World Review of Business Research
Vol. 2. No. 5. September 2012. Pp. 48 – 64

"Capital" Indicators: An Alternative Approach to the Conventional Measures of Socioeconomic Status

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Echoing the work of Oakes and Rossi (2003) and based on the Social Theory (Coleman, 1988), this study examines the mechanisms of socioeconomic status (SES) and investigates the function of Social Theory in explaining SES as a function of "capital". For this study, 1,055 students between the ages of 15-17 years from 21 national schools in Kuala Lumpur participated in the questionnaire survey. The findings from the study reveals that there is a correlation between the conventional measures of SES and social capital, human capital and material capital, thus serves as a useful measure of SES for adolescent population.

Keywords: Social Theory, Adolescents, Parent's Social Resources, Tuition, Pocket Money, Reading Materials

Field of Research: Development Economics

1. Introduction

Traditionally, parental SES (income, education, and occupation) is used to measure the social status of adolescents. However this pose a problem for researchers as adolescent's knowledge on their parents' SES is inadequate. Thus many studies have reported 15-40 percent missing data in the surveys in which adolescents were asked to provide data of parents' income, education and occupation (Currie et al., 2008, Doku et al., 2010, Oakes and Rossi, 2003). In addition, previous studies have revealed that for adolescence study, indicators of health related social position can be approached from various perspectives of life and not only observe from parents socioeconomic status so that these indicators are sensitive enough to gauge health inequalities in adolescents (Koivusilta et al., 2006). With these issues at hand, numerous scholars have explored alternative measures to adolescent's SES to attain higher response rate from respondents and measure health inequalities in adolescents. This has created an upsurge of studies examining specific indicators such as "Capital" as a function of Socioeconomic Status (CAPSES) (Oakes and Rossi, 2003), Family Affluence Scale I and II (FAC I and II) (Morgan and Haglund, 2009, Currie et al., 2008), and Material Affluence of Adolescents (MAS) (Doku et al., 2010, Koivusilta et al., 2006), to name a few, to elicit more information on adolescent's social status.

In this paper, Coleman's Social Theory (Coleman, 1988) is used as the underpinning for measuring SES, while CAPSES model by Oakes and Rossi (2003) enlightens the conceptual framework of this study. This study thus endeavours to provide empirical

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evidence on the use of the capital components highlighted by numerous social scholars (Krieger et al., 1997, Oakes and Rossi, 2003, Heard et al., 2008) as proxy to SES of adolescents. Through CAPSES, SES is seen as how much access to resources an individual can obtain from the environment and these resources are divided into material capital, human capital and social capital (Oakes and Rossi, 2003). Although material, human and social capital are seen as indicators of individual's social status, limited studies have examined this concept to measure adolescent's SES (Oakes and Rossi, 2003).

For ease of reading, this paper is divided into several sections. The subsequent sections focus on literature of conventional and alternative methods in measuring socioeconomic status, followed by the theoretical underpinning of the study. Then the literature gaps are highlighted followed by objectives of study. Subsequently the methodology and results of the study are presented.

2. Past Literature

2.1 Socioeconomic Status

To date, social scholars are still debating on the conceptualisation, operationalisation and the measurement of SES (Fujishiro, 2010; Oakes & Rossi, 2003;). This is due to the fact that the nature of social stratification has not been conceptualised clearly (Oakes and Rossi, 2003). Socioeconomic status indicates the available resources that parents use to contribute to children's healthy environments, promote knowledge and behaviours that are important for their well-being (Heard et al., 2008). This study defines SES as individual's social standing in society based on their access (realised or potential) to resources and status (Krieger et al., 1997, Fujishiro et al., 2010, Oakes and Rossi, 2003). Resources here refer to materials, social resources and assets (income, education, wealth), while status refers to rank in social hierarchy such as access to consumption of goods, services and knowledge, which are linked to occupation, income and education level (Fujishiro et al., 2010).

2.2 SES Indicators

2.2.1 Material Affluence of Adolescents (MAS)

MAS derived from the theory of deprivation (Townsend, 1987) which proposed deprivation as multidimensional, where it can take different form either physical, environmental or social states in every society. Doku and colleagues (2010) in their effort to conceptualise deprivation, defined it as lack of physical or material things in terms of goods and resources that is needed to uphold a decent standard of living as compared to what is available in the society. The effect of material deprivation can be harmful to individual's health as well as stress due to shame that is related to deprivation (Doku et al., 2010). In constructing the MAS, Doku and colleagues use indicators of household assets and housing characteristics available at home such as television, computers, cars, material of the house and ownership of the house where they live and other properties owned by parents. Although a valid indicator, MAS was

created based on the setting of the adolescents in Africa, thus measures were mainly on basic needs and household assets which is suitable for the region. Additional indicators that measure social and other material resources could be added to the current MAS indicator to measure SES in developing and developed countries.

2.2.2 Family Affluence Scale (FAS) I & II

FAS was developed by the Health Behaviour in School-Aged Children Study (HBSC). Items in FAS includes family possession of a car, own bedroom and family holiday during the past 12 months (Morgan and Haglund, 2009, Koivusilta et al., 2006). In addition to the above items, Koivusilta (2006) has added another category, weekly spending money to investigate its effect on health inequalities among adolescents. Although a valid measure of wealth and status, FAS has its limitations across culture. The use of car ownership may vary in countries, whereby cars are not relevant for everyday use especially in some rural areas that focus more on subsistence economy or even in developed countries with efficient public transport, such as Singapore. Sharing of bedroom may be related to culture, family size, age and gender of the children, while holiday could indicate difference time of lengths and distances to other cultures (Boyce 2006). This is supported by Lin (2011), in her study of 3,368 adolescents in Taiwan in which she reported a moderate internal reliability of the scale, Cronbach's alpha of 0.35 and the correlations between different FAS items were low. This suggests socioeconomic items should be culturally sensitive when measured in different culture or country specific.

2.2.3 "Capital" as a function of Socioeconomic Status (CAPSES)

This proposed approach was initiated by Oakes and Rossi in 2003 and the notion of social and human capital in their model stemmed from Coleman's Social Theory (1988). Oakes and Rossi emphasized that individuals are surrounded by available resources and actions are taken by individuals to take control over these resources. Resources can be in many forms, material and monetary goods, skills and capabilities and strength of social relationships and action (through interaction) is needed to mobilize the available resources. SES is seen as a measure of access to resources and also a function of material endowment (material capital), skills, ability and knowledge (human capital) and individuals networking with others and the status, power, trustworthiness and abilities of its members (social capital) (Oakes and Rossi, 2003). According to Oakes and Rossi (2003) and Coleman (1988, , 1990), human, social and material capital indicates the status of individuals in the social structure.

Although a new approach, the CAPSES model captures some of the social complexities of measuring SES, in which SES is not confined to only material capital but also other subjective but measurable aspect such as skill and knowledge of a person and social relationship with others which are seen as resources that affects his or her well-being. However, Oakes and Rossi's model was used to measure SES from an adult sample in a developed country and no attempt has been made to apply this approach in a developing country using adolescent sample. Furthermore, Oakes and Rossi tested the model using existing data from National Survey of Families and Households (NSFH).

The items used in CAPSES model were limited to the available data in NSFH. Thus, this study endeavours to extend the model with a different population sample set in a developing country using primary data set. Due to the different sample set, the questions used in the current study is different from the ones used by Oakes and Rossi, however the definition used to describe social, human and material capital by Oakes and Rossi are used as guidelines in the questionnaire preparation.

3. Theories Underpinning the Study

For this paper, Social Theory is central in explaining the study's framework. Stemming from Ecological Systems Theory, this theory takes into account the ecological perspective, whereby relationships need to be built between individuals and among individuals such as the family, school, and community to create social capital (Coleman, 1990, Chen et al., 2009). As clearly pointed out by one of the social capital scholar Bassani (2007), Social Capital Theory (SCT) has five distinct elements, first, in line with Coleman's proposal, SCT comprise various types of capital and all the capital influence well-being, but the most significant is social capital. Second, there is a positive relationship between social capital and well-being. Third, social resources are transformed into social capital through interaction. Fourth, social capital involves a complex process of mobilising social resources and finally, social capital is not only a one group dimension (in the family or school) but many overlapping groups. As proposed by Oakes and Rossi (2003),

SES = f(Material Capital, Human Capital, Social Capital) **(Oakes and Rossi, 2003)**

4. Current Study

4.1 Literature Gap

From the literature it was found that despite extensive study on measures of socioeconomic status, not many studies have investigated socioeconomic status in terms of social process (Heard et al., 2008). Recent studies have underlined the importance of evaluating the SES measures through other determining social and economic indicators (Koivusilta et al., 2006). Thus the current study has included measurable social, human and material indicators to evaluate SES using Social Theory as the basis of the conceptual understanding of this study. Moreover, although alternative SES measures have been developed recently (Family Affluent Scale and Material Affluent Scale), it is not readily adaptable to different cultures and countries. The indicators developed in this study are more suited to the Malaysian culture.

4.2 Study Objectives

Echoing the work of Oakes and Rossi (2003), this study examines the mechanisms of SES based on theoretical implication. To identify further, the following are the two research objectives:

1. To analyse the internal consistency of the CAPSES

2. To examine how the proxy SES measure (parent's occupation) covary with CAPSES categories

5. Method

5.1 Sample

The unit of analysis for this study consists of individual youth in between the ages of 15-17 years from urban areas of Kuala Lumpur. Kuala Lumpur was selected as the area of study because it is one of the highest urban populated areas in Malaysia (Sidhu, 2005; World Bank, 2006). A systematic sampling method from a list of schools in Kuala Lumpur provided by the Department of Education Wilayah Persekutuan was used to approach schools for data collection. From a total of 95 schools scattered around the three distinct zones in Kuala Lumpur, 21 schools were approached for data collection. After the schools were chosen, two classes in each school were randomly approached for the study. It was estimated that a sample of 1084 students were approached for questionnaire survey. The sample used for this study is adequate to be generalized to the population of students in Kuala Lumpur as according to Roscoe (1975) rule of for determining sample size (as cited in Sekaran, 2005), for a population over 100,000, a sample size of 384 is adequate to be generalized to the population.

5.2 Study Indicators

In this paper, the questionnaire focuses on three areas, familial social position and dimensions of social, material and human capital.

Socio demography addresses the question on family structure and parents' occupations.

- Family structure describes respondents that live in single or two parent families, "1-Both parents", "2-Single parent". "Both parents" refers to biological and step-parents, while "Single parent" refers to living with father/ mother/ guardian.

- Parents' occupations are based on open ended responses to a question of the primary profession or position (Koivusilta et al., 2006). The employment positions were categorized according to Malaysia Standard Classification of Occupations 2008 (MASCO 2008), which classified occupations into, 1-managers and professionals, 2-clerical and services, 3-skilled workers and 4-production and unskilled workers. Since most mothers were unemployed and there were many missing values on parents' occupations, occupational status of father and mother was combined, choosing only the highest occupational status for each couple as the parental indicator (Richter et al., 2006). Respondents who failed to provide parents' occupations were grouped in the 'missing' category. Based on the literature (Currie et al., 2008, Richter et al., 2006), those who did not classify their parents' occupations were more inclined to be in the lower social class category.

CAPSES comprise of social capital, material capital and human capital.

- Relationship with parents, parental support and expectations of the adolescent measures social capital. This section describes adolescents' life contexts and examines the social resources adolescents receive in their current life situation (Moos and Moos, 1994). The Social Resources Scale reflects the support and empathy in relationships with mother and father and includes questions such as "Can you count on your father/mother to help you when you need it?", "Does your father/mother cheer you up when you are sad?", "Do you have fun, laugh with him/her?", "Does your father/mother really understand how you feel about things?" and "Does your father/mother respect your opinion?" . For these questions, a five point Likert scale are used, "0-Never", "1-Seldom", "2-Sometimes", "3-Fairly Often", "4-Often". In total, the scale had 10 items with a reliability coefficient of 0.90 which indicates good internal consistency of the instrument, consistent with the original Social Resources Scale (Moos & Moos 1994). As the questionnaire was required to be in Bahasa Malaysia, all of the items in the scales were translated into Bahasa Malaysia by the researcher and subsequently a back translation was done to English by a certified translator to compare with the original items. All translations were sent to the author for authorization and amendments were made as required.

- Material capital is measured by daily pocket money for school (food and stationery), if there is a computer in working condition at home, "0-No", "1-Yes"

- Human capital is measured by number of subjects taken for tuition classes, "0-None", "1-One", "2-Two", "3-Three", "4-Four", "5-Five or more" and the type of reading materials available at home (six categories of reading material, newspaper, magazines, story books, religious books, comics and encyclopedia).

5.3 Statistical Analysis

Statistical Package for Social Sciences (SPSS v19.0) is used to perform validity testing to investigate the CAPSES scale and whether the selected items in the scale measures satisfactorily. For this, factor analysis is employed and Cronbach 's alpha is computed. Subsequently, cross tabulation between variables of study is used to examine the correlation between variables of study.

6. Results

The analyses based on primary survey data, begin with the demographic profile of respondents. This is followed by reliability testing on the measures and the descriptive statistics report. Finally the overall correlation of all dimensions was produced to identify the strength of relationship between the study variables.

6.1 Missing Values

Table 1 shows the distribution of variables in the study. As seen in the table, there were more missing values in the conventional indicators (parental occupation) as compared to the CAPSES indicators. The proportion of missing values was highest in parent's occupation (8.4%) as compared to the other variables.

Table 1: Frequency, percentage distributions and weighted means of the study variables

Variables				
	N	**Distribution (%)**		
Parent's Occupation				
Managers & Professionals	244	23.1		
Clerical & Services	525	49.7		
Skilled	70	6.6		
Production & Unskilled	75	7.1		
Missing	89	8.4		
Unemployed	52	5.1		
Computer	**N**	**%**		
Yes	819	77.6		
No	237	22.4		
Pocket money			**Min (RM)**	**Max (RM)**
Upper quartile (RM6 & above)	155	14.8	0	50
Median- quartile (RM4 to 5)	371	35.1		
Lower quartile (RM3 & below)	530	50.1		
Reading materials	**N**	**%**	**Min**	**Max**
Four or more	257	24.3	1	6
Three	238	22.5		
Two	200	18.9		
One	338	32.0		
None	23	2.2		
Tuition subjects	**N**	**%**	**Min**	**Max**
Six or more	116	11	1	12
Five	99	9.4		
Four	101	9.6		
Three	77	7.3		
Two	87	8.2		
One	101	9.6		
None	476	45.1		
Socioeconomic Status	**N**	**%**		
Low SES	148	14		
Medium SES	530	50.2		
High SES	377	35.7		

6.2 Demographic Profile of Respondents

For this study, a total of 1,084 students were approached and briefed on the objectives of the research and from that total, 1,055 students (97.5%) agreed to participate and completed the questionnaires.

Table 1 shows the descriptive data of the respondents. Respondents comprised of 51.2% male against 48.8% of female respondents. In terms of ethnicity, the finding shows that most of the respondents were Malay (48%), followed by Chinese (42%), Indians (9.4%) and Sabahan/Sarawakian and others (0.7%). The composition of sample reflects the overall student population of the national schools in Peninsular Malaysia. The average age for the sample was 16.08 years (SD=0.309) which explains majority of the sample were 16 years old with the exception of a few students who were at the age of 17 years, who most probably were held back a year due to suspension. The demographic characteristics of respondents also show that 90.4% of the respondents were living with both parents, while 8.1% of respondents belonged to a single parent household. The nine capital indicators were combined to form the CAPSES scale, by adding each score of the indicators. The indicators are five questions on parental social support and empathy, daily pocket money, tuition classes outside schooling hours, types of reading materials at home, family owning a computer. This generated scores ranging from 0-26. The scores are then divided into low SES (0-8 points), medium SES (9-17 points) and high SES (18-26 points). It was found that half of the sample respondents (50.2%) were in middle SES group, 35.7 percent were in high SES group and the remaining sample of respondents (14%) were in low socioeconomic group.

6.3 Factor Analysis (Principal Component Analysis)

Factor analysis was performed separately for each item in CAPSES. The five items of Parental Social Resources, pocket money, computer, tuition subjects and number of reading materials were subjected to principal components analysis (PCA). Prior to performing PCA, the suitability of the data for factor analysis was assessed. Inspection of the correlation matrix revealed the presence of many coefficients of .3 and above. The Kaiser-Meyer-Olkin value was .834, exceeding the recommended value of .6 (Pallant) and Bartlett's Test of Sphericity reached statistical significance (p=.000), supporting the factorability of the correlation matrix. In the first run, PCA revealed the presence of two components with eigenvalues exceeding 1, explaining 49.36% of the variance.

A second PCA was carried out forcing the factors into three components as theorized in the Social Theory and the CAPSES model**.** The PCA results revealed the presence of three components with eigenvalues exceeding 1, explaining 60.1% of the variance. Although the eigenvalue for factor loading III (Material Capital) was slightly lower than 1, this factor was retained for theoretical reason and due to the fact that there is only one item explaining the Material Capital dimension (Hair et al., 2006). The interpretation of the component was consistent with previous research on the CAPSES, with item loadings above .6. The final PCA results are shown in Table 3.

Table 2: Inter-item Correlation Matrix for CAPSES scale

Correlation Matrix[a]

	1	2	3	4	5	6	7	8	9
1.tuition recoded	1.000								
2.pocket money recoded	.070	1.000							
3.computer recoded	.160	.191	1.000						
4.helpful	-.004	.055	.047	1.000					
5.cheerful	.002	-.010	.007	.546	1.000				
6.fun	.008	-.012	.015	.519	.607	1.000			
7.understand	.008	-.023	.027	.490	.653	.550	1.000		
8.respect	.090	.013	.083	.386	.440	.406	.479	1.000	
9.reading materials recode	.056	.004	.137	.169	.185	.170	.142	.160	1.000

a. Determinant = .131

Figure 1: Scree plot of CAPSES scale

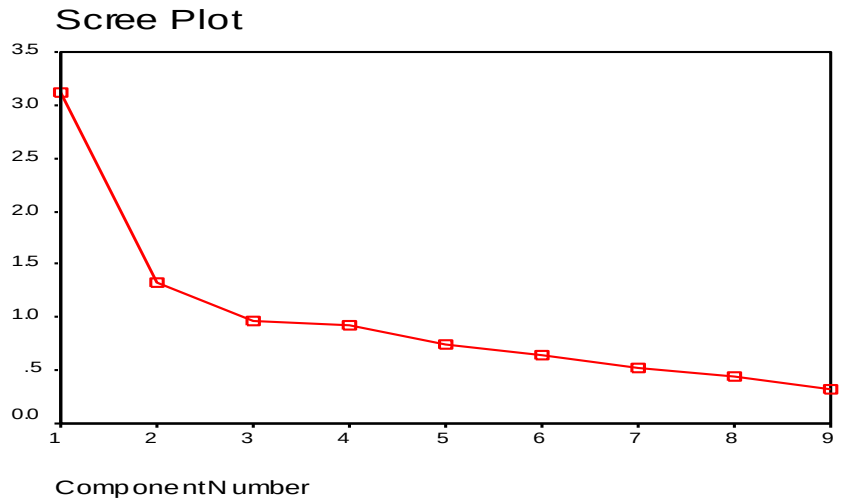


Table 3: Rotated Factors and Factor Loadings of CAPSES

No.	Items	Factor Loading		
	Social Capital	I	II	III
1	Can you count on your father/mother to help you when you need it?	.757		
2	Does he/she cheer you up when you are sad or worried?	.846		
3	Do you have fun, laugh, or joke with him/her?	.797		
4	Does he/she really understand how you feel about things?	.820		
5	Does he/she respect your opinion?	.653		
	Human Capital			
1	How many tuition subjects are you taking this year?		.672	
2	Do you have a computer that is functioning at home?		.557	.501
3	What are the types of reading materials do you read at home?		.633	
	Material Capital			
	How much pocket money do you receive daily from your parents?			.901
Eigenvalues		3.116	1.326	.966
Percentage of variance		34.63%	14.73%	10.74%
Kaiser-Meyer-Olkin MSA		.834***		

Note: N = 1056. Bold loading indicates the inclusion of that item in the factor; ***p<.01

6.4 Reliability Analysis

The factor obtained from the principal component analysis was subjected to further analyses to assess whether their reliability coefficients were within the acceptable limits as recommended by Sekaran (2005). The Cronbach's Alpha of reliability for the CAPSES variables was 0.739. Hair et.al. (2006) and Sekaran (2005), proposed 0.60 as the minimum acceptable reliability coefficient.

6.5 Association between CAPSES and Parent's Occupation

Chi-Square Test is used in this study to explore the relationship between the categories of parent's occupation and the availability of computer at home. As shown in Figure 2, Chi-Square Test for independence indicates there was a significant difference in the proportion between the categories of parental occupation and having a computer at home $\chi^2 = 59.84$, df=3, $p \leq 0.001$. In addition, there was also a significant difference in the proportion between family structure and having a computer at home $\chi^2 = 30.24$, df=1, $p \leq 0.001$ (Figure 3).

Figure 2: Association between parent's occupation and computer ownership

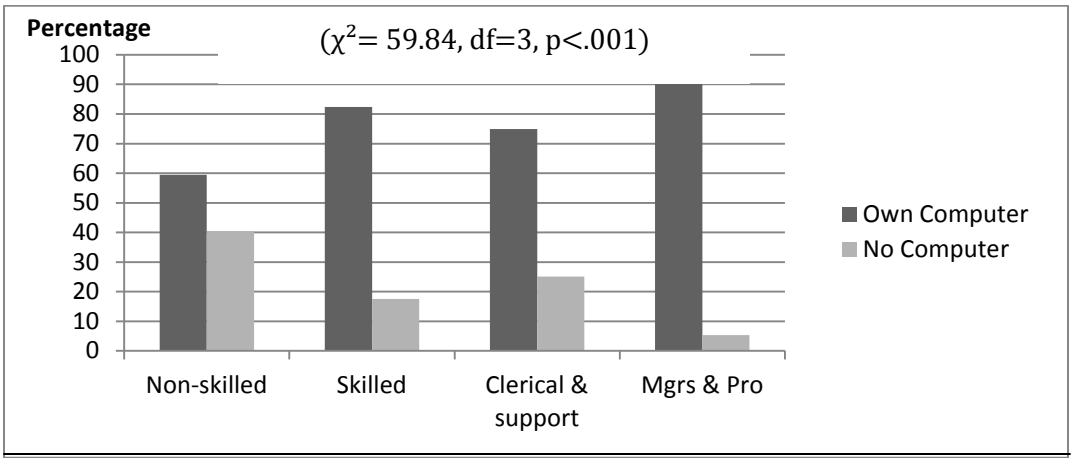
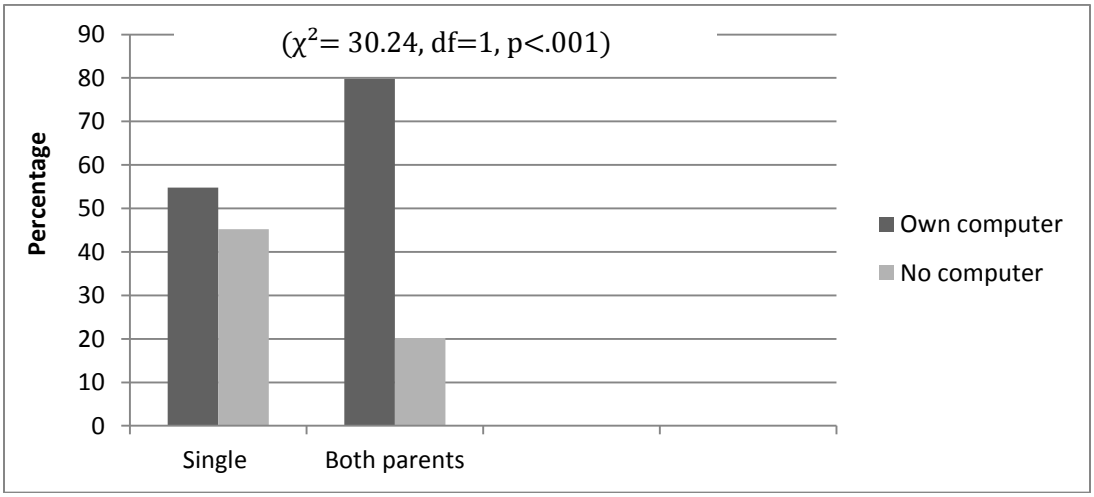
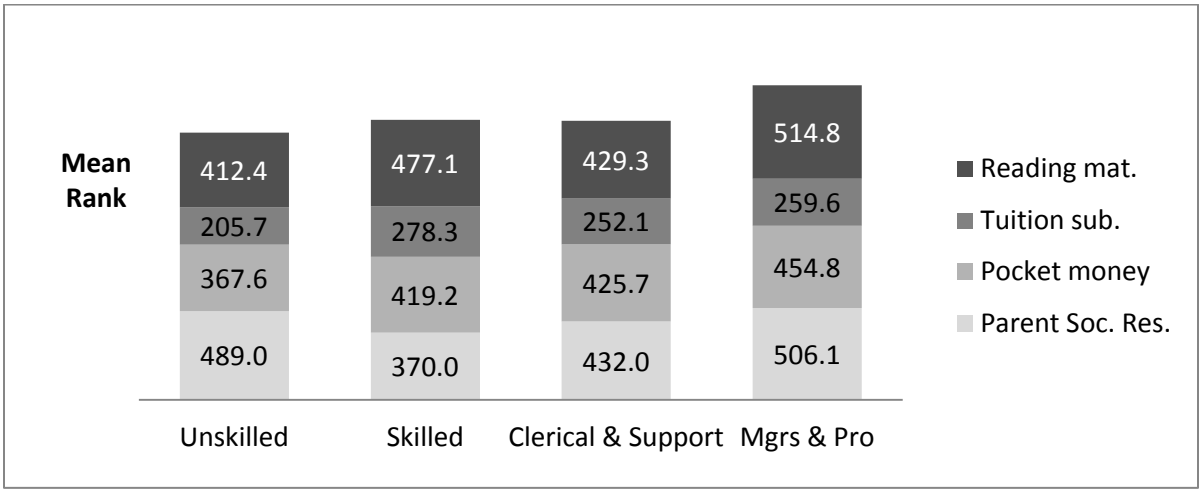


Figure 3: Association between family structure and computer ownership



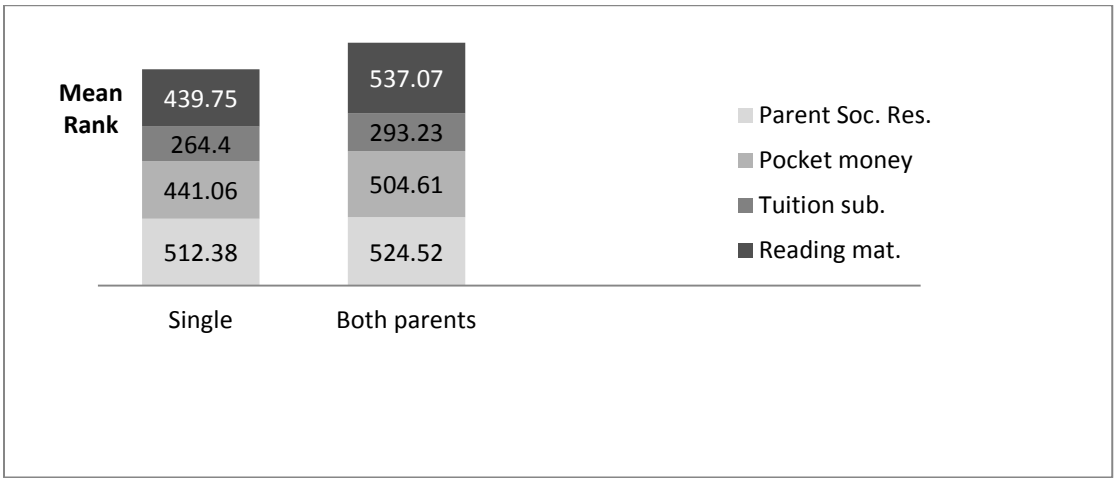
A Kruskal Wallis Test was performed to compare the scores on parent's social resources, reading materials, pocket money and tuition subjects in different occupational groups (managers and professionals, clerical and services, skilled workers and production and unskilled workers).The results revealed statistically significant differences in parent's social resources χ^2 =21.64 , df=3, p≤.000 and reading materials χ^2 =21.24 , df=3, p≤ .000 across four different occupational groups. Pocket money and tuition subjects revealed no statistically significant difference across the different occupational groups; pocket money, χ^2 =7.35 , df=3, p=.062 and tuition subjects, χ^2=5.06 , df=3, p=0.167. The managers and professionals recorded the highest overall ranking than the other groups (as shown in Figure 4).

Figure 4: Mean difference between reading material, tuition subjects, pocket money and parent's social resources in different occupational categories



Subsequently, Kruskal Wallis Test was performed to compare the scores on parent's social resources, reading materials, pocket money and tuition subjects in different family structure (single parent and both parents). The results revealed statistically significant differences in pocket money $\chi^2 = 10.56$, df=1 , $p \leq 0.05$ and reading materials $\chi^2 = 9.13$, df=1, $p \leq .001$ across the two family structure groups. Parents social support and tuition subjects revealed no statistically significant difference across the different family structure; parent's social resources, $\chi^2 = .13$, df=1, p=.718 and tuition subjects, χ^2 1.25 , df=1, p=.263. Family with both parents structure recorded the highest overall ranking than the single parent group (as shown in Figure 5).

Figure 5: Mean difference between reading material, tuition subjects, pocket money and parent's social resources in different family structure.



6.6 Spearman Rank Order Correlation (rho)

To examine the strength and direction of relationship between parent's occupation and CAPSES, correlation analysis has been used. Due to the non-normal distribution of data and some ordinal data, Spearman's rho was applied.

Table 4: Spearman Correlation Matrix for Variables Used in the Study

Variables	1	2	3	4	5	6	7
1.Parent's occupation	-						
2.Computer	.223**	-					
3.Tuition subjects	-.031	-.163**	-				
4.Reading materials	-.117**	-.132**	.036	-			
5.Pocket money	-.084*	-.203**	.018	-.016	-		
6.Parent's social resources	-.103**	-.043	-.018	.194**	-.031	-	
7.Parental Structure	.048	.169**	-.046	-.093**	-.064**	-.011	-

Note: N=1056, *Correlation is significant at the 0.01 level (2-tailed), **Correlation is significant at the 0.001 level (2-tailed)

Results depicted in Table 4 show significant relationship between parent's occupations and four variables of CAPSES; owning a computer (rho=.223, p<.001), reading materials (rho= -.117, p<.001), pocket money (rho= -.084, p<.001) and parent's social resources (rho=-.103, p<.001). The strongest relationship was between parent's occupation and owning a computer. As for the relationship between family structure and the variable CAPSES, significant relationships were found between parental structure and owning a computer (rho=.169, p<.001), reading materials (rho=-.093, p<.001) and pocket money (rho=-.064, p<.001). There was no significant correlation between parental structure and parent's social resources (rho=-.011). Tuition subjects variable was not significantly correlated with parent's occupation (rho= -.031) and parental structure (rho= -.046) and was the least correlated with the other variables.

7. Discussion

Of the human capital indicators, only computer and reading materials are significantly different in both parental occupational group and family structure group. The results revealed that the higher the parent's occupation, the higher the chance of an adolescent to have a computer and more reading materials at home. Brooks-Gunn (1997) and report by OECD (2004) suggest that due to limited resources, parents do not spend much on buying of books and other educational materials for children. In this case, parents who were in the Managers and Professionals category is the highest ranking in terms of owning a computer and buying reading materials for the household compared to the rest, while the Unskilled Worker category owns the least number of computers and reading materials comparatively. The results are also apparent between adolescents with both parents and one parent. Adolescents with both parents are more likely to have a computer and more reading materials at home than adolescents with only one parent. This results support the findings of Koivusilta et.al.(2006) that affluent and educated parents spend money investing in computers for their children.

It is interesting to note that additional tuition classes do not show any significant difference between parent's occupational group and family structure group. This shows that additional tuition is part of the Malaysian culture as it is in many other Asian countries, in which tuition is seen as compulsory after school activity especially among students in late primary and secondary part of education (Bray and Kwok, 2003)

In terms of material capital, pocket money is significant only in family structure category and not in parental occupation group. For this study, adolescents belonging to one parent group get lesser pocket money than those with both parents. This is probably due to the fact that both parents may be working and with the double income, there is more money to spend on the children. Interestingly, there was not much of variation in pocket money between different occupational group whether they are managers, clerical or production workers. This result contradicts the findings of Soteriades and DiFranza (2003) as they found adolescents from higher SES family (as reflected by higher income and educational attainment) receive more weekly pocket money than lower SES parents. The low variation in pocket money between different groups show that with the rising cost of standard of living and the cost of education, parents resort to savings for future expenditures.

The findings pertaining to parent's social resources have mix findings when compared separately with parent's occupation and family structure group. Parents social resources are significantly different among the four occupation groups with the higher occupational group (Managers and Professionals) provides most social resources to children. However it is worth noting that parents from the Unskilled workers category scored the second highest rank in terms of giving social resources to children as compared to parents from the middle occupation category (Clerical and Support and Skilled workers). The findings contradict with previous findings where parents from low SES spend lesser time with children and supervising them due to their long working hours on the job (Yeung and Glauber, 2008). The findings from this study are distinctive from the other studies due to the measures use to reflect parents social resources, that is parent's support and empathy. In general, parents from various SES background may have limited time due to work commitments, however, it is probably the parental qualities such as parent-adolescent communication and relationship that influence adolescent's perception on parents' social resources (Lai Kwok and Shek, 2010). In terms of parent's social resources given by either from two parents or single parent, it is worth noting that there were not significantly different between the two parental structure. Previous study has noted that parenting practices and competency is affected in single parent household, specifically among single mothers in this culture because of the stigma for a divorcee that enhances stress (Baharuddin et.al 2007). However it is worth noting that perhaps in a situation where a child is being brought up by a single parent, other support system is being offered from family members and other adults such as teachers who provide supervision to the child (Boudreau and Poulin, 2009). A higher quality teacher-student relationship acts as a protective factor for children who have insecure relationship with their mothers (Chen, 2005, O'Connor and McCartney, 2007). With the extra helping hand, being in a single parent household is perhaps less stressful for the parent and child.

In the final stage, a correlation analysis was performed to see the relationship between CAPSES scale and parental occupation and family structure. The results revealed significant relationships between all the variables of CAPSES with parent's occupation and family structure except for tuition classes. However it is noteworthy that although significant, the correlations between the variables are weak. In this relationship, tuition classes and parent's social resources are not significantly related to family structure. Overall the correlation shows that there is significant relationship between all the variables in the study thus CAPSES scale support the proposed theory of Social Capital and the CAPSES model by Oakes and Rossi (2003).

8. Limitations of Study

As this is the first attempt in using this model in adolescent sampling population, this study is not without its limitations. First, as the nature of survey is self-reporting, there are tendency of respondents to under report or over report their responses. Students participation in survey was voluntary, thus the students who did not participate were probably the ones in the lower SES and could be valuable in providing input on the subject matter. Second, the study did not control other demographic data that may influence parental social resources such as the number of siblings and adoptive or step-parents. Studies have shown that there is an association between income and family size, and social resources in family with adoptive and step parents (Kirkcaldy et al., 2003). Third, the specific items used in CAPSES scale requires further assessment as more items can be included to the scale for better measure of SES. Future study may incorporate ownership of handphone in material capital dimension, teacher's support and empathy and adolescent's association with various club memberships in social capital dimension. Fourth, the items used in this scale are culturally specific to the local scenario, thus the scale may require adaptation when used outside Malaysia.

9. Conclusions

The objective of this paper was to examine the validity and reliability of the CAPSES indicators and to compare the proportion of missing responses using the conventional SES markers (parent's occupation, parent's structure) and the alternative approach (CAPSES). The current study confirms that the completion rate for the conventional SES (parent's occupation, parent's structure) was poorer compared to the alternative approach as reported in the existing literature. The validity and reliability of the CAPSES scale also confirms the suitability of the material, human and social capital of the CAPSES scale as an alternative or as an additional measure to the existing conventional measures in the literature. As this is a preliminary study, further research is needed to associate this scale with a range of health indicators and health behavior measures (Currie et al., 1997) to gain a better understanding of the way social, human and material factors affect health behavior.

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