"The use of a Self-Study Package to support the development of students' reading, analytical thinking, and writing skills"

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Abstract

This study aims to focus on evaluating the usage of an Earthquake Self-Study Package – designed by the author – in its effectiveness in developing reading, analytical thinking, and writing skills of Matthayomsuksa 5 (Grade 11) students of English Program, Samsenwittayalai School, the Ministry of Education.

This study was conducted by calculating correlation coefficient. Students' performances in assignments given in the Earthquake Self-Study Package were compared with students' overall academic performance (overall Grade Point Average) in the same semester. The result showed Pearson Correlation (r^2) of 0.431.

The result shows that the use of a Self-Study Package can play a role in development of students' reading, analytical thinking, and writing skills. This can provide teachers with another teaching technique that is student-oriented. The use of this technique has the potential to further equipped students with the skills and knowledge for being 21st Century workforces.

Keywords: Self-Study Package, Social Studies, Earthquake, Analytical Thinking Skills, Reading Skills

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This paper studies the use of a Self-Study Package, under the topic of plate tectonic activities, in Matthayomsuksa 5 (Grade 11 equivalent) Social Studies course, English Program, Samsenwiitayalai School. The package was used in order to support the development of students' reading, analytical thinking, and writing skills. The development of these skills is essential because, not only these skills were prescribed by the school, but also because these skills were the main focal point of the study of Social Studies in schools. A successful Social Studies student is not a kid who can remember the laws of demand and supply, or kid who can recite the dynamics of plate tectonics. Rather, students should be able to integrate knowledge from various sources and under the implications of such knowledge in the wider world. This is the main rationale why teachers need to focus not only at the knowledge content students acquired, but also the reading, analytical thinking, and writing skills.

This paper will firstly focuses on the contextual framework that sets the stage for this study. The contextual framework will explore Samsenwittayalai School in small details regarding the school policies that involve this study: The English Program, the extracurricular activities, and the focus on students' reading, analytical thinking, and writing skills. After the contextual framework, the study will focus on the rationale behind the development of the Self-Study Package — both the main and supplementary reasons — why the Self-Study Package was developed. This paper will explore the production of the package. The study will also compare students' academic performance with the students' achievement in the assignments attached to the package.

Contextual Framework: Samsenwittayalai School

The study took place in English Program of Samsenwittayalai School. The school is a government-run school, which had been in existence for over 50 years. Through concerted efforts of parents, teachers, and school administrators, it can be said that Samsenwittayalai School stands among the top 10 of secondary school in Thailand. Not only that it offers the basic education curriculum, but the school focuses on developing pupil's special talents or interests as well. Special curriculums such as the English Program, or Special Classrooms for Mathematics and Science Advancement, are offered in the school. The English Program, where this study took place, focuses on developing skills needed in the basic education curriculum – and also pupil's development of second language skills. All instruction in English Program, with the exception of Thai Language, is conducted in English.

While the school offers several curriculums for different students, the administrative practice of the school is that all students of the school are Samsenwittayalai students. Students from different programs participate in all extracurricular activities together. Extracurricular activities such as sports competition, academic competition, student leadership councils, allow students to develop their social

skills, as well as enrich their learning experiences. These practices are in line with an educational philosophy that wishes to see the school educating a whole person, not only in terms of cognitive domain, but also affective and psychomotor domains as well.

With regards to the English Program, teachers of subjects other than English must have somewhat a capacity to be an ESL teacher. As the delivery of subject content is done in a second language of the students, it becomes necessary for teachers to assist students in gaining understanding of the concepts in the language other than his/her mother tongue. This challenges teachers to develop classroom innovations that will assist students in gaining understanding of the concept as well as their language comprehension.

In addition to that, Samsenwittayalai School needs to transform itself in term of academic management. The new Basic Education Core Curriculum of 2008 urged schools not to focus only in the students' acquisition of knowledge, but also integration and application of knowledge. The curriculum has established "Learners' Core Competencies", which Samsenwittayalai aims to instill among its students. The prescribed core competencies are:

- Communication Capacity
- Thinking Capacity
- Problem-Solving Capacity
- Capacity for Applying Life Skills
- Capacity for Technological Application

In order to ensure that students are evaluated on these core competencies, the school has determined that reading, analytical thinking, and writing skills should be integrated in all subjects taught in the school. This helps ensuring that the basic competencies such as Communication, Thinking, and Problem-Solving capacities are covered. This poses challenges to teachers to design instructional activities that promote students' reading, analytical thinking, and writing skills in his/her own subjects.

Rationale for a Self-Study Package

In consideration of the contextual framework, it can be seen that a Self-Study package can be designed to be used for instruction in English Program of Samsenwittayalai School for many reasons. The rationale for the production of the Self-Study package, from the start, comes in threefold: practical needs, situational possibilities and theoretical potential.

In term of practical needs, the issue of time insufficiency was the main drive for the production of the Self-Study package. As mentioned earlier, students of Samsenwittayalai School participate in extracurricular activities very often. Especially for Sports Day activities where all students in some ways participate in this Olympic-style sport competition. Students participate in cheering team, cheerleading squad, the opening ceremony parade, the opening ceremony performances, etc. These activities require heavy preparation. And the school accommodated students' demand by shorten the school period in order to have more free time for students to practice and prepare for the

Sport Day activities. During Sport Day preparation season, usually last about two months, school period is shortened from 50 minutes to 45 minutes, and classes after 14.30 are canceled.

Social Studies classes of Matthayomsuksa 5 of English Program, Samsenwittayalai School took some losses in term of class-time. Roughly about 8 school periods were canceled due to the Sport Day preparation and activities. This put pressure to the course already saddled with heavy load of the topic of physical and human geography. This subject aimed to develop students' understanding of the function of physical geography in all 3 aspects: hydrosphere, atmosphere, and lithosphere. In addition, its objectives also included students' abilities to apply the function of physical geography and the effect that had on human activities.

In order to fully develop students' abilities to integrate and apply knowledge, the course was organized into 3 units of instruction: Hydrosphere, Atmosphere, and Lithosphere. In each unit, students would study the dynamic of each sphere and then analyze the impact it can have on human activities.

As previously mentioned, 8 school periods went away due to the school's rescheduling to accommodate Sport Day activities. This meant that at least 1 unit of instruction originally planned must be taken away from delivery of the course in a traditional, face-to-face way. Under this circumstance, the unit on Lithosphere was decidedly put on hold for traditional instruction. Because the content in the unit – plate tectonic theory and its activities – is somewhat a repetition of Earth Science course being taught to the same group of Matthayomsuksa 5 students of English Program, Samsenwittayalai School.

The course objective demanded that students understand the dynamics of the earth's lithosphere – plate tectonic activities, that is. Originally, it was planned that students would be given a worksheet about plate tectonics, based on knowledge gained in Earth Science classes. In a sense, this was already a self-study package where teacher was not needed, but rather students were provided with worksheets that guide their studies.

This only answered and fulfilled one part of the course objectives. By relying on students to use the information they learned from Earth Science course, students knew only to the understanding of dynamics of plate tectonic activities. The abilities to apply the knowledge and analyze the effect that had on human activities, however, cannot be fulfilled in this type of organization. If analytical skills in this topic need to be developed, it is essential that information in addition to that on the Earth Science course must be provided. In term of practical need, limited time resources raised the demand to produce a self-study learning material. However, this demand alone did not give enough incentive to produce a comprehensive, analytical-based self-study material.

In term of situational responsibilities, the 2010 Haiti Earthquake raised pupils' awareness on earthquakes and other plate tectonic activities and their effects on human activities. This made available several news articles, commentaries, editorials that discussed the effects of the earthquakes on Haitians – not only in terms of physical effect but economic, politics, and other aspects of human activities. These publications can be

used as reading material for students in order to understand the connection between plate tectonic activities and human activities. The availabilities of such material allowed students to be able to self-study the connection between earth's dynamics and human activities. The arisen situation, 2010 Haiti Earthquake, provided opportunities for the self-study learning material to incorporate analytical-based material.

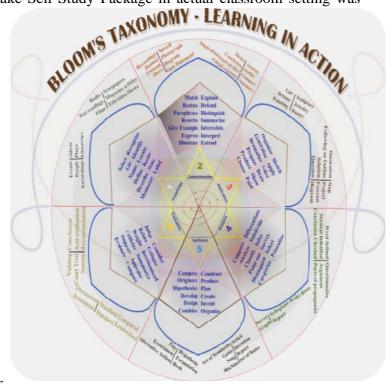
As for theoretical potential, a self-study package that is based on news articles can assist improving students' reading and critical thinking skills. In Ryder and Graves (1997), Internet was seen as a tool to help enhance students reading and writing skills because of the availability of information – news article for example – on the web. By acquiring resources off the Internet for compilation of the Self-Study Package, it can be said that this package was selected Internet sites made available to students anytime, anywhere. Coupled with analytical-oriented worksheets, this package was ready for students to be used at his/her own pace.

Implementations and Results

The use of this Earthquake Self-Study Package in actual classroom setting was

successful. Students were able to gain understanding and analytical abilities as desired in the course objective.

The key to ensuring that students were able to analyze the material rested with the formation of worksheet questions. worksheets in the Self-Study Package were designed based on the levels of cognitive domain according to Bloom's Taxonomy. The worksheets consisted of questions from all 6 levels of cognitive domain. As seen in figure 1, the main "question words" provided as a guideline on auestions that mav help cognitive domains, with



develop different levels of Figure 1: Bloom's Taxonomy - Learning in Action (Manuel 2007)

emphasis on higher level of cognitive domain (Analyze, Synthesis, and Evaluate).

However, the fact that students gained knowledge as required by the course objective did not mean that this package was successful in developing students' reading, analytical thinking, and writing skills. In order to do so, students' achievement from worksheets in the package was compared against students' semester grade point average. As all courses were required to evaluate students based on their reading, analytical

thinking, and writing skills, the use of such method was appropriate. If this package was successful in measuring students' reading, analytical thinking, and writing skills, then students' performance in other subjects should be reflected of their performance in this package.

The calculation of correlation coefficient showed that there is a small positive correlation, with r² value of 0.431. Students who performed well in this package were likely to receive higher grade point average than those who did not. Students who performed well in this Earthquake Self-Study Package – an assignment geared at developing reading, analytical thinking, and writing skills – had developed these skills that are interdisciplinary in nature and applied these skills in the study of other subjects.

The Package did not only satisfy its original goals to fulfill students' knowledge as per the course objectives, and to develop students' reading, analytical thinking, and writing skills. It also yielded additional benefit in terms of English comprehension. Because students were given the package to study at his/her own time, they were able to academically read articles, which was different from leisure reading. Students understood the uses of headings, sub-headings, and topic sentences in information searching to answer the worksheet. In addition, there were students who felt empathy and sympathy towards the people of Haiti to a point that they sent a card to the Haiti consulate in Thailand. It goes to show that students can perform way beyond teacher's expectation when they were given time, and liberty to pursue their ideas.

Recommendation for Further Improvements

The ability of the Earthquake Self-Study Package to solve the time constraint issue of the course yield much more than what the teacher anticipated. Teacher brought out what the Internet offered to students – access to global information – into what they can easily access, a printed package. This allowed students to study "on the mobile" and so enhance students' time spent in academic materials.

However, the Internet has more roles in education other than storage of global information. It can provide a platform for real-time communication between teachers and students (Ryder and Graves 1997). With such capacity of student-teacher communication, students may be able to suggest interesting websites that better clarify the problems. There were several websites that had to be eliminated from the reading material simply because the printing of such website would be illegible. In an area where Internet connection, wireless or wired, is widely available. For such case, a webquest assignment, where students research the Internet via an online instruction, would be more appropriate.

In closing, teachers are required to be on top of the global occurrences and keep an eye out for opportunities to link real-world stories with classroom material. Topics of interests need to be brought into classrooms. For this, it is essential for school administrators that teachers need all the access they need to the resources that can be taken into lessons. Students can better learned the connection between theoretical knowledge with real-world examples that way.

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