

Research Article

AN INSTRUCTIONAL INNOVATION TO STRENGTHEN COMPREHENSIVE HUMANIZATION FOR HIGHER EDUCATION STUDENTS: SOFT SKILLS FOR THE DIGITAL SOCIETY

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Abstract

This article presents the results of applying an instructional model designed to strengthen comprehensive humanization for higher education students by using CELER Model. The CELER Model consists of five steps in the process, including 1) Creation of atmosphere (C), 2) Experience review (E), 3) Learning for living (L), 4) Empowerment (E), and 5) Reflection (R). Results of applying the CELER Model indicated that the emotional characteristics of comprehensive humanization led to a more positive attitude to other people. The CELER Model post-test ($M = 4.31$, $SD = .37$) was higher than the pre-test ($M = 3.96$, $SD = .40$) with statistical significance at .05. Most of the students were completely satisfied and very satisfied by the CELER Model in every course outline, especially Course Outline 4, which showed that the students were completely satisfied in every step. When examining each step, it was reported that 84.38 percent of students were completely satisfied ($M = 4.84$, $SD = 0.36$) in Learning for living (L), which was higher than that of other processes. The results from opinion surveys and focus group discussions of the students showed that the model could strengthen positive attitudes, understanding oneself and others, working with others smoothly, creative thinking and problems solving in complicated situations. These characteristics are soft skills which are significant in the 21st century skills.

Keywords: Instructional Innovation, Soft Skills, Social Studies Pre-Service Teacher, Humanization, Digital Society, 21st Century Skills

Introduction

Humankind in digital society needs to reconsider the definition of education. Because of technological advancement, educational institutions have developed close relationships with the economic and social system. They tend to focus on developing humans for the industrial system, rather than on creating graduates who are well-rounded in their body, emotional and cognitive aspects. Moreover, the emphasis on industry causes environmental degradation, as there is a general lack of awareness of using natural resources. As well, there is a lack of understanding

of themselves and others, and bullying is widespread (Sindhuprama, n.d.; Department of Mental Health, 2018). Many of these problems are caused by western notions of economic competition, rather than seeing education as a path for humanistic earning and helping each other (Mangkhang, 2017, p. 9; Rukspollmuang, 2014, p. 2). Academicians are now attempting to achieve a balance and developing an educational management model that promotes a holistic education that can deal with and solve problems in the modern world. In addition to the development of hard skills, 21st-century education trends need to focus on soft skills, spiritual development, morality and ethics as well as the shared consciousness of living with others in society (Wongkitrungruang & Jittarerk, 2013, pp. 39-50). Presently, these soft skills are needed in the labor market, since soft skills promote good relationship, quality teamwork in the organization, creative thinking, the ability to develop work, leadership and problem solving (Cobo, 2013; Dixon et al., 2010; Robles, 2012; Inta, 2019).

From these and other issues, the researcher decided to focus on students who were bound for the teaching profession by developing a comprehensive humanization curriculum. Ideally, this curriculum would develop characteristics of understanding of themselves and the others. It would further develop respect for cultural diversity, gender equity and human rights. Also, it would have a conscience and be public-minded and would respect nature (Phra Promkunaporn, 2013; UNESCO, 2015; The Earth Charter, 2019; Royal Thai Government Gazette, 2019). Along with the development of these soft skills, it would also develop guidelines to solve problems of sustainability. "Pre-service teachers", in other words, should be regarded as the key to the future, as creators of knowledge, and cultivators of students' behaviors.

In brief, teachers must support and strengthen the quality of citizens in the digital age. And the subject matter that most readily lends itself to this mission is Social Studies. That is, the methodology of teaching Social Studies focuses on knowledge integration related to living together in society. This mandate follows the Announcement of the Ministry of Education (Royal Thai Government Gazette, 2019, p. 8) about Thai Qualification Framework for Higher Education, Department of Education, which is clearly stated in the section of general education as a program that strengthens comprehensive and knowledgeable humanization, including an understanding and appreciation of oneself, others, society, art, culture and nature. The student should be a valuable citizen of Thailand and the world.

Strengthening the comprehensive humanization characteristics for Social Studies student teachers would help create the qualification of change agent of Social Studies class in the 21st century. For that reason, the researcher presented the instructional model to strengthen comprehensive humanization for higher education students like CELER Model which the researcher had developed. The CELER Model consists of 1) Creation of atmosphere (C), 2) Experience review (E), 3) Learning for living (L), 4) Empowerment (E), and 5) Reflection (R). These five steps have to be done step by step for the purpose of strengthening various characteristics to the students continuously and efficiently. The researcher also presented the results of CELER Model application in order to improve instructional models in Social Studies institutions and to adjust 'students' attitude in the digital age and increase awareness of social dynamics. This improvement could be applied to student teachers in other fields of study as well as students in other professions in higher education. Such improvements would improve the quality of citizens living together peacefully and sustainably.

Research Objectives

1. To create an instructional model to strengthen comprehensive humanization for higher education students
2. To examine the results of applying the instructional model to strengthen comprehensive humanization for higher education students

Research Methodology

The research applied Research and Development (R&D) by using mixed method research between quantitative research, qualitative research, and Participatory Action Research (PAR).

Step 1: Analyze key concepts of humanistic learning. These include;

- 1) analyzing relevant theories and studies of human development, such as Transformative Learning, Contemplative Education, Neo-Humanist and Andragogy to synthesize and classify development guidelines.
- 2) Employ survey methods of learning management which could create comprehensive humanization characteristics. The study surveyed 28 students of the development group and 32 students of the target group with open-ended questions, for designing activities in course outlines. The researcher then analyzed the data with content analysis.
- 3) Create the CELER Model manual for a CMU course entitled "Man and Environment and Sustainable Development. This entailed a total of 6 course outlines with 45 hours in total. Characteristics of comprehensive humanization in behavioral, emotional and cognitive areas appeared in course outline 1-6 according to guidelines synthesized in process 1 and 2. Analyze percentage and examine Item Objective Congruence (IOC) of course outline from 9 experts. The values were between 0.78-1.00 which could be further applied in instructional management.

Step 2: Model implementation and development with these procedures, including 1) creating a measuring tool for comprehensive humanization characteristics of the learners in CELER Model pre-test and post-test by using a rating scale and situational test. Examine Item Objective Congruence (IOC) from 9 experts resulting in values between 0.78-1.00 which could be used for measurement. Then, apply the tool to the 28 students of the development group who were similar to the target group with Cronbach's coefficient; 2) Implement the model with the development group who had enrolled in Man and Environment and Sustainable Development in the second semester of the academic year 2017 with Participatory Action Research (PAR) for one semester.

Students of the development group brainstormed the instructional model. Together, they evaluated the Strengths, Weakness, Opportunities and Threats (SWOT Analysis) of each course outline and designed and developed activities of the model for completion; 3) discuss with students of the development group to take the data for model improvement; 4) take results from the development group for the complete model improvement before implementing with the target group; 5) create a satisfaction evaluation in 5 levels due to Likert Scale. Create open-ended survey and question framework for focus group discussion to use with students of the target group after testing CELER Model.

Step 3: Implement the instructional model to strengthen comprehensive humanization for higher education students with 32 students of the target group. They had enrolled in Man and Environment and Sustainable

Development in the Second Semester of Academic Year 2018. The processes consisted of 1) students evaluated a rating scale and situational test before testing CELER Model; 2) implement CELER Model with students of the target group until the end of the semester; 3) students evaluated a rating scale and situational test after testing CELER Model; 4) students evaluated satisfaction evaluation about CELER Model in each course outline, a total of 6 course outlines; 5) students evaluated an open-ended survey after testing CELER Model by writing; 6) students grouped themselves for 5-6 people for focus group discussion after testing CELER Model.

Step 4: Examine the results of applying CELER Model and present results of the application. Tools used in the results were the manual of instructional management with a complete CELER Model, rating scale, situational test, satisfaction evaluation, an opinion survey, and focus group discussion. Students of the target group evaluated a rating scale and situational test of both CELER Model pre-test and post-test by analyzing the data with t-test statistic value at .05. On the contrary, they evaluated satisfaction evaluation only after implementing the CELER Model with percentage. These three measurement methods were evaluated using online. Besides, the students evaluated the opinion survey after testing CELER Model by writing their opinions, both pre-test and post-test of CELER Model and analyzed the data by content analysis. For focus group discussion, the researcher analyzed the data by transcribing voice in word by word, systematized the data, and presented the data in an essay.

Research Findings

1. Results of improving the instructional model to strengthen comprehensive humanization for higher education students by using Participatory Action Research (PAR) with 28 students of the development group could be summarized in Figure 1 below:

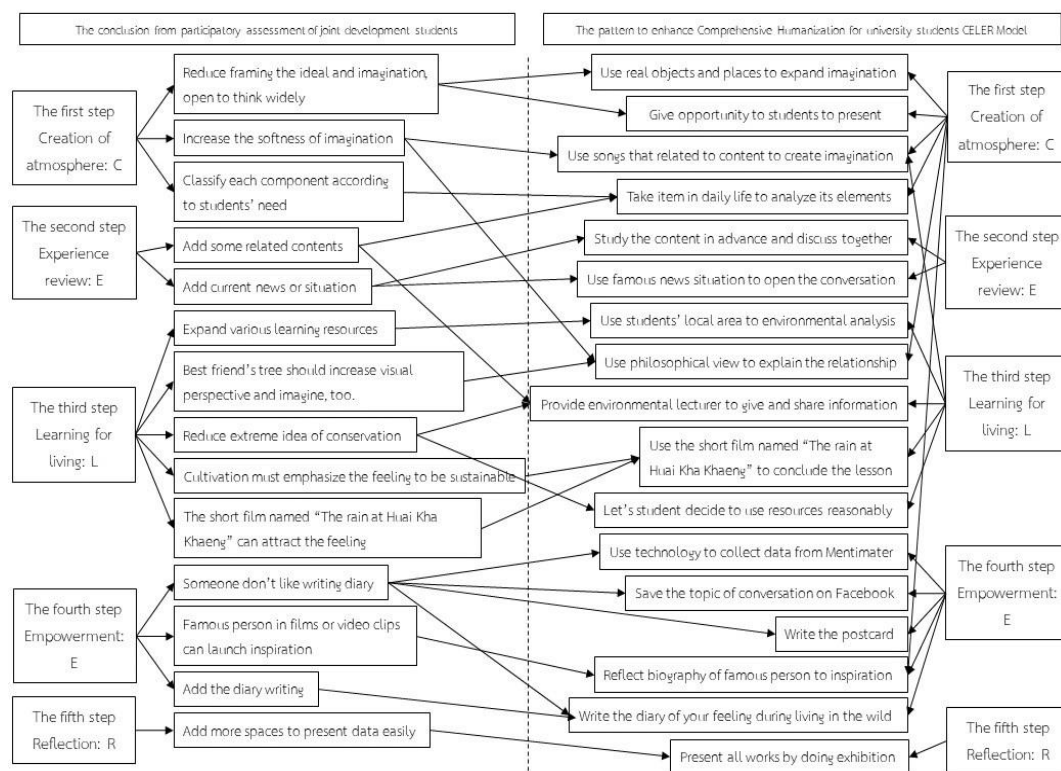


Figure 1 presents the improvement of CELER Model

According to the picture, the students proposed that in Creation of atmosphere (C), procedures to frame the questions should be reduced. Experience review (E), more news or situations related to the lesson should be increased to help deeper understanding. The students further suggested that in Learning for living (L), various learning areas should be increased and extremism of environmental conservation should be reduced. Besides, in the process of Empowerment (E), the use of the idol should be increased to create inspiration and empowerment. At this point, the successful idols use all their endeavor to achieve their goals; a good result caused from their achievements makes us want to do the same things as they do. Lastly, the students needed to increase various spaces to publicize their works, as presented in the process of Reflection (R). However, according to the focus group discussions, the students reflected that "...those methods made me interested in the surrounding environment. By doing activities, it is the chance to make interaction with friends that practices me to learn to accept different opinions, open mind to learn from others' attitude..." According to the discussion, most of the students quite obviously reflected soft skills which were enduring behaviors more than behaviors in other aspects.

2. The instructional model to strengthen comprehensive humanization for higher education students (CELER Model) could be presented in Figure 2 below:

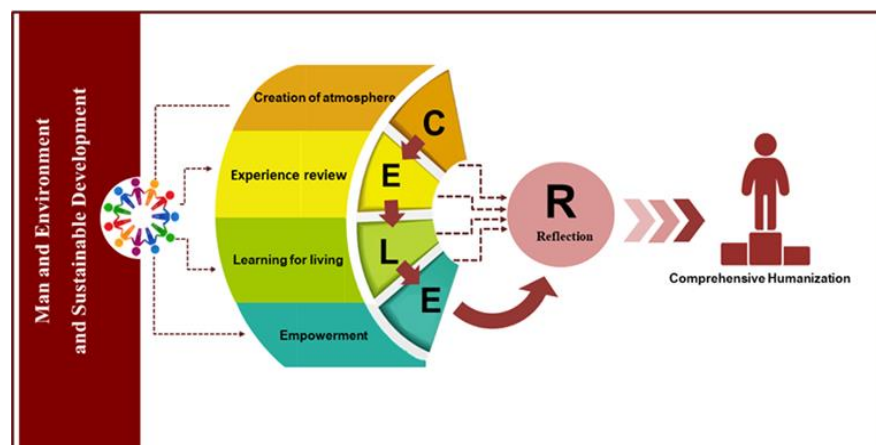


Figure 2 shows the instructional model (CELER Model)

The process of instructional management with the CELER Model consisted of five processes. The processes include 1) Creation of atmosphere (C): relaxing atmosphere should be created with no pressure, together with a positive learning community; 2) Experience review (E): this process should be started after creating a positive atmosphere to support new exchanges of knowledge and challenge for the learners; 3) Learning for living (L): after the learners receiving knowledge and experiences in the classroom, they should receive direct experiences to create enduring knowledge and strengthen various skills; 4) Empowerment (E): for learning and accumulation of experiences, the learners should think over themselves to create a valuable area inside their mind; and 5) Reflection (R): summary of knowledge synthesized within the learners by creating works. According to the reflections of Participatory Action Research (PAR) with students of the development group, the reflections presented guidelines that, "...each step should be ordered sequentially because some steps need to learn before running the next level smoothly, for example, Experience review (E) that is the step of contents connecting other steps. By this, Creation of atmosphere (C) should list

at the first step of learning in each lesson because it helps the learners understand themselves and the others, as well as creating confidence to present information in other steps..."

From the focus group discussion of students of the development group, the researcher has the guideline to order the teaching process sequentially that able to strengthen behavior, emotional and cognitive skills. Moreover, the results showed that students had soft skills.

3. Results of the comprehensive humanization characteristics of the higher education students from rating scale and situational test in behavioral, emotional and cognitive were not different from CELER Model pre-test with statistical significance at .05. However, when classifying the emotional characteristics in details from rating scale, the analysis showed that positive attitude to others after participating in the activity ($M = 4.31$, $SD = .37$) was higher than pre-participation ($M = 3.96$, $SD = .40$) with statistical significance at .05. Meanwhile, emotional characteristics about discrimination of right and wrong for post-participation ($M = 3.88$, $SD = .64$) was lower than pre-participation ($M = 4.38$, $SD = .35$) with statistical significance at .05. The results were presented in the table below:

Table 1 presents the analysis of the emotional characteristics from a rating scale

Variables		Paired Differences					<i>t</i>	df	<i>p</i>
		<i>M</i>	SD	Sd Error Mean	95% Confidence				
					Interval of the				
					Lower	Upper			
Having a positive attitude to others	Before	-.35	.45	.08	-.56	-.23	-4.87*	31	.00
	After								
Having a public mind	Before	.16	.65	.11	-.07	.40	1.42	31	.16
	After								
Discrimination of right and wrong	Before	.50	.69	.12	.24	.75	4.05*	31	.00
	After								
Having morality and ethics	Before	-.07	.58	.10	-.28	.13	-.70	31	.48
	After								

Results of focus group discussion showed that the students reflected their emotional changes after participation in the activity of CELER Model that, "...I like to do an activity which made me learn and understand my friends better and raise positive attitude to those friends..." Additionally, the results of some learners indicated that they paid more attention to answer the questionnaire based on the truths.

Discussion

The conclusions from 1st objective, 1) creation of an instructional model to strengthen comprehensive humanization for higher education students has five processes, including 1) Creation of atmosphere (C): the instructor designs a classroom as a positive learning community to make the learners feel relaxed, dare to express opinions with no pressure and be able to use their imagination. Panich (2015, p. 30; 2016, p. 141) argues that learning through understanding others would happen powerfully in a free atmosphere. The concept follows Contemplative Education and Neo-Humanist that understanding and real acceptance self both positive and negative ways are an important basis for changing oneself, resulting in self-perception of ourselves and the others (Ninchaikowit, 2012; Amatyakul, 2013; Leelaswatanakij, 1999). From the reasons above, the researcher then focused on creating a social atmosphere in the classroom to create positive feelings before taking action in the next process; 2) Experience review (E): the instructor uses various reflective activities suitably with the contents that are the aims of the learning. At this point, the researcher arranged the activity according to the mechanisms of transformative learning in four ways consisting of 1) activate prior knowledge, 2) learn new meaning, 3) change original meaning, and 4) change the frame of definition (Panich, 2015, p. 31, 88). These four ways could be used to examine reasons for making a decision, rather than absorbing beliefs, feelings and other's decision as one's own; 3) Learning for living (L): this learning process focuses on direct experiences. This is related to Experimentalism which believes in human and environment relationship causes the accumulation of experiences that could be changed according to social dynamics and contexts (Sinlarat, 2013, pp. 57-59). To support that belief, the researcher arranged three nature field trips for the students and asked the students to arranged the nature field trips themselves for more than five times from their nearby areas, such as taking photos for describing interspecies interactions, a forest field trip in northern Thailand, etc. All of these activities based on Contemplative Education which emphasizes on good conscience and realization of individual's responsibility towards humankind and all things in nature (Ninchaikowit, 2008, p. 3); 4) Empowerment (E) is the process of reflective thinking from what the learners have learnt and internal changes as well as inspiration for adjusting daily life suitably, such as descriptive writing, storytelling, roleplay, etc. This is related to Panich (2015, p. 192) who stated that transformation would happen when a person opens up his previous experiences with Mezirow's Critical Theory which concentrates on positive interaction with the reality at present, causing the learners to have deep awareness; 5) Reflection (R): summary of knowledge synthesized all from inside of the learner by creating works to publicize and exchange with others, such as works created from projects, inventions, short stories, photos, etc. As Andragogy states about the role of learners' experiences that when the learners grow up with the accumulation of knowledge, learners then focus on learning gained from experience rather than being fed by the education (Knowles, 1980, pp. 43-44).

The results of applying CELER Model reflected holistic strengthening to learners. However, according to changes of learner's characteristics reflected from the focus group discussion of CELER Model post-test, the learners had emphasized that behavioral changes have to use for a period of time. Most of learners reflected emotional and cognitive changes in a positive way, and CELER Model could strengthen soft skills as well.

The conclusions from 2nd objective, 2) results of applying CELER Model, the researcher summarized and discussed that emotional characteristics on positive attitude to others could affirm that CELER Model helps the learners to have a positive attitude to others and can strengthen soft skills. Whereas, the emotional characteristics on

discrimination of right and wrong, the researcher presumed that after completing the instructional management process, the learners would read the assessment carefully and be honest for evaluating their behaviors. According to the outcomes of focus group discussions, the students reflected that CELER Model post-test caused them to have consciousness in analyzing the questions and answers to consider themselves deeper. The students, hence, paid more attention to answer the questionnaire truthfully than answering the questionnaire of CELER Model pre-test. The students reflected soft skills as well. When considering satisfaction evaluation, it reported that most of the students completely satisfied and very satisfied in every course outline as seen in Course Outline 4: Environmental Education with Citizen Development, students completely satisfied every process. By this, Learning for living (L) presented that 84.38 percent of students completely satisfied ($M = 4.84$, $SD = 0.36$), which was higher than other processes. That is to say, the researcher asked the learners about their needs for learning before designing activities of CELER Model which every step is related to adult learners. As Andragogy has stated that adult learning is different from child learning in four issues, including 1) concept of learner: adults need for self-reliance; 2) role of learners' experiences: when learners have much knowledge, learners then prefer learning gained from experience to education; 3) readiness to learn: adult learners want to learn when they must use information and knowledge for enhancing their life; 4) orientation to learn: adult learning depends on their current problems rather than learning for using knowledge in the future (Knowles, 1980; Saksung, 2009; NSTDA, 2015).

According to the data above, it points out that CELER Model can adjust characteristics of Social Studies teachers in transferring habits and desirable qualifications to the learners for living together in the digital society. This instructional innovation would help institutions of Social Studies teachers across the country to reshape their teaching according to Social Studies Teacher Qualification Framework to be in accordance with Thai Qualification Framework for Higher Education, Department of Education. However, preparation for Social Studies teachers is a mechanism of reforming Social Studies classroom which has to adjust the teaching in society, culture, beliefs and roles of social institutions, to give new definitions for together sorting out solutions to digital citizens. Results of implementing CELER Model also found that it can strengthen soft skills. That is to say, soft skills are very significant for labor market in nowadays. The teaching profession, at the same time, applies soft skills as well, since qualification requirements for modern teachers are not only teaching well or having good teaching techniques, but the society and institutions also require teachers with soft skills rather than hard skills. For the reason that the teachers must have great faith in the profession, patience, honesty, friendliness, appropriate adaptation to works, love and kindness to the students, politeness, honor to the students, support and encouragement to the students with sincerity and equality. Artificial Intelligence (AI) cannot invent these qualifications like "Teacher" as a human.

Finally, this research has confirmed the social theory that instructional innovation is one practice of human, which is used as regulations for human coexistence. In other words, soft skills are regarded as a culture since humans develop technology for convenience and create alternatives for interactions. Still, they ignore the environment and spirit of all things. Technology alone is not a solution. Soft skills, thus, will be the goal for characteristics of comprehensive humans in living together in the digital age efficiently and sustainably.

Suggestions

1. Suggestion for Application of the CELER Model: The CELER Model is applied very well for 32 students by one instructor. By this, the instructors should adjust their teaching and learning activities to suit the learner's nature and the contents of the subject, to take care and give advice to learners throughout their schooling. At this point, the instructors should be friendly to the learners, open-minded to differences and the various opinions of the learners and avoid pressure in the classroom to create an atmosphere which supports learning and promotes change.

2. Suggestions for research: to conduct additional research, the CELER Model for primary and secondary education students should be further developed. This is to strengthen comprehensive humanization from childhood onward, to adapt themselves to a multicultural society and be ready for higher education in the digital society. In terms of evaluation, instructors should study methods of evaluation related to learners' ages. Rating scales and situational tests should be continuously developed during the implementation of the CELER Model. Such tests might reveal more differences rather than the evaluation of pre-test and post-test only.

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