these items signaled to them what was a “good citizen” is and they are still unable to distinguish between different conceptions and models of citizenship. Students could assign a score between 1 (Strongly Disagree) to 6 (Strongly Agree).

1. respects the rights of others
2. votes in elections
3. puts national interests above his/her own
4. tries to change unfair laws
5. takes part in politics

Variables used in this study to explain the conceptions of good citizenship could be divided into four basic groups. They are demographic variables, language and ability, social skills, and self traits. Demographic variables include gender, race, residential type, father education, and student’s grouping. There are three main ethnic groups in Singapore, namely Chinese, Malay, and Indian. Students from other racial groups are grouped into one named as “other ethnic groups” since they are very small in terms of percentage and number. Race is dummy coded with Chinese as the reference group. The residential types in Singapore basically fall into two broad categories. The private housing and the public housing built by the Housing and Development Board (HDB). HDB flats are 99 years lease built by Singapore government. They are assigned as HDB 1-room to HDB 5-room/Executive flat according to the living spaces and economic worth of the property values being 1-Room the lowest in value and space and 5-Room/Executive the highest. The residential type is also dummy coded. Father education level ranges from 1 as no formal education to 8 as post-graduates. Student’s primary school grouping is according to the Ministry of Education streaming according to their academic performance and whether they choose the mother tongue subject. The grouping include gifted, higher mother tongue, without higher mother tongue, and EM3. Grouping is dummy coded with the gifted as the reference group. There are basically four groupings in primary schools. The gifted students are those identified as gifted child who give special attention in teaching certain subjects. The EM3 is the lowest in terms of academic performance. The bulk of the students are those who do not take higher mother tongue as one of the academic subjects. Those students who have greater language ability are those who take the higher mother tongue. They are grouped under the higher mother tongue group.

We also ask students to assess their own language competency, self rated and teacher rated ability. These items are coded with Likert scale ranges from 1 to 6. Five psychological constructs are also incorporated in the survey in order to examine their impacts on the conceptions of citizenship. They include friendship skills, adaptability, orientation to future goals, optimism/confidence, and self esteem. All constructs used in the study are summated scores.

## Modeling Strategy

Unlike cross-sectional regression, repeated measures are correlated over time, and hence they are not independent of each other. As such, the assumption under ordinary least square (OLS) regression of independent is violated. We need to account for these correlations in modeling, otherwise the standard errors of the estimates would be underestimated for the between-subject and overestimated for the within-subject effects. Generalized estimating equations (GEE), introduced by Liang and Zeger (1986), is an extension of generalized linear models (GLM) to address the issue of correlated data by incorporating the working correlation matrices that take into account the correlated responses over time. The main strength of GEE is that it models a known function of the marginal expectation of the dependent variable as a linear function of explanatory variables. The advantage of GEE is especially obvious when the number of observations is large in relative to number of waves as in the case of our study. Unstructured working correlation is used for modeling as it is more useful for shorter time series and provides the most efficient estimator for the estimated coefficients compared with other specifications.

In regression analysis, we generally would like to state the effect sizes for the models. In the context of GEE, since the residuals are not independent, the cross-sectional OLS  $R^2$  could not be used directly. Zheng (2000) introduces an extension of  $R^2$  statistics for GEE models which named as marginal  $R^2$ . We use Tan et al (2009) SAS macro to generate marginal  $R^2$ . One of the commonly used and well established goodness-of-fit statistics in comparing competitive models is the information criterion index such as AIC (Akaike's Information Criterion). As GEE is not a likelihood-based method, Pan (2001) suggests using the QIC (Quasilikelihood under the Independence Model Criterion) which is analogous to the AIC in evaluating competitive models fit. Pan (2001) also suggests QICU which could be used to approximate QIC and potentially useful in variable selection.

## Results

Table 1 shows the descriptive statistics of student's demographic variables, student's self evaluation of English and Mother Tongue competency and self rated and teacher rated ability. About half of the samples are boys. The ethnic group percentage resembles the population distribution of race. 79% of students are Chinese, 15% are Malay, 4% are Indians and the rest are other races. Slightly less than 2 in 3 (62%) stays in HDB 4- and 5-room flats. Slightly less than 3 in 4 (73%) has father with education level at least O level. Secondary students are divided into 4 groups. A small group of 4% belongs to students under the gifted program. About 60% of the students do not take the subject higher mother tongue and 30% takes this subject. 5% of the students belong to the EM3 which is the group regarded as lowest in terms of academic performance. Both English and Mother Tongue self reported competencies drop in the second wave 2 (Grade 5). Even though it increases in wave 3, the levels are still lower than wave 1. The standard deviation of English competency for the 3 waves is around .8 whereas the Mother Tongue competency is higher and fluctuates around 1. Self and teacher rated ability drop from wave 1 to wave 2 and increase slightly in wave 3. Both the standard deviations of self and teacher ability are lowest in wave 3.



Table 1 Descriptive Statistics

			n=1,772
<b>Description</b>	<b>Metric</b>	<b>Mean</b>	<b>SD</b>
<u>Gender</u>			
Female	(omitted)	.53	-
Male	Male= 1	.47	-
<u>Ethnic Group</u>			
Chinese	(omitted)	.79	-
Malay	Malay = 1	.15	-
Indian	Indian = 1	.04	-
Others	Others = 1	.02	-
<u>Residential Type</u>			
Rented HDB 1-/2-Room or 3-Room	(omitted)	.14	-
HDB 4-Room	4-Room =1	.33	-
HDB 5-Room or Executive Flat	5-Room/Executive=1	.29	-
Private Property	Private=1	.24	-
Father's Education Level	Ranges from 1 to 8	4.69	2.20
<u>Grouping</u>			
Gifted	(omitted)	.04	-
Higher Mother tongue	Higher MT=1	.31	-
Without Higher Mother Tongue	Without Higher MT=1	.60	-
EM3	EM3=1	.05	-
<u>English Competency</u>			
Grade 4	Ranges from 1 to 6	4.80	.83
Grade 5	Ranges from 1 to 6	4.65	.83
Grade 6	Ranges from 1 to 6	4.73	.79
<u>Mother Tongue Competency</u>			
Grade 4	Ranges from 1 to 6	4.80	1.08
Grade 5	Ranges from 1 to 6	4.62	1.03
Grade 6	Ranges from 1 to 6	4.75	.91
<u>Self Rated Ability</u>			
Grade 4	Ranges from 1 to 6	4.01	1.34
Grade 5	Ranges from 1 to 6	3.78	1.15
Grade 6	Ranges from 1 to 6	3.87	1.07
<u>Teacher Rated Ability</u>			
Grade 4	Ranges from 1 to 6	3.92	1.28
Grade 5	Ranges from 1 to 6	3.75	1.16
Grade 6	Ranges from 1 to 6	3.80	1.11

Table 2 displays the factor loadings and Cronbach's alpha of all the scales. All Cronbach's alphas are above the .7 threshold except orientation to future goals at Grade 4 with value of .69. The factor loadings of all the indicators are satisfactory.

Table 2 Factor Loadings and Cronbach's Alpha for Scales

Variables / Statistics	Grade 4	Grade 5	Grade
n=1,772			
<b>Construction of Good Citizenship</b>			
<u>Factor Loading</u>			
respects the rights of others	.66	.68	.66
votes in elections	.77	.74	.76
puts national interests above his/her own	.78	.76	.77
tries to change unfair laws	.61	.59	.61
takes part in politics	.77	.72	.74
<u>Cronbach's Alpha</u>	.76	.73	.75
<b>Friendship Skills</b>			
<u>Factor Loading</u>			
I am good at making new friends	.78	.81	.81
I am good at keeping friends	.81	.83	.84
I am always there for my friends when they need me	.80	.83	.84
I am a good listener when my friends tell me their problems	.80	.78	.81
<u>Cronbach's Alpha</u>	.81	.83	.84
<b>Adaptability</b>			
<u>Factor Loading</u>			
Learn new methods and skills when the old ways don't work anymore	.74	.79	.79
Work at overcoming your weaknesses	.73	.79	.82
Get back your confidence after a failure	.72	.78	.80
Get used to new school situations (e.g., new class, new school, new teacher)	.65	.66	.72
Adjust to difficult school work	.76	.79	.84
Come up with new ideas to do well in new tasks	.74	.75	.81
<u>Cronbach's Alpha</u>	.82	.85	.88
<b>Orientation to Future Goals</b>			
I don't really think about my future goals	.82	.80	.82
I don't worry about planning for my future	.76	.83	.88
I don't see any point in setting goals for myself	.78	.87	.87
<u>Cronbach's Alpha</u>	.69	.77	.80
<b>Optimism / Confidence</b>			
<u>Factor Loading</u>			
You can get a good education	.72	.75	.81
You can get a job that pays well	.79	.81	.85
You will have a job you will enjoy doing	.75	.80	.83
You will have a happy family life	.69	.73	.78
You will have good friends you can count on	.62	.62	.65
You will earn the respect of others	.76	.75	.79
You will get the things you really want in life	.67	.74	.78
<u>Cronbach's Alpha</u>	.84	.86	.90
<b>Self-Esteem</b>			
<u>Factor Loading</u>			
I feel useless at times	.82	.87	.88
At times I think I am no good at all	.87	.90	.92
I feel like I am a failure	.84	.87	.89
I feel I do not have much to be proud of	.75	.79	.84
<u>Cronbach's Alpha</u>	.83	.88	.90

The generalized estimating equation (GEE) is used to model the conceptions of good citizenship. Five models are built to explain student's opinion on this particular conception of good citizenship. The first model includes the demographic variables. The second model concentrates on student's ability in language and academic performance. It includes student's competency in English and Mother Tongue and self and teacher rated ability. The third model concentrates on the impact of the student's skills on conception of good citizenship. The fourth model examines the psychological variables and religiosity, and the last model, model 5, takes into account of all the variables. It is noted that gender is not statistically significant at single variable model. As such, it is not included in the modeling process described above. Model 0 displays the results of single variable modeling using GEE. This initial models help to compare the results of the single variable analyses with other variables of the 5 models so that changes in the magnitude of the variable could be examined.

In model 0, all the variables include in modeling are statistically significant, indicating the bivariate relations of the variable to the conception of citizenship i.e. these are simple regression analysis results for a single variable without controlling for other factors. Those students who stay in better housing type show significant different from the lowest room type – 3 room HDB flat. The single variable models also show race effect and grouping effect. Malay has lower score compare to the reference Chinese group. Those students in the EM3 class and those who do not take higher mother tongue score lower than the gifted students. However, these effects diminish in model 1 except for grouping. When race, residential and grouping are considered simultaneously, only grouping effect shows as significant but not the rest of the variables. The grouping effect also disappears in the last model 5 when student's psychological variables and language competency are controlled for.

Model 2 shows that both English and Mother Tongue competency as well as their ability are related to student's level of agreement to this conception of good citizenship. Model 3 indicates that the higher the adaptability level, the higher in their friendship skills and with future goals in mind, the greater would be student's conceptions of citizenship. Although student's psychological constructs like optimism / confidence and self esteem are significant at Model 0, when controlling for religiosity, only optimism and confidence is statistically significant in Model 4. Religiosity at Model 0 is statistically significant showing the bivariate relationship of religious influence on student's conceptions on citizenship. However, this variable turns insignificant when other variables in the models are controlled for.

The final model 5 indicates that there is race effect but the rest of the demographic variables are not significant. Language competency, teacher rated ability, self esteem, and religiosity are also indicated as not statistically significant. The magnitude of self-rated ability has reduced in size from .03 in model 0, to .02 in Model 2 and to .01 in the final model. This shows that student's perception of their own ability does marginally relate to their conceptions of citizenship. More importantly, student's own attributes such as friendship skills, adaptability, orientation to future goals and optimism and confidence are statistically significant and their magnitude do not reduced substantially from model 0 to model 5.

Table 3 GEE Analyses – Construction of Good Citizenship (Primary 4 to Primary 6) – Working Correlation: Unstructured

Variables	Model 0	Model 1	Model 2	Model 3	Model 4	Model 5
Intercept	-	1.49***	1.23***	1.00***	1.17***	1.06***
Malay (Chinese omitted)	-.03***	-.02				-.03*
Indian	-.02	-.00				-.06***
Others	-.00	.03				-.08
Four Room HDB Flat (3 Room Below omitted)	.02	.01				.02
Five Room HDB Flat	.05***	.02				.02
Private Property	.05***	.03				.03
Father Education	.01***	.00				-.00
Higher Mother Tongue (Gifted omitted)	.01	.01				-.00
Without Higher Mother Tongue	-.04*	-.04				-.00
EM3	-.19***	-.16***				-.07
English Competency	.03***		.01***			-.01
Mother Tongue Competency	.02***		.02***			.01
Self Rated Ability	.03***		.02***			.01*
Teacher Rated Ability	.03***		.01*			-.01
Friendship Skills	.07***			.05***		.04***
Adaptability	.07***			.04***		.03***
Orientation to Future Goals	.04***			.02***		.02***
Optimism / Confidence	.07***				.06***	.02***
Self-esteem	.02***				.00	.00
Religiosity	.01***				.00	.01
QIC	5,317#	3,497	3,550	5,321	5,322	2,347
QICU	5,316#	3,484	3,548	5,318	5,319	2,335
Marginal R <sup>2</sup>		.3812	.3956	.1495	.0885	.6558

\* p<0.05 \*\* p<0.01 \*\*\* p<0.001, # : Null Model

## DISCUSSION

How people develop their political skills, orientations and practices are fundamental questions researchers would like to answer. How students develop their political conceptions and ideology is one of the fundamental concerns in current debate as it is believed that political socialization occurs primarily in childhood and young adults (Sapiro, 2004) and historical events is greatest when they occur in adolescence and young adulthood (Schumann and Corning, 2000; Schumann and Scott, 1989). The impact on students would be much greater if we could mould them at school, not only to acquire necessary knowledge, and skills but also the responsibility they could exercise at early and older age. The study of children and adolescence in their formation of citizenship is crucial as initiating into habits of political engagement in later part of their life in fact starts during their earlier socialization (Galston, 2001). This study provides the empirical evidence that neither the family influence nor the school categorization, after controlling for student's own attributes, are important factors affecting how students value this particular conception on citizenship. Rather, student's social skills and competence is related to how students view citizenship. These findings are useful to unveil part of the political socialization. Unlike most analysis on citizenship that are based on cross-sectional analysis, the longitudinal analysis using GEE takes into account the temporal effects of student's conceptions on citizenship and thus provides the panel data results of the political socialization although it is restricted to 3 time points.

Good citizens are made, not born. Understanding how students view citizenship is important as a first step. It is only with such understanding that students can be encouraged to participate in real life political events. Crucial social institutions such as family and school serve as agents of socialization in which students acquire concepts what it takes to be a good citizen. If family is the major influence, family related factors such as family background and student's demographic would be related to how students' view citizenship, and if student's own attributes are crucial factors, it is probably an indication that there are influences beyond the family. More complex socialization processes could in fact take place in other social institutions and spaces to mould their conceptions. This study provides preliminary findings indicating that student's own attributes such as friendship skills, adaptability, vision of future goals, and the level of optimism are relevant and important factors in shaping the extent students' subscribe to certain views of citizenship. In essence, it tells us that the soft skills one's possess could influence children at an earlier age of their life in their view of citizenship.

The rise in xenophobia, and globalization have in fact place additional responsibility of the younger generation to pursue more socially stable societies. The needs to prepare them for the future are crucial in this increasing changing world. The more narrowly the citizenship education curricula is enacted in the formal education, the less opportunity students would have to enlarge their horizons and could only cause harm rather than beneficial. As social skills are crucial for students in developing their views of citizenship, much of the effort should focus on the development of students in these areas. Although the current emphasis of national education places emphasis on creating national identity, more needs to be done to help students identify with citizenship and civil identity. Globalization creates multiple identities in citizenship and as long as those who share an interest and identity in the community they live in participate, collaboration will arise and with it a sense of membership. With increasing globalization, the legal aspect of citizenship is likely to be downplayed. So, we have to prepare our children for a future where one can no longer rely on – the eroded sovereign state to secure memberships. Ross (2007) points out that we have to rethink about citizenship as it is no longer a legal definition with state boundaries. The working towards the betterment of one's community through participation, volunteer work and efforts to improve

life for all citizens has become more crucial. Urry (2005) categorizes the rights of citizenship into cultural, minority, ecological, cosmopolitan, consumer and mobility. The widening of the scope on citizenship teaching in school curricula is the inevitable trend. Although value and citizenship education is found in most curriculum and syllabuses, it is difficult to teach and assess within the formal educational structure. Yet there is a need to continue to do so because of its profound impact on student's personal development.

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