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The International Journal of Research and Review
An interdisciplinary journal on various fields of the Social Sciences

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The empirical reports featured in the TIJRR are diverse considering the varied fields it can accommodate. The types of empirical reports include:

1. Research Article – ranges from basic and applied research empirical studies employing complex methodologies such as experimentation, survey, evaluation etc. using qualitative or quantitative studies.
2. Literature Review and Metanalysis Studies – synthesis of reviews from journals are viable in this category.
3. Commentary article on theories and models – Issues on previous theories and models are acceptable.

Articles are submitted to the editor at tijrr@yahoo.com. A cover letter indicating contact information of the author(s) is submitted together with the manuscript in word format.

Manuscript Preparation

Submitted manuscript should be typed single spaced. Consult the “Publication Manual of the APA” (latest editions) for detailed guidelines in writing and formatting the manuscript.
Table of Contents

Volume 8, March 2012

1  Family Influence and Community Influence on Self-Management and Prosocial Relationship Skills: A Path Model
   Jose Maria A. Diestro, Jr.

19 Revised Motivated Strategies for Learning Questionnaire for Secondary School Students
   John Wang

33 The Malaysian Primary Education System and Sustainability: Challenges and Opportunities
   Zainal Abidin Sanusi, Norizan Md. Nor, Hamoon Khelghat-Doost, Govindran Jegatesen, and Tunku Fatimah Firdaus Dato’ Tunku Fariddudin

53 Learning in Adult Years: The Experiences of the Nigerian Adult Literacy Learners
   John Chinedu Ihejirika

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Family Influence and Community Influence on Self-Management and Prosocial Relationship Skills: A Path Model

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Abstract
The path model by Morrissey and Werner-Wilson (2005) was tested. Morrissey and Werner-Wilson argued that Family and Community Influence directly affects participation in organized groups and the consequent developmental outcomes. Furthermore, participation mediates the influence of Family and Community. A survey was conducted and yielded 322 respondents (94 males and 228 females) who were exclusively involved in school clubs (72.4%), sports clubs (14.2%) and involved in both school and sports clubs (13.4%). Results show that active membership (as measured by the Hours Spent per Week) in any organized youth groups in school leads to enhanced Self-Management and Prosocial Relationship skills. Also, both Family Influence and Community Influence predict developmental outcomes. But only Community Influence had a significant effect on both Self-Management and Prosocial Relationship. Finally, only Community Influence is mediated by Hours Spent per Week as it affects Self-Management and Prosocial Relationship. Findings have an impact on a deeper understanding of youth development in organized groups and agents that provides support to the youth.

Keywords: Organized Youth Organizations, Positive Youth Development

Higher Educational Institutions (HEI) aims to holistically develop its students to become competent individuals. Among the many opportunities given to students is a chance to participate in academic and co-curricular organizations. It is not clear, however, how students develop in these loci and in what way do these organizations serve the Mission-Vision of the university.

A cliché assumption is that students learn leadership, interpersonal and communication skills in school. However, it is not clear if students really acquire these skills and in what context do they acquire these skills. These expected outcomes (i.e. skills) should be supported by empirical evidence. Specifically, these skills should not be imposed by adults (usually administrators and/or faculty advisers). In addition, it is possible that there are many more developmental outcomes experienced by the students that are not visible to the eyes of the governing adults.

Youth groups, either formal or informal, are important venues for their development. In investigating how the youth develops in school groups, Dworkin, Larson and Hansen (2003) were able to identify six recurring developmental processes. It was proven that in any activity, youth enhance their identity, initiative, basic skills (emotion regulation, cognitive abilities, & physical abilities), interpersonal relationships, teamwork and social skills, adult networks and even managing negative experiences (Dworkin, Larson, & Hansen, 2003; Dworkin & Larson, 2006).
In the Philippines, a notable contribution to ensure the holistic development of the youth is the establishment of the National Youth Commission (NYC). Among NYC’s guiding principles, the following are important with respect to the present study (NYC, 2011):

(a) Promotion and protection of the physical, moral, spiritual, intellectual and social well-being of the youth to the end that the youth realize their potential for improving the quality of life;

(c) Encouragement of youth involvement in character-building and development activities for civic-efficiency, stewardship of natural resources, agricultural and industrial productivity, and an understanding of world economic commitments on tariffs and trade and participation in structures for policy-making and program implementation to reduce the incidence of poverty and accelerate socioeconomic development; and

(d) Mobilization of youth’s abilities, talents and skills and redirecting their creativity, inventive genius and wellspring of enthusiasm and hope for the freedom of our people from fear, hunger and injustice.

These principles highlight youth’s holistic development. Programs other than the usual classes are therefore needed to realize these goals. Participation of students in these programs may pose a challenge. For this reason, I argue, that the goal of developing students holistically in general and the subsequent objective of encouraging them to participate in programs in school are shared by many other sectors in the country. Family, school, and the community are no exceptions.

School, Student Participation and Youth Development

Participation in school does not only predict pro-social behavior as it was already emphasized by Dworkin, Larson and Hansen. In fact, Fredricks and Eccles (2005) corroborates the importance of participation in youth development. Fredricks and Eccles found out in their survey of 498 9-12th graders that participation in extra-curricular activities in school (academic clubs or sports) increased school belongingness, school affect and lowered depression and involvement in risky behaviors (e.g cutting classes, getting into fights etc.) Involvement in organized youth groups in school is therefore crucial for the youth’s positive development at present and in the future. It is also regarded as an important marker both here and abroad.

Bernardo (2007), for example, suggest that student development may be explained by the interplay of various meaningful interactions in the context of the school and other social factors. For example, in the level of the family, individuals
learn the basic ideas of morality, gender roles, and other norms. In the level of the academic and co-curricular organizations in school, individuals "interact" at various levels in various situations (i.e. student leaders to constituents, student leader-adviser, student leader to community members). These interactions contribute to their development.

In addition to social factors, Bagas (2002), suggests that student themselves may play a crucial role in their development and how they would contribute to nation building. For this reason, they are advocating an earlier developmental program for student leaders. This fact is corroborated by an earlier study by Castro (2001) who compared 78 respondents without leadership roles in their respective university to 71 with leadership roles in their respective university. Castro highlighted that those who were involved in youth organizations as students did well in their career because they are used to dealing with high levels of stress. Again, the interplay of student agency and school was highlighted.

Abroad, McGee, Williams, Howden-Chapman, Martin, and Kawachi (2006) found out in their longitudinal, predictive study involving a total of 896 economically disadvantaged students who were participating in sports and cultural groups that participation is influenced by the attitude of their parents (recreationally-oriented vs. cultural-political oriented). Participants, during their adolescent years were involved more in sports when their parents were recreationally oriented. This pattern was reverse when they became 18 years old. McGee et al explained that the change was due to the changing interest of the participants. What is highlighted here is the interplay between the family, community and agency of the participants.

**Family, Community, Youth Participation and Youth Development**

Both locally and internationally, family is regarded as an influential agent of development for the youth. Lanuza (2003) and Salazar (2004) argued that the family is the primary context wherein the youth initially develops as an individual. There is a “guided process” occurring in the homes which extends to other contexts like the community and school. In fact Simpkins, Vest and Price (2011) argued that parents’ valuing of activities for the youth determines the continued participation of the youth and the consequent positive development.

Community was found to be negatively related to substance abuse in the multi-level, longitudinal study of 1,315 youth in Chicago, USA (Fauth, Roth, & Brooks-Gunn, 2007). The protective effect of community according to Fauth and her colleagues lies in the existence of youth groups like sports club, church clubs and other community-based youth groups.

Family, community and agency in participation of the youth were also captured by the study of Morrissey and Werner-Wilson (2005). They proposed an explanatory (path) model that sought to explore how family and community influence involvement in youth groups in school. They surveyed 305 students (between Grade 6-12) and found out that Family Support was fully mediated by participation on its effect on Pro-social Behavior. Moreover, Morissey and Werner-
Wilson found out that Community Support was partially mediated by participation on its effect on Pro-social Behavior. How the interactions of Family, Community contribute to their development and what developmental outcomes arise from it will be re-investigated in the present study.

An illustration of how the variables are assumed to be related in the model adapted from Morrissey and Werner-Wilson is presented in Figure 1. The model suggests that family has an influence on community. Both family and community dictate participation of youth in organized groups in school. Also, both family and community has a direct effect on the developmental outcome of the youth. Finally, the model suggest that youth participation mediates the effect of family and community on youth developmental outcomes. However, different measures were used because of the difficulty of finding the exact measures used by Morrissey and Werner-Wilson.

**Figure 1. Path Model for Family and Community Influence on Developmental Outcomes**

In the interest of the study, Pro-social behavior was replaced by Prosocial Relationship, a portion Youth Experience Survey version 2.0 by Hansen and Larson (2005). Theoretically, it was deemed a good replacement because the items pertain to the same altruistic behaviors. In addition to the Prosocial Relationship, Self-Management (as measured by Xue & Sun, 2011) was added to test a separate model. The addition of another measure of developmental outcome is based on the
argument of Xue & Sun that students need skills in balancing their activities in school. Furthermore, this scale was deemed important for the target participants, i.e. active students in organized groups in school.

**Method**

**Design**

The present study sought to test the model of Morrissey and Werner-Wilson (2005). Specifically, the present study tested whether Family Influence and Community Influence significantly have an effect involvement in school organizations (as measured by Hours Spent per Week). The present study also sought to investigate the direct effects of Family Influence and Community Influence on the two developmental outcomes, i.e., Self-Management and Prosocial Relationship. Finally, the present study sought to examine the indirect effects of Family Influence and Community Influence on Self Management and Prosocial Relationship with Hours Spent per Week as the mediating variable. It is a cross-sectional, explanatory study (Johnson, 2001).

**Participants**

From at least 20 classes (with an estimated total of 800 students) who were emailed to answer the survey, only 322 students (94 males and 228 females) participated in the study. Majority (55%) of the participants was between 18-19 years old and has spent, on the average, 1.5 years in their respective youth organization. Involvement in school organizations ranked first (72.4%), followed by sports organization (14.2 %) and lastly by those involved in both school and sports organization (13.4 %). Participants were students from Far Eastern University, De La Salle University, St. Paul University-Manila, and St. Paul University-Quezon City.

**Instruments**

There were six adapted measures used in the study namely; Activity Involvement (Fredericks & Eccles, 2005), Family Influence (FI) (Morrissey & Werner-Wilson, 2005), Sense of Community Index (Long & Perkins, 2003), Self Management Scale (SMS) (Xue & Sun, 2011), and Positive Interpersonal Relationships (PIR) (Hansen & Larson, 2005). For reference, all the scales and their respective items are appended with this paper.

The mediating variable of the study, activity involvement by Fredericks and Eccles, is measured by a direct question “how time do you spent in your organization?” Higher scores suggest that respondents spent longer time in their respective student organization.
FI by Morrissey and Werner-Wilson is a 5-item test that measures the degree of agreement based on a 5-point Likert-type scale with an internal consistency of .69. SCI by Long and Perkins is an 8-item test that asks respondents to indicate whether each item is mostly true or mostly false about their community (Cronbach’s α=.75). These measures represent the exogenous variables of the study.

Lastly, SMS and IR are the two endogenous variables of the study. SMS by Xue & Sun is a 21-item test made up of two components namely performance management (PM) with 11 items and relationship management (RM) with 10 items. All items are rated on a 5-point Likert-type scale based on respondent’s degree of agreement to each one. Internal consistency for the overall scale (.86) and the two components (PM are both acceptable (.86). The internal consistencies of the components (PM Cronbach’s α=.90; RM Cronbach’s α=.83) are also acceptable. PIR by Hansen and Larson is an 8-item test that measures respondents’ interpersonal relationships. Each item is rated on a 4-point Likert-type scale based on the extent of experience of the items by the respondents (Cronbach’s α=.86).

**Procedure**

An online survey questionnaire was developed using Google docs. This technology-facilitated approach helped hasten data collection. A letter of request (see Appendix) to prospective respondents was sent via the personal email addresses of the students and Yahoo groups. In the letter, a brief background of the study was discussed and voluntary participation was solicited. More importantly, confidentiality was stressed to encourage respondents to participate. Finally, a statement of appreciation for students’ voluntary participation and the researcher’s contact information were included in the letter.

A link to the online survey questionnaire was included in the email message. Students, presently involved in any organized groups in school, were encouraged to voluntarily participate. The survey started from November 23 until December 14, 2011. The slow response rate prompted the use of Facebook. At the middle of the data gathering process, Facebook was utilized to tap students who were mostly online. Colleagues from different universities were also tapped to help complete the required number. In the end, an estimated response rate of 40% was achieved. The low response rate was due to the fact that some students were not involved in any organized group. This fact was corroborated by the students themselves.

The online survey feature of Google docs consolidates the responses in MS Excel format and allows users to download data. After downloading the data, demographic variables such as gender, year level, and type of involvement were numerically coded. Items SC2 and SC3 of SCI and all the items of PIR were reversed coded to facilitate consistent interpretations of the scales (i.e. higher scores mean high on the construct). Data were imported to Statistical Packages for the Social Sciences (SPSS) version 15.
Analysis

Means, standard deviations, correlation coefficients, internal consistency indices and parameter estimates for the Path Analysis were computed using SPSS version 15 with AMOS version 15.

In determining goodness of fit of the path model, the following indices were used: $\chi^2$, df, $\chi^2$/df, GFI, AGFI, RMSEA, BCC, BIC, and AIC. Like the first set of statistics, these indices were computed using SPSS version 15 with AMOS version 15.

Results

Descriptive statistics, reliability analyses and correlations for each of the study variables are presented in Table 1. As seen on the table, all measures used in the present study obtained an acceptable internal consistency (i.e. Cronbach’s alpha $\geq .70$) except for Community Influence which obtained a slightly lower value (i.e. Cronbach’s alpha = .69). Hours Spent per Week in an organized group did not qualify for the analysis because it only has one item.

Table 1
Descriptive statistics, Reliabilities and Correlations of Study Variables (n= 323)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Family Influence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Community Influence</td>
<td></td>
<td>.155(**)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Prosocial Relationship</td>
<td>.069</td>
<td></td>
<td>.210(**)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Self Management</td>
<td>.295(**)</td>
<td>.198(**)</td>
<td>.290(**)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Hours Spent per Week</td>
<td>.011</td>
<td>.123(*)</td>
<td>.210(**)</td>
<td>.147(**)</td>
<td></td>
</tr>
<tr>
<td>Cronbach’s alpha</td>
<td>0.83</td>
<td>0.69</td>
<td>0.74</td>
<td>0.89</td>
<td>--</td>
</tr>
<tr>
<td>Mean</td>
<td>19.52</td>
<td>12.20</td>
<td>26.75</td>
<td>80.64</td>
<td>5.21</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>4.28</td>
<td>2.09</td>
<td>3.59</td>
<td>10.86</td>
<td>6.88</td>
</tr>
<tr>
<td>Items</td>
<td>5</td>
<td>7</td>
<td>8</td>
<td>21</td>
<td>1</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Family Influence was significantly related to Community Influence ($r = .155$, $p < .01$), and Self-Management ($r = .295$, $p < .01$) but not to Prosocial Relationship ($r = .069$, n.s) and Hours Spent per Week ($r = -.011$, n.s) in organized groups. Community influence was significantly related to all the rest of study variables, i.e. Prosocial Relationship ($r = .210$, $p < .01$), Self-Management ($r = .198$, $p < .01$), and Hours Spent per Week ($r = .15$, $p < .05$). Positive Intepersonal Relationship was also significantly related to Self-Management ($r = .290$, $p < .01$) and Hours Spent per
Week ($r = .198$, $p < .01$). Finally, Self-Management was also found to be significantly related to Hours per Week ($r = .147$, $p < .01$).

Path analysis was used to determine the influence on each exogenous variable on the endogenous variables, i.e. developmental outcomes as seen on the proposed model in Figure 1. Figures 2 and 3 reflect the results of the separate analysis of the influence of family, community and participation on the developmental outcomes self-management and prosocial relationships as mediated by the influence of prosocial peers.

* Significant at .05 level of significance
** Significant at .01 level of significance
*** Significant at .001 level of significance

**Figure 2.** Family and Community Influence on Self-Management as mediated by Hours Per week

As seen in Figure 2, Family Influence had a direct significant effect on Community Influence ($\beta = .05$, $p < .01$). Only Community Influence had a direct significant effect participants Hours Spent per Week ($\beta = 2.99$, $p < .05$). Both Family Influence ($\beta = .17$, $p < .001$) and Community Influence ($\beta = .24$, $p < .01$) had a direct significant effect on Self-Management. Finally, Hours Spent per Week significantly mediated the effects of Community Influence on Self-Management ($\beta = .01$, $p < .05$).
Figure 3. Family and Community Influence on Prosocial Relationship as mediated by Hours Per week

As seen in Figure 3, Family Influence had a direct significant effect on Community Influence ($\beta = .05$, $p < .01$). Similar to the model in Figure 2, only Community Influence had a direct significant effect participants Hours Spent per Week ($\beta = 2.99$, $p < .05$). Unlike the model in Figure 2, only Community Influence had a direct significant effect on Prosocial Relationship ($\beta = .27$, $p < .01$). Still similar to the model in Figure 2, Hours Spent per Week significantly mediated the effects of Community Influence on Prosocial Relationship ($\beta = .01$, $p < .001$).

Table 2 below shows the fit indices for Model 1 with Self-Management as the developmental output and for Model 2 with Prosocial Relationship as the developmental output. The discrepancy $\chi^2$ tests ($p < .001$) for both models and discrepancy $\chi^2$ to $df$ values ($> .20$) the indicate a poor fit. Even the RMSEA values for both models indicate a poor fit ($> .80$). Similarly the RMSEA for both resulted to
poor fit (> .08). Only GFI and AGFI yielded good fit (> .90) to moderate fit (> .80). Finally, all three remaining indices of fit (i.e. AIC, BCC, BIC) favors Model 2 as a better model that approximates the data.

Table 2

Model fit indices for comparing Model 1 with Self-Management and Model 2 with Prosocial Relationship as the respective developmental outputs

<table>
<thead>
<tr>
<th>Measures of fit</th>
<th>Model 1 Self-Management</th>
<th>Model 2 Prosocial Relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \chi^2 )</td>
<td>56.921</td>
<td>39.885</td>
</tr>
<tr>
<td>( df )</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>( p )-value</td>
<td>&lt; .001</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Discrepancy/( df )</td>
<td>9.487</td>
<td>6.647</td>
</tr>
<tr>
<td>GFI</td>
<td>0.915</td>
<td>0.938</td>
</tr>
<tr>
<td>AGFI</td>
<td>0.858</td>
<td>0.897</td>
</tr>
<tr>
<td>RMSEA</td>
<td>0.163</td>
<td>0.133</td>
</tr>
<tr>
<td>AIC</td>
<td>64.921</td>
<td>47.885</td>
</tr>
<tr>
<td>BCC</td>
<td>65.047</td>
<td>48.011</td>
</tr>
<tr>
<td>BIC</td>
<td>80.019</td>
<td>62.983</td>
</tr>
</tbody>
</table>

Discussion

Consistent in both models in Figures 2 and 3, Family Influence has a significant effect on Community Influence. This means that the encouragement a student gets from his/her family leads to a perception that the community provides support to one’s interest (i.e. in the present study, this refers to involvement in school organizations), enhances one’s social connections and sense of community. The result corroborates the findings of Morrissey and Werner-Wilson (2005). Belongingness in any context is achieved better when meaningful support exists (Dworkin, et al. 2006). The most important source of this support is the family (Lanuza, 2003, Salazar, 2004, Simpkins et al., 2003).

Also consistent in both models in Figures 2 and 3, Community Influence has a significant effect on Hours Spent per Week, a direct measure of students’ involvement in school organizations. This suggests that perception of high community support leads to longer Hours Spent per Week in organized youth groups in school. Again, this is consistent with the findings of Morrissey and Werner-Wilson. The continued participation may also be due to the protective effects of the community (Fauth et al., 2007).

In the context of the present study, the community may not really refer to the bigger community (i.e. Metro Manila) but the school community where opportunities for involvement in various organized groups abound. Bagas (2002) and Castro (2001) stressed that the experience in these contexts is important. However, I personally think that these opportunities should be seen as available to
all students. That is, opportunities / challenges faced by the students leaders that paved the way to their development is also present to those who are not actively involved in organized groups. It is a matter of choice, i.e., agency of the individuals.

Only Community Influence has a direct significant effect on Self-Management and Prosocial Relationship in both models in Figures 2 and 3. This suggest that perception of community support leads to enhanced Self-Management Skills that in turn enables one to reach one’s goals (e.g. balancing the demands of course load and the duties in the organizations). Half of the result corroborates with Morrissey and Werner-Wilson’s study, i.e. only on prosocial relationship. The other half is the unique feature of the present study, i.e. it involves another and a more person-centered outcome. That is, Xue and Sun (2011) reiteraested that Self-Management enables one to operate well as part of the community. Hence, there are factors in the community that enables one to development Self-Management. Dworkin, Larson and Hansen (2006) argued that existing groups in the community (in the context of the participants, their school) provide the opportunity to develop such outcomes/skills.

Similarly, perception of community support leads to more diverse peer interactions (e.g. relating with other nationalities, gender, age groups etc.) and prosocial behaviors (e.g. helping others, volunteering to the community, etc.). Again, this result corresponds to the study of Morrissey and Werner-Wilson. Specifically, it verifies their main point, i.e., family and community contributes to the development of the youth as better individuals when they relate to others. This is supported by Long and Perkins (2003) who suggested that high sense of community reinforces behaviors that benefit the community.

Active and continued participation (as measured by Hours Spent per Week) leads to enhanced Self-Management and Prosocial Relationship skills. This confirms the earlier findings of Morrissey and Werner-Wilson and the other studies the promote participation in organized groups because it leads to developmental outcomes (Carlos, 2001; Dworkin, et al., 2003; Fredricks & Eccles, 2005; McGee et al., 2006). It also confirms my earlier assumption that participation in youth organizations facilitate other developmental outcomes.

It is interesting to note however, that Family Influence only had a direct significant effect on Self-Management and not to Prosocial Relationship. This is consistent with the findings of McGee et al. but it indirectly contradicts the findings of Morrissey and Werner-Wilson. Family influences the youth to become helpful, respectful and decent individuals. However, the finding suggests that family (particularly the parents/guardians) may give more importance to the student’s development that is directly related to academic performance. Management, as a skill, is therefore, seen by the participants as valued more by their parents.

With the aforementioned results, it is not surprising why only Community Influence, and not Family Influence, was significantly mediated by the Hours Spent per Week. Being part of a school organization entails both academic and non-academic benefits (e.g. athletes gets free tutorials and peer support while school club members gets advanced lectures and also peer support). Simpkins et al
explained that the perception of parents' valuing of activities may determine continued, discontinued, or non-participation. Similar to the previous paragraph, family influence was also highlighted as the determinant.

In summary, highlighted in the results is the fact that active membership (as measured by the Hours Spent per Week) in any organized youth groups in school leads to enhanced Self-Management and Prosocial Relationship skills. Also, both Family Influence and Community Influence predict developmental outcomes. But only Community Influence had a significant effect on both Self-Management and Prosocial Relationship. It is also interesting to note that only Community Influence is mediated by Hours Spent per Week as it affects Self-Management and Prosocial Relationship.

**Implications and Recommendations**

The present study has shown that various agents of development, particularly family, community and school play an important role in students’ development. Specifically, life skills such as Self-Management and Prosocial Relationship Skills are enhanced by the aforementioned agents. This finding supports the objective of any HEI in developing their students holistically in preparation for experiences/challenges outside of the “safe” walls of the HEI.

A path established in the analyses may explain why some parents do not readily permit their adolescents to activities related to building/enhancing “just” interpersonal relationship skills. Participants may perceive their parents to value developmental outcomes related to increase academic achievement. Therefore, immersion projects such as community work and any social gatherings like general assembly of students (A.K.A. parties) are not well received by some students. In may be argued, however, that some students really participate in these kinds of activities but only if they are given extra credit for it. Those who voluntarily join activities of school organizations may therefore benefit more than those who participate for extra credit.

The theory of positive youth development through active participation in school organizations as proposed by Morrissey and Werner-Wilson was enhanced because of the present study. Specifically, it was found that participants’ family influence is not always mediated by involvement in school organizations (as measured by Hours Spent per Week). The mediation effect of involvement in school organizations may depend on the development outcome of interest.

The present study is limited by the availability of the measures. Specifically, other researchers should look deeper into family influence by focusing on the other dynamics in the family like parent-child relationship, family climate and the like. The measure of involvement in organized groups should be expounded. The single-item direct measure involvement in the study may not be a sufficient measure.
Reference


**Author’s Note**

The paper is part of the requirements for the class CPS510D (Advanced Statistics) under the supervision of Dr. Carlo Magno. The author extends his deepest gratitude to colleagues from Far Eastern University-Manila, De La Salle University Manila, St. Paul University-Manila, and St. Paul University-Quezon City, students in Psy102 (Advanced Statistics) sections SY1024, SY1027, SY1028 and FEU Third year and Fourth students sections SY0543 and SY0545, DLSU SIKOPIL A51 and QUALIRE A52 students, and to my classmates in CPS510D for helping in the data gathering process of the research project. Most of all, thank you to Dr. Magno for his continued support and encouragement to us all in CPS510D, 2nd Term, AY2011-2012.
Appendix A

Letter

Dear students,

Good day!

I am writing to you as a researcher and as a Ph.D. student. I am currently doing a study entitled “PREDICTORS AND OUTCOMES OF YOUTH INVOLVEMENT IN ORGANIZED GROUPS.” It is primarily aimed at understanding youth involvement in organized youth groups like sports and school organizations (e.g. student government, academic clubs, performing arts club). Consequently, I also want to explore what possible outcomes may arise from your involvement in these organized youth groups.

IF YOU HAVE PARTICIPATED IN AT LEAST ONE (1) IN ANY ORGANIZED YOUTH GROUPS IN YOUR UNIVERSITY DURING THIS SCHOOL YEAR, THEN YOU ARE QUALIFIED TO ANSWER THIS ONLINE SURVEY. There are no benefits or risks involved in participating. In completing this online survey form, I assure you that everything will be kept confidential. The online survey form usually takes about 10-15 minutes to complete. If you agree to participate, please click on this link to PROCEED TO THE ONLINE FORM.

Thank you for spending time answering this online survey form. With your help, I am now a step closer in completing the required number of 300 participants. Please feel free to contact me via mobile (09178532304) and/or email (jomadiestrojr@yahoo.com.ph) anytime if ever you have questions about this study.

Sincerely,

Jose Maria A. Diestro, Jr.
Appendix B

Path Model Measures

DEMOGRAPHIC VARIABLES

Gender
Age
Current Year in School
Grade Point Average
Length of stay in the group:
Nature of participation (ref?)
Activity Involvement (Fredericks & Eccles, 2005)
( ) Team Sports, pls. specify
   * On the average, how much time do you spend in organized sports?
( ) School involvement, pls. specify
   * On the average, how much time do you spend in school clubs and/or organization?

Years of involvement recoded to:
0 to .99 years = 1
1 to 1.99 years = 2
2 to 2.99 years = 3
3 to 3.99 years = 4
4 and above = 5

Hours spent recoded to:
0 to 5 hours = 1
5.1 to 10 hours = 2
10.1 to 15 hours = 3
15.1 to 20 hours = 4
20.1 and above = 5

PREDICTORS

Family Influence (Morrissey & Werner-Wilson, 2005)
Degree of agreement based on a 5-point scale
Cronbach’s alpha of .69

   My parent(s) know where I am after school
   I tell my parent(s) who I’m going to be with before I go out
   When I go out at night, my parent(s) know where I am
   My parent(s) think it’s important to know who my friends are
   My parent(s) know how I spend my money

Sense of Community Index (Perkins, 2005)
T/F: respondents were instructed to indicate whether the statement is mostly true or mostly false about their street block

I can recognize most of the people who live on my block.
Very few of my neighbors know me.
I have almost no influence over what this block is like.
My neighbors and I want the same things from the block.
If there is a problem on this block people who live here can get it solved.
I think my block is a good place for me to live.
People on this block do not share the same values.
It is very important to me to live on this particular block.
I expect to live on this block a long time.
I feel at home on this block.
I care about what my neighbors think of my actions.
People on this block generally don’t get along with each other.

OUTCOMES

Self Management Scale (Xue & Sun, 2011)
Degree of agreement based on a 5-point scale: (1) totally disagree – (5) totally agree
Cronbach’s alpha of .86

Performance Management

I make a to-do list everyday.
I try to finish tasks on time.
I make schedules to help myself finish tasks on time.
I always finish my tasks on time.
I get all the help I can to help me reach my goals.
I often think about how to better manage my time.
I pay particular attention to developing skills that will be important to my future career.
I set long-term goals for myself.
I am almost always on time.
I reward myself immediately after I reach my goal.
I do not like disorderly working environment.

Relationship management

I get well along with most people.
When I communicate with other people, I can understand them very well.
Friends always seek my help when they are in trouble.
I control my mood very well.
I am good at finding other peoples’ strengths.
I often give my friends constructive suggestions to help them improve their lives.
I control my emotions very well, even when I am angry with someone.
I take a positive view of my situation even when I am in trouble.
When I get depressed, I do something to make myself happy. I am good at handling problems that come up in my relationships with other people.

**Interpersonal Relationships (Hansen & Larson, 2005)**
Extent of experience based on a 4-point scale: (1) Yes, definitely (2) Quite a bit (3) A Little (4) Not at all
Obtained a Cronbach’s alpha .87

Diverse Peer Relationships

Made friends with someone of the opposite gender
Learned I had a lot in common with people from different backgrounds
Got to know someone from a different ethnic group
Made friends with someone from a different social class (someone richer or poorer)

Prosocial Norms

Learned about helping others
I was able to change my school or community for the better
Learned to stand up for something I believed was morally right
We discussed morals and values
Revised Motivated Strategies for Learning Questionnaire for Secondary School Students

John Wang
National Institute of Education

Abstract
The purpose of the current study was to examine the psychometric properties of the MSLQ for junior high school students. The MSLQ for junior high students is a 44 item self-reported instrument consisting of three motivational beliefs subscales, one Cognitive Strategy subscale and one Self-regulation subscale. A total of 780 students from eight secondary schools in Singapore completed the MSLQ. In the first sample, there were 393 students who completed the junior high school version of the MSLQ. A second sample of 387 students completed the modified MSLQ. This study showed that the original junior high school version of the MSLQ measurement model needed to be revised. The modified MSLQ measurement model was confirmed via CFA with a second sample with two other competing models. Convergent and discriminant validity was supported. Multigroup analysis demonstrated invariance of the factor forms, factor loadings, factor variances and covariances, and error variances across gender. In summary, this current study contributes significantly to the validation of the MSLQ for junior high students in the Asian context.

Keywords: Confirmatory Factor Analysis (CFA), Motivated Strategies for Learning Questionnaire (MSLQ), psychometric, multigroup analysis

It is well established that in the area of educational psychology that motivation and cognition play a pivotal role in students’ learning and academic performance (Pintrich, 1988, 1989; Printrich, Cross, Kozma, & McKeachie, 1986). Cognition refers to the cognitive and metacognitive strategies that the students engage in their learning. However, to enhance learning and achievement, students must be motivated to employ and regulate these cognitive and metacognitive strategies.

The Motivated Strategies for Learning Questionnaire (MSLQ) was developed using a social cognitive framework by Pintrich and his colleagues (Duncan & McKeachie, 2005; Pintrich, Smith, Gracia, & McKeachie, 1991, 1993). This social cognitive view of motivation and cognition postulates that cognitive strategies can be acquired and regulated by the students and that motivation is dynamic and contextually bounded (Duncan & McKeachie, 2005). Under this framework, motivation can be regulated through various motivational beliefs such as goal orientation, self-efficacy, perception of task difficulty, task value beliefs, and personal interest in the task. In addition, affect such as test anxiety is used as another general motivational construct. Based on a general cognitive model of learning and information processing, Pintrich includes specific cognitive learning strategies such as rehearsal, elaboration and organizational strategies, metacognitive and self-regulatory strategies (Pintrich, 1999). Taken together, the actual act of engaging in self-regulated learning involves use of various cognitive and self-regulatory strategies which demands more time and effort for students,
and would need considerable motivation on the learner’s part (Duncan & McKeachie, 2005).

The MSLQ measures two different components: motivation and learning strategies. In the motivation component, there are items to measure three key motivational constructs. These are: value beliefs, self-efficacy, and test anxiety. This is a typical expectancy-value model of motivation (Pintrich, 1988, 1989). In the learning strategies component, there are also three general types of scales: cognitive, metacognitive, and resource management. The full version of the MSLQ has a total of 81 items with 15 scales and was based on the conceptual model of college student motivation and self-regulated learning developed by Pintrich and his colleagues (Pintrich et al., 1993). There is also a shortened version of the MSLQ for junior high school students (Pintrich & De Groot, 1990). This version was developed as Pintrich and De Groot (1990) were aware of the need for a more manageable and simplified version for the younger participants. The original version was designed to assess college students. Factor analysis from the study indicated a three-factor structure for the motivational beliefs component and a two-factor structure for the component on self-regulated learning strategies. The self-report questionnaire consists of 44 items with five subscales under the two components namely, self-efficacy, intrinsic value, test anxiety, cognitive strategy use and self-regulation. Although the authors did exploratory factor analysis, the results were not presented.

A number of studies have sought to examine the psychometric properties of the full version of the MSLQ. Pintrich and colleagues for instance, have reported on the reliability and validity of the college version (Pintrich et al., 1991, 1993). Other researchers have also examined the college version of the MSLQ with different populations (e.g., Cook, Thompson, & Thomas, 2011), or different languages and adaptations of the MSLQ such as the Turkish adaptation of the MSLQ-college version (e.g., Karadeniz et al., 2008) and the Chinese version of the MSLQ-junior high school version (e.g., Rao & Sachs, 2001). But very few studies have examined the psychometric properties of the shortened version of the MSLQ meant for junior high school children. There is a need for equal attention to be paid to the junior high school version of the MSLQ if it is to be used for such a sample. In addition, it is very important to examine the issue of invariance in the development of a measurement tool (Byrne, 1994; Li, Harmer, Chi, & Vongjaturapat, 1996) because the items used in survey-type instruments may not convey the same meaning to students from different age or gender groups. The purpose of the current study was to examine the psychometric properties of the shortened version of the MSLQ for secondary school students (grade 7 to 10 in the US education system).

In previous studies, the MSLQ is frequently asserted to be a relatively useful, valid and reliable instrument (e.g., Pintrich et al., 1991, 1993). Nevertheless, findings regarding the factorial validity and reliability of the MSLQ vary widely. For instance, factor analyses of the MSLQ led Pintrich and his colleagues (1993) to conclude generally although somewhat tentatively that “the results suggest that the MSLQ has relatively good reliability in terms of internal consistency. The general
theoretical framework and the scales that measure it seem to be valid given the results of the two confirmatory factor analyses” (p. 811-812). On the other hand, recent analyses by Dunn, Lo, Mulvenon, and Sutcliffe (2011) call the preceding conclusion into question when they demonstrated a lack of alignment with Pintrich and colleagues (1991, 1993) original model.

Credé and Phillips (2011) conducted a meta-analytic review of the MSLQ. These researchers concluded that “factor-analysis of the meta-analytic intercorrelations broadly support the theoretical structure of the MSLQ” (p.1). But recommend that “alternation or elimination of items with undesirable psychometric characteristics could potentially both augment empirical support for the theoretical structure of the MSLQ and strengthen its subscales’ predictive utility...” (p. 1). A similar argument has been put forth by Rotgans and Schmidt (2010) who assert that “although the MSLQ has been portrayed as a reliable and valid instrument...and has been used in a variety of studies across various courses, content areas, and countries...closer examination of its psychometric properties suggest there is room for improvement...” (p. 360).

Thus despite the MSLQ having been widely used around the world in many different languages and countries with diverse samples and settings, different factor structures emerge from different research studies with junior high school and college students (Pintrich & De Groot, 1990; Pintrich et al., 1993) calling into question its factorial validity and reliability. The reason for this pattern of highly discrepant findings is unclear. However, it may be a result of issues associated with the statistical analyses and interpretations employed.

When using Exploratory Factor Analysis (EFA), items and factors in the MSLQ have been deleted due to a lack of correlation or stable factor structure (e.g., Pintrich & De Groot, 1990). And while Confirmatory Factor Analyses (CFAs) have largely superceded traditional applications of EFA in psychological and applied statistical research (e.g., Marsh et al., 2009; Asparouhov & Muthén, 2009), previous studies using CFAs have demonstrated that the MSLQ measurement model lacks satisfactory fit indexes (e. g., GFI = .78, AGFI = .75, $\chi^2$/df = 2.26, RMR = .08, in Pintrich et al., 1993), producing model fit statistics that are just on the edge of what is commonly considered acceptable (Rotgans & Schmidt, 2010).

Marsh and colleagues (e. g., Marsh, 2007; Marsh et. al., 2009) have asserted that many psychological instruments may have a well-defined EFA structure, but cannot be represented adequately within the CFA approach. Furthermore, with the broad definition of the MSLQ constructs, it is not surprising that the CFA results are poor in previous studies (Davenport, 2003; Pintrich et al., 1993; Sachs, Law, Chan, & Rao, 2001). In this study, we attempted to combine the EFA and CFA with two samples in order to search for a well-fitting measurement model.

To summarise, the purpose of the present study was to examine the psychometric properties of the junior high school version of the MSLQ. Specifically, we ought to examine the factor validity in terms of convergent validity and discriminant validity and the internal consistency of the measurement model. In addition, we aimed to test the measurement model against three alternative models
and to confirm the proposed measurement model with a separate sample. Finally, we sought to test the invariance of the measurement model across gender.

Method

Participants

A total of 780 students from eight secondary schools in Singapore completed the MSLQ. In the first sample, there were 393 students who completed the junior high school version of the MSLQ. A second sample of 387 students completed the modified MSLQ. There were 425 boys and 351 girls (4 did not state gender) ranging in age from 13·16 years old ($M = 13.29$, $SD = .94$).

Procedure

The MSLQ was administered with reference to specific subjects – in this case, either Mathematics or Science. Participants were assured of the confidentiality of their responses and informed that there were no right or wrong answers. They were encouraged to ask questions if necessary. Completion of the questionnaires took about ten minutes. The procedure for conducting this study was cleared by the university’s ethical review committee.

Measures

Motivated Strategies for Learning Questionnaire (MSLQ). The junior high school version of the MSLQ (Pintrich & De Groot, 1990), includes 44 items on student motivation, cognitive strategy use, metacognitive strategy use, and management of effort. Students respond to items on a 7-point Likert scale (1 = not at all true of me to 7 = very true of me) in terms of their behavior in a specific class. There were scales to measure students’ self-efficacy (9 items), intrinsic value (9 items), test anxiety (4 items), cognitive strategy use (13 items), and self-regulation (9 items). Within the subscale of cognitive strategy use, there were items measuring rehearsal (5 items) and elaboration (6 items) and organization (2 items).

Data Analysis

Principal components factor analyses were conducted on the responses to the 44-items MSLQ of Sample 1. Varimax and oblique rotations were both used in the factor analysis. Eigenvalues of greater than 1.00 were used to guide factor extraction. The loadings of each item were examined closely with the wording of the items and item deletion was carried out if necessary.

In a second sample, we conducted Confirmatory Factor Analysis (CFA) to confirm the factor structure of the modified MSLQ measurement model (Model A), followed by a comparison between two other competing models. Model A is the five
factor model derived from the EFA based on sample 1. Model B is a model with seven-factor model in which the cognitive strategy was split into rehearsal and elaboration subscales, and self-regulation split into two subscales. Model C is a model is based on the five subscales proposed by Pintrich and De Groot (1990). The three constant factors in these three models were intrinsic value, self-efficacy, and test anxiety.

We computed the rho’s coefficients as the reliability coefficients for each subscale. According to Bagozzi and Yi (1988), a composite reliability coefficient (rho) of greater than 0.60 is considered as acceptable. To assess convergent validity, we calculated the average variance extracted (AVE), which is a measure of the amount of variance that is captured by the latent variable in relation to the amount of variance due to measurement error (Dillion & Goldstein, 1984). A value of close to 0.50 is considered as acceptable (Fornell & Larcker, 1981). To test for discriminant validity, the confidence intervals of the latent factor correlation between each pair of factors were examined ($\phi$-coefficients). If the correlations are significantly less than unity, the discriminant validity of the measure is supported (Bagozzi, 1981).

Finally, we determine the invariance of the measurement model of the MSLQ across gender by conducting a series of CFA. First we tested the unrestrictive model, followed by adding restriction on factor loadings, factor covariances and variances, and error variances and disturbances sequentially.

Various criteria were used to assess model fit. They were: Satorra-Bentler scaled Chi-square statistics, and the associated fit indices such as the robust non-normed fit index (NNFI), robust comparative fit index (CFI), and root mean square error of approximation (RMSEA). Yu and Muthen (2002) suggest that a good fit is achieved when the robust RMSEA is 0.05 or less, and when robust CFI is close to .95. When testing for invariance, we examined the difference between the robust goodness-of-fit indexes (robust CFI). Cheung and Rensvold (2002) suggest that change in CFI is trustworthy in testing the between-group invariance of CFA models. If the difference in the CFI between the two models is smaller than or equal to -.01, the null hypothesis of invariance should not be rejected.

**Results**

Initial EFA with sample 1 found eight factors with eignevalues more than 1.00 with 59.17% of the variance explained. There were 16 items that did not load on the intended factors or cross-loaded on another factor (see Table 1). After careful consideration and close examination of the wording, it was decided that these items should be deleted from further analyses. A second factor analysis on the remaining 28 items found that these items loaded on five factors accounting for 58.71% of the variance and had eigenvalues above 1.00.
### Table 1

*Factor Loadings of the 8-Factors Solution on the 44 MSLQ Items*

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<td>.47</td>
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<td>CS12</td>
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<td>CS13</td>
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<td>.43</td>
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<tr>
<td><strong>Self-regulation</strong></td>
<td></td>
<td></td>
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<td>SR1</td>
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<td>SR2</td>
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<td>SR3</td>
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<td></td>
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<td>.43</td>
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<td>SR4</td>
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<td>.41</td>
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<tr>
<td>SR5</td>
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<td>SR6</td>
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<td>.74</td>
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<tr>
<td>SR7</td>
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<td>.73</td>
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<td>SR8</td>
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<td></td>
<td>.46</td>
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<tr>
<td>SR9</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>.50</td>
</tr>
</tbody>
</table>
Table 2 shows the factor loadings of the EFA produced by SPSS for a five-factor solution. The first factor consisted of five items related to cognitive strategy (a mix of rehearsal and elaboration items) and four items on self-regulation (metacognition strategies). This factor, named as learning strategies, accounted for 29.87% of the variance. The internal consistency was satisfactory ($\alpha = .89$). The second factor was made up of six items related to self-efficacy with loadings ranging from .61 to .80. This factor, named as self-efficacy, accounted for 11.93% of the variance and has a Cronbach’s alpha of .85. The third factor comprised a subscale with five items assessing intrinsic value, accounting for 6.80% of the variance with loadings between .56 to .78. The alpha coefficient was .82. The fourth factor accounted for 4.93% of the variance and consisted of the four items pertaining to test anxiety ($\alpha = .72$). Finally, three negatively worded items for self-regulation loaded on a final factor and accounted for 4.80% of the variance, with an alpha coefficient of .71. These three items were related to lack of understanding or difficulty of task, we named the factor as lack of learning self-regulation.

In the second stage of the data analysis, we conducted a series of CFA with sample 2. Model A, which is a five-factor measurement model derived from the EFA with sample 1, fits the data well ($\chi^2 = 549.70$, df = 336, NNFI = .931, CFI = .939, RMSEA = .042, 90% CI of RMSEA = .036, .048). The results of the CFA confirmed the measurement model established with sample 1.

Table 3 shows the fit indices for the three competing models. Results from the CFA showed that Model A derived from sample 1 is a better fit model compared to the Model B (the cognitive strategy was split into rehearsal and elaboration subscales, and self-regulation split into two subscales and Model C (based on the five original MSLQ subscales).

Table 4 shows the composite reliability coefficients (rho), average variance extracted (AVE), and latent factor correlation matrix with confidence intervals. From the results, it is shown that the rho coefficients were all above .70, indicating acceptable reliability. Support for convergent validity for the modified MSLQ was provided by the AVE indexes. In terms of discriminant validity, the latent factor correlations among the subscales were significantly less than unity, thus, the discriminant validity of the modified MSLQ was supported.
Table 2  
*Factor Loadings of the 5-Factors Solution on the 28 MSLQ Items*

<table>
<thead>
<tr>
<th>Items</th>
<th>Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td><strong>F1 Learning Strategies</strong></td>
<td></td>
</tr>
<tr>
<td>When I study for a test I practice saying the important facts over and over to myself</td>
<td></td>
</tr>
<tr>
<td>I use what I have learned from old homework assignments and the textbook to do new assignments</td>
<td>.59</td>
</tr>
<tr>
<td>When I am studying a topic, I try to make everything fit together</td>
<td>.56</td>
</tr>
<tr>
<td>When I read materials for this class, I say the words over and over to myself to help me remember</td>
<td>.81</td>
</tr>
<tr>
<td>I outline the chapters in my book to help me study</td>
<td>.68</td>
</tr>
<tr>
<td>When reading I try to connect the things I am reading about with what I already know</td>
<td>.56</td>
</tr>
<tr>
<td>I ask myself questions to make sure I know the material I have been studying</td>
<td>.71</td>
</tr>
<tr>
<td>Even when study materials are dull and uninteresting, I keep working until I finish</td>
<td>.65</td>
</tr>
<tr>
<td>Before I begin studying I think about the things I will need to do to learn</td>
<td>.66</td>
</tr>
<tr>
<td>When I’m reading I stop once in a while and go over what I have read</td>
<td>.64</td>
</tr>
<tr>
<td><strong>F2 Self-efficacy</strong></td>
<td></td>
</tr>
<tr>
<td>Compared with other students in this class I expect to do well</td>
<td>.64</td>
</tr>
<tr>
<td>Compared with others in this class, I think I’m a good student</td>
<td>.76</td>
</tr>
<tr>
<td>I am sure I can do an excellent job on the problems and tasks assigned for this class</td>
<td>.61</td>
</tr>
<tr>
<td>I think I will receive a good grade in this class</td>
<td>.69</td>
</tr>
<tr>
<td>My study skills are excellent compared with others in this class</td>
<td>.80</td>
</tr>
<tr>
<td>Compared with other students in this class I think I know a great deal about the subject</td>
<td>.72</td>
</tr>
<tr>
<td><strong>F3 Intrinsic Value</strong></td>
<td></td>
</tr>
<tr>
<td>I prefer class work that is challenging so I can learn new things.</td>
<td>.59</td>
</tr>
<tr>
<td>I like what I am learning in this class</td>
<td>.61</td>
</tr>
<tr>
<td>I think I will be able to use what I learn in this class in other classes</td>
<td>.73</td>
</tr>
<tr>
<td>Even when I do poorly on a test I try to learn from my mistakes</td>
<td>.65</td>
</tr>
<tr>
<td>I think that what I am learning in this class is useful for me to know</td>
<td>.76</td>
</tr>
<tr>
<td><strong>F4 Anxiety</strong></td>
<td></td>
</tr>
<tr>
<td>I am so nervous during a test that I cannot remember facts I have learned</td>
<td>.72</td>
</tr>
<tr>
<td>I have an uneasy, upset feeling when I take a test</td>
<td>.73</td>
</tr>
<tr>
<td>I worry a great deal about tests</td>
<td>.73</td>
</tr>
<tr>
<td>When I take a test I think about how poorly I am doing</td>
<td>.66</td>
</tr>
<tr>
<td><strong>F5 Lack of Learning Strategies</strong></td>
<td></td>
</tr>
<tr>
<td>When work is hard I either give up or study only the easy parts</td>
<td>.69</td>
</tr>
<tr>
<td>I often find that I have been reading for class but don’t know what it is all about</td>
<td>.69</td>
</tr>
<tr>
<td>I find that when the teacher is talking I think of other things and don’t really listen to what is being said</td>
<td>.81</td>
</tr>
</tbody>
</table>
Table 3
The Fit Indices for the Three Alternative CFA Models

<table>
<thead>
<tr>
<th>Fit Index</th>
<th>Model A (5-factor model derived from Sample 1)</th>
<th>Model B (7-factor)</th>
<th>Model C (5-factor proposed by Pintrich &amp; De Groot, 1990)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scaled $\chi^2$</td>
<td>549.70</td>
<td>598.73</td>
<td>783.83</td>
</tr>
<tr>
<td>Df</td>
<td>336</td>
<td>329</td>
<td>336</td>
</tr>
<tr>
<td>$\chi^2/df$</td>
<td>1.63</td>
<td>1.83</td>
<td>2.33</td>
</tr>
<tr>
<td>Robust NNFI</td>
<td>.931</td>
<td>.911</td>
<td>.856</td>
</tr>
<tr>
<td>Robust CFI</td>
<td>.939</td>
<td>.923</td>
<td>.872</td>
</tr>
<tr>
<td>RMSEA</td>
<td>.042</td>
<td>.048</td>
<td>.061</td>
</tr>
<tr>
<td>(Confidence Intervals)</td>
<td>(.036, .048)</td>
<td>(.042, .054)</td>
<td>(.055, .061)</td>
</tr>
</tbody>
</table>

Note. NNFI = Non-normed Fit Index; CFI = Robust Comparative Fit Index; RMSEA = Root Mean Square Error of Approximation.

Table 4
Reliability, Validity, and Latent Factor Correlations for the MSLQ subscales formation

<table>
<thead>
<tr>
<th>Scale</th>
<th>Composite Reliability</th>
<th>AVE</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrinsic Value</td>
<td>.85</td>
<td>.53</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>.89</td>
<td>.57</td>
<td>.72*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(.10)</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>.52, .92</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Test Anxiety</td>
<td>.76</td>
<td>.44</td>
<td>.02</td>
<td>.09*</td>
<td>.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(.08)</td>
<td>(.07)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>.14, .18</td>
<td>.23, .05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning Strategies</td>
<td>.90</td>
<td>.47</td>
<td>.70*</td>
<td>.58*</td>
<td>.29*</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(.10)</td>
<td>(.08)</td>
<td>(.08)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>.50, .90</td>
<td>.42, .74</td>
<td>.13, .45</td>
<td></td>
</tr>
<tr>
<td>Lack of self-regulation</td>
<td>.70</td>
<td>.44</td>
<td>.16*</td>
<td>.04</td>
<td>.68*</td>
<td>.12</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(.07)</td>
<td>(.06)</td>
<td>(.12)</td>
<td>(.07)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>.02, .30</td>
<td>.08, .16</td>
<td>.92, .44</td>
<td>.26, .02</td>
</tr>
</tbody>
</table>

Note. * $p < .05$. In each cell, first row = latent factor correlation, second row = SE of latent correlation coefficient, last row = correlation confidence intervals within plus/minus 2 SE.

Finally, we tested the invariance of the modified MSLQ measurement model across gender. The results are shown in Table 5 supported the invariance of the
modified MSLQ in factor loadings, factor covariances and variances, and error variances and disturbances.

Table 5

<table>
<thead>
<tr>
<th>Model</th>
<th>Scaled</th>
<th>df</th>
<th>Δχ²</th>
<th>Δdf</th>
<th>Robust CFI</th>
<th>ΔCFI</th>
<th>RMSEA (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M_A Free Model</td>
<td>924.84</td>
<td>672</td>
<td>---</td>
<td>---</td>
<td>.931</td>
<td>---</td>
<td>.046 (.038, .046)</td>
</tr>
<tr>
<td>M_B Equality of factor loading</td>
<td>949.00</td>
<td>695</td>
<td>24.16</td>
<td>23</td>
<td>.931</td>
<td>.000</td>
<td>.045 (.038, .046)</td>
</tr>
<tr>
<td>M_C Equality of factor loading, factor var/cov</td>
<td>961.08</td>
<td>705</td>
<td>36.24</td>
<td>33</td>
<td>.930</td>
<td>-.001</td>
<td>.045 (.038, .052)</td>
</tr>
<tr>
<td>M_D Equality of error variance</td>
<td>1014.44</td>
<td>733</td>
<td>89.30</td>
<td>61</td>
<td>.924</td>
<td>-.007</td>
<td>.046 (.039, .053)</td>
</tr>
</tbody>
</table>

Note. CFI = Comparative Fit index; RMSEA = Root Mean Square Error of Approximation.

Discussion

MSLQ is one of the most popular questionnaires since its development. It has been translated into more than 20 different languages and resulted in more than 50 different research studies (Duncan & McKeachie, 2005). However, it is surprising that there were not many psychometric assessment papers on the MSLQ. It was also suggested that there were problems with the factorial validity of the MSLQ (Credé & Phillips, 2011; Duncan & McKeachie, 2005; Rotgans & Schmidt, 2010). In all research, it is pivotal that the validity and reliability of the MSLQ is examined before its usage for the interpretation of results.

The aim of the present study was to examine the psychometric properties of the junior high school version of the MSLQ using two Asian samples. We examined the factor structure of the MSLQ with EFA and follow up with CFA approach to validate the modified measurement model with a separate sample. We also examined the internal consistency, convergent validity, discriminant validity and invariance of the measurement models across gender.

The present study has presented a vigorous approach to psychometric testing of the junior high school version of the MSLQ with a combination of EFA and CFA. In the initial EFA analysis, this study found that 16 items out of the 44 items of the MSLQ (junior high version) did not load on the intended factors or cross-loaded on another factor. These were the items that which may hinder the validity of the measure. Another problem with the 44-item junior high school version of the MSLQ
is that the items in the scales cover broad constructs that result in lack of convergent validity. For example, the self-efficacy scale includes expectancy for success, judgment of ability to complete the task (both in normative and self-referenced terms), and self-confidence (Duncan & McKeachie, 2005). In addition, the results also showed that the junior high version of the MSLQ consisted of more than the proposed five constructs (intrinsic value, self-efficacy, anxiety, cognitive strategies used, and metacognition self-regulation) with the original 44 items. A comparison with the full version of the MSLQ provided the evidence. Within the scale of cognitive strategies used, there were items measuring rehearsal, elaboration, and organization. The results of the EFA showed that secondary school students are not able to differentiate the items measuring cognitive strategies and self-regulation, as well as certain items within intrinsic task value (e.g., “I often choose paper topics I will learn something from even if they require more work”). Although the participants could not differentiate items assessing self-regulation and cognitive strategies, they could identify with the items measuring lack of self-regulation, thus, it is justifiable to have a separate factor on lack of self-regulation. The item deletion strategy is sound based on the results of the EFA and CFA.

In a recent study, Marsh and his colleagues (Marsh et al., 2009) showed that the CFA approach is based on highly restrictive ICM (independent cluster model) in which each item is hypothesized to load on only one factor and has zero loadings on other non target factors. Therefore, even with a well-defined EFA structure, a CFA approach may not work for psychological instruments. With the broad definition of the MSLQ constructs, it is not surprising that the CFA results are poor in previous studies (Davenport, 2003; Pintrich et al., 1993; Sachs et al., 2001). Therefore, there is a need to reduce the number of item per subscale. The original MSLQ (junior high school version) had 13 items in use of cognitive strategies, 9 items each in self-regulation, intrinsic value, and self-efficacy. The modified MSLQ with 28 items was validated with a separate sample in a follow up CFA and it was confirmed that there are five factors: intrinsic value (5 items), self-efficacy (6 items), anxiety (4 items), learning strategies (10 items, include 6 items on cognitive strategies and 4 items on self-regulation), and lack of self-regulation (3 items). Two other alternative models were used to compare with the modified MSLQ. The results of the CFA confirmed the modified measurement model was a good fit.

In terms of the convergent validity of the modified MSLQ, the results supported the convergent validity using the AVE, which was close to .50. However, the AVE for anxiety and lack of self-regulation subscales were slightly lower than .50, probably because of fewer items. The composite reliability coefficients (rho) indicated adequate internal reliability of the all the scales. In terms of discriminant validity, the latent factor correlation and the confidence intervals provide evidence of independence of constructs among the five subscale of the modified MSLQ.

The current study contributes to the literature of testing the psychometric properties of the MSLQ. This study shows the logical steps in the approach of psychometric testing which can be modelled for future studies. Future studies should use the current approach to test the full version of the MSLQ.
In conclusion, the present study provides evidence of a five-factor measurement model of the junior high school version of the MSLQ. The measurement models are similar for males and females in terms of its factor forms and structures. There are currently only three items for lack of self-regulation, which may not be ideal. Future studies can add a few items to this scale or consider removing this scale altogether.

References


The Malaysian Primary Education System and Sustainability: Challenges and Opportunities

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**Abstract**

This research is mostly motivated by the UNESCO’s declaration of the Decade for Education for Sustainable Development. Since the concept of sustainable development plays a vital role in the educational process of many countries around the world, it seems important for Malaysia as one of the main actors of the Association of the South-East Asian Nations (ASEAN) to synchronize its system of education towards sustainability. The experience of Malaysia as a leading developing country can be later on used by other developing nations. Since primary education plays an important role in shaping the new generation of each nation, the objectives of this paper are set to assess the present primary education system in view of its contributions to sustainable development and to propose approaches/methodologies to strengthen the system’s contribution towards sustainable development. Therefore, this paper tries to propose appropriate policy recommendations and changes, specifically in terms of executing necessary actions to promote and improve the education system.

**Keywords:** Education for sustainable development; educational policies; primary school system; transforming education system

The research paper was primarily motivated by the UNESCO’s declaration of the Decade for Education for Sustainable Development. The second motivating factor emerges from the fact that recently, the Malaysian education system is being criticized and severely questioned in terms of its direction. Many proposals (and some changes) have been put forward in response to these criticisms but some of the changes and new initiatives are seen as unsustainable and quite ad-hoc in nature. Therefore, it is hoped that this research paper will propose appropriate policy recommendations and changes, specifically in terms of executing necessary actions to promote and improve the education system.

The objectives of this research paper are therefore:
• To assess the present primary education system in view of its contributions to sustainable development
• To propose approaches/methodologies to strengthen the system’s contribution towards sustainable development

The research was carried out using a qualitative approach whereby the data was acquired from primary and secondary sources. The primary data was collected from interviews and discussions with officials from the Ministry of Higher Education as well as teachers who participated in several related workshops. The secondary data was gathered from the papers that were presented during the workshops and also during the expert meetings. Another group of secondary data was analyzed based on previously published data i.e. reports, Education Development Plans, curricula, teaching modules, etc.

**Research Framework**

The general framework of the research is outlined below. The research was divided into several stages of implementation:

a) Formation of an expert group to be directly involved in the research. This group included academicians who specialized in the areas of education and sustainability, as well as officials at the Malaysian Ministry of Education and the NGOs’ representatives.

b) Assessment stage - the present education system and the formal and non-formal curricula were assessed through workshops and expert meetings with teachers and officials that were involved in developing and monitoring the curriculum.

c) Documentation stage - the findings were then compiled and assessed by an expert group.

d) Preparation of the final document - based on the consultations with experts, the report was finalized for presentation to the Malaysian UNESCO Council and the Malaysian Ministry of Education.

Three expert meetings were organized for the project – for the purpose of collecting data and data analysis, as well as one workshop and a national conference which was held successfully as follows: the 1st Expert Meeting on Planning and Implementation of the Research and the Workshop on “The Situational Analysis of the Malaysian Primary Education System Towards Sustainable Development”. In this workshop, the teachers were introduced to the concept of Education for Sustainable Development (ESD) and later on discussed their views on sustainability and its relation to the current Malaysian Primary School Curriculum in different subjects.
“The 1st National Conference on Education for Sustainable Development in the Malaysian Primary School System” was held in February 2008. More than 40 Malaysian primary school teachers from different backgrounds and schools gathered together with several educators, representatives of the Malaysian Ministry of Education, representatives from NGOs as well as academicians to examine and discuss the ways of addressing sustainability in the Malaysian primary school curricula. The output of this national conference had been summed up in “The Declaration of Malaysia on the Primary Education System towards Sustainable Development” on the last day of the conference. This declaration will eventually be utilized by the Malaysian Ministry of Education in their decision-making process.

The results of the previous expert meetings, the workshop and the national conference on “Education for Sustainable Development in the Malaysian Primary School System” were discussed in the 2nd Expert Meeting on Addressing Sustainability in the Malaysian Primary School System” by the participants. More than 15 experts, educators, representatives from the Malaysian Ministry of Education, NGO members and academicians participated in this meeting to prepare the final report on “The Situational Analysis of the Malaysian Primary Education System towards Sustainable Development.”

Report of Findings

Education has been always a key factor in the existence and development of every society throughout the history of human being. As the matter of fact, this very important factor plays a central role in achieving a sustainably developed society. According to Fien (1995): “Education is critical for promoting sustainable development and improving the capacity of the people to address social issues.” However, before entering to any further discussion, we need to define the meaning of a sustainable society and its relation with the concept of education.

According to the International Sustainability Council (2008): “a sustainable society provides a high quality of life for all of its members without harming the integrity and efficiency of the natural systems and resources upon which all lives depend.” We have to pay attention that the limit of the human desires is nature. Human can design its dreams based on the borders of nature. Therefore, sustainability can be defined as achieving a pleasing existence for everyone within the means of nature for now and in future.

On the other hand, it is necessary to be aware of this important fact that a sustainable society is not only about the environment and nature. This concept covers a wider range of issues and phenomena. As Mulej (1998) argues: “the term Sustainable Development denotes the idea (and the concept supporting its implementation) of development, action, and behavior that are based on holism rather than one-sidedness.” Therefore, a sustainable society has to provide opportunities for each member of the community to reach his/her potentials. Some issues such as cultural diversity, providing adequate food, clothing, shelter, and a life of dignity for all people should be also addressed in a sustainable society.
Diversity is one of the most important issues that a sustainable society has to recognize and promote its existence as diversity gives birth to strength and flexibility of the human community. According to UNESCO-UNEP (2002): “diversity—as a source of innovation, creativity and exchange—is humanity’s guarantee for a mutually enriching and sustainable future. Together, cultural diversity and biological diversity hold the key to ensuring resilience in both social and ecological systems.” This cannot be achieved without a system of education designed to address these issues. Therefore a system of education for a sustainable society has to create balance between the human needs and the natural systems.

As mentioned, an appropriate system of education is the key to a sustainable society. In order to achieve such an appropriate educational system, many elements should be taken into consideration e.g. a society’s geographical location, the population texture of the society, the socio-economical background of the society, etc.

**Education for Sustainable Development (ESD)**

The United Nations Decade of Education for Sustainable Development is one of the most important UNESCO global movements in recent years. As per UNESCO (2005) definition: “The goal of the United Nations Decade of Education for Sustainable Development (2005-2014, DESD), for which UNESCO is the lead agency, is to integrate the principles, values, and practices of sustainable development into all aspects of education and learning.”

This educational effort will encourage changes in behavior which will create a more sustainable future in terms of environmental integrity, economic viability, and a just society for the present and the future generations. This wide range of effects is argued by Hopkins and McKeown (2001) as; “education for sustainable development can improve agricultural productivity, enhance the status of women, reduce population growth rates, enhance environmental protection, and generally raise the standard of living.”

There have been extensive efforts around the world to fulfill the objectives of this decade and many countries, institutions and organizations around the globe are highly involved in these efforts in many different ways and forms e.g. researches, seminars, conferences, workshops, meetings, field works, etc.

Based on UNESCO’s (2005) description, the objectives for the DESD are to:
- facilitate networking, linkages, exchange and interaction among stakeholders in ESD;
- foster an increased quality of teaching and learning in education for sustainable development;
- help countries make progress towards and attain the Millennium Development Goals (MDGs) through ESD efforts;
- provide countries with new opportunities to incorporate ESD into education reform efforts.
Recognizing the manner in which sustainable development and other related educational processes are attained as well as how they vary in contextuality is a key component in developing UNESCO’s objectives in its capacity as the leading agency of the Decade. The UNESCO’s leadership role and, in fact, the tasks of the Member States are also defined in the UNDESD International Implementation Scheme (2005) by the four major thrusts of education for sustainable development:

- improving access to quality basic education;
- reorienting existing education programs;
- developing public understanding and awareness.
- providing training.

An overview on what has been done in different regions of the world and by different countries and organizations stress importance on how efforts made should address the social and cultural texture of the society in which the plans intend to be implemented.

In Malaysia’s case, the focus of the sustainable development agenda has mostly been on the environment albeit with a broader definition and interpretation. In regards to this matter, the importance of expanding the definition of sustainable development and ESD is even more apparent.

**Malaysian Education System**

Malaysia is an example of one of many multiethnic and multiracial countries around the world. In fact Malaysia represents the true meaning of a diverse society in its many races, languages and religions. Population-wise, According to the Malaysian Department of Statistics (2010), Malaysian society consists of Malays 50.4%, Chinese 23.7%, Indigenous People 11%, Indians 7.1% and others 7.8% (2004 est.). In term of languages, Malaysia enjoys a vast variety such as; Bahasa Malaysia (official), English, Chinese (Teochew, Cantonese, Mandarin, Hokkien, Hakka, Hainan, Foochow), Tamil, Telugu, Malayalam, Panjabi, Thai and several indigenous languages such as Iban and Kadazan. The same applies to religion as Malaysian society has many different religions such as Islam, Buddhism, Daoism, Hinduism, Christianity, Sikhism, Bahais and also Shamanism in East Malaysia.

Based on the figures above, it is easy to comprehend how difficult it might be to keep such a diverse societal texture in harmony and provide a fair and equal system of education for them based on mutual understanding and respect. As it is argued by the UNESCO’s International Institute for Educational Planning (IIEP, 2003), “education has both the potential of either easing or exacerbating ethnic conflict through the way it is organized and delivered to different ethnic groups.” In such a diverse society, the education system should be able to adopt a guideline to address the cultural and ethnic needs of each group and at the same time keep this society in the frame of national community and unity.
According to the Malaysian Ministry of Education (2011), The Malaysian education system consists of three different schooling forms; firstly government-sponsored schools (National Schools), then private schools and thirdly, home-schooling. It is a fact that the Malaysian system of education is especially centralized when it comes to primary and secondary schools. Primary education in Malaysia encompasses a period of six years. It is aimed at providing pupils with a good foundation for reading proficiency, writing and arithmetic (3R’s). At the end of the sixth year, primary school pupils will be assessed for the Ujian Penilaian Sekolah Rendah/The Primary School Assessment Test (UPSR/PSAT). Irrespective of their performance in the PSAT, all primary school pupils are promoted to Form 1, the foundation year of their secondary education.

As per the Malaysian constitution, the Malaysian Ministry of Education is responsible for preparing the National Education Policy based on the National Ideology or as it is called in the Malay language "Rukunegara". The principles of the National Ideology are - belief in god, loyalty to the King and the country, upholding the constitution, sovereignty of the law and good behavior and morality.

The main aims of the Government Educational Policy according to Adam (1995) are to: (1) equip students with the essential skills in a holistic and integrated manner, in order to produce individuals who are intellectually, spiritually, emotionally and physically balanced; as well as functionally literate; (2) inculcate and nurture national consciousness by promoting common ideals, values, aspirations and loyalties to foster national unity and national identity (3) produce skilled manpower for economic and national development; (4) instill desired moral values in the students so that they can contribute effectively towards the concept of nation building.

Figure 1 depicts the general public education system in Malaysia. Curricula wise, there are several variations of primary and secondary schools available in the Malaysian education system. The main point of division between these schools is their colloquial speech languages. All the schools use the national curricula and Bahasa Malaysia (Malay Language) as the medium of instruction along with their respective vernacular languages as their subject. For the Chinese or Tamil schools, students prior to Form 1 promotion have to undergo a year in the "Remove Form" to enable them to become accustomed to the national curricula effectively. Based on the factors mentioned above, there are four types of governmental schools in Malaysia: 1) National Schools (Malay), 2) National Chinese Schools, 3) National Tamil Schools and 4) National Arabic Schools (these schools are especially uncommon).
In January 2003, a mixed mode instructional technique was introduced so that from Standard 1 onwards, science and mathematics would be taught in English whilst other subjects continued being taught in Malay. Tamil and Chinese vernacular schools went about doing what they have always done i.e. conduct classes in Mandarin and Tamil. However as the Seattle Times (2009) reported, “Malaysia announced it will abandon the use of English to teach math and science, bowing to protesters who demanded more use of the national Malay language.”

The structure of education in the community network can assist us by giving us a clearer idea of how the Malaysian education system functions. This structure can be divided into two sections namely; 1) Formal Education and 2) Non-Formal Education. Three ministerial divisions are in charge of Malaysia’s overall education system namely, the Ministry of Higher Education, the Ministry of Education and the Ministry of Natural Resources and Environment. These three ministries create a vertical relationship with some of the other formal educational institutions, private colleges and other universities. It must be said however that this vertical institution also ties itself horizontally with other informal institutions of education, community-based NGOs, media and local business communities. This structure ensures the smooth functioning of the Malaysian education system while simultaneously maintaining a holistic view towards the concept of education.

Policy and Institutional Role for ESD in Malaysia

The Malaysian education system experienced separatism during the colonial rule of the British, however in the post-independence; the system went about setting new goals to foster national unity through education. These attempts culminated resolutions that focused on diversity such as the Razak Report (1956), Rahman Talib Committee Report (1960) and Democratization of Education Report (1962).
In terms of Education for Sustainable Development and its relation to the competitive situation of today’s global world, the Malaysian system of education has placed its prime focus on educating quality knowledge-workers and preparing them for the future of the nation. To achieve this, the re-engineering of the education system based on contemporary needs was taken into consideration. Coincidentally, this also channels the Malaysian education system towards the holistic approach that the UN and UNESCO are pushing for.

The success of any educational system is dependant on certain important issues, some of which are putting theory into practice, clarity of the policy, direction of the policy, assessment and monitoring, ability of the policy to fulfill the needed requirements and the commitment of policy implementers. More often than not the success of the system is reliant on a successful combination of these elements.

In Malaysia’s context, the combination of the above elements has given birth to the Malaysian Education Development Master Plan 2006-2010. The national policy’s understanding of the constructive and important role of education is addressed clearly in two sections of the 9th Malaysian Plan as: “Thrust 2: To raise the capacity for knowledge and innovation and nurture ‘first class mentality’” and “Thrust 3: To address persistent socio-economic inequalities constructively and productively.”

In the Malaysian Education Development Master Plan 2006-2010, the foundations of Malaysia’s development were defined as: The National Mission, The National Development Policies, The National Education Policy, Islam Hadhari (a manifestation of Islam capable of answering the needs of today’s world) and The National Integrity Plan. In term of Education Development Thrusts, elements such as access, equity, quality, efficiency and effectiveness of education management are regarded as top priorities.

In attempting the above criteria, certain important issues need to be taken into consideration such as making equal opportunities in education available and promoting the excellence of educational institutions. Achieving these objectives require proper strategy planning which can be categorized into nation building, developing human capital, strengthening national schools, bridging educational gaps, enhancing the teaching profession and accelerating excellence of educational institutions.

In addition to what has been said above, some critical success factors should also be factored in such as the cooperation and commitment of education, community cooperation and commitment of educational stakeholders, delivery system and monitoring and evaluation system. The combination of all the said elements will lead us to the main objective of the plan which is to provide a quality education for all.

Implementing ESD in the “Educational Development Master Plan (EDMP)”

The EDMP (given its role in the Malaysian education system) can act as a driving force in the policy formulation, planning and implementation of EfSD programmes. The UN on the SD Chapter 36 of Agenda 21 (1992) acknowledges
the role of EfSD in “promoting education, public awareness and training”. This then reflects the critical role of a quality education in the SD context. As was mentioned before, the strategic thrusts of the EDMP play a crucial role in the success of the EfSD goals. A closer look at what these thrusts are will better depict the relationship between EfSD and EDMP.

**Thrust 1: Nation Building** - in terms of policy, this thrust attempts to address the process of nation building, national identity and human resource development. The objectives of this thrust are to produce students with strong personalities, patriotic, who adhere to religious and moral values and live together in a caring, democratic, liberal, tolerant, united and science-oriented society. In terms of its strategy, Thrust 1 tries to strengthen the national language as the basis of unity and knowledge, strengthen unity and national integration, cultivate a love of the arts, heritage and national culture and promote a clear understanding of Islam Hadhari.

**Thrust 2: Developing Human Capital** - in term of policy, this thrust undertakes the development of human capital with knowledge and skills as well as good values. The objectives of this thrust are to inculcate the desire for knowledge, skills and competence, foster positive values, morals and attitudes as well as to inculcate discipline among students. Co-curricular activities such as; uniform bodies, sports and games, clubs and societies were incorporated with the objectives of promoting patriotism and nation-building, molding leadership while building character and inculcating moral and positive values.

The strategies that were adopted for this thrust provide more opportunities in education for both parents and students to raise the interest and ability of students to master knowledge and skills and shape the competency and personality of students by:

- Strengthening the curriculum and co-curriculum
- Acculturating courtesy and good manners
- Strengthening the 3K Programme (cleanliness, health and safety)
- Enhancing student discipline
- Improving and updating evaluation and assessment systems

**Thrust 3: Strengthening National Schools** - this thrust endeavors to promote national schools as the school of choice to enhance and reinforce unity among students of differing races and ensures excellence in teaching and learning. In terms of achieving this goal, important strategies such as expanding preschool education, strengthening the leadership of the school principals/heads, improving the quality of teachers, reinforcing the school culture, reinforcing the curriculum (ensure Level 1 pupils master the 3Rs, introduce Chinese and Tamil languages, introduce special needs programmes and increase access and choices to the secondary stage), reinforcing co-curriculum and sports, improving the support system, improve academic performance and improving infrastructures as well as schools performance.

**Thrust 4: Bridging the Educational Gaps** - this thrust attempts to bridge the educational gaps of location, socio-economic status and students’ abilities. It is to ensure all schools and students have equal opportunities and capability to
excel. Some of the gaps that were categorized are the urban poor, digital divide, socio-economic issues, students with special needs, etc. Among the ways by which these gaps are to be bridged is to develop educational infrastructure and facilities in the rural areas, increase participation rate of the students and reducing the risk among students of dropping out, increasing the number of trained teachers in remote areas and improve the support system for students who are poor, with special needs and the ethnic minorities.

**Thrust 5: Enhancing the Teaching Profession** - this thrust tries to enhance the quality, career and welfare of teachers to make teaching a respected profession. To achieve this goal, strategies considered are improving the selection of teacher candidates (academic qualifications, teacher’s personality, inventory tests, written English test, individual interviews and group interviews), strengthening teachers’ training (upgrade teachers’ qualifications by establishing Teachers’ Education Institutes (TEI), Teaching Schools, design and formulation of the TEI curriculum, strengthen and expand courses and training, expand and enhance R&D), strengthening the teaching career (increase promotional opportunities for principals and teachers, increase quota for promotion and housing and incentives), improving teachers’ working environment and welfare and strengthening human resource planning and management.

**Thrust 6: Accelerating the Excellence of Educational Institutions** - the attempt to develop local educational institutions into world standard ones in order to build up exemplary institutions as models for other institutions within the same cluster. With respect to the abovementioned thrusts, we need to understand that the institutional role of ESD is directly related to the commitment of all the stakeholders. The understanding of the stakeholders in regards to policies, areas of focus, strategies and action plans is important so that these can be synergized with their expertise and capabilities. This agenda can be achieved by a strong cooperation within and outside the Ministry of Education for dissemination of EDMP. Other key elements that are crucially important in this matter are developing the Key Performance Indicators (KPIs), internal accountability and monitoring & evaluation.

In terms of the the structure of the EDMP, the committee chart as showed in Figure 2 can be used:

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>COMMITTEES</th>
<th>CHAIRPERSON</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOP MANAGEMENT</td>
<td>Monitoring and Evaluation</td>
<td>Minister of Education</td>
</tr>
<tr>
<td>MOE</td>
<td>Working Committee</td>
<td>Secretary General &amp; Director General of Education</td>
</tr>
<tr>
<td>STATES</td>
<td>Working Committee</td>
<td>State Education Directors</td>
</tr>
</tbody>
</table>

**Figure 2. EDMP Committee Chart**
The Blueprint of EDMP can be considered as showed in Figure 3:


**Figure 3. The Blueprint of EDMP**

**Malaysian Primary School System and ESD**

As was mentioned, the primary focus of the Malaysian education system in the scope of sustainability is mostly on Environmental Education (EE). The main focus of Malaysian Environmental Education is to provide education for and about environment. However, the Malaysian definition of EE also goes beyond that of standard EE and in addition attempts to upgrade the living standards of people as well. Therefore as argued by Pudin et. al. (2005), “environmental education in Malaysia is geared towards addressing environmental challenges such as littering, water pollution, air pollution and the degradation of biodiversity”.

The Education for Sustainable Development (ESD) has also been refined to include the line: "to achieve SD through understanding and wise management of natural resources". The Malaysian interpretation of environmental education enables the acquisition and mastery of inquiry and scientific skills. It also aims
to create a society which is sensitive and caring, knowledgeable, skilled and committed to solving environmental problems.

The objectives of this approach are to: 1) gain experience, knowledge and basic understanding about the environment and its problems, 2) to be sensitive, aware and caring about the environment and the problems relating to it, 3) have a positive attitude, value and love for the environment, 4) understand that natural resources utilized in national development should only be undertaken with careful planning, 5) acquire skills needed to identify and solve environmental problems and 6) to be given the opportunity to be actively involved in solving environmental problems.

The status of Environmental Education (EE) in Malaysia is such that EE is not yet a subject on its own in the education system; however its elements have been integrated across subjects and co-curriculum activities. These integrated elements can be viewed through channels such as god is the creator of the universe and all living things, the interaction between earth and the universe, non-living things and natural resources, living things and their habitat environment, interaction between, man, animals and plants, management of the environment, etc.

The implementation of the above elements into the curricula by the Ministry of Education with the cooperation of the Curriculum Development Centre (CDC) advocates spiritual, moral and student-centered approaches in the teaching and learning of EE. It also attempts to make the teaching and learning processes more student-centered and fun. Other equally important aspects that are to be incorporated are evaluation and monitoring.

In terms of implementing appropriate strategies for EE, the Malaysian education system has adopted certain elements from EE materials such as teacher's guide books, marine educational kits, greening of schools, and greater understanding of the waste cycle. At the same time, EE is made a compulsory subject for trainee teachers in Teachers' Training Colleges and it is also offered as an in-service course for resource teachers.

Apart from the above attempts, a series of sufficient supporting programs and activities are essential for the success of this concept. River Watch Program, Environmental Cadets/Brigade, Environmental-Themed Competitions, Environmental Materials and Training Programs are among the activities which have already been introduced to the Malaysian education system.

As a specific example, the Department of Fisheries at the Ministry of Agriculture has designed a program with the cooperation of the Hong Kong and Shanghai Banking Corporation (HSBC) to educate the public and to instill the values of conservation for the protection of marine resources.

In another attempt; the Department of Wildlife and National Parks created a course on nature conservation at Lanchang and Taman Negara (The State of Pahang) to instill awareness in the younger generation on nature conservation. Other institutions such as the National Institute for Public Administration (INTAN) conduct regular workshops on managing Malaysian's natural heritage or even a career option in biodiversity.

It must be said here however that the implementation of these programs is not exactly easy sailing. Curricula transformation is one of the main
constraints of implementation whereby the process of transforming the curriculum towards answering the objectives of EfSD should be done carefully - needing a vast amount of attention, financial resources and expertise. Teaching-related issues such as training as well as teaching and learning pedagogy are among the most important elements in this concept.

**The Role of Teachers' Training in the Malaysian Education System with Regards to ESD**

The concept of ESD had already been introduced into the Malaysian Teachers' Training curriculum in various ways such as in Environmental Education, Sustainable Development and Social Studies. This subject was offered to all of the 27 nation-wide institutions of teachers' training by the Teacher Education Division of the Malaysian Ministry of Education.

The criteria in which the components of ESD in the subjects will be offered to the student teachers can be categorized as:

1) an understanding of the human-environment relationship and
2) the sense of respect and responsibility with which humans should manage the environment and the earth.

This process strives to provide education to the student teachers about the environment for the environment and in the environment in order to enable the student teachers to understand and comprehend the environmental issues and to act individually or in groups to preserve and conserve the environment. It equips future teachers with knowledge, skills and moral values that will assist them in implementing ESD components across the school curricula effectively.

This program is designed with the objective to enable future teachers to state the significance of environment related issues and its integration into the teachers’ education curriculum, to acquire knowledge in analyzing and addressing associated environmental problems, to elaborate the concept of sustainable development in the process of planning and development of natural resources, to identify the social responsibilities of government, non-governmental organizations and corporate bodies in addressing environmental issues, to elaborate and apply environmental related values across the school curriculum, to foster positive values and attitude towards the environment, to participate and act individually or as a group in the preservation and conservation of the environment and to integrate elements of ESD into school-based curricula.

A wide range of topics and issues are covered in the themes and contents of the future teachers’ curriculum which may be directly or indirectly related to the core elements of ESD. A few examples of the themes incorporated are ecosystem and environmental issues, sources of environmental issues, consequences of the environmental issues, addressing the issues, sustainable development concept, historical background and the origin, principles, guidelines of agenda 21, ESD and its four pillars, the purpose of sustainable development, approaches to sustainable development, ecosystem based management, environmental acts and international conventions, environmental citizen, sustainability, economy and society, sustainable future, individual choices,
collective actions, integration and overcoming challenges, evolving strategies, gender, environment and development, human rights and development, state of un-sustainability, globalization and development, ESD across the curriculum, whole school approach, integration of ESD in the teaching and learning process, co-curricular approach and greening programs.

In fulfilling the ESD objectives, the Department of Teachers' Training has made substantial collaborative jobs in cooperation with different stakeholders to produce a module, the "Environmental Education Module" 2002/2003 for teachers & lecturers in conjunction with WWF, carrying out a series of courses to train lecturers in teacher training institutions to integrate ESD concepts across various teachers’ training curriculum, organizing Daily Lesson Plans, writing competitions, integrating ESD concepts across various school subjects (April-December 2002) for the student teachers in the teacher training institutions, organized a course to train school head masters and principles of selected schools in Malaysia on various concepts of ESD (Nov-December 2003), Facilitating lectures in the institutes of teacher education in cooperation with the Ministry of Environment, organizing environmental camps for student teachers in selected teacher training institutions (24-27 June 2004 at Endau Rompin), organizing programs for student teachers during the Environmental Week (2001,2002, 2003,2004,2005,2006 & 2007), organizing short courses for future teachers to produce a project-based learning integrating ESD concepts and ICT skills across school curricula in collaboration with "Intel - Teach for the Future", etc.

One of the most important issues in teachers training in relation with ESD is how to sustain these activities and efforts. In sustaining these movements, the Department of Teachers' Training is trying to improve integration of ESD into the teachers’ curriculum, promote and support the establishment of ESD in all educational programs, develop teachers’ training-based materials on ESD curricula and identify and disseminate best practices on ESD issues across the teachers’ training curricula.

ESD Related Activities at Schools

Apart from the conceptual and theoretical aspects of ESD, the other vital aspect is the implementation of these concepts into practice. For this crucial purpose, the Malaysian Ministry of Education has started collaborative projects with different stakeholders involved in ESD such as the Centre for Education, Training and Research in Renewable Energy and Energy Efficiency (CETREE) on issues related to renewable energy or energy efficiency.

The goal of this project is to infuse energy conservation into the primary school cross-curricular and co-curricular. This program seeks a way to introduce these concepts to the pupils not only at the knowledge-based level but also on skill, attitude and on a behavioral basis. In this project, students will be introduced to different concepts in relation with energy such as energy exploration, energy technology, the negative effects of non-renewable energies, energy services, etc.
The approach of this project is a "4M Approach" in which the four concepts of Meaning, Memory, Motivation and Measurability are at the highest level of consideration. This project is also awareness-raising, implementation as well as attitude & behavioral change based. This project targets 4 major school activities namely - classroom teaching and learning, after school curriculum, science and technology carnival and the energy month. This project attempts to integrate itself into the 8 subjects of the curriculum that is to say mathematics, science, the Malay language, the English language, Islamic education, arts, local studies and life skills.

In reaching the objectives of this project, 8 nation-wide pilot schools have been chosen to integrate the above project into their curricula. 16 module drafts have been prepared and the contents of the modules have been designed in a language user-friendly session that lasts for approximately 30 – 60 minutes. In regards to after-school curriculum, a draft book containing easy and simple activities relating to energy conservation and efficiency has been published and distributed among schools.

Another important and successful manner of introducing the concept of ESD into the Malaysian education system is the concept of Sekolah Lestari (Sustainable School). Sekolah Lestari helps to shape a school environment that takes into consideration environmental protection and conservation in various aspects such as environmental management, curriculum, co-curriculum and greening activities.

The involvement of the school community (which includes students, teachers, administrative and supporting staff) in these aspects will provide an opportunity for them to practice, appreciate and embrace environmentally-friendly attributes in their way of life at school, home, in the community, within society and the nation.

The Sekolah Lestari (Sustainable School) concept is designed on an integrated approach, which involves the school community as a whole, their families, local communities, the government and private sector as well as non-governmental organizations. This concept encompasses the integrated approach in management, curriculum, co-curriculum and greening activities. Sekolah Lestari aspires to encapsulate both current and planned environmental activities. It shall also serve as a centre of learning and education that is capable of influencing both the school community and society towards a way of life that is sustainable.

Based on the mission of the Sekolah Lestari and its concept, among the activities practiced at these schools is a Word Bank in which students start building a word bank in their classrooms. Keywords can be considered such as biodegradable, compost, landfill, environment, toxic waste, etc. Another activity is Basic Words - Phonics/Word whereby lists are made using relevant words e.g.: bin, pack, use, make, throw and such basic words as occurs throughout the unit. Pictures and sentences can be used to explain how two different resources are recycled in a simple step-by-step guide format.

Finding where the nearest recycling centre is located, either through the local council or private collecting centre is another practice in these schools. This will help pupils understand how different resources are recycled as well as the
people who are involved in the recycling process with jobs in waste collection, sorting and processing, advocacy, etc.

There is also an introduction of art activities that is being practiced at Sustainable Schools which involve the usage of waste material. Examples of such activity are:

- Mosaics using egg cartons or cheese boxes as a base container, with moist sand or play dough, then colored plastic, glass and paper shapes.
- Fabric collage pictures using scrap fabrics.
- Mobiles-newspaper constructions: flowers to hang, boats to sail and hats to wear (at school parades).

At Sustainable Schools, students are encouraged to seek information in books, magazines, brochures and the Internet; they are also introduced to brainstorming activities, problem-solving skills, etc.

In regards to environmental issues, Sustainable Schools try to foster good environmental values by raising awareness amongst the school community about the importance of environmental protection and conservation; to encourage the school community to carry out effective environmentally friendly activities, to heighten cooperation between schools and communities in making environmental education a success and to generate a school surrounding that is conducive for producing a school community that practices a sustainable lifestyle.

Another important project which is still being carrying out by WWF-Malaysia is “Developing EE Policy within the Malaysian National Education Policy”. The project is currently entering its 2nd Phase whereby all the data which have been collected nationwide via surveys involving students (primary, secondary and university), teachers, lecturers, public and business sectors and politicians. The data is being processed and the final report will be handed to the Ministry of Education for further action.

By strengthening the institutional framework (especially through the EE Policy) as well as creating a credible and replicable EE Model (although the testing site is at the secondary level), we can create a good platform for transforming the current EE teaching practices at primary schools towards producing children who are more appreciative of the environment. Through the networking with various parties within Malaysia and at the international level, student would be able to increase their cognitive competencies while enhancing their environmental knowledge.

In this project: teachers are encouraged to use interesting and interactive methods of teaching environmental related subjects with a participation of various stakeholders. Courses of various disciplines via the respective subjects are taught within the school environment in order to create a sense of belonging and also to enable them to master the required knowledge and skills.

For this purpose, teachers have to continuously build environmentally-related knowledge and skills and establish good networking with relevant stakeholders for the purpose of executing various EE program as well as for raising funds.
There are many different ways in achieving the goal of imparting EE into the primary school system some of which are by:

- Simplifying reading materials, activity books and other printed resources from international websites. e.g. UNESCO, Eco-Schools, etc.
- Introducing EE as a compulsory/core subject in Teachers’ Training Colleges
- Capacity building/ exposure for teachers to further strengthen EE knowledge through workshops, seminars or dialogues (locally or internationally)
- Smart Partnership between the Ministry of Education agencies and other stakeholders such as other relevant government agencies universities and NGOs.
- Student earning processes. (in classroom, school compounds and field visits)

**Recommendations**

ESD should not be perceived and taken only as a separate subject i.e. environmental studies but as something that permeates all subjects. It implies a learner-centered pedagogy that promotes interdiscipline, ensures relevance of knowledge to the learner’s experiences, encourages active learner participation, helps the development of critical thinking and participatory skills and caters for life-long education. Consequently, initiatives promoting ESD within the formal education sector should not be viewed as intrusions into other subjects, but as opportunities for the country to improve its educational system.

Based on the research done, the following are the suggestions recommended for further improvement of the Malaysian primary education:

**For schools**

- Develop an appropriate curriculum that promotes sustainable development, based on an interdisciplinary approach.
- Ensure that the content refers to and deals with issues related to sustainable development that are relevant to the experiences of the learners. (e.g. there is a possible fallacy of citing an example from Africa for a country in the Pacific Islands)
- Promote a holistic education that combines technical knowledge with moral, social and personal development.
- Encourage children to actively take part in decision-making processes at their schools and to be responsible for the improvement of their schools’ environment.
- Encourage children to take an active role in activities which foster sustainable development in their school and community.
- Involve the schools in Local Agenda 21 initiatives and in partnership with the national, regional and international levels.
- Appoint a coordinator responsible for the implementation of ESD at the school.
• Involve the whole school community (including parents and children) in drawing up school policies and action plans for the sustainable development of the school in question.
• Encourage planning and responsible management of the school and its grounds, promoting prudent energy consumption and water usage, sustainable waste management schemes including recycling and safe transport of the school students.

The Government

The government should consider:
• Developing and implementing a national strategy for ESD.
• Facilitate the development of a curriculum that promotes sustainable development through nationwide consultation to support its infusion into the educational system.
• Support and encourage initiatives aimed at reorienting existing educational structures and practices to address sustainable development at all levels.
• Support initiatives by NGOs to organize environmental education programs, especially for adults, in order to promote lifelong learning, sustainable lifestyles and active participation in decision-making.
• Promote networking among, and training for, environmental educators and facilitators.
• Support training schemes on sustainable work practices and processes.
• Strengthen the capacity of schools to promote ESD.
• Support and promote traditional knowledge and traditions that are conducive to sustainable development.

Conclusion

The research found that ESD in Malaysia (though given some importance), is not coherently organized and does not effectively offer the adequate opportunities for individuals to develop the necessary skills and overall capacity to deal with sustainable development issues. Nevertheless, Malaysia is gradually building up an infrastructure aimed at supporting future ESD initiatives with the ultimate goal of assisting Malaysia in its challenge to adopt sustainable development principles. Thus, it should be stressed that Malaysia needs to make ESD a national priority. There is an urgent need to provide more formal and informal ESD education programs especially for children and adults, promoting the adoption of sustainable lifestyle and values, and active participation in decision-making relating to sustainable development. This process will gradually take place when the agenda becomes mainstream discussion.
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References

Learning in Adult Years: The Experiences of the Nigerian Adult Literacy Learners

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**Abstract**

Learning is a life-long process since it goes on as long as a person is alive. Every individual is thus faced with one learning situation or another throughout one’s life time. The purpose of this study is to identify the experiences Nigerian adult literacy learners pass through in pursuit of their human right: the right to learn and to offer suggestions on how the adult educator can assist them in their various learning situations. For instance, there are social engagements or community pressures which clash with scheduled literacy classes; there are cultural practices that inhibit women from leaving the home to attend literacy classes elsewhere; there are psychological problems of unfavorable self-concept as well as pressure of work; all affect their regularity of attendance and concentration in learning situations. There are also non-proximity of learning centres especially in rural parts of the country coupled with frequent suspension of classes during peaks of farming and rainy seasons. The onus of assisting Nigerian adult literacy learners to scale through the dilemma they face in trying to overcome such difficulties rests on the adult educator or the facilitator of learning. Some suggested ways of providing the requisite assistance include making the learners aware of the enormous benefits of literacy acquisition, connecting learning activities to the learners’ experiences, adopting strategies to ensure continuity in learning even at adverse circumstances, and affording learners the opportunity to participate in the planning, implementation and evaluation of learning programs that concern them.

**Keywords:** adult educator/facilitator, literacy, adult literacy learners

**Introduction**

Learning as a concept has been defined variously by social scientists and psychologists. For instance, the behaviorists/reductionists sect of psychologists define learning as a product or outcome: a change in behavior that is relatively permanent through practice, training or experience (Lawson, Goldstein and Musty (1975); Morgan, King and Robinson, (1979). According to this sect of psychologists, temporary changes in behavior due to growth processes, effects of fatigue, illness, drug or alcohol are not considered as learning because such changes are ephemeral and not relatively permanent.

On the other hand, the non-reductionists/cognitivists perceive learning as a process of change in cognitive structures: meaning that learning takes place as a result of reorganization of a number of perceptions and relationships in a given problem situation to enhance understanding. Dewey’s definition of learning as the organization and reconstruction of experience, cited in Nzeneri (2008), suggests that learning is a continuous or lifelong process that involves construction and reconstruction of experiences which goes on as long as a person is alive. It is this process of reorganization of cognitive structures that enables learners, both in practical or theoretical learning, to perceive new relationships, solve new problems and gain a basic understanding of a subject area (Bello 1988). Learning therefore is
conceived in this paper as a mental activity performed by an adult person to meet his or her learning/educational needs in order to achieve his/her desired goals. The goals and needs to be met go along way to serve as motivating factors that dictate the level of learning attainable by the individual learner.

Looking at the little of this paper, a question arises: when does a person enter his adult years? It is not in doubt that adulthood sets in at the end of the adolescent phase of life: a period in the Nigerian socio-economic milieu is characterized by financial independence, employment, marriage and attainment of adult status. These social indices of the period of early adulthood according to Havighurst (1972) and Nzeneri (2008) are most prevalent between the ages 18 and 25 years. Premised on this revelation, 26 years and above is taken as adult years. The purpose of this paper is to identify the difficulties Nigerian literacy learners pass through in their adult years and to proffer suggestions on the best approaches the facilitator can employ to enable them scale through such difficulties and dilemma they face.

Why Nigerians Subject themselves to the Rigors of Learning in the Adult years

Mass illiteracy has remained the bane of Africa right from the colonial era. For instance, the recent disclosure by the National Commission for Mass Literacy, Adult and Non-Formal Education (NCMANE, 2011) that 46,340,00 or 33.1 percent of Nigeria's 150 million people still wallows in illiteracy is indeed disturbing and worrisome. Of more revealing is Rogers (2008) who stated that in Nigeria, the official figures (GMR 2005:286) suggest that some 22 million adults aged 15 years and over are illiterate. As a nation in a flux, Nigeria needs educated adults who will execute its Vision 2020 with the aim of becoming one of the 20 largest economies in the world. There is no way this vision can be achieved with the burden of illiteracy such as Nigeria has on its back. It is imperative therefore, that Nigerians should learn even in their adults years to enable the country become a literate nation capable of playing a leading role among commity of nations.

Furthermore, illiterate Nigerian adults require to attend literacy classes in their adult years to acquire the knowledge to be politically, vocationally, spiritually and culturally competent in this fast changing era of globalization. In fact, the emergent technological changes taking place in every sector of the Nigerian economy have led to increased availability of information, changes in work ethics, expansion of urbanization and so on, most of which have created socio-cultural problems for developing societies, Nigeria inclusive. Therefore, to cope with the emergent technological changes Nigeria is engulfed in, people in their adult years need to acquire not only literacy skills, but also, the capacity to undertake new ventures, play new social roles, work in new kind of jobs and operate within new organization framework. In this context, Bown (1977) stressed that:
It is essential for any developing country to ensure that people are constantly learning a new, refurbishing their knowledge, to keep up-to-date and to keep up with what is going on in the world.

... progress in the good sense, in the sense of general betterment of conditions will be possible unless we do deploy resources for training older people (P. 12).

Considering the enormity of developmental tasks facing most African countries including Nigeria, Nyerere (1969) in his New Year message as cited in Bown (1977) wished that those in their adult years were educated first because their attitudes had immediate impact on economic development whereas children had to wait for years before putting what they learn into practice. In tandem with this view, Akinpelu (2008) submitted that no nation can afford to neglect the education of her adult citizens and remain in the state of civilization. The quest for economic development and civilization is a strong reason why Nigerian’s should subject themselves to the rigors of learning into adult years. Also to sustain the country’s democratic process, those in the adult years on whom the burden of development and good governance of the country rests at present must continue to learn to master the rules of the game of politics. Accordingly, Bown (1977) advised thus:

If Nigeria is really to have political stability and national unity; if the nation is to have democracy, Nigerian electorate (who are mostly in their adult years) must be given the opportunity to learn and continue learning, to be informed and to make their own judgments and contributions (p. 15).

The submission of this paper is that learning in adult years is not only something which lies within the capacity of people in their adult years, but something which has become a necessity for adaptive life later. Nigerians in their adult years have great learning needs to enable them adjust and adapt to the economic, social, democratic and technological changes which have become inevitable in the global world. It would be useful at this point to identify some of the experiences encountered by Nigerian adult literacy learners in pursuit of their human right; the right to learn.

Social Engagements

In Nigeria, the adult literacy learner could be the family head, the bread winner who belongs to different organizational groups in his community and who must attend the social engagements especially those of the organizations to which he is a member. In addition to his numerous functions or what Havighurst (1972) called “social roles”, he must also learn how to read, write and handle calculation of
figures and numbers to improve his way of life and participate actively in the development of his community; all of which may seem to him like teaching an old dog new tricks. In the midst of all these pre-occupations, the adult literacy learner has to forgo a relaxing evening with a pot of palm wine or locally brewed gin, folklores and riddles after a tiring day in the farm, market or fishing port for a literacy class. The busy life-style of Nigerian adult literacy learners without doubts, interferes with their ability to concentrate in learning situations and sometimes, according to Thomas (1981), their minds may be working on personal or family problems rather than on the learning tasks at hand; thus they find it difficult to pay voluntary attention to what the instructor is putting across.

Psychological /Emotional Prejudice

In fact, psychologically, most adults especially the illiterates among them, given the option, would not ever attempt attending literacy classes because they feel too old to learn. Friends and relations, even their children may discourage them by telling them it is a waste of time because little or nothing will be added to their knowledge at their ages. In fact, being ashamed of being seen attending literacy classes, many Nigerian adult literacy learners sandwich their primers into newspapers to give false impression of where they are heading to. More than that, some of them are scared and feel belittled meeting their instructors who may be of same age bracket, if not younger than they are. Realistically, under such situations, Nigerian adult literacy learners are emotionally unstable to pursue what is their human right, the right to learn.

Low Self-Concept

This is another experience of Nigerian adult literacy learners that negates conceptual understanding. Onuoha (1984) postulated that illiterates, whether old or young always face the problem of low perception of self. Supporting this view, Eheazu and Ebong (1984) confirmed that “the illiterate has an inferiority complex because he cannot read or write”, (or communicate in the official language). Ukpong (2000:156) added a voice in this argument when he postulated that “a person who doubts himself is like a man who enlists in ranks of his enemies and bears arms against himself and thus makes his failure certain by himself being the first person to be convinced of it”. On the other hand, adult literacy learners who trust themselves and their abilities perform more effectively and successfully than those with negative self-concept. Studies such as Irwin (1967) and Ukpong (2000) support the thesis that positive conception of one’s self is central when considering optimal scholastic performance. Nigerian adult literacy learners should be encouraged to have positive self-concept if they are to benefit from participation in learning transactions. Another problem experienced by Nigerian adult literacy learners concerns none proximity of learning centres and facilities.
None Proximity of Learning Facilities

Majority of Nigerian adult literacy learners have little or no time to study, whether in urban or rural areas. In urban areas, for instance, such people work full-time to earn a meagre wage because of their low level of education. Omolewa (1981) revealed that they have to leave their places of work after a tiring eight-hour day and wade through the difficulties of traffic congestion to get to the learning centres which may not be near. He further adumbrated that they go into classes already tensed and exhausted. Furthermore, he contended that the monotony of work they engage in causes lack of motivation, reduced interest and divided attention in class.

The situation is worse in rural areas where learning centres and facilities are concentrated at local government headquarters. Like their counter parts in urban centres, those in rural areas have to attend classes after exhaustive farm work in the day and still have to forego moon-light relaxation with family members only to attend literacy classes, majority of which operate using lanterns or kerosene lamps with poor visibility. Worst still, it is pitiable to see some fat women at literacy classes squeezing themselves in seats vacated by school children. Moreover, at some critical times, learning centres are forced to be suspended due to poor attendance particularly during farming, rainy and fishing seasons thereby interrupting continuity of learning. This paper is too short to undertake an indept account of the experiences of the Nigerian adult literacy learner, but suffice it to say that they need assistance in the struggle for self improvement and enlightenment to resolve their approach-avoidance conflicts.

Suggested Measures to Counter Nigerian Adult Literacy Learners’ Difficulties

The responsibility of assisting adult literacy learners to cope with the difficulties and dilemma they encounter in various learning situations is mainly a function of the adult educator who is also known as the instructor or facilitator of learning.

Salient among the facilitator’s role in this context is provision of opportunity for social interaction among the adult learners, some of who come to learning programs not necessarily to learn new skills, but to “run away” from tensions at home (Ihejirika, 2000). Others who attend after the day’s toil in the farm, market or fishing port are already wearied before joining the rest members in a learning situation. To enable them cope, the facilitator must present his teaching activities in such an invigorating and stimulating manner that all become interested as to pay voluntary attention. In that way the facilitator tries to reduce tension and anxiety among the literacy learners thereby ensures relaxed atmosphere which is best suited for adult learning.

Among other things, the facilitator should strive to encourage active participation in the learning experience by giving the adult learners the opportunity to exercise their maturity of purpose by being allowed to select content of
instruction, choose leaders, determine the time, place and length of class meeting (Houle, 1976). By being so involved, adult literacy learners put their respective situations in the mind so that those who are occupied at a particular time or place see to it that the time or length of class meeting does not conflict with the time they attend their normal work. Under the guidance of the adult educator, each learner proceeds at his own pace to reflect his individuality without competing with another person. To assist them further, ample time should be allowed for solving problems.

In areas where literacy classes are sometimes suspended because of farming, fishing, migration or adverse weather conditions, learners can be given some learning tasks to perform at home till classes reopen to avoid relapsing into a state of illiteracy. For instance, at such non-contact periods, portions of primers or other reading materials such as books, newspapers, magazines, addition and subtraction exercises could be assigned to the learners to keep them busy throughout such trying periods. For learners who cover long distances before reaching learning centres, the facilitator can arrange for local centres within the vicinity for extramural and continuing education to avoid more strenuous journeys to classes. Those who are working and attending evening class in urban areas need to break the monotony at work before settling down for studies. This, the facilitator can achieve by guiding them to undertake some interesting extra-curricular activities which are necessary for relaxation and enthusiasm.

Literature is replete with evidence and the facilitator’s disposition with adult learners can mar or promote meaningful learning. Nigerian adult literacy learners detest to be treated like children rather, they like to be accorded some measure of respect and so prefer to be addressed by their surnames like Chief Amadi, Mrs. Eke, Elder Nwosu, etc, instead of being called by their first names. Accordingly, the facilitator needs to establish a good rapport with the learners and keep lesson durations brief to avoid boredom. Since adult learners easily develop positive view of and love for the facilitators with high sense of responsibility and intellectual ability coupled with teaching effectiveness, adult educators should always prepare sufficiently before going to class, else poor subject presentation will result to loss of interest in what is being taught as well as withdrawal from involvement in learning activities (Ukpong 2000).

Another important strategy is for the instructor to make the adult literacy learners aware of the enormous benefits of literacy acquisition. With the knowledge of such benefits, the learners become encouraged and motivated to overcome difficulties in their way to acquire literacy skills that can change their life for personal improvement and community development.

**Conclusion**

Learning as a natural phenomenon, is a psychological construct without which education would be difficult to come by. It is not limited to people of younger ages, but transcends to those of older stages. A person who failed to learn how to
read, write and compute numbers at his younger age but tries to do so in his adult years is an adult literacy learner. There are legions of them in Nigeria who, after acquiring literacy skills continue learning to achieve self-actualization and the capability to adapt to social and technological changes that are rife in the country.

Nigerian adult literacy learners go through their learning spree with difficulties associated with social engagements, psychological or emotional trauma, low self-concept, non-proximity of learning centres and some cultural barriers. Adult educators, who are the facilitators of learning, need not rest on their oars because the great population of adult illiterates in Nigeria, about 22 million aged 15 years and over, need to be brought out of their dilemma and shown the light if Nigeria is to mobilize its total human resources for social, economic, political and national development.

References


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