Using YouTube to Enhance Sustainable Management among New Generations

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Abstract. Sustainable management is a global issue which becomes increasingly vital for everyone in this disruptive world. However, the issue seems vague to new generations. To educate the issue cognitively, YouTube is one of the most effective and practical tools for the new generations. This study therefore explored how YouTube enhanced cognitive learning of sustainable management. This was a mixed-method study. The samples in this study were 35 students from various fields (namely engineering, biology, agriculture, and tourism industry and hospitality management). The instruments for data elicitation included 3 short YouTube videos regarding sustainable management, pretests and posttests, observation notes, a questionnaire and an interview. Findings revealed that the samples became more conscious of the issue after viewing the videos. In addition, the learners revealed positive attitudes towards the dynamics of meaningfully and socially engaged discussion and the presentation of their cognitive learning of the issue. Future study should replicate this study with more videos to educate more insightful learning of the issue.

Keywords: sustainable management; YouTube; new generation; the Net generation; 21st century skills

1. Rationale for the Study
Sustainable management is a global issue which becomes increasingly vital for everyone in this disruptive world. Sustainable management comes from the concept of sustainability and synthesizes with management. Sustainability involves three key areas: the environment, the needs of present and future generations, and the economy. Sustainable management is the ability to maintain economic viability as well as to nourish the needs of the present and future generations by limiting effects on the environment. Sustainable management is briefly defined as the practices to maintain the quality of life which can be applied to all aspects of life.

Practically, sustainable management is to make the world a better place for everyone now and in the future. Knowledge of sustainable management is, therefore, crucial for global development. However, the issue seems vague to new generations. To make the world a better place for the next generations, educating sustainable management to today’s generation is needed because, if the quality of life is to be maintained, the management must be sustainable. Therefore, educating the new generations so as to raise their awareness of sustainability management is needed, especially in the state of ongoing disruption. However, while the development of disruption is increasingly drastic and sustainability management has become a global issue, the issue of sustainability seems vague to the new generations. Insight of the issue is obligation so as to maintain the quality of life.
Educating today’s generation is challenging for today’s instructors and practitioners of all disciplines as their learning style is different from that of their Net generation students[1] and it is even more challenging to engage the Net generation students who were born in technological era [2][3]. Prior study [4] shows that there are significant differences between traditional, teacher-led learning styles and online, self-directed ones which gears towards individuals’ learning styles and student-centered learning. The Net generation, which has been also known as the Millennials, Generation Y and the Digital Native, is the term used in relation to media activism [5] for describing the generation who were born between 1982 and 2003 [6] and who have grown up with the advancements of digital technology and use it in their daily lives.

In this disruptive era, the Net generation do not only access the Internet but also use it as a form of communication and social and work networking. Also, they feel more comfortable and are more familiar with the course which technology is integrated [7] in a hybrid or online course and they easily get engaged with using technology for searching for information in their daily lives. This access and engagement has mainly accounted for the increase in educational videos on YouTube which is also closely associated to the increasing numbers of video viewership, rising from 22% to 38% between 2007 and 2009 [8] and these increasing numbers included the widespread use of YouTube as a potential tool for cognitive and affective learning by modern educators throughout the world [9].

There is a myriad of benefits to using YouTube videos in education as shown in several decades of research. Currently, YouTube has been used for cognitively educating and affectively engaging the Net generation with any global issues. Like other technological tools that contain educational potential pitfalls [10], there have been some concerns over the use of YouTube as a learning tool on these issues such as the credibility of the video contents and the time it takes to search for appropriate contents[11] [12][13][14]. One of the crucial, if not the most crucial, challenges that might be a major pitfall of using YouTube for educational purposes is the evaluation of the reliability of the contents. Practically, the solution to this challenge can be done by the instructors or practitioners who take partial or full responsibility in content selection as well as by seeking advice from a myriad of online learning assistant systems (e.g. YouTubeEDU) that can facilitate recommending appropriate learning resources for further study [15].

Even though there are pitfalls in using YouTube for educational purposes, YouTube is considered by educators and practitioners around the world as one of the most valuable resources for learning. Prior study [16] suggests that YouTube is one of the most effective and practical tools that best fit for the characteristics of the Net generation. Due to the fact that YouTube is educationally useful videos and its potential benefits for education as an instructional aid in lessons and in planning are more promising than its pitfalls and there has been a recognizable increase in the use of YouTube as instructional tools in various areas of study, this present study therefore inclines to take the position that YouTube provides valuable resources for learning as it has strong positive impacts on learning all over the world.

Overall, theoretically and practically, prior study of modern education in all areas of study verifies positive gains in student outcomes as a result of incorporating YouTube in learning. Modern educators considered incorporating YouTube to be an innovation in a classroom and using YouTube can be a useful and interesting way of capturing and maintaining student's attention and, thereby, making learning more effective, interesting and memorable [17][18]. In short, it enhances the overall learning process [19][20][21] as well-selected YouTube videos provide students with learning cues which support comprehension and conceptualization through visualization [21] which adequately leads to cognitive and affective insights of an issue.

Conscious exposure to YouTube contents enhances cognitive learning. Studies [22] revealed that using YouTube videos facilitates exposure to contents of all major disciplines. Examples of those studies include anatomy [23][24], chemistry [25], dentistry [26]; nervous system [24], nursing education [27][28], pharmacokinetics [29], health education [30], electrocardiology [31], higher education [2][8][32][33][34], language learning [35][36][37][38], music teaching and learning[39] [40] and modern knowledge such as information and technology[32], globalization [41] and multiple intelligences [42].

Conscious exposure to YouTube contents fosters affective learning. YouTube can create motivation [43] and aspirations of learners [19]. Numerous prior studies support positive experiences with high levels of acceptance and successful learning outcomes[45]. The tool effectively enhances active and flexible learning.
environments and facilitates interactive learning [46]. As the use of YouTube can capture the Net generation’s attention [44] [47], it can propel dynamics of learning which subsequently generates more attractive, interesting, fun and enjoyable learning [44]. The tool is therefore integrated into a modern classroom for promoting affective learning.

More crucially, it has been accepted that YouTube is an effective tool not only for enhancing cognitive and affective learning but also for insightful understanding of the subject matter. YouTube videos can lead to understanding such as creating mental models [48], engaging the learners more profoundly with subject matter and, hence, increasing students’ depth of understanding which is useful for developing critical thinking[49] and multiple approaches to reasoning. In addition, by connecting to multimodality, it can cultivate other habits that lead to successful learning such as self-organization [50], problem-based learning and collaborative learning [51].

Most importantly, YouTube is a potential learning tool for the 21st century and for fostering innovation and learning beyond the classroom as it always updates new knowledge. In addition, it puts a strong emphasis on innovative and creative modern education [13] and connects to multimodality [47]. As YouTube fosters all factors needed for successful learning (namely perception, engagement, motivation and insights), there have been considerable increases in access to information [13], encouragement to seek for more information for further study[52], the retrieval of web contents [53] and a search for additional or supplementary resources for similar or particular videos on the issue for further study [44]. In brief, searching for more information beyond the classroom makes such a modern classroom more favorable than traditional one [54].

Although using YouTube to facilitate learning has become easier to incorporate in the classroom either online or in hybrid platforms, the research for using YouTube as a pedagogical tool to educate a current issue in a globally disruptive context is limited and scanty. A need for additional research to consolidate existing limited knowledge is therefore an area worthy of investigation. Information discovered by such an inquiry can be used for decision-making by educators and practitioners in instructional planning or assessing processes. Collectively, based on prior study, this present study was therefore undertaken to answer the following five research questions.

1) What, if any, are the effects of the use of YouTube on enhancing Net generation students’ cognitive learning of sustainable management?

2) What are the students’ attitudes towards using YouTube as an educational tool on the issue of sustainable management?

3) What, if any, is students’ consciousness of the issue after viewing the videos?

4) Can YouTube be used in the classroom for enhancing the students’ affective engagement in learning the issue effectively?

5) To what extent can YouTube be used in the classroom for supporting the students’ engagement in meaningful learning, discussion and presentation of the issue?

2. Purposes of the Study

This inquiry primarily aimed to investigate how YouTube enhanced cognitive learning of sustainable management with the following specific purposes of the study:

1) To examine the effects, if any, of the use of YouTube on enhancing Net generation students’ cognitive learning of sustainable management

2) To explore the students’ attitudes towards attitudes towards using YouTube as an educational tool on the issue of sustainable management

3) To explore the students’ consciousness of the issue after viewing the videos

4) To investigate whether YouTube can be used in the classroom for enhancing the students’ affective engagement in learning the issue effectively

5) To determine how YouTube can be used in the classroom for supporting the students’ engagement in meaningful learning, discussion and presentation of the issue

3. Research Method

3.1 Design of the study
This was a mixed-method study. The study followed the experimental design: pretests, 3 short YouTube educational videos regarding sustainable management, and posttests. The data were collected during January-April, 2018. The quantitative data were collected from pretests, posttests and a questionnaire. The two sets of tests were assigned before and after each video. The qualitative data from observation notes and an interview were collected during and after the YouTube video instructions. The two types of data were then compared and analyzed to draw a conclusion of the study.

3.2 Population and subjects

The population in this study were second-year students of a local university in Thailand. The samples were thirty-five students who enrolled in the course English for Careers in 2018. They were selected by purposive sampling from various fields (namely engineering, biology, agriculture, and tourism industry and hospitality management). The subjects were divided into five small groups for discussion and sharing, each of which consisted of 6-8 students. Each group voluntarily formed on their own choice. The researchers as the instructors played a role as facilitators who mostly allowed peer teaching and retained the right to intervene only when the students needed advice.

3.3 Instruments for data elicitation

The instruments for data elicitation included 3 short YouTube videos regarding sustainable management, pretests and posttests, observation notes, a questionnaire and an interview. Below were the details of each instrument.

3.3.1. Three YouTube videos regarding sustainable management. Each YouTube-incorporating instruction lasted 3 hours, or altogether 9 hours for 3 videos. The three videos involved these issues as follows:

- What is sustainable management? What does sustainable management mean? (https://www.youtube.com/watch?v=1D1AC5FxDo4)
- Sustainable Management (https://www.youtube.com/watch?v=PBderL5Xt54)
- Sustainable Management | Management of Natural Resources | Biology | CBSE Class 10 Science (https://www.youtube.com/watch?v=247fDrd4G-A)

Below was one example of the videos.

![Figure 1. example of the YouTube videos](image-url)

Each YouTube video followed these stages: 1) opening, 2) topic orientation, 3) viewing and sharing, 4) discussion, 5) presentation, and 6) self-evaluation of learning. The details of each stage were as follows: First, on the opening stage, the researchers gave instructions of to make sure that all subjects fully comprehended the procedures of each stage. Second, on topic orientation, the researchers gave an overview and explanations of the subject matters before each video. Third, on viewing and sharing, before viewing each video, all subjects were asked listening comprehension questions regarding the gist of the text and
given a task with guiding questions for discussion. This viewing stage fell into three phrases as the subjects were allowed to listen to each video three times: overviewing, answering questions, and checking information. In phrase 1 which was the first time of listening an overview of the text, the subjects viewed the video and jotted down the keywords. After overviewing, they were allowed to share with other students to check their understanding. During this overviewing stage, the researchers observed their participation in peer teaching and developing higher order thinking skills (comparison and contrast, analysis and critical thinking). In this phrase, the researchers were allowed to intervene when the students asked for advice or clarification. In phrase 2 which was the second time of listening, or answering questions, they listened so as to answer guiding questions that had been given as a task. In phrase 3 which was the third time of listening, or checking information, they listened so as to check their answers of the guiding questions and draw supporting details from the text. Fourth, on discussion which was the most important stage, the subjects who were divided into five small groups consisting of 6-8 students were assigned to share and discuss their answers in group. They were given a task which encouraged them to search for more information from online resources for further study to expand their scope of learning beyond the text and apply their learning from the video they had viewed and the information they had searched to create a mini project regarding their engagement to sustainable management in their contexts. The researchers provided advice appropriate for the students’ difficulty or problems. During their discussion and searching, the researchers observed and took notes on the dynamics of learning and engagement to discussion. Fifth, on presentation, each group summarized their project, focusing on practical application of the knowledge of the issue and presented it briefly in the form of power point presentation. The audiences could question, ask for clarification and share their opinions regarding the presentation. Sixth and lastly, on self-evaluation of learning, each student evaluated their cognitive and affective learning throughout the process. Also, each group was interviewed for more details concerning cognitive and affective learning of learning management and their awareness of sustainability.

3.3.2 Pretests. These tests were designed to compare the students’ prior knowledge of issue under study (namely sustainability, sustainable management and application of sustainability and sustainable management) with their knowledge after viewing each video. These pretests aimed to assess whether there were increases in the students’ knowledge of the issue which could answer research question 1 (What, if any, are the effects of the use of YouTube on enhancing net generation students’ cognitive learning of sustainable management?). The contents of the pretests involved the gist of the text, main idea, key concepts, and supporting evidence. These pretests were assigned to all subjects before the topic orientation phrase in which the researchers gave an overview and explanations of the subject matters before each video viewing. The students are required to choose the statements based on the instructions below.

What is the main idea of the text?

Tick the words that indicate ten key concepts of the text.

Choose three statements that contain evidence, details and examples to support the main idea.

Which statement best summarize the text?

3.3.3 Posttests. The pretests were constructed in parallel with the pretests so as to compare the knowledge of the issue to verify whether the subjects have learned the gist of the listening text. The pretest questions were revised, rearranged and paraphrased. These posttests were assigned after viewing each video.

3.3.4 Questionnaires. There were two sets of self-assessment questionnaires. One aimed to elicit data for research question 2 (What are the Net generation students’ attitudes towards using YouTube as an educational tool on the issue of sustainable management?). The other was to answer research question 4 (Can YouTube be used in the classroom for enhancing the students’ affective engagement in learning the issue effectively?). These questionnaires were assigned to all subjects after viewing all the three videos. The subjects were required to give responses on five-scale levels (namely very much, much, a little, very little and not at all) to the following questions.

How much do you think the videos are educationally useful for learning sustainable management?

___ Very much ___ Much ___ A little ___ Very little ___ Not at all

How much do you think YouTube videos on the issue of sustainable management make you feel satisfied?

___ Very much ___ Much ___ A little ___ Very little ___ Not at all
How much do you think YouTube videos enhance your social engagement in learning the issue of sustainable management?

___ Very much ___ Much ___ A little ___ Very little ___ Not at all

How much do you think YouTube videos enhance meaningful discussions of the issue?

___ Very much ___ Much ___ A little ___ Very little ___ Not at all

3.3.5 Interview. To elicit data for answering research questions 3 (What, if any, is students’ consciousness of the issue after viewing the videos?), the subjects were required to respond to the following question: In your opinion, do you think YouTube videos raise your consciousness of sustainable management? What awareness do you realize?

3.3.6 Observation note. To answer research question 5 (To what extent can YouTube be used in the classroom for supporting the students’ engagement in meaningful discussion and presentation of the issue?), the researchers focused their observation on the students’ meaningful learning, discussion and the presentation of their cognitive learning of the issue. To what extent can YouTube be used in the classroom to support the students’ engagement in meaningful discussion and presentation of the issue?

3.4 Data analysis

This study was triangulated. The statistics used for describing quantitative data from the questionnaire included means and standard deviation and inferential statistics for comparing pretests and posttest scores was one sample t-test. The qualitative data were drawn from the interview and observations by the two researchers were qualitatively decoded, interpreted, compared and analyzed to draw the conclusion of the study.

3.4.1 Scoring procedure. 1 score was given to each correct answer and 0 was given to each incorrect score in the pretests and posttests. To assess their attitudes towards YouTube video as an educational tool and their engagement in learning, the scoring procedures were ranked from the most to the least as follows: very much, much, a little, very little and not at all respectively.

3.4.2 Reliability and validity check. The reliability and validity check of this present study followed these steps. First, the instruments which had been constructed based on the purposes of research study were sent to five judges for content validity check. The contents were then adjusted to their advice. Then, they were tried out with thirty students who were the population of the study for construct validity check. Finally, the instruments were tested by Alpha Cronbach Coefficient for reliability check. The result was 0.788, which indicated the moderate reliability.

4. Results of the Study

The results of the study were presented according to the research questions as follows:

Research question 1: What, if any, are the effects of the use of YouTube on enhancing net generation students’ cognitive learning of sustainable management?

| Table 1 | Mean scores between the pretest and the posttest of YouTube videos |
|---------|---------------------------------------------------------------|
| N       | Mean  | Std. Deviation |
| Pretest | 35    | 12.3125   | 3.22728 |
| Posttest| 35    | 25.5938   | 4.64105 |

Table 1 showed that the posttest mean scores were significantly greater than the pretest mean scores (Posttest > Pretest 13.2813). The finding indicated that the YouTube videos had strong effects on the enhancing the Net generation students’ cognitive learning of sustainable management on the main idea of the text, key concepts of the text, supporting evidence, details and examples and summary of the text. This indicated that the videos significantly increased the subjects’ knowledge of sustainable management.

| Table 2 | Comparison of t-values between the pretest and the posttest of YouTube videos |
|---------|--------------------------------|
| t       | df  | Sig. (2-tailed) |
| Pretest | 22.582 | 34   | .000 |
| Posttest| 30.758 | 34   | .000 |

Table 2 showed that the posttest scores (30.758) were higher than the pretest scores (22.582) and there were differences between the pretest and the posttest scores at the significant level of 0.05 (p = .000). The finding indicated that the YouTube videos had strong effects on the enhancing the Net generation students’
cognitive learning of sustainable management. This indicated that the videos were useful for cognitive learning of the issue.

The findings in this research question were well-supported by those of the next research question.

**Research question 2**: What are the students’ attitudes towards using YouTube as an educational tool on the issue of sustainable management?

| How much… | Very much | Much | A little | Very little | Not at all |
|-----------|-----------|------|----------|-------------|-----------|
| do you think the videos are educationally useful for learning sustainable management? | 71.42 | 22.85 | 5.71 | 0.0 | 0.0 |
| (25) | (8) | (2) | (0) | (0) |
| do you think YouTube videos on the issue of sustainable management make you feel satisfied? | 62.85 | 25.71 | 11.42 | 0.0 | 0.0 |
| (22) | (9) | (4) | (0) | (0) |

Table 3 showed that the subjects in this study expressed their highly positive attitudes towards the YouTube videos. No subjects revealed negative attitudes towards the videos. The results showed as follows: very much (71.42 %; n = 25), much (22.85 %; n = 8), and a little (5.71 %; n = 2) respectively. The finding indicated that the majority of the respondents (94.27 %; n = 33) viewed that the videos are educationally useful for learning sustainable management.

In addition, the subjects were satisfied with the videos as revealed in the results as follows: very much (62.85 %; n = 22), much (25.71 %; n = 9), and a little (11.42 %; n = 4) respectively. No subjects revealed negative attitudes towards the videos. The findings indicated that the majority of the respondents (88.56 %; n = 31) felt satisfied with the YouTube videos as learning tools on the issue of sustainable management. This indicated that the subjects in this study felt satisfied with using YouTube videos on the issue of sustainable management.

The increases in cognitive learning and knowledge of the issue and highly positive attitude towards the uses of the videos for the issue were supported by their increases in consciousness of the issue after viewing the videos. The findings from the quantitative data were supported by the findings from the interview in the next research question.

**Research question 3**: What, if any, is students’ consciousness of the issue after viewing the videos? The subjects were interviewed in group as well as individually to answer the following guiding question: In your opinion, do you think YouTube videos raise your consciousness of sustainable management? What awareness do you realize? The results of the interview by the two researchers were qualitatively decoded, interpreted, compared and analyzed. The results reflected the subjects’ consciousness in two areas: cognitively and affectively.

Cognitively, it was obvious that the subjects comprehend the issue more insightfully. As there was an increase in the posttest scores (25.5938) from the pretest scores (12.3125), the subjects’ responses indicated what they knew: definition of sustainable management, its significance to organisms living and ecosystem. They realized that sustainable management is socially engagement issue and were able to talk and share about what they learned from the videos in meaningful discussion based on their insightful comprehension of the main idea of the text, keywords and concepts of the text. Also, they were able to support their arguments with evidence, details and examples from the videos. Besides, they were able to bring together a number of what they learned to form a presentation of the issue.

Affectively, the pictures and contents contained in the videos provide authentic learning opportunities for students and, therefore, could arouse the students’ consciousness and sensitivity. By drawing the individual students’ attention specifically to their sensitivity and awareness which directed their attention inwardly into their personal experiences, the videos could evoke students’ memories and helped them remember experiences similar to what they had viewed in the videos. The subjects became more conscious of the issue as follows:

“We became more conscious of the importance of sustainability to our world. Affectively, our feeling changed more positively from the very beginning to the end of the project.” [Students A and B, Group 1]
The subjects’ increased consciousness of the sustainable management was consistent with the result of the questionnaire, revealing that the subjects’ affective engagement in learning of sustainable management was everyone’s responsibility.

Research question 4: Can YouTube be used in the classroom for enhancing the students’ affective engagement in learning the issue effectively?

Table 4: Percentages (and raw scores) of students’ affective engagement in learning of the issue

| How much…                  | Very much | Much | A little | Very little | Not at all |
|----------------------------|-----------|------|----------|-------------|------------|
| do you think YouTube videos enhance your affective engagement in learning the issue of sustainable management? | 57.14 %; n = 20 | 22.86 %; n = 8 | 20.00 %; n = 7 | 0.0 %; n = 0 | 0.0 %; n = 0 |
| do you think YouTube videos enhance meaningful discussions of the issue? | 54.29 %; n = 19 | 20.00 %; n = 7 | 25.71 %; n = 9 | 0.0 %; n = 0 | 0.0 %; n = 0 |

Table 4 showed that the subjects in this study considered that the YouTube videos could be used in the classroom for enhancing the students’ social engagement in learning the issue effectively. No subjects revealed negative attitudes towards the videos. The results showed as follows: very much (57.14 %; n = 20), much (22.86 %; n = 8), and a little (20.00 %; n = 7) respectively. This indicated that the majority of the respondents (80.00 %; n = 28) viewed the videos as a useful tool for enhance the students’ affective engagement in learning the issue of sustainable management.

Similarly, they thought that the YouTube videos could enhance meaningful discussion of the issue as revealed as follows: very much (54.29 %; n = 19), much (20.00 %; n = 7), and a little (25.71 %; n = 9) respectively. This indicated that the majority of the respondents (74.29 %; n = 26) viewed the videos as a useful tool for enhancing the students’ discussion of the issue meaningfully.

The findings were well-supported by those of the researchers’ observation in the next research question below.

Research question 5: To what extent can YouTube be used in the classroom for supporting the students’ engagement in meaningful learning, discussion and presentation of the issue? The results could be divided into three areas (namely learning, discussion and presentation of the issue) as revealed below.

Pedagogically, on learning, as the instructors in this played a role as facilitators, the students actively learned from the videos by themselves with guiding questions which propelled them to get engaged with insightful understanding of the issue under study by themselves. Their active learning was more meaningful than the traditional, teacher-centered learning classroom where knowledge was or “told” by the instructor or transferred from the instructor to the students. In this technology-led classroom, the students were required to write down key words, images, clues and associations of what they remembered as soon as the memories came to their minds. When the memories appeared, they were very excited and kept sharing their excitement among their group. Learning was more memorable when the students were motivated to search more videos on related videos for clarification. By doing so, they got a habit of using YouTube as well as other technological tools as meaningful educational resources for further study. The habit is an essential part of autonomous learning skill which is vital for learning in the 21st century.

Communicatively, on discussion, this active learning environment created a supportive atmosphere conducive to develop the relationships among us which was the basis of meaningful discussion among the students. The positive atmosphere and relationships aroused the exchange of personal experiences of the topic as some of the students revealed as follows: “We become a better communicator in sharing and exchanging information and experiences. During discussions, we listened to one another attentively, wrote down key words or phrases, asked for clarification, made comments, received feedback, made use of what we received, and further worked on new ideas received from discussion.” [Students C and D, Group 2]

Practically, on presentation, this impressive sharing of learning expanded from individual experiences in group discussion to production of learning through class presentation which created positive and dynamic sharing time which the whole class learnt from all groups. This presentation not only broadened all students’ scope of learning but also developed their cognitive and affective learning, intensive sensitivity and consciousness of the issue.
Conclusions could be drawn from the findings as presented in the next part.

5. Conclusion and Discussion

Five conclusions which could be drawn from the results of this study lend support to theory and prior research study.

First, overall, YouTube videos significantly increased the subjects’ knowledge of sustainable management. The finding of this study was consistent to that of prior study [19][20][8] that using YouTube can be a useful way of capturing and maintaining student's attention and cognitively and affectively enhancing the overall learning process.

Second, the finding of this present study was consistent to those of the prior study that well-selected YouTube videos provide students with learning cues to support conceptualization through visualization and make learning more effective and memorable through the exposure to YouTube contents of all areas of study [7][13].

Third, this present study found that conscious exposure to YouTube contents enhances cognitive learning. This lent support to the prior study [8][55][56][57][58][59][60].

Fourth, this study found that the subjects had high positive attitude towards the uses of the videos for enhancing affective learning of sustainable management. This finding of this study was consistent with those of the prior study that YouTube captures the Net generation’s attention[19][44][46].

Fifth and lastly, this study found that the videos as a useful tool for enhancing students’ productive skills such as discussion and presentation of sustainable management meaningfully. This finding lent support to the prior study that YouTube made learning more enjoyable[44], facilitated learning[46], and created motivation and aspirations [19] successfully.

6. Limitations

The most significant limitation of this study is that it focused solely on one aspect of the issue of sustainable management. In order to remedy the shortfalls inherent in this research, the researcher is looking to replicate this study to educate more insightful learning of the issue.

7. Suggestions for Future Study

As this study focused solely on one issue (namely sustainable management), future exploration should replicate this study with more videos to educate another issue. Further exploration should also encourage effective methodological approaches, emergent innovation and newly launched videos of the issue under study to strengthen the existing knowledge of using YouTube as an educational tool.

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