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Promoting sustainable living in the borderless world through blended learning platforms

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Abstract

Student-centred learning approaches like collaborative learning are needed to facilitate meaningful learning among self-motivated lifelong learners within educational institutions through inter-organizational Open and Distant Learning (ODL) approaches. The purpose of this study is to develop blended learning platforms to promote sustainable living, building on an e-hub with sub-portals in SEARCH to facilitate activities such as "Education for Sustainable Development" (ESD), webinars, authentic learning, and the role of m-/e-learning. Survey questionnaires and mixed-research approach with mixed-mode of data analysis were used including some survey findings of in-service teachers' understanding and attitudes towards ESD and three essential skills for sustainable living. Case studies were reported in telecollaborative project on "Disaster Risk Reduction Education" (DR RED) in Malaysia, Germany and Philippines. These activities were organized internationally to facilitate communication through e-platforms among participants across national borders using digital tools to build relationships, promote students' Higher Order Thinking (HOT) skills and innate ability to learn independently.

Keywords: borderless world; Disaster Risk Reduction/preparedness Education (DR RED); living skills; Open Educational Resources (OERs); student-centred blended learning; sustainable living

Introduction

We are living in the world full of uncertainties! While Penang citizens feel grateful for the city as an Eco-Town (UNEP, 2013) being chosen as a retirement haven (ExpatGo, 2013), they are also deeply saddened by the recent haze and tragedies caused by man-made (e.g. negligence) as well as natural (e.g. storm) disasters (Goan, 2013; Jalleh, 2013). It is hence timely for educators to ponder ways to optimize the wise and critical use of scientific Information and Communication Technology

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(ICT) to enhance quality educational leadership and promote essential skills for sustainable living with preparedness for disasters even in non-threatening environments.

There is an increasing awareness in the advent of digital era that there are wider potentials for learning spaces to serve the new learning paradigm with more collaborative learning activities that could be facilitated within and among educational institutions using inter-organizational Open and Distant Learning (ODL) approaches. The definition of learning space has become broader over the past decade with its design involving long-term building of self-directed/self-accessed activities through e-platforms involving the emerging digital/non-digital learning tools and Open Educational Resources (OERs). Since self-motivated lifelong learners are so tech-savvy, educators need to find alternative strategies to facilitate meaningful learning through blended learning approaches.

Background and objectives

An e-learning hub was launched to serve as blended learning platforms in "South East Asia Regional Capacity-enhancement Hub" (SEARCH) for investigative researchers collaborating with other project partners in the SEAMEO region and beyond. The e-forums of the sub-portals that were hyperlinked to this e-learning hub were provided to facilitate discussions and activities related to current issues including "Education for Sustainable Development" (ESD)(Ng, 2012a) in line with the Millennium Development Goals (MDGs) No. 7 (UNESCO, 2002). Though increasing efforts were made by the Ministries of Education in the region to reform science curriculum by including topics related to ESD, there are still much concerns about its successful implementation at grassroots levels. For example, "the teachers' attitudes towards the concepts of ESD and their preparedness to promote sustainable living among younger generation" are the areas of concerns of this study.

In line with the recent efforts to develop intercultural lifelong learning through Borderless School (i.e. an area identified under the vision of Golden SEAMEO in the next decade), initial input during pilot phase was provided to a group of in-service teachers on topics "Developing essential skills for sustainable living, authentic learning, the roles of m-/e-learning" that were delivered through seminars and also broadcasted using webinars (http://engageteachers.connectpro.acrobat.com/r22693258) in ODL mode. Survey questionnaires (that were also accessible on-line) were distributed before input sessions to elicit respondents' attitudes towards ESD related to their understanding of the concepts of essential skills for sustainable living and conceptual framework for Borderless School. This study seeks to examine the following Research Questions:

1. What are pilot teachers' attitudes towards ESD and perception on the various aspects of implementation of ESD incorporating ICT in the educational system?
2. Have these teachers developed understanding on the concepts of ESD integrating ICT and Borderless School with better preparedness to promote essential skills for sustainable living among the younger generation after they have attended the input session?
3. Are there exemplary practices of their students demonstrating essential skills for sustainable living in line with the conceptual framework of Borderless School?

Review of Literature for Framework of Study

Numerous relevant theories and related research are reviewed to guide the framework of study.

Promoting educational leadership through social constructivist blended learning

Social constructivism posits that knowledge exists in multiple formats and varies from person to person. Learning as viewed from the perspective of social constructivist theory focuses on learners'

prior knowledge and how they construct their understanding based on their learning contexts that are influenced by the people who promote quality educational leadership.

Knowledge is embedded in authentic tasks in the living context and learning is an active process of constructing knowledge with learners engaged in using non-digital or digital tools both at individual and social levels. This learning is defined as social mediation with participatory knowledge construction (McConnell, 2000; Vygotsky, 1962). Fink (2004) revealed that social constructivist ways of teaching emphasize on student-centred learning involving problem-solving in daily life. Social constructivist teaching is significant in Project-based Activities (PBA) and cooperative learning because students are able to connect to their personal contexts as they discuss and scaffold their knowledge (Parahakaran, 2013). Strategies such as PBA and Problem-based Learning (PBL) could be adapted into disciplines such as science, mathematics and social science across other disciplinary knowledge with possible development of investigative projects. Interaction is essential among team members supported by teacher who plays the role as coach or facilitator to help them learn also aims to promote discussions and sharing of knowledge.

Social mediation could be elaborated by cultural scaffolding (in which the emphasis is on use of "*blended learning*" resources in mediating learning) and with the social entity as a learning system that may bring about changes in its underlying values and norms (McConnell, 2000). Blended learning (involving digital and non-digital or face-to-face mode) provides useful tools for effective and ever-expanding global learning platforms to promote web-based collaborative projects involving contextual problem-solving. These strategies were shown to be effective to widen learning opportunities in knowledge-based society leveraging on the effective use of Open Educational Resources (OERs) and new paradigms of teaching approaches. OERs are digitized materials that are free and comprehensive including different kinds of *digital assets.* The *implementation of* OER *includes* materials on best practices of various methods, processes and publication that are offered freely for educators and self-learners to use and reuse for teaching, learning and research purposes. These include intellectual property licenses that govern open publishing, design-principles, and localization of content. The "*learning content*" includes journals, learning objects, collections, courses with materials and content modules. "*Tools*" include software that supports the development, delivery, use, innovation and improvement of open learning content. The processes of searching and organizing content with its development tools, learning management systems, and e-learning communities through blended learning activities are also facilitated. In other words, users or online communities can actually learn, research, develop, reform, reuse, modify and adapt the information available online with limited restrictions and barriers.

Enhancing positive attitude and skills for sustainable living in borderless world

Attitudes determine whether we will respond to a given situation positively or negatively, with enthusiasm or reluctance. Attitudes are lasting patterns of beliefs and behavior tendencies toward other people, ideas or objects (Lefton, 1991). Attitudes are important attributes to determine people towards leading successful and sustainable living. Students' attitudes towards learning and motivation to be involved in learning activities with development of skills for sustainable living are interrelated with various internal and external factors. Students' learning is affected by teachers' instructional practices, attitudes and use of effective pedagogies. Educational researchers revealed that an important contributing factor for students' academic achievement is "teacher competencies," including cognitive abilities (i.e. professional knowledge) and affective-motivational characteristics. The competencies consists of cognitive abilities (professional knowledge) [e.g. Subject Matter Knowledge (SMK) and Pedagogical Content Knowledge (PCK)]. The affective-motivational characteristics include professional beliefs, motivation, attitudes, willingness and self-regulation (Baba, 2013). These factors that are supported by affective teaching are the transfer of knowledge

integrating human values, to inspire students and emulate examples of human values (Jumsai, 2003). For example, the review of studies involving federal, state and local policy on instructional roles as reported by Parahakaran (2013) revealed that Thai teacher-student relationships were impacted by culturally driven values-based water education. Kahn (2008) emphasised the importance of cultural literacy, which is to develop an ecopedagogy, because cultural literacy develops a broader understanding at an anthropological level of meaning about how people live within shared communities (Parahakaran, 2013). The cultural literacy aspects related to sustainable education can be elicited from students if Open Educational Resource (OER) platforms include elements from students' cultural backgrounds in their educational contexts.

The study of teachers' beliefs that included the cognitive and affective factors was complex because many disciplines such as scientific, cultural, academic, pedagogical and spiritual aspects had to be pulled together to provide a holistic picture of the problems and issues that was involved with the theme "sustainability" such as in water education. Issues faced in the field of sustainability in education can therefore be concluded to be culturally interconnected in the field of education. The pedagogical implications are varied in different ways by different cultures. The findings from the study of teachers' beliefs revealed that there are difficulties to include and tailor relevant programs for teaching water issues in different cultural and academic contexts (Parahakaran, 2013). In fact providing opportunities for teachers' Continuing Professional Development (CPD) is equally essential as other support given in educational services to enhance students' meaningful learning.

In view of the current wide range of blended learning platforms that provide learning spaces and opportunities to be exposed to the new learning paradigms, students who are tech-savvy and self-motivated lifelong learners do not limit their learning activities merely at classroom levels. Hence educators need to find alternative approaches to facilitate meaningful learning beyond classroom. In fact more collaborative learning activities could be facilitated within and among educational institutions through inter-organizational Open and Distant Learning (ODL) approaches. An important area incorporated with ODL approaches identified under the vision of Golden SEAMEO in the next decade is the concept of "*Borderless School*" (BS) that is operationally defined as "a school that prepares students to become global players who are enterprising, creative, innovative, equipped with 21st century skills, and lifelong learners in cross-cultural learning environment" (Devadason, 2011). Among the visions of BS are that teachers should participate in CPD to be equipped with knowledge and essential skills (including thinking, technology and living) for sustainable living needed to facilitate the learning of students as global players who are expected to be fully engaged in active learning and community services (Ng, 2012b). Student engagement is defined as students' motivation to participate in school and out-of-school related activities. They should be willing to pursue assigned intellectual activities even when these become difficult (Schlechty, 2001). In BS, they are expected to participate actively in blended learning activities demonstrating cooperative learning and communication skills that are developed through the sharing of resources in e-platforms and learning environment rich with easy access information or OERs and cross-cultural learning opportunities. Students should be provided with intellectually challenging and genuinely engaging learning activities more often (Baba, 2013) as their engagement or active involvement in learning will also directly or indirectly affect academic performance.

Research Methodology and Data Collection Activities

This article reports only the findings from pilot phase of the part of an ongoing study to set up "Borderless School" in the SEAMEO region [activities identified in the following areas No.(1) to (5)] using mixed-research approach (Johnson & Onwuegbuzie, 2004) involving surveys, observation, interviews and case studies with mixed-mode of data analysis.

(1) Piloting instruments and e-platforms with feedback elicited from participants to refine framework.
(2) Preparing resources and stable e-platforms within 5 years of Borderless School implementation.
(3) Revising cross-cultural curriculum to promote thinking and/or living skills in all subjects through ICT.
(4) Developing resources for cross-cultural understanding in all subjects integrating PBL and PBA.
(5) Conducting seminars with blended learning activities using ODL approaches to share knowledge and enhance thinking, technology and living (that includes work and survival) skills.

Designing and piloting instruments to evaluate attitudes and refine framework

The following validated instruments were administered during pilot study phase in 2013:

(1) The first instrument is a survey entitled "*Survey on knowledge/attitudes towards sustainable living*" for seminar on 19th April 2013 (Ng, Hazura, Corrienna & Nur Jahan, 2013). Part (A) of the survey on ESD (in Likert scale format, i.e. 1=Strongly Disagree, 2=Disagree, 3=Agree, 4=Strongly Agree) was adapted and modified from a validated instrument in the larger scale survey studies conducted in various recent events since 2012 as reported by Hazura, Ng, Corrienna and Nur Jahan (2013). Part (B) was adapted from the conceptual framework "BORDERLESS" presented in the internal proposal presentation meetings (Ng, 2012b). This instrument could be downloadable from http://forum.sp3aceman.net/viewtopic.php?t=62343.
(2) The second instrument is *"WebQuest as guide with monitoring and evaluation tools for teachers' facilitation and students' participation in '**D**isaster **R**isk **R**eduction/preparedness **ED**ucation' (DR RED)"* (Febro *et al*., 2012; Febro & Ng, 2013; Ng & Febro, 2012; Ng & Febro, 2013).
Image 1 presents the printscreen of a site for UNESCO APEID's telecollaborative project (http://ict.unescobkk.org/groups/telecollaboration-of-teacher-educators/dr-red-japhilmiins/) with instructions to download WebQuest guide and other relevant tools for the DR RED activities.

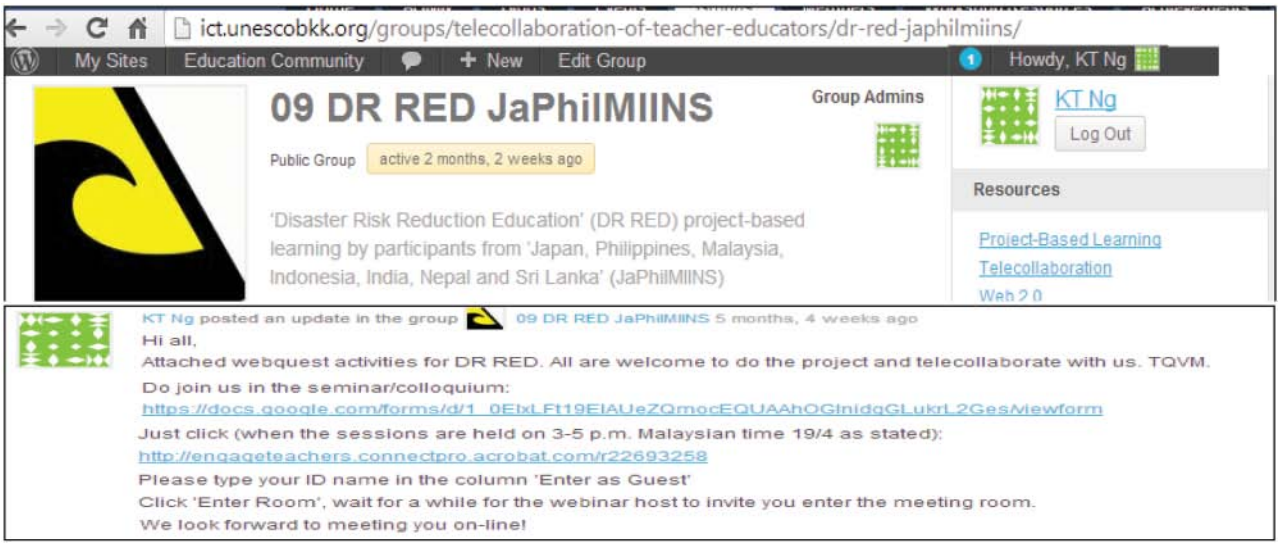

Image 1: Screenshot of e-forum site for DR RED as part of UNESCO telecollaborative project

Prior to administering the instruments in colloquiums conducted at RECSAM on topics "Developing essential skills for sustainable living" (19/4/2013) and "Authentic learning contexts: Implications for teaching and learning" (26/4/2013), instrument No. (2) was administered among students (N=9) in pilot local (N=6) and international (N=3) schools. Instruments No. (1) and (2) were also read by six educators who were mostly from in-service courses to ensure better content and construct validity.

Revising instruments and conducting field studies using blended approaches

After the aforementioned instruments were administered during the seminar, the researchers further communicated with the respective schools and encouraged the students to participate in one of the activities suggested to enhance life skills, i.e. DR RED telecollaborative project. Schools in the four SEAMEO member countries were also identified and information was communicated through the project coordinators using webinars, emails, e-platforms (e.g. http://forum.sp3aceman.net and http://elearn.recsam.edu.my in Image 2) for pilot studies on DR RED project. Based on the feedback from pilot samples attending the 1st seminar (N=33) and literature review [e.g. concept of "Disaster Risk Reduction" (DRR) (DepED, 2008)], the framework of study on "Borderless School" was refined. Then the revised instrument No. (2) was sent to pilot project schools in Malaysia (N=5), Philippines (N=2), Indonesia (N=2), Thailand (N=2) and blended learning partner school in Germany (N=1).

Image 3 illustrates WebQuest guide that was summarized on an illustrative file and uploaded onto e-forum by facilitator to help teachers monitor students. Case study approach (that includes findings from survey, observation, interviews and documentary analysis of output) was used to report on exemplary practices, anchored on social constructivist and socio-cultural theoretical framework.

Findings and Discussions

This section analyzes findings in response to Research Questions (RQs) 1 to 3.

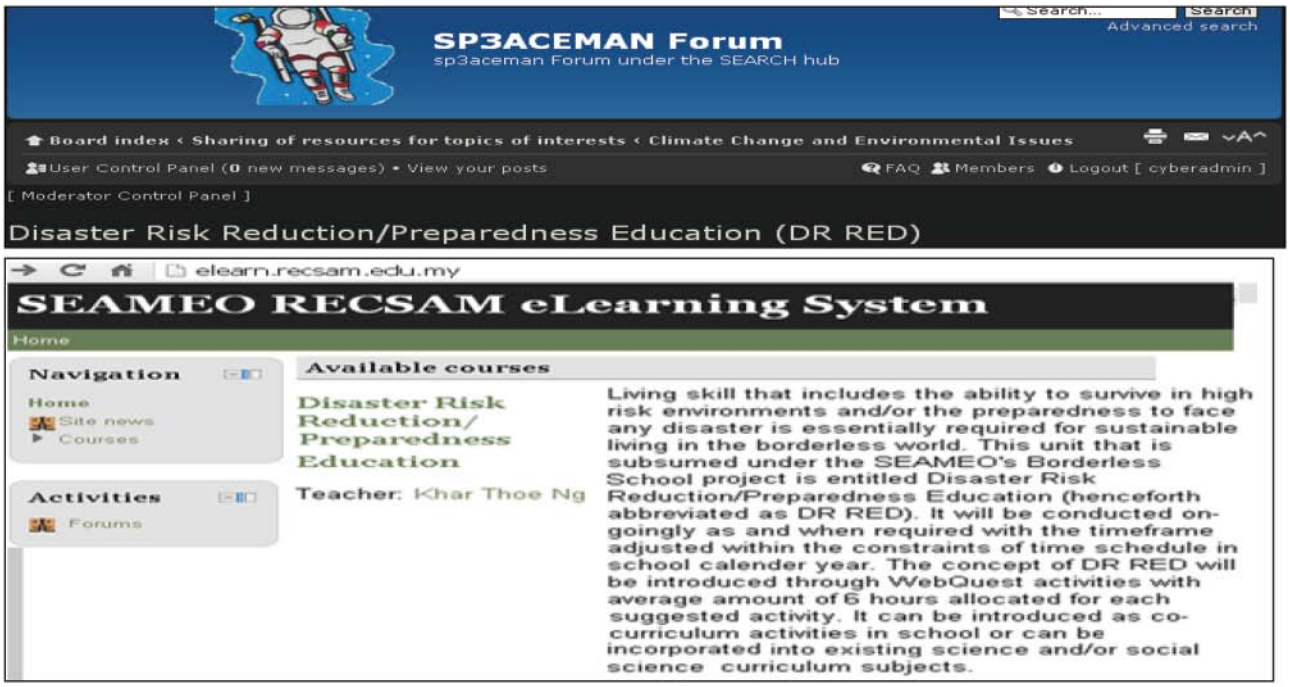

Image 2: E-forum [http://forum.sp3aceman.net/viewtopic.php?f=14&t=62343] and e-LMS [http://elearn.recsam.edu.my] were prepared to facilitate DR RED telecollaboration

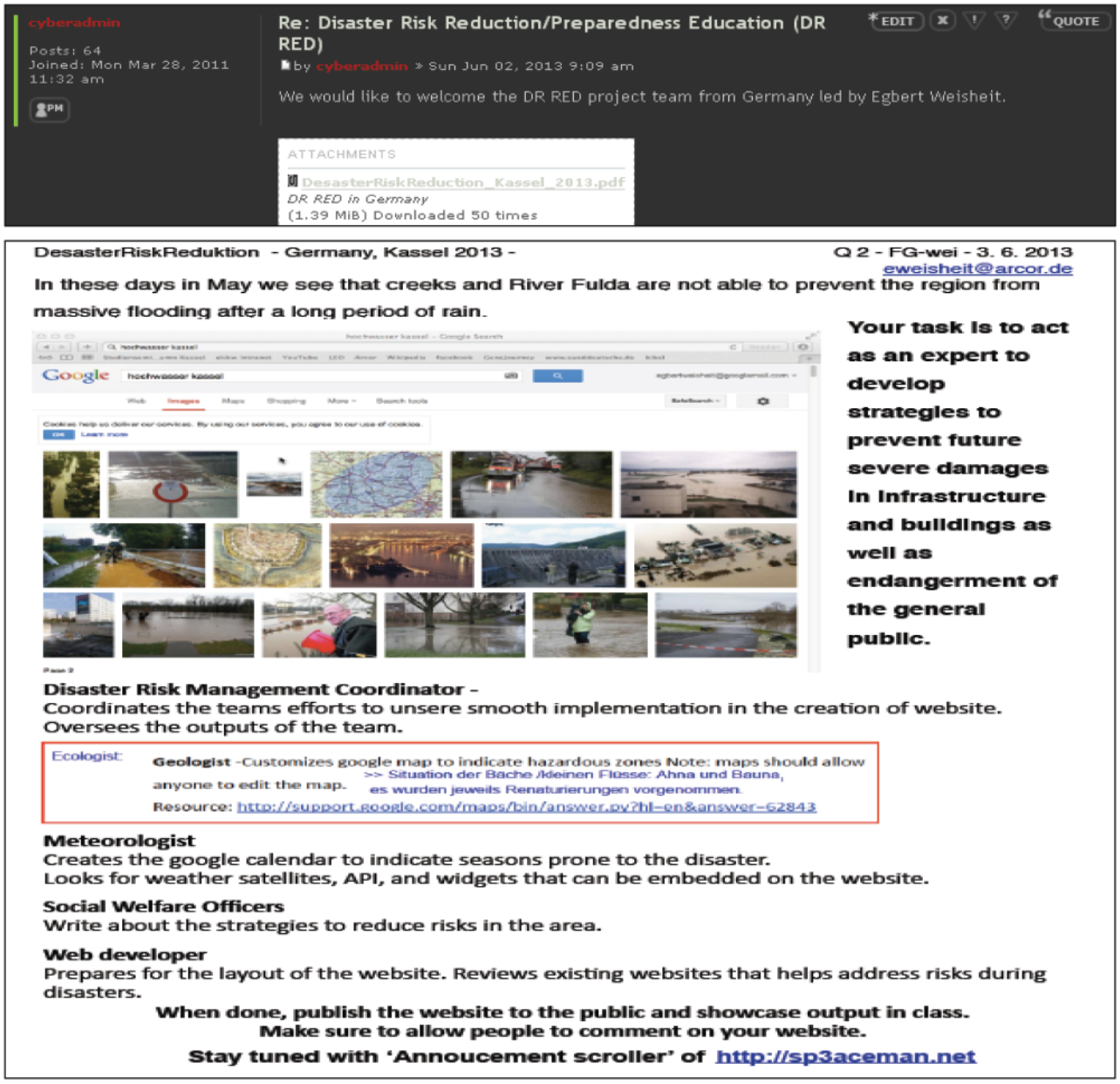

Image 3: The WebQuest guide [available from file DesasterRiskReduction_Kassel_2013_pdf] that was uploaded onto URL: http://forum.sp3aceman.net/viewtopic.php?f=14&t=62343

Positive attitude for sustainable living: The roles of teachers as facilitators

The survey was analyzed quantitatively for RQ1 (on the pilot teachers' attitudes towards ESD and its implementation via ICT) using descriptive statistics, as well as qualitatively for RQ2 (about teachers' understanding on ESD via ICT and preparedness to promote sustainable living). Out of 33 local teachers/educators and 12 foreign participants (participated through webinar and communication using emails) who attended the first colloquium, only a total of N=32 or 71.1% (i.e. 32/45) responded to Part (A) Likert survey [as illustrated in the participants' responses for Question (1) "I teach about environmental or ESD issues because. . ." (Figure 1) and (2) "I do not teach about environmental or ESD issues because. . ." (Figure 2) respectively]. Only 22 out of 32 (68.8%) responded to Part (B) open-ended questions before and after the event.

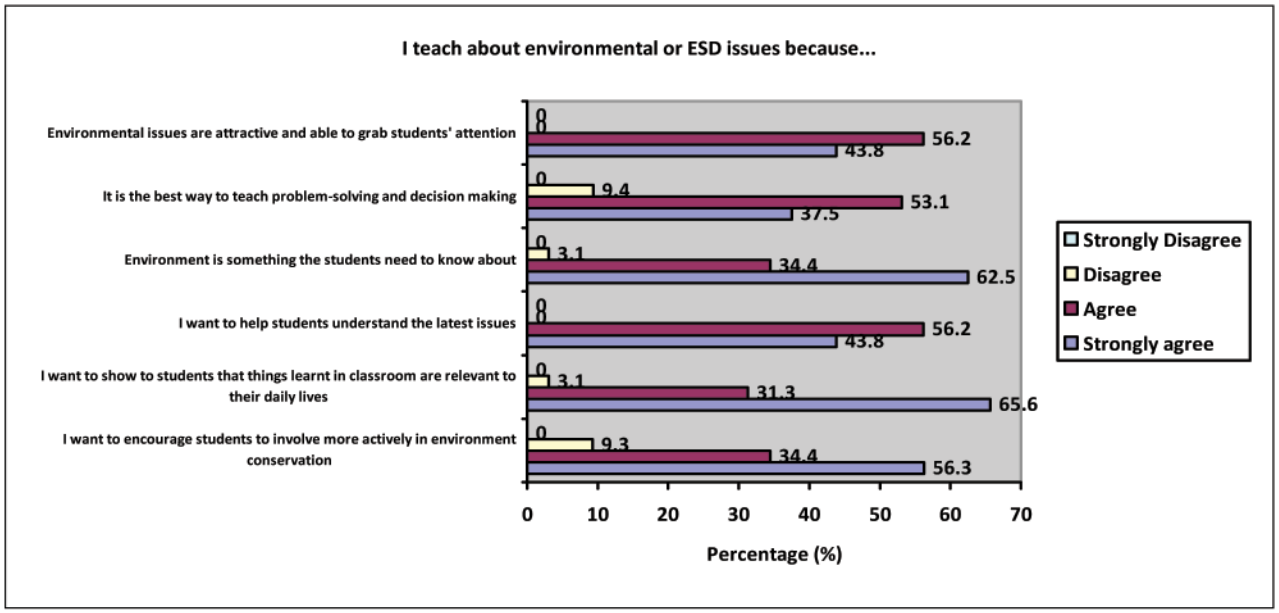

Figure 1: The responses given by pilot teachers (N=32) on the "Survey on knowledge/attitudes towards sustainable living" for Part A (Q1)

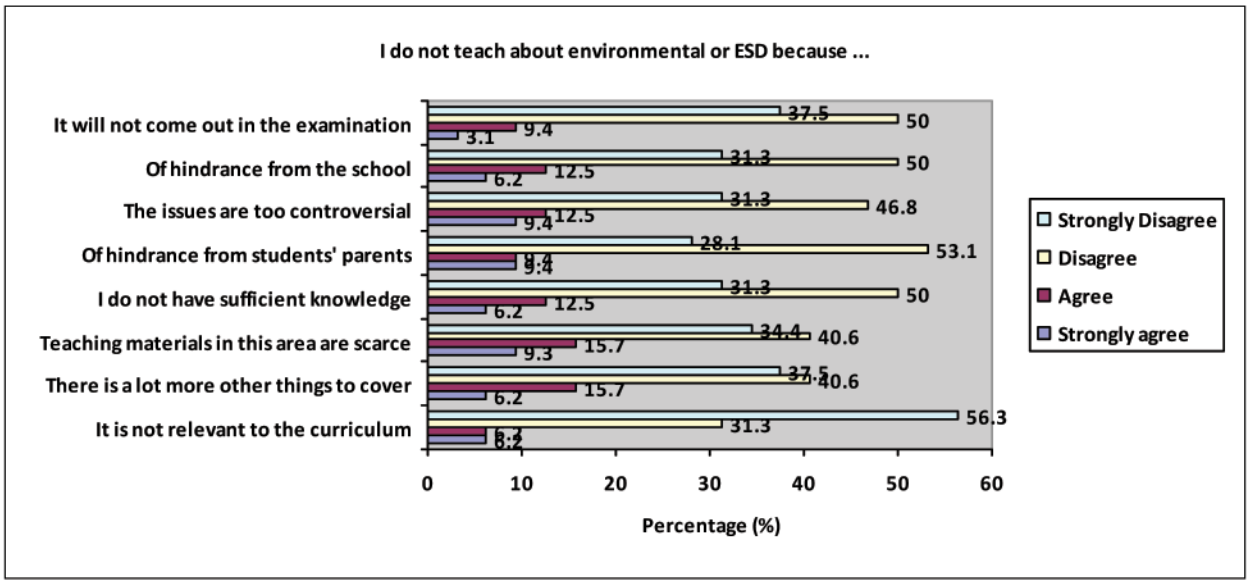

Figure 2: The responses given by pilot teachers (N=32) on the "Survey on knowledge/attitudes towards sustainable living" for Part A (Q2)

Most of the teachers involved in the pilot project and were invited in the seminar had positive attitudes towards environmental or ESD issues. None of them expressed "Strongly Disagree" (SD) on Part A (Q1) "I teach about environmental or ESD issues." More than 50% of them expressed either "Agree" (A) or "Strongly Agree" (SA) in the statements listed in (Q1). Most of them (more than 50%) also consistently responded either "Disagree" (D) or "Strongly Disagree" (SD) on (Q2) "I do not teach about environmental or ESD issues."

Regarding "What is the meaning of sustainable living," 15 out of 22 (68%) and 18 out of 22 (82%) responded to the pre- and post-survey respectively. The following selected excerpts are extracted from the post-survey after the colloquium with evidence of their improved knowledge,

> *Holistic thinking. . .maximize human potential without. . .harm,. . . to decrease the impact of human . . . to earth's welfare; Using resources (x2). . .consider the need of future generation; The application of sustainability to lifestyle (x8) choice and decisions(x5) that meets the ecological, environmental, societal, economical for future generation (x8) without compromising these factors for future generations (x5);. . . simple life; Thinking+ living+technology skills = Sustainable living; Living without causing harm and not leaving the earth in a worse way. . .; Lifelong learning, cross-cultural diversity, capable of building relationship;. . .rising interest! . . .living. . . without so many risks . . .learn to talk to people across the world; Wider scope -coping with environmental issues-conservation of resources-proactive to continue life on earth. . .*
>
> (Respondents of colloquium on 19/4/2013)

Since more than 80% have responded to the post-survey with elaboration, it can thus be inferred that sharing information on sustainable living through colloquium or seminar using webinar can be a useful approach to impart knowledge and skills to promote sustainable living.

Regarding question on "What are the essential skills for sustainable living," 12 out of 22 (55%) but 17 out of 22 (77%) responded to the pre- and post-survey respectively. The responses from post-survey with evidence of their improved knowledge after the colloquium are reflected below,

> *How to live. . .considering the need of future generation; HOTs (x2), Reasoning-productive thinking, ICT; Deepen. . .application why need to live in a sustainable way, sincere care and attention to earth's resources, sensitivity among peers and others; Background knowledge, professional skills, personal qualities; Thinking skills (x8) e.g. Creativity (x4), Strategic attack, Critical perceptions (x2); Problem-based approaches, Awareness of the impact of action/ behaviours on environment; Pattern recognition; Living (x4) skills, knowledgeable with ICT (x6) skills; Background knowledge, professional skills, personal qualities; Enterprising; Listening to a speaker from other country,. . . knowledge and methodical skills (IT); Preparedness in facing disasters. Right attitude (x2) and purposeful action. Responsible member of society. . .*
>
> (Respondents of colloquium on 19/4/2013)

It was also revealed that more than 77% have responded to the post-survey reflecting their understanding about the input they gained from the seminar. It can again be inferred that the conduct of colloquium/seminar was successful to share information on skills required for Borderless School (BS). The following excerpts further confirmed that most of the participants understood "the meaning of BS and its essential features" with 14 out of 22 (64%) and 19 out of 22 (86%) responded to the pre- and post-survey respectively. Their responses were closely similar to the input given,

> *"Borderless School" is anchored on **B**lueprint of Lifelong learning (L^3)(x5). The "**O**bjectives" are to promote self-directed/motivated (x3) learners from diverse background and achievement (x5). The "Organization" of activities is authentic (x3), blended mode (x8) and "**R**ich" in cross-curricular and/or interdisciplinary (x7); "**D**erived" from values-based (x5) education with findings on advancement of ICT; "**E**ducational" opportunities, exchange with partners (x5), enrichment (x2), evaluation (x6).* L*earning without border (x2) outcome "**R**esults" in diverse groups (x5) of "**L**ifelong" (x7) learners who are "**E**nterprising" (x6), equipped with 21st century "**S**kills" (x2) that include thinking (x4), technology (x4), living (x2). They should always "**S**trive" forward continuously (x6) as successful global players (x6), innovative (x5) contributor of new knowledge (x6), understand cultural diversity with dissolved boundaries, collaboration (x5). . . . .*
>
> (Respondents of colloquium on 19/4/2013)

Again more than 50% responded positively as 14 out of 22 (64%) had certain levels of "aspiration towards BS." Hence the seminar was successful to impart useful input on ESD and BORDERLESS.

Exemplary constructivist blended learning: The case of student project output

As stated before, the three skills to be imparted by teachers to promote sustainable living are thinking, technology and living skills. This section analyzes data in response to RQ3 (the exemplary

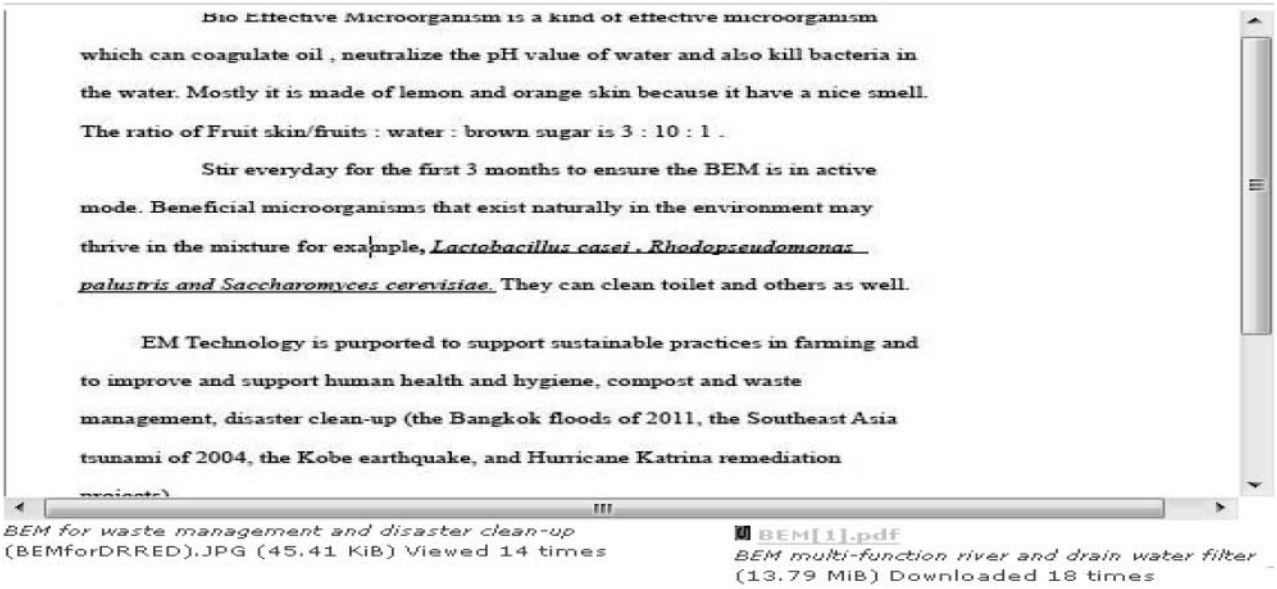

Image 4: Printscreen of an excerpt of the output shared by one pilot project school to curb problems of water pollution, to reduce the risk of flood and to promote DR RED

practices of essential skills for sustainable living demonstrated in students' output). Image 4 is the print screen of an excerpt from the output that was uploaded onto e-forum (http://forum.sp3aceman.net/viewtopic.php?t=62343#p91219) shared by one pilot project student in Malaysia. He demonstrated his thinking, technology and living skills by relating the use of effective microorganisms (EM) for waste management to curb problems of water pollution. He further designed "multi-function river and drain water filter" with lined up of arc shaped bottles that were filled with EM to clean polluted river by reducing oil and grease, neutralizing pH value of water, trapping rubbish that also helped reducing risk of flood and promoting DR RED.

The fourth author of this article who attended the seminar through webinar also led project team from Germany to make full use of e-forum site to share OERs (Image *5*) and follow-up telecollaboration with project students asynchronously (Image 6) and synchronously with skype.

Image 7 is the print screen of the attached pdf files posted onto Dropbox for sharing of students' responses to WebQuest activities playing the four roles identified as: (1) "*meteorologists*" to report on precipitation, temperature and sunshine; and "*the social welfare officers*" to report strategies to reduce flood [as shown in Image 7 the attached file DR RED Kassel2013.pdf]; (2) "*ecologists*" to

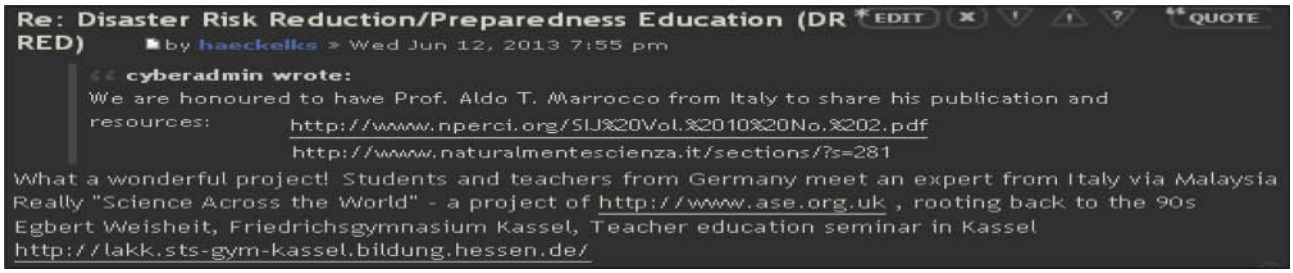

Image 5: The SP3ACEMAN e-forum site serves as e-platform for the sharing of OERs in ODL to promote DR RED [URL: http://forum.sp3aceman.net/viewtopic.php?f=14&t=62343&p=110601#p110601]

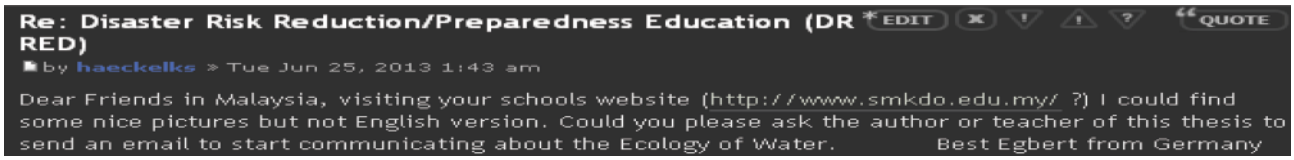

Image 6: The e-forum site also promotes further telecollaboration among SEAMEO countries and beyond

Image 7: Dropbox also serves as OER to share learning output in response to DR RED WebQuest activities

develop tactic of opening up the dam illustrated by the map developed by "*webmaster*" file DR RED Kassel2013a.pdf [retrieved from URL: https://www.dropbox.com/sh/4da4um50vqluwik/BfsbjJTPcs]

Living skills include students' attitudes and motivation that are part of affective learning. The above findings concurred with the study by Parahakaran (2013) that affective factors are significant for the understanding of how attitudes and motivation help students' academic learning. Research findings from blended learning with real life contexts in a school in Thailand revealed that students actually connect their experiences with academic learning for sustainable living to conserve the environment as reflected in the following excerpt (Parahakaran, 2013):

> *. . .We use oil from the kitchen for recycling. . .as a project in our school. . .then we tried to calculate profit or loss. . . we find very little profit compared to what we buy outside. . .but even if we have just done small project, we should carry on. . .because it is good not just for our school. . . to save. . .not only for environment but for everything. . .*
>
> (Grade 12 Thai student's response as reported by Teacher 1)

Conclusion and the way forward

This article reports pilot phase of an ongoing study to set up "Borderless School" (BS) in SEAMEO region. The researchers received relatively good responses from teachers whose attitudes are mostly positive and be prepared to impart knowledge to promote sustainable living. Through the coordination of some of these teachers and project partners, selected pilot student project teams also showed self-motivated learning with exemplary output accessible on-line.

Of course, there are still rooms for improvement for the way forward. Among the aspirations to be pondered for BS to be more appealing include "students" ability to utilize technology and blended learning needs to be improved; to consider International networking platforms and forums using "**S**cience **P**roject/problem/programme-based **A**ctivities in**C**orporating **E**xperiment **MAN**agement" (SP3ACEMAN) e-portal (http://sp3aceman.net/?p=95) hyperlinked to SEARCH (Image 8). This is

Image 8: International networking and global learning through SP3ACEMAN e-portal to share learning output

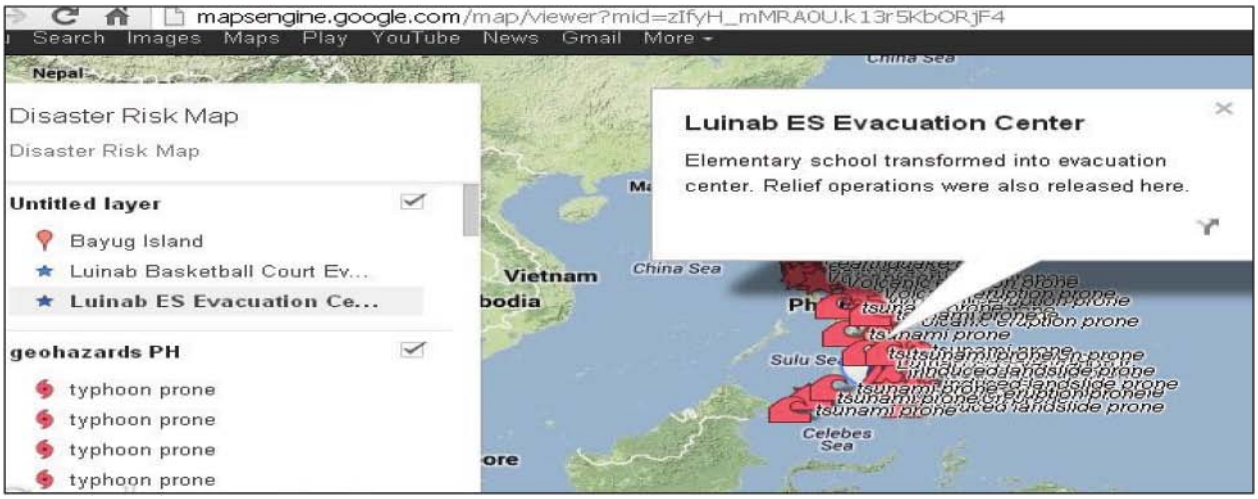

Image 9: Google Map with zones of disaster risks and rescue centres in Philippines

another platform for project teams to upload their WebQuest output as "OER an intercultural" DR RED by and for all, e.g. Google Map of zones of disaster risks and rescue centres in Philippines (http://mapsengine.google.com/map/viewer?mid=zIfyH_mMRA0U.k13r5KbORjF4) (Image 9).

Teachers or administrators should also be helped with the demands, management of and evaluation in BS with ethical responsibilities in ICT, 21st century skills for solving-problem that are needed. Schools must organize project, PBA and PBL under co-curriculum to give chance for students to collaborate with others. Mathematics and other interdisciplinary curriculum need to be considered and integrated in all the suggested blended learning. Full support is needed from the government. Blended learning with OERs such as YouTube, project clips and blogs integrating collaborative learning strategies to be considered to provide students with the learning based on both cognitive and affective experiences, also to understand the contexts in which this learning is situated. Users who use the Internet for learning or research should be able to succeed in developing their understanding of any topic using the vast information of various websites available (Parahakaran, 2013). Hence authentic and sustainable living should be taught regularly utilizing digital tools to start authentic or real communication about basic topics concerning our lives and attitudes.

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