

# A Development of Online Lessons of the Sufficiency Economy Philosophy for Sustainability of Learning

Ruedee Niyomrath <sup>1</sup>, Chaiwat Waree <sup>1\*</sup>

<sup>1</sup> Faculty of Education, Suan Sunandha Rajabhat University 1 U-Thong Nok, Wachira Dusit, Bangkok, THAILAND

\* CORRESPONDENCE: ✉ [chaiw\\_w@hotmail.com](mailto:chaiw_w@hotmail.com) [chaiwat.wa@ssru.ac.th](mailto:chaiwat.wa@ssru.ac.th)

## ABSTRACT

The goals are: to develop and discover efficiency of online lessons of online lessons of the sufficiency economy philosophy For sustainability of learning to meet with criteria at 80/80 and to study satisfaction level of students by using online lessons of online lessons of the sufficiency economy philosophy For sustainability of learning. The target group herein was 40 students who studied in Academic year of 2014 and interested in online registration. Target group was determined by using purposive sampling. Tools used in this research were 20 items of post-test contained in online lessons, student's satisfaction evaluation form towards online lessons usage. Data analysis was conducted to find efficiency of online lessons as defined by criteria at 86.50 / 86.00 and student's satisfaction level towards online lessons usage of 40 students. The obtained mean was 4.56 and standard deviation was 0.64. The results showed that the efficiency of online lessons of the sufficiency economy philosophy was at 86.50 / 86.00 that was higher than defined criteria at 80/80. In addition, Overall satisfaction of target group was in the highest level with the mean of 4.56 and S.D. at 0.64.

**Keywords:** online lessons, the sufficiency economy philosophy, sustainability of learning, higher education

## INTRODUCTION

"Sufficiency Economy" is a theory developed by King of Thailand over 70 years of tireless development work to enhance the lives of the Thai people and bring them lasting happiness. The objective of implementing the Sufficiency Economy Philosophy is stable development and to create abalanced, at all levels, from family, the individual and community to society at large and rapid changes in the material, social, cultural, and environmental conditions of the world. The principle of Sufficiency Economy stresses the importance of adopting the middle path for appropriate conduct by the population at all levels of society (individual, community, family and nation) in terms of development and administration in order to modernize in line with the forces of globalization. In other words, we should try to avoid extreme thoughts, actions and behaviors.

Nutnearn (2004) studied on operative documents of University's Courses Establishment and Development and found that utilization of Sufficiency Economy and leaning sources of university establishing courses was consistent with local demands in moderate level at 73.15%, in good level at 15.74%, and in low level requiring improvement at 11.11%. Simultaneously, utilization of university, learning sources, and Sufficiency Economy was in good level at 13.89%, in low level requiring improvement at 14.81% and in moderate level at 71.30%. University was able to develop and use leaning sources in moderate level at 70.37%, in good level at 19.44% and in low level requiring improvement at 10.19%. University was able to utilize

---

**Article History:** Received 27 April 2018 ♦ Revised 23 May 2018 ♦ Accepted 22 June 2018

© 2018 The Author(s). Open Access terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>) apply. The license permits unrestricted use, distribution, and reproduction in any medium, on the condition that users give exact credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if they made any changes.

Sufficiency Economy to manage learning in good level at 14.81%, in low level requiring improvement at 24.08% and in moderate level at 61.11%. From such data, it was found that university remained emphasizing on utilizing Sufficiency Economy for managing learning process in low level while Sufficiency Economy was necessary for readiness for exchanging cultures to become ASEAN community proudly and managing instructional process for sustainable development with identity while being able to conserve uniqueness of Thailand.

The Office for National Education Standards and Quality Assessment declared the 3 Education Criteria for Operation Excellence (2011-2015) consisted of basic indicator, identity indicator, and indicator of supporting measures in order to make university understood meaning, prepared readiness on data and collected data for the 3 Education Criteria for Operation Excellence. As a result, this study would like to provide additional meaning on such issue as follows:

Recognize refers to effects on learners according to philosophy, determination, mission, vision and goals of establishing university authorized by university's committees and its original subsidiary. Identity was an indicator caused by the 2 Education Criteria for Operation Excellence that inspected whether it was determined with philosophy, vision, determination, and mission of university only. In wise, all universities shall determined these things since they were established. For the 3 Education Criteria for Operation Excellence, it evaluated whether the learners possessed characteristics according to matters defined in determination, philosophy, vision, and mission. For example, if university defined it philosophy as "Knowledge and Morality", students or graduates shall have knowledge and public mind (ONESQA, n.d.).

Section 12 of Article 4, Educational Management Guidelines, of National Education Act B.E. 2542 stated that educational management for formal education, informal education and non-formal education must emphasize on knowledge, learning process, virtue and integration as proper of each educational level. In section 30, it stated that university must develop its instructional methods to be promote and effective its instructors to be able to conduct some researches for developing knowledge to suit with learner in each educational level (Royal Gazette, 1999).

Section 65 of National Education Act B.E. 2542 stated to develop personnel on both creators and users of educational technology in order to gain suitable, abilities on creating, quality knowledge and utilizing technology. Section 24 stated to provide learning process in university and provide content, related organizations and activities to be consistent with expertise and interest of learners by considering on individual difference, promoting and supporting instructors to be able to provide environment and gain knowledge as well as able to utilize researches as one part of learning and instructional media facilitating learners to start learning. Besides, teachers and students may learn together from instructional media and various types of technology sources.

WBI worked on internet system was able to communicate under Multi-user System with borderless. Students were able to receive and send electronics education data with no limitation on time and place. Besides, Students and teachers were able to communicate to each other and teachers were able to follow-up student's behaviors and educational record. Students were able to communicate among them, with teachers or experts, and knowledge hub. Besides, they were also able to receive and send electronic education data with no limitation on time and place. It could be said that any activity performed in classrooms can be performed in WBI on internet network from starting to graduation of students (Waree, 2014).

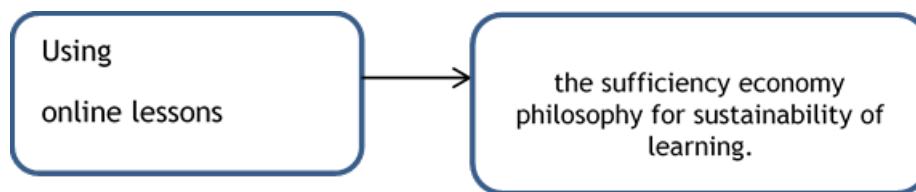
From such reason, the researcher was interested in utilizing innovation and electronic media to convey a development of online lessons of the sufficiency economy philosophy for sustainability of learning.

## OBJECTIVES

To develop online lessons of the sufficiency economy philosophy for sustainability of learning to gain efficiency at 80/80 and achieve better level of student's satisfaction.

## HYPOTHESIS

Online lessons of the sufficiency economy philosophy for sustainability of learning had efficiency level at 80/80 according to standard criteria and student's satisfaction level towards online lessons of the sufficiency economy philosophy for sustainability of learning was in high level.



**Figure 1.** Research framework and concept

## SCOPE OF RESEARCH

Populations used in this research was consisted of 2,450 students who were students of Suan Sunandha Rajabhat University in all years.

Target group used in this research on online lessons of the sufficiency economy philosophy for sustainability of learning was consisted of 250 students who were students of Suan Sunandha Rajabhat University in all years obtained by using purposive volunteer sampling.

## DEFINITIONS

1. Online lessons means a web-based lesson promoting the sufficiency economy philosophy in the online of students and anyone interested. Its contents are ordered in ordered from easy ones to difficult ones plus with practice and its answers in order to enable the students to know their results immediately. The students can learn by themselves upon their personal abilities.

2. Efficiency of Online lessons means capabilities of the web-based lesson in building the learning achievement of the target students from Faculty of Education, SSRU in order to enable them to obtain learning according to determined criteria of 80 / 80.

The former 80 means efficiency of processes evaluated from the student's scores obtained from doing practices of each lesson during the class that is averagely 80%.

The latter 80 means efficiency of the result evaluated from the scores of students for their post-test that is averagely 80%".

3. Sufficiency has three components: moderation, reasonableness, and self-immunity, with two accompanying conditions: appropriate knowledge and ethics & virtues.

4. Satisfaction of students means the feeling of students toward learning by using online lessons of the sufficiency economy philosophy for sustainability of learning. This satisfaction was measured by using 10 items of Satisfaction Questionnaire upon the likert's 5 rating scales.

## RESEARCH FRAMEWORK AND CONCEPT

Research framework and concept is shown in **Figure 1**.

## RESEARCH PROCESS

1. Studied papers and researches as well as studied from philosophers through interview and focus group in order to synthesize sufficiency economy philosophy. Subsequently, the obtained results were classified and arranged systematically in bi-language format (i.e., Thai and English) and created in the form of online lessons.
2. Submit developed online lessons of the sufficiency economy philosophy for sustainability of learning to experts for inspection and improvement.
3. Tried out improved online lessons of the sufficiency economy philosophy for sustainability of learning with students who were not target group for further improvement and public relations.
4. Students who were target group studied created online lessons of the sufficiency economy philosophy for sustainability of learning and took pre and post test. Subsequently, satisfaction of students was evaluated after their usage of online lessons of the sufficiency economy philosophy for sustainability of learning.

**Table 1.** Mean, Standard Deviation, and Satisfaction level of Students Towards online lessons of the sufficiency economy philosophy for sustainability of learning

Item	Assessment List	mean	S.D.	Satisfaction Level
1	Explanation of the sufficiency economy philosophy was clear and understandable.	4.38	0.65	High
2	Students understand contents of the courses.	4.33	0.67	High
3	Procedures of the sufficiency economy philosophy were clear and appropriate.	4.78	0.56	Highest
4	Lesson starter was appropriate.	4.67	0.64	Highest
5	Activities were appropriate and interesting.	4.6	0.8	High
6	Conclusion was appropriate.	4.73	0.56	Highest
7	Students were the center with participation.	4.4	0.7	High
8	Students were able to ask what questions with teachers.	4.27	0.69	High
9	Tests and practices were appropriate.	4.55	0.71	High
10	Students required the sufficiency economy philosophy obtained from online lessons in other subjects.	4.84	0.42	Highest
Overall Assessment		4.56	0.64	High

- a. Tested students with test review of 3 online lessons. The obtained scores were collected as scores of formative evaluation.
  - b. 20 items of achievement test on online lessons were tested with students and the obtained scores were collected as scores of post-test.
  - c. 10 items of satisfaction evaluation form towards online lessons were commented by students.
5. The results were checked and the obtained scores of pre and post test were analyzed by using statistics in order to find efficiency at 80/80.
  6. Student's satisfaction after using online lessons of the sufficiency economy philosophy for sustainability of learning was analyzed and concluded.

## CONCLUSION

1. From development and try out of online lessons of the sufficiency economy philosophy for sustainability of learning, it was found that it was suitable and efficient according to defined criteria calculated to be 86.50 / 86.00 when utilizing with 40 students who were target group that was consisted with defined hypothesis.
2. From try out of online lessons of the sufficiency economy philosophy for sustainability of learning, it was found that efficiency of process (E1) provided in tests was calculated to be 86.50% and efficiency of results (E2) was calculated to be 86.00%. These online lessons of the sufficiency economy philosophy for sustainability of learning had higher efficiency than 80/80 as defined therefore it could be concluded that these online lessons had high efficiency as defined by criteria and they were able to be used for classroom instruction efficiently.
3. From the results of student's satisfaction towards learning with online lessons of the sufficiency economy philosophy for sustainability of learning, it was found that overall student's satisfaction towards instruction using online lessons was in the highest level, i.e., students had overall satisfaction towards online lessons in high level with mean of 4.56 and item 10 was gained the highest satisfaction level of students. Average demand of students on creating online lessons for other subjects was 4.84. For other evaluations, most of them had high level of satisfaction.

From **Table 1**, it was found that students who studied through online lessons had high level of satisfaction with the mean of 4.56 and Standard Deviation of 0.64. Students required the sufficiency economy philosophy obtained from online lessons in other subjects. and they also had the highest level of satisfaction with the mean of 4.84 and Standard Deviation of 0.42. When considering on each item, it was found that most students had satisfaction in high level.

## DISCUSSION

### Discussion on Development and Utilization of Online Lessons

From development and utilization of the sufficiency economy philosophy for sustainability of learning, the results could be discussed as follows:

Development and utilization of online lessons was successful and efficient as expected because the research had studied on process of making online lessons from several theories and concepts through studying on related papers and analyzing lesson's content from curriculum, determination of behavioral objective, planning of creation and development. Besides, the researcher was also supported by some content experts and their comments on index of consistency among issues, objectives, learning standard of curriculum, finding on accuracy of tools, and finding of confidence level, were assembled as a tool for creating and developing online lessons of the sufficiency economy philosophy for sustainability of learning. As a result, such online lessons were able to be created and developed successfully. Besides, they were also able to be used and publicized to other instructors in other universities that was consistent with a research of Suntornprasert (2004) stated that instruction with online lessons was able to develop students to be more confident with themselves and learn lessons with their potential leading to higher level of achievement. Besides, online lessons also developed students in both cognitive domain and affective domain efficiently because they enabled students to learn and understand contents of lessons through repeated reading. Besides, it was also found that online lessons were able to adjust learner's behavior to seek knowledge, realize, and see value of learning providing good cognitive skills to learners if such online lessons were developed by content expert and expert on online lessons correctly and systematically according to principles.

Efficiency of these online lessons was in high level as expected at 86.50 / 86.00 due to creation and development of such online lessons. The researcher studied on basic data and analyzed work, contents, learners who were target group, and behavioral objectives prior planning on creation and development to meet those behavioral objectives under explanation and suggestions of content expert for inspecting accuracy of contents, language correctness, appropriateness of design, instructional methods, and presentation. Subsequently, the obtained lessons were improved, developed, and tried out with a small student group in order to find further faults for additional improvement and development prior performing field tryout with 40 students. The results showed that efficiency of online lessons was 86.50 / 86.00 that was satisfying and met with expected hypothesis.

Student's satisfaction towards online lessons of the sufficiency economy philosophy for sustainability of learning was in high level for all items because the research studied on psychology of learning of learners before planning creation of online lessons. Subsequently, the obtained results were planned for creation and development of complete online lessons that was consistent with work of Ingrattanakorn (1988) who studied on developing computer program for remedial mathematics teaching on matrix and linear equation of 4th year students of Faculty of Agricultural Technology. The results showed that learners had higher level of achievement than before with good attitude towards mathematics learning by using computer.

### Discussion on Distinctiveness of Online Lessons of the Sufficiency Economy Philosophy for Sustainability of Learning

Distinctiveness of online lessons of the sufficiency economy philosophy for sustainability of learning was as follows:

Distinctiveness of online lessons of the sufficiency economy philosophy for sustainability of learning was analyzed on its content prior preparing its tests therefore it was complete according to academic principles. Moreover, the researcher also studied and researched on concepts and theories for creating and developing online lessons from reliable data sources of papers and websites therefore data used in this research was updated and correct upon academic principles completely. For report writing, utilization, and development, it was prepared by the researcher by considering on language principles upon defined contents and curriculum. It was prepared in the same system either system of writing topic title or reference system in bibliography.

The researcher prepared the report on the results of development and utilization of online lessons by developing, improving, and correcting under suggestions of experts as well as presented it in 5 chapters of research including introduction, background and significance, related papers, concepts, theories, and researches, research process, and results of development and utilization.

For utilizing concepts for creativity, the researcher studied on concepts and theories obtained from learners and comments obtained from specific experts on educational technology. Besides, the research also participated in several trainings in order to collect experiences for gaining new knowledge on applying computer technology to learning of students. As a result, this innovation was created that was considered as the ultimate benefit for educational management. Consequently, after tryout of this innovation, it was admired and accepted by several instructors.

Typing, format, and correctness of this report and developed media according to academic principles was also another distinctiveness greatly considered by the researcher because correct, beautiful and orderly typing was an indicator reflecting quality and efficiency of the researcher. Besides, it also fostered orderliness for passing on and fostering to researcher's students.

This instructional media on online lessons of the sufficiency economy philosophy for sustainability of learning was a contribution developed by the researcher in all procedures from initiating concepts of development and analysis on contents to test design, finding efficiency of created test, writing conceptual framework, considering on theory and psychology of learning before tryout. The obtained results were publicized to other instructors in various places and it was found that most instructors had positive respond to this innovation. They commented that this online lesson was useful for academic advance and able to be used as a model on applying it as electronic innovation in the future.

40 students who used online lessons of the sufficiency economy philosophy for sustainability of learning had higher grades exhibited that online lessons were efficient and beneficial for learners.

### ACKNOWLEDGEMENTS

This research was supported by Suan Sunandha Rajabhat University. Special thanks you to all experts and students of SSRU who helped and supported this project.

### Disclosure statement

No potential conflict of interest was reported by the authors.

### Notes on contributors

**Ruedee Niyomrath** was born in Bangkok, Thailand. Her research interests cover the Education Technology, History and Art Science.

**Chaiwat Waree** is a Lecturer at Faculty of Industrial Technology, Suan Sunandha University and External assessor for Office of the Higher Education Commission, TH.

### REFERENCES

- Ingrattanakorn, S. (1988). *Development of Computer Program Assisted Instruction on Matrix and Linear Equation*. Bangkok Kasetsart University.
- Nutnearng, A. (2004). *Administration Model for School Development of the Basic School Board Members*. Phitsanuloke: Naresuan University.
- ONESQA. (n.d.). The Office for National Education Standards and Quality Assessment [Online]. Available at: <http://www.onesqa.or.th>
- Royal Gazette (1999). National Education Act B.E. 2542. Book No. 116, Part 74 Kor, pp. 21–29.
- Suntornprasert, S. (2004). *Guidelines for Creating Instructional Innovation and instructional Module Ratchaburi*. Thammarak Printing.
- Waree, C. (2014). *A Development of online lessons of Suansunandha local wisdom for preparing readiness for ASEAN*. Bangkok: Rajabhat Suan Sunandha University.

