

Instructional Design of Flipped Classroom using Active Learning Technique through ICT for Enhancing Learning Skills Based on Cross-Cultural Understanding for Higher Education Students

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Abstract— The study aims 1) to design flipped classroom instruction using Active Learning Technique through ICT to enhance learning skills based on cross-cultural understanding for higher education students, 2) to develop the flipped classroom instruction through ICT and 3) to evaluate the new flipped classroom instruction using Active Learning Technique through ICT to enhance learning skills based on cross-cultural understanding for higher education students. The evaluation of the new flipped classroom instruction was conducted by 7 experts, 3 in the field of Education and 4 in the field of Information Communication Technology in Education and related fields. Research instrument was an evaluation form of flipped classroom instruction using Active Learning Technique through ICT to enhance learning skills based on cross-cultural understanding for higher education students. Data was analyzed using content analysis, percentage, mean and standard deviation.

The results showed that the newly-designed instructional model consists of 1) flipped classroom, 2) Active Learning technique, 3) ICT and 4) learning skills based on cross-cultural understanding for higher education students was found highly appropriate ($\bar{\mathbf{x}} = 4.4$, S.D.= 0.6). Considering individual aspect, it was found that 1) the appropriateness of the flipped classroom was rated at high level ($\bar{\mathbf{x}} = 4.23$, S.D.= 0.59, 2) the appropriateness of the Active Learning technique was rated at highest level ($\bar{\mathbf{x}} = 4.60$, S.D.= 0.41), 3) the appropriateness of ICT was rated at highest level ($\bar{\mathbf{x}} = 4.60$, S.D.= 0.58) and 4) learning skills based on cross-cultural understanding for higher education students was rated at high level ($\bar{\mathbf{x}} = 4.30$, S.D.= 0.58).

Keywords— Flipped Classroom, Active Learning, ICT Technology, Cross-Cultural, Higher Education Students.

I. INTRODUCTION

Education management in the 21st century by using active learning model is an innovation in higher education which the higher education institution has paid attention and focus according to education reform policy that focuses on the learners (Child center), focus on higher order learning skills [1] And in the present, the classroom management that is appropriate for the Active Learning is Flipped Classroom [2] which changes lecturing time in the classroom to be used in various learning activities to solve problems and application. The lecture will be in other channels such as video, online videos, others ICT technologies, etc. Which students can access at home or living in their own local community. Therefore, homework that has been assigned to students practicing themselves outside the room will become part of the classroom activities and vice versa the content that has been lectured in the class will be transferred to the students using ICT technology which students can read-listen at home or anywhere the learner lives. The learners do not have to leave the local community and forget their own traditions and culture [3-4].

For the reasons and importance mentioned above, the researcher therefore studied and design flipped-classroom instruction using active learning techniques through ICT technology to enhance learning skills based on cross-cultural understanding for higher education students who have residents, communities that are different in culture, tradition, race, language, religion and beliefs. Hoping that the teaching model will benefit the country's education system and the future of ASEAN citizenship.

II. REVIEW OF LITERATURE

Thailand has an official name as "The Kingdom of Thailand" is a national state located in the Indochina and Malay Peninsula in Southeast Asia. Thailand is the 51st largest in the world with an area of 513,115 square kilometers. Thailand shares border with Laos and Cambodia to the east, Malaysia and the Gulf of Thailand to the south, Andaman sea and Myanmar to the west, Myanmar and Laos to the north with Mekong river floating through the border in some area, has Bangkok as a central administration. Thailand is divided into six regions, 76 provinces. Thailand has a population of 20th in the world, about 66 million people. Which, from the condition that the geographical advantage is fertile and the economic center of ASEAN making Thailand a citizen with a wide range of ethnic, linguistic, religious, customs and way of life especially in areas adjacent to neighboring countries, such as provinces in the upper north citizens consist of Thai Lanna, Thai hill tribes. In the northeast, some provinces such as Si Sa Ket, Buriram, some sub-districts have tribes with Khmer descent and tribute to live with the Isan people. And for the southern region, such as the lower southern region, Songkhla, Pattani, Yala, Narathiwat and Satun, there are Thai-Malay

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descent living with southern Thai people and Thai-Chinese. On the western side of the country, there are boundaries adjacent to the Burmese border, such as Kanchanaburi, Ratchaburi and Phetchaburi. There are Burmese, Mon, Karen and Lao people living together with Thai people. Or even in the central provinces, such as Samut Sakhon, Samut Songkhram, there are also many migrant workers from Burma, Cambodia and Laos live together with Thai people. [5]

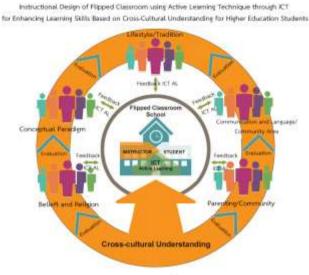
Thailand by the Thai government in cooperation with ASEAN in strengthening and prosperity in the region both economically Politics and security as well as society and culture that are in line with the ASEAN Charter and the policies of the Thai government in strengthening good relations with ASEAN member countries by using "education" as the main mechanism to drive development to be an important foundation for enhancing prosperity in all aspects [6]

From the geography, society, community and ethnicity of citizens who live in Thailand causing differences in languages, religions, values, beliefs, and traditions and culture. From the differences mentioned make the school, teachers and related persons have to find ways to manage teaching and learning in response to the government's policies. Nowadays, education management in general schools is not much emphasis on differences in ethnic groups or cultural differences. Because in the teaching and learning process, most educational institutions often provide instruction based on the intermediate curriculum with content and teaching activities that emphasize the application of the local way of life, traditions and culture of the local area. Resulting in the students being unable to connect between what they learned with their own way of life, society and cultural traditions making the learning more far away from local communities and families until finally forgetting their way of life and culture in the end. Therefore, it is very important that schools and teachers as well as those involved will have to think about the form of educational management to be appropriate in accordance with the diversity in terms of geography, society, community, ethnicity, language, religion, values, beliefs, as well as traditions and culture.

III. RESULTS OF EVALUATION

From the experiment of the flipped classroom instruction using active learning techniques through ICT technology to enhance learning skills based on cross-cultural understanding for higher education students consists of 4 components: 1) flipped classroom, 2) active learning techniques, 3) ICT technology and 4) learning skills based on cross-cultural understanding of the students

The evaluation results of the flipped classroom instruction using active learning techniques through ICT technology to enhance learning skills based on cross-cultural understanding of higher education students in all 4 aspect from the experts, the evaluation results showed that the newly-designed instructional model was rated appropriateness in the overall at high level, with an average (x = 4.44, S.D. = 0.66). And when considering individual aspect, it was found that 1) the appropriateness of the flipped classroom was rated at high level (\bar{x} = 4.23, S.D.= 0.59), 2) the appropriateness of the Active Learning technique was rated at highest level (\bar{x} = 4.60, S.D.= 0.41), 3) the appropriateness of ICT was rated at highest level (\bar{x} = 4.60, S.D.= 0.58) and 4) learning skills based on cross-cultural understanding for higher education students was rated at high level (\bar{x} =4.30, S.D.= 0.82).



FICTAL MODEL Fig. 1. Flipped Classroom Schools ICT Active Learning Model (FICTAL MODEL)

IV. CONCLUSION

From the style of teaching and learning, back to the classroom with proactive teaching techniques through ICT technology Developed which consists of 4 parts: 1) the part of the classroom back side 2) the part of proactive teaching techniques 3) the part of ICT technology and 4) the part of learning skills based on the understanding of the culture of the learners When separating the evaluation results into sections, each section can be discussed as follows:

Part 1: This section of the Flipped Classroom is designed for teaching and learning activities, with emphasis on teaching that students will learn through self-study from various media outside the classroom or at home. In normal classes, it is a search for knowledge that has been shared with classmates. The teacher is primarily a guide. [7]

Part 2: Active Learning Techniques means Active Learning Techniques (Active Learning) that are as follows: (1) Change teachers from lecturers to teachers to design activities for Arrange the learning process (Pedagogy) for students. (2) Teachers are facilitators. And suggesting tools to access knowledge through various methods Especially through ICT Technology to gain access to learners quickly and extensively Bring knowledge that has been exchanged with friends in the classroom. (3) Teachers organize activities by holding students as a center. (Student-Centred) by integrating courses and activities designed according to the learning objectives of the lesson content

Part 3: Part of ICT technology This section will include the integration of ICT media and technology tools to be applied to proactive teaching management as follows: (1) the writing /



reading of documents online using Google Doc, Microsoft Office 365 (2) Communication Use social media media that is flexible and widely used and free software such as Line, Facebook etc. (3) In terms of content, use content from e-Learning, Website, Google blogs, Website and Search. Research knowledge from online sources. (4) The use of images and videos and multimedia media will be used to send images via social media such as Line. Facebook and Youtube etc. and the side (5) in the planning and schedule of teaching and learning will use Google Calenda., Window Live etc. [8] Part 4: The part of learning skills based on the understanding of different cultures of the learner. For this aspect, the analysis of learning on the experience or the base of understanding that different cultures can be divided into 5 items is (1) Beliefs and religions (2) Paradigm of thought (3) Lifestyle and community (4) Language, communication and community area (5) Parenting of families and relatives From the evaluation form, it was found that experts / experts saw that the learning skills of students arising from teaching and learning with this model were suitable in many levels in 5 areas.

V. SUGGESTIONS

In order to develop and improve in the next research, the researcher would like to suggest ways to conduct research in the form of classroom teaching, in return, using active learning techniques through ICT technology to enhance learning skills based on cross-cultural understanding for higher education students as follows

1. In the sample group, the scope of research should be expanded to the population and sample groups at the international level to support the opening of the ASEAN Economic Community or the global community.

2. In terms of teaching techniques should choose other teaching techniques to compare and obtained more diverse research results in the future

3. In terms of ICT technology, it is best to use technology that is easy to use, widely used and is a free program which convenience and not having to waste time in teaching or providing knowledge on how to use the program

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REFERENCES

- Kritsupath Sarnok. (2016). Development of 21st Century Learning Skills for Gen Z Learners Using AL Teaching. In Symposium: Education for 21st Century Skills (pp. 301-312). Nakhon Ratchasima: Chateau de Khaoyai Hotel & Resort, Nakhon Ratchasima Province.
- [2] Piyawadee Pongsawat and Namon Jeerungsuwan. (2015). The Instruction Design Flipped Classroom Model by Using WebQuest Activities to DevelopLearning Skills in The 21st Century for Students in Higher Education. Technical Education Journal King Mongkut's University of Technology North Bangkok, Vol. 6, No. 1, January - June 2015, pp. 151-158.
- [3] Nutterat Pheeraphan. (2014). Development of Information and Communication Technology Usage Model for 21st Century Learning Skills in Higher Education. Journal of Education Prince of Songkla University, Vol. 28, No 3, September – December 2014, pp. 19-34.
- [4] Mentari Arisyid Mulyadi, Agusti Efi, and Nurhasan Syah, "Development of Pastry Learning E-Modules in the Hospitality Study Program of Community Academy Padang Pariaman," *International Research Journal of Advanced Engineering and Science*, Vol. 4, Issue 1, pp. 91-96, 2019.
- [5] Banyat Yongyuan, Panadda Thanasetkorn, and Vasunun Chumchua. (2012). A Development of Multicultural Education Model in Elementary School. Nakhon Pathom: National Institute for Child and Family Development. (Copy).
- [6] Learning Area of Social Studies, Religion and Culture. (2013). Guidelines for the introduction of the ASEAN Curriculum Sourcebook into practice. Pathum Thani Primary Educational Service Area Office 2, pp. 1-2.
- [7] Vicharn Panich. (2013). Teachers for students to Flip classroom. Bangkok: RS Printingmas Produc, pp. 24.
- [8] Rotimi-Williams Bello, Firstman Noah Otobo, and Eka John Eru, "Virtual learning environment-Some realities," *International Research Journal of Advanced Engineering and Science*, Vol. 3, Issue 2, pp. 372-374, 2018.