Guidelines for stakeholders' accountability in Cambodian students' reading literacy

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Abstract

The objectives of this study were to measure the current practice level of stakeholders' accountability, to find out the relationship among stakeholders' accountability, and to seek the guidelines for stakeholders' accountability for students' literacy. To respond to study objectives, 29 primary schools were selected as a sample size and two instruments were face-to-face questionnaire with 5 liker-scale and reading tool which was accounted by students. The finding indicated that level of accountability, Monitor Teaching and Learning (M = 4.36, SD = .41), Collaboration (M = 4.12, SD = .49), and Mentoring Children (M = 4.10, SD = .42) had exceedingly altitude with reading literacy. Moreover, parents' accountability (r=.209, p< .05) showed strongly significant correlation among school principals' accountability (r=-.178, p< .05) and students' accountability (r=.198, p<.05) with reading literacy, while school teachers' accountability was non-significant (r=.062, p = .199). Hierarchical Stepwise Regression Analysis resulted that among 11 variables of all stakeholders' accountabilities, only 6 significantly at the statistical level of 0.05 accounted for 1.64 percentage points of students' reading literacy. Further research should select grade 6 students as sample and adopt reading tool from PISA for Development.

Keyword: Accountability, Reading Literacy, Cambodia

Introduction

To improve the educational quality, Royal Government of Cambodia (RGC) had reformed general education system to 12 years (Partnership, 2017; Makmee, 2020); increased Program-based Budge (PB) from 10.8% to 12.3% (Naron, 2017; Partnership, 2017; Puyod et al, 2020); adapted and piloted Child Friendly School (CFS) program through supporting from international and national Non-Government Organization (NGO) (MoEYS & UNICEF, 2016; Longsuk et al, 2018; Phothirach et al, 2019; Samutwanit et al, 2020; Romsaitong, 2020). Along with, parents or care givers do not only participate in

one or more school associated activities but also take a role in communicating with their children with the aim of having a healthy relationship with them, so that the process of encouraging, mentoring, leading and inspiring may be genuine (Loeurt, 2016; Chanyang, 2017). As a result, the learning outcome of student had significantly increased while the total enrollment rate of female for the whole country was 49.3 % and completion rate of primary school was absolutely 79.87%, lower secondary school at 42.57%, and 20.16% for upper secondary education (MoEYS, 2017).

Despite significant success in almost achieving the Education Strategy Plan 2014-2018 goals, various challenges still need to have priority consideration including the capable technical officers in statistics, monitoring and evaluation at sub national especially school level are limited and the annual plan implementation of MoEYS with only 23.6% was completed, 61.8% on going and 14.5% not yet take any action in academic year of 2015-2016 (MoEYS, 2017). At present, public education expenditure in Cambodia is 18.3% of total general disbursement and this equates to 2.7% of the nation's gross domestic product (GDP) (MoEYS, 2018).

Moreover, state school teachers had conducted private supplementary tutoring in order to get additional income for supporting their livelihood due to low salaries, insufficient time to cover the curriculum, paying facilitation fees to their schools in order to receive their salary, and societal and cultural factors (Hammond, 2018; Hoeun et al, 2020) which caused students of lack of interest in school, an in increase absenteeism, culture of dependency and evocative state of their lives (Hammond, 2018; Meerakar, 2020).

At the meantime, 70 % of parents reported that they did not get any regular information about their children’s study and 60% of them notified that school did not manage any action to confer with them about school reintegration for their children after they dropped out (Heng, Sok, & No, 2016), while the role and responsibility of school support committee just only conducted fund raising and school infrastructure repairing activities (Partnership, 2017).

In addition, only 8% of student who aged under 15 years old achieved the minimum level of proficiency in reading, Level 1 b was just 41%; meanwhile, about 35% of students can arrive at Level 1a which alludes to students have the option to recover at least one independent pieces of data that are expressed, recognize the fundamental subject or the creator's expectation in a content about a well-known point or make a straightforward association by considering the connection between data in the content and regular ordinary information (MoEYS, 2018).

To respond to these challenges, related stakeholders in education sector—school principals, school teachers, students’ parents or caregivers and students themselves—should strengthen their role and responsibility to account for learning outcome of children. School should operate its system according to a set of principle, and educators were accountable for adherence to standards of teaching. Moreover, information was the key to promote accountability at school level such as building connection between school and community, monitoring and increasing school performance, mobilizing additional resources, utilizing of school input effectively, and strengthening education service delivery

(Bacon et al, 2017; Naron, 2017; Suangsuwan et al, 2017; Sibmoo et al, 2019; Nammontree, 2020; Saichuay et al, 2020; Supayong et al, 2020; Wongsothorn et al, 2020).

Accountability is a mechanism of liability for ensuring the certain performance, action or consequential decision is satisfactory done with accepted standard and transparent result through using various information and engagement. Student's reading literacy illustrated as an ability in reading at minimum level according to their study grade and age mainly capacity to understand, use, reflect on and engage with written text.

Research objectives

To measure the current practice level of stakeholders' accountability; to find out the relationship among stakeholders' accountability; and to seek the guidelines for stakeholders' accountability for students' reading literacy are the three objectives of this study.

Conceptual framework

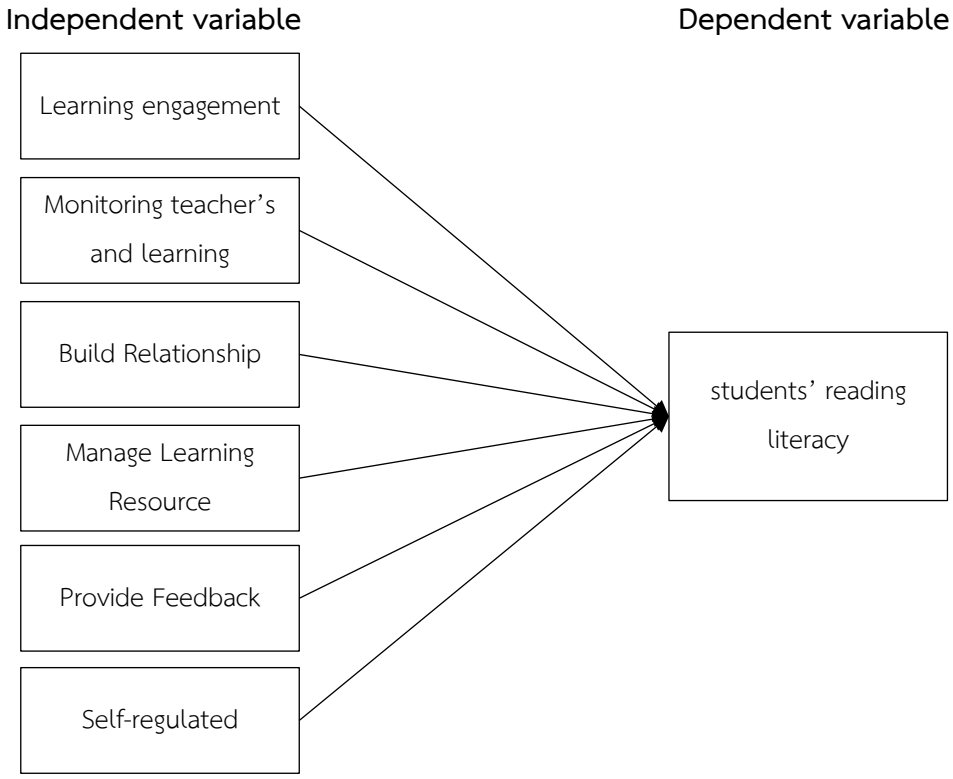

Figure 1 Conceptual framework

Research methods

The quantitative research was initiate with literature review, develop research instruments, validate research instruments and reliability analysis with pilot data, while actual data collection at field, data entry and analysis were used various analysis program and data interpretation.

Participants

The population of this research was 29 school principals, 41 teachers, and 427 students who are currently teaching and studying at grade 5 and 6; and with dyadic data, the number of parents/caregivers who agreed to share their perspective during data collection were the same as students.

Instruments

The first instrument was face-to-face questionnaire with 5 Likert-scale and it had 12 items for school principals, 13 items for school teachers, 12 items for parents or caregivers and only 9 items for students; while the second was reading task with 3 passages which accounted by students only. All instruments were made double translation from English to Khmer language.

The pilot result with 10 school principals, 18 school teachers, 92 parents/caregivers and students indicated that the KMO index was .683 and extraction of communalities ranked from .399 to .753 for instrument of school principals. The KMO index of instrument for teachers was .656 and extraction of communalities ranked from .303 to .721. In addition, instrument for parents/caregivers had KMO index at .702 and extraction of communalities ranked from .586 to .895. At the meantime, KMO index was .500 and extraction of communalities valued the same at .899 for instrument of student.

Data Analysis

To respond with research objective, the analysis of variance (ANOVA), correlation and regression will be used to analyze the differences among group means in a sample and the correlation among each stakeholders' accountabilities.

Results

1. Level of accountability of stakeholders and reading literacy

To measure the current practice level of stakeholders' accountability, a five-point Likert scale which range from (1) Strongly Disagree to (5) Strongly Agree of questionnaire was analyzed. According to Table 1. below illustrated that among three variables of school principals' responsibility, Monitor Teaching and Learning had highly positive level (M = 4.36, SD = .41) while the lowest was Manage Learning Resource (M = 3.82, SD = .49). School teacher's accountability had Collaboration (M = 4.12, SD = .49) as a maximum level and Lead Teaching and Learning (M = 4.04, SD = .51) as smallest. Also, Mentoring Children (M = 4.10, SD = .42) as a variable of parents' accountability had decidedly level and Support Moral (M = 3.56, SD = .75) was little. However, two variables of students' accountability — Self-regulated (M = 3.95, SD = .68), Learning Engagement (M = 3.88, SD = .68) — had slightly different level. In the meantime, Use Written Text (M = 1.59, SD = 1.07) had exceedingly level and followed by

Reflect and Engage with Written Text (*M* = 1.55, *SD* = 1.41) while Understand Written Text (*M* = 1.19, *SD* = .99) was the lowest level and all of these were the items of Reading Literacy.

Table 1 Descriptive Statistics

Items	*M*	*SD*	*Sk*	*Ku*
School Principals' Accountability	**4.0790**	**.38564**	**-.288**	**-.958**
Monitor Teaching and Learning	4.3601	.41805	-.505	.217
Manage Learning Resource	3.8267	.49659	-.119	-1.123
Build Relationship	4.0504	.49716	-.671	.002
School Teachers' Accountability	**4.1047**	**.32717**	**-.034**	**-.665**
Lead Teaching and Learning	4.0433	.51263	-.330	-.531
Provide Feedback	4.0768	.40292	.400	-.577
Collaboration	4.1202	.49157	-.577	-.126
Parents' Accountability	**3.6559**	**.59372**	**-.750**	**1.220**
Monitor Learning	4.0433	.51263	-.330	-.531
Mentoring Children	4.1042	.42511	.230	-.540
Support Moral	3.5679	.75259	-.599	.360
Students' Accountability	**35.2155**	**5.59220**	**-.870**	**1.055**
Self-regulated	3.9502	.68925	-1.092	1.842
Learning Engagement	3.8829	.68667	-.697	.306
Reading Literacy	**4.35**	**2.467**	**.272**	**-.895**
Understand Written Text	1.1991	.99774	.889	1.950
Use Written Text	1.5972	1.07327	.227	-.720
Reflect and Engage with Written Text	1.5574	1.41533	.297	-1.243

2. Compare accountability of stakeholders and their background

To investigate the background of school principals, school teachers, parents and students had main effects on their accountability neither nor, the analysis of variance (ANOVA) had been used for answering.

Table 2. below indicated that background variables — Sex (F (1, 22) = .510, p> .05); Education (F (2, 22) = .662, p> .05); Age (F (1, 22) = 1.038, p> .05); and Experience (F (2, 22) = 1.661, p> .05) of school principals did not have a significant effect on their accountability.

In the meantime, among background variables of school teachers which included Age (F (2, 33) = 1.898, p> .05), Experience (F (2, 33) = .753, p> .05), and Education (F (2, 33) = .321, p> .05, only variable of Sex (F (1, 33) = 5.510, p< .05) that had a statistically effect on their accountability.

Also, the background variables of school teachers such as Education (F (1, 361) = 7.076, p< .05), Member in Family (F (1, 361) = 6.695, p< .05), and Number of Children (F (1, 361) = 5.327,

p< .05) had significant effect while Sex (*F* (1, 361) = .242, *p*> .05), Age (*F* (2, 361) = .190, *p*>.05), Relationship with Children (*F* (1, 361) = .037, *p*> .05), and Main Occupation (*F* (1, 361) = .060, *p*> .05) did not have an effect on their accountability.

For this model, the background variables of students had only three variables: Sex (*F* (1, 423) = 13.415, *p*< .05), Grade (*F* (1, 423) = 6.742, *p*< .05), and Age (*F* (1, 423) = 2.686, *p*> .05). Sex and Grade had a significant effect while Age had no effect on their accountability.

Table 2 Tests of Between-Subjects Effects of School Principals' Accountability

Source	Type IV Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Sex	0.073	1	0.073	0.510	.483	.023
Education	0.191	2	0.095	0.662	.526	.057
Age	0.150	1	0.150	1.038	.319	.045
Experience	0.479	2	0.239	1.661	.213	.131
Error	3.169	22	0.144			
Total	487.111	29				
Corrected Total	4.257	28				

3. Relationship between accountability of stakeholders and reading literacy

In order to investigate relationships between accountability of stakeholders and reading literacy, the correlation and regression analysis were used to verify this section.

Table 3 below indicated that parents' accountability (*r* =.209, *p*< .05) had strongly significant correlation among school principals' accountability (*r* =-.178, *p*< .05) and students' accountability (*r*=.198, *p*<.05) with reading literacy, while school teachers' accountability was non-significant (*r* =.062, *p* = .199).

Table 3 Correlation between accountability of each stakeholder and reading literacy

Items	1	2	3	4	5
1. School Principals' Accountability	-				
2. School Teachers' Accountability	.027	-			
3. Parents' Accountability	-.159**	.148**	-		
4. Students' Accountability	-.151**	.069	.557**	-	
5. Reading Literacy	-.178**	.062	.209**	.198**	-
M	4.07	4.10	3.65	35.21	4.35
SD	.38	.32	.59	5.59	2.46

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

In addition, table 4.3.2 Model summary below provided the result of Hierarchical Stepwise Regression Analysis that among 11 variables, there were 6 including Learning Engagement, Monitor Teaching and Learning, Building Relationship, Managing Learning Resource, Providing Feedback, and Self-regulated significantly accounted for 1.64 percentage points of students' reading literacy.

Table 4 Model summary

Model	Variable	*R*	R^2	Adjusted R^2	S.E.	*F*	*p*
1	Learning Engagement, Monitor Teaching and Learning, Build Relationship, Manage Learning Resource, Provide Feedback, Self-regulated	.405	.164	.152	2.272	13.739	.000

To anticipate the students' reading literacy, Hierarchical Stepwise Regression Analysis depended on variables such as Learning Engagement, Monitor Teaching and Learning, Build Relationship, Manage Learning Resource, Provide Feedback, and Self-regulated to product a significant regression equation at (F (6, 420) = 13.739, p<.00) with an R^2 of .164, while all of variables predicted on students' reading literacy.

Moreover, *b* value that indicated about the relationship between students' reading literacy and other predictors provided the information that Learning Engagement (.995), Build Relationship (1.219), and Provide Feedback (.868) had positive affection which means that when those predictors increase the students' reading literacy will be followed also; meanwhile, Monitor Teaching & Learning (-1.787), Manage Learning Resource (-.862), Self-regulated (-.407) have negative relation.

Among all predicted variables, Beta Coefficients of Monitoring Teaching and Learning maximally reached at -.303, while Self-regulated presented a smallest Beta Coefficients value of -.114, however, for this model, there were five factors including Learning Engagement, $t(417) = 4.797$, $p < .05$, Monitor Teaching and Learning, $t(417) = -4.958$, $p < .05$, Build Relationship, $t(417) = 3.886$, $p < .05$, Manage Learning Resource $t(417) = -3.322$, $p < .05$, and Provide Feedback $t(417) = 3.136$, $p < .05$ are significant predictors of students' reading literacy.

Table 5 Regression Results of Student Reading Literacy

Variables	Unstandardized Coefficients		Standardized Coefficients	*t*	*p*
	B	*SE*			
(Constant)	4.591	1.879		2.443	.015
Learning Engagement	.995	.208	.277	4.797	.000
Monitor Teaching and Learning	-1.787	.360	-.303	-4.958	.000
Build Relationship	1.249	.321	.252	3.886	.000
Manage Learning Resource	-.862	.259	-.173	-3.322	.001
Provide Feedback	.868	.277	.142	3.136	.002
Self-regulated	-.407	.206	-.114	-1.978	.049

According to Table 6 Excluded Variables below illustrated that in case of other 5 variables such as Lead Teaching and Learning, t = -1.145, p > .05, Collaboration, t = -.932, p > .05, Monitor Learning, t = -1.145, p > .05, Mentoring Children, t = -1.397, p > .05, and Support Moral, t = 1.700, p > .05 are entered into the model, they would not have any significant impact on the ability of model to predict students' reading literacy.

Table 6 Excluded Variables

Excluded Variables	*Beta*	*t*	*p*	Partial correlation	tolerance
Lead Teaching and Learning	-.053	-1.145	.253	-.056	.911
Collaboration	-.146	-.932	.352	-.046	.082
Monitor Learning	-.053	-1.145	.253	-.056	.911
Mentoring Children	-.157	-1.397	.163	-.068	.158
Support Moral	.083	1.700	.090	.083	.827

Conclusion and discussion

There were three objectives being to measure the current practice level of stakeholders' accountability for students' reading literacy; to find out the relationship among stakeholders' accountability for students' reading literacy; and to seek the guidelines for stakeholders' accountability for students' reading literacy for this study.

According to research finding indicated that among various variables which are the accountabilities each stakeholder, there were only 6 variables that significantly effect on the students' reading literacy. However, all three stakeholders have interaction relationship with each other on the students' reading literacy due to in a group of 6 variables, Monitor Teaching and Learning, Manage Learning Resource, and Build Relationship are the accountability of school principals; Provide Feedback

is the accountability of school teacher; and Learning Engagement, and Self-regulated are accountability of children.

The general aim of this study was to propose the guidelines for stakeholders' accountability in Cambodian students' reading literacy by using MSEM with Dyadic Data, therefore the discussion of reading tool development was employed.

To evaluate the reading literacy level of students for this study, the reading tool was separated into three parts while the first one was the two short reading passages, followed by other two graphs and students need to answer 2 locating and 3 understanding questions. The second part of this tool was a medium passage about "bee" which had six paragraphs and students must respond for 2 locating and 2 understanding questions after went through the text. These two parts were occupied from PISA released Items-Reading, 2016, while the last one was a complex reading text about "Why children dropout of school in Cambodia?" which copied from UNICEF Cambodia, 2020, and followed by 1 locating, 1 understanding and 2 reflecting questions that student need to provide the answers. Students were allowed to do this test with one hour after they complete the first face to face questionnaire.

Based on the general observation of researcher, most of students who were studying at grade 5 during data collection were not familiar with this kind of test, especially using graphs to answer the question; in the meantime, some students both grade 5 and 6 were not able to understand the reflecting question. Moreover, the original test was developed in English language with a standard length of paragraph and appropriate time to complete it, but when it was translated to Khmer language, the text became longer and complex that cause some of students could not complete it during one hour.

In fact, Cambodia used to conduct this test in order to evaluate reading proficiency of students during 2018 for the whole country by using PISA for Development tool; however, the result was not good due to only 8% of student who aged under 15 years old achieved the minimum level (Level 2) while Level 1 b characterized as the ability to comprehend just the least demanding content understanding assignments and just 41% of students in Cambodia are best capable at this level than other level.

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