

Managing Creative Online Learning Activities using IMTEAC Model via Line Application on Romping into the Marvelous Station

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Abstract

This study was aimed to 1) develop and evaluate the quality of using creative online learning activities, 2) study the results of using creative online learning activities; and 3) study the evaluation results of using creative online learning activities; The study has indicated that: 1) the quality of using creative online learning activities has the mean IOC scores for Step 1 - Step 6 (I-M-T-E-A-C) = 0.92; as evaluated by 7 experts using the Index of Consistency. 2) the results of using creative online learning activities on “Romp into the Marvelous Station” taught via the Line application. The sample group were 30 graduate students enrolled at (Master of Education Program in Innovative Curriculum and Learning Management) Ramkhamhaeng University in the first semester of the 2020 academic year. The result showed that the inquisitive mind scores of the students were higher than before at the statistical significance level of .05. 3) the evaluation results of using creative online learning activities on “Romp into the Marvelous Station” via the Line application as assessed by 5 qualified experts were that the IMTEAC model and the implementation of the model are found to be “the most appropriate” in overall area.

Keywords: Knowledge management, Online creative activities, IMTEAC model, Inquisitive mind, Line application

Introduction

The emergence of COVID-19 four years ago has affected various practitioners in many fields especially medical staff who have immensely devoted themselves in treating their patients during these past few years (World Health Organization, 2020; ASPE Office of Health Policy, 2022). While many industries have been urged to adjust and apply the practice of Work From Home all of a sudden, teachers and professors have also faced challenges in many aspects. The Coronavirus 2019 pandemic has created significant challenges for the global higher education community (Crawford, et al., 2020; Barrot et al., 2021). Since they had been teaching their students in classroom setting, they never experienced online teaching. At the same time, their state of mind as well as anxiety from the calamity and news reports of the terrifying widespread in the country and abroad have affected the learners' state of mind and concentration. The question that needed an urgent answer was how to online teaching that offers fun, joy and enhance the learners' understanding.

All those pressing factors led to the quest for fun and informative online learning activities for the Graduate students taking the subject Innovation and Technology for Learning Management. The focus was on how to have the students enjoy teaching and learning activities that are interesting, challenging and captivating. And they would feel like playing games, having to unlock the challenges as a team. The graduate students shall no longer be conservative, but be imaginative, creative and logical instead. Then they can collaborate as a team in developing innovative teaching and learning activities for their students. These graduate students should experience online teaching and learning activities that promote self-gratification and self-awareness. They should be proud of themselves and at the same time respectful of others. They need to possess these life skills together with academic excellence academic through self-learning through IMTEAC Model (Dangchamroon, 2022).

Zoom, Meet, Microsoft Teams are popular platforms that most teachers have used for their remote teaching and learning activities. LINE is frequently used as an additional tool for communication between teachers and students because of its easy access, cost effectiveness and connectivity. This research has focused on LINE as the main application based on the learning experience pyramid. Learning outcomes from group discussions account for hands-on, teaching others, and application of knowledge in real-world situations 90% (Dale, 1969). These figures are consistent with the design of online learning activities in this research that emphasizes participation and collaboration through a variety of learning activities such as discussion, real-time exchanges of knowledge, hands on exercises and design of innovations, etc. LINE chat is considered as the main tool for organizing creative online learning activities, which creates wonder among faculty and students both within and outside the institution as to how it is possible to make use of this platform to make students enjoy learning. With the limitation of not seeing people face to face and not hearing the voice, how can strangers' interaction be friendly, warm and welcoming? How can pedagogical theory relate to innovation, etc.?

Literature Review:

One of the key problems in creating innovation to promote learning via electronic media (multimedia, digital media, animation) is the reproduction of content, knowledge, information from books into innovation or electronic media, making the newly created media another form of textbook, even with some illustrations. When this happens, the innovation or electronic media created is not different from the lessons in the book. Therefore, it is not interesting or

appealing to the learner. One of the major problems of education is the teaching of general and vocational knowledge that emphasizes classroom-based knowledge and measures on content memorization (Office of the Education Council, 2016). Educators should not focus only on learning in computing or reading, instead the focus should be on learning process. In addition, students should be able to participate in reflecting knowledge and sharing thoughts, feelings, or experiences. They should learn to exchange viewpoints through discussions, practice problem solving in real-life contexts, as well as create innovation to promote advanced thinking processes.

Communication (Moore, 2015) and motivation (Alessi & Trollip, 2001) are essential to learners' learning. This research employed IMTEAC Model developed in the study on the development of knowledge management model for weblog learning (Dangchamroon, 2016) that was experimented in art courses for elementary school teachers, semester 1 of the academic year 2014. It focused on students' motivation that leads to learning attributes, encouraging students to share and exchange freely their ideas, knowledge, feelings and experiences. So that they become constructive, having self-esteem and respect for classmates, course content, which leads to fullest creativity. When learners are motivated and inspiration arises then they will have fun learning endlessly. It encourages one's inquisitive mind and life-long learning.

The characteristics of an inquisitive mind are the pursuit of knowledge through 1) listening, watching, reading, receiving information, 2) thinking, reflecting from what one has listened to or read, 3) asking, ask questions to get facts 4) Writing or Recording. Printing or creating a computer database helps with systematic thinking, because before writing anything, we must first think. It also helps to develop memory that can be searched when needed and can also offer assistance to others. These attributes have proved to be true all along and are the characteristics of learners in the 21 century. The important role of learners after education reform is to study proactively, discuss with the group, express ideas from what is learned and reflecting from teachers, peers in the group. They shall listen, think, read, write and take notes (Dangchamroon, 2018).

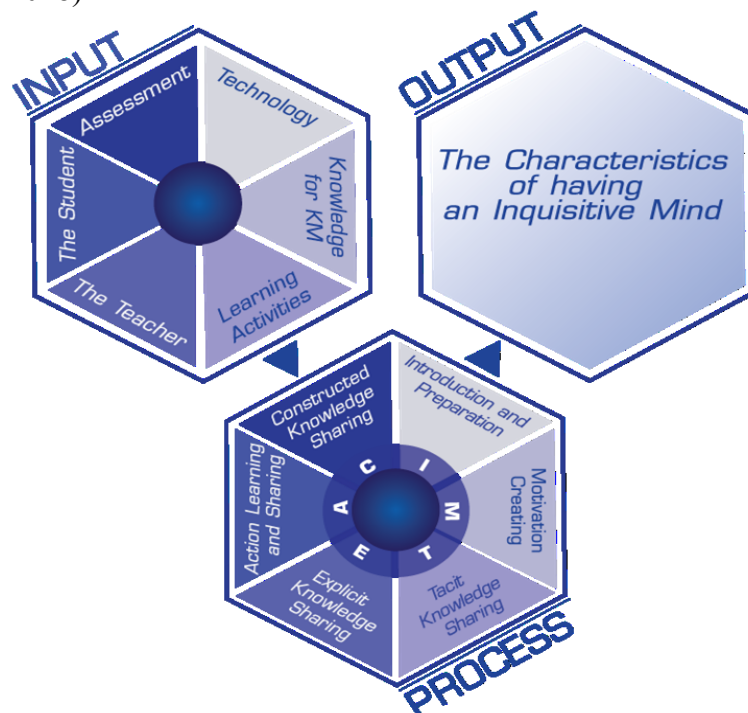


Figure 1 IMTEAC Model (Dangchamroon, 2018)

This research is about designing creative online learning activities through tackling Marvelous Station using science and art that offer happiness and fun to learners. The activities are fun-oriented, not information-oriented, emphasizing positive interactions and inspiration. The focus is on a positive learning atmosphere, teaching life skills through subjects, self-learning and advanced thinking processes in accordance with IMTEAC Model's 6 core competencies. The Model gives importance to deep and meaningful learning outcomes. IMTEAC Model consists of 6 components, promoting learning traits, life skills, self-esteem, happiness and pride that can be applied for classroom learning activities and online learning activities. IMTEAC Model features basic principles of knowledge management, learning exchange with emphasis on motivating learning processes as well as professional ethics. This is achieved by presenting fun-oriented, not information-oriented knowledge, relating previous experiences to new knowledge and then connecting and forming extended knowledge for real life practices that are challenging. The aim is for sustainable learning through the learning processes.

Methodology

1. Develop and monitor the quality of graduate students' creative online learning activities with the use IMTEAC Model via LINE application by 7 experts from 7 institutions. Check the quality of online learning activities with Index of consistency: (IOC) (Specialists in educational technology and communication, knowledge management, teaching and learning activities management, psychology/ educational psychology, inquisitive mind attributes 20 years and older). Then test out the online learning activities with 35 non-sample students enrolled in the Innovation and Learning Management Technology course, Semester 2, Academic Year 2019 (April 2020).

2. Study the effects of creative use of online learning activities in tackling Marvelous Station with IMTEAC Model through LINE application. The sample group is graduate students enrolled in the course Innovation and Technology in Learning Management Semester 1 of Academic Year 2020. 30 students out of a total population of 42 students willingly participated in the study using the One Group Pre-test-Post-test Design for a total of 48 hours. Each day, the 6 steps of the IMTEAC Model were used: in the morning 08.00-12.00 and in the afternoon 13.00- 17.00) (Note: The total number of hours in this course Innovation and Technology Management Learning accounted for 48 hours by 2 instructors. The instructors taught 24 hours each, and this batch of students has never met with their peers and class instructors before. It was 100% online interaction and learning from the first class to the last)

3. Use IMTEAC Model to evaluate online learning activities of Marvelous Station Tackling with via LINE application which was for graduate students. The assessment was carried out by qualified experts from 5 institutes (experts in educational technology and communication, knowledge management, learning activities management, psychology /educational psychology, development of characteristics for an inquisitive mind for 25 years and above) The assessment form is a 5-level value.

Results

1. Based on the analysis and assessment of suitability of learning activities and technologies that promote online learning, it was found that LINE chat has a strong point that responds well to creative online learning activities with the IMTEAC Model. It helped create coordinated interactions through chat messages and line stickers that convey emotions in large quantities simultaneously in a short period of time. That reduced formality but instead created familiarity and friendliness, making the students feel close to one another even though they met for the first time. Chat interactions and stickers help reduce shyness. Students can discuss and answer questions simultaneously and comprehensively. The whole class instantly (without having to spend a lot of time waiting for answers to each question. The platform helped eliminate double voice from simultaneous talks, noise from forgetting to turn off the mic, weak internet connection problem. The key to online learning is the interaction among learners themselves and learners with instructors so this is considered as an effective platform for quality learning activities that meet and suit the criteria according to the IMTEAC model as follows:

Step 1 (I: Introduction and Preparation) is a very important step. We began with using feeling oriented or fun oriented approach. Students got to answer interesting open-ended questions within a limited time to create alertness and excitement. It is an activity that creates happiness, fun, and breaks the students' mental barrier towards the subject, mainly the fear that using the platform will be complicated. It also helped reduce pressure, nervousness, stress, anxiety and problems or negative feelings that students have accumulated. This fun competition not only helped students to be joyful, but it also relaxed. It also helps to open learners' minds to instructors, lessons and subjects. It also inspires learning, helping to promote learning in a long and sustainable basis (Line sticker duels, sending stickers with meanings that match the images specified, such as laughing, fun, funny, joy, ect. Typing answers for interesting open-ended questions; sending links of songs and ask for 3 keywords mentioned in the song and the creative elements from this clip. The last member who submitted the answer will get 1 point and had to make a charade clip online. With 5 points collected, they had to make an online dance clip), then link the keywords or concepts to step 2.

Step 2 (M: Motivation Creating) is a very important step, using a role model's story for inspiration. Sometimes we used tales, music, images, animation, performance shows, or even open-ended questions that are interesting and connected to the lesson so that learners appreciate the importance of the lesson, making the lesson touching or deeply relatable to the learner. It can also be a story that integrates life skills, desirable attributes, ethics, morality through subjects, or in other words, at this stage it is the teaching of the reality through subjects or teaching life skills through subjects. (These life skills consist of 4 main components; 1. The awareness of self and others, 2. The critical thinking, decision making and creative problem solving, 3. Dealing and emotions and stress, and 4. building good relationships with others (Bureau of Educational Activity Promotion, 2015). It helps the lesson to come naturally into the minds of the learner (it does not cause feelings of pressure or resistance, not passive learning or traditional teaching that uses the method of dictating, notetaking, repeating after and memorizing. It is to make the story of the lesson touch the learner's heart, unconsciously infiltrating into the mind (the next thing you know, you feel good about what you have learned), have thirst for knowledge, want to learn, want to improve yourself.

Step 3 (T) is an open-ended questioning session to give learners an opportunity to reflect on their ideas, knowledge, feelings, and previous experiences (in a friendly atmosphere) by relating to the stories deeply interwoven in Step 2. Learners get to exchange, share and transfer previous experiences, so learners will feel that they are an important part of the class and of the lesson. Whether what is shared is positive or negative, they all have value and meaning which leads to deep compassion, not something superficial, and what each learner reflects is unique. Learners may not have the same experiences as their peers so listening to classmates' previous experiences helps students understand different contexts and learn about diverse experiences.

Step 4 (E) After the lesson touches the heart and the lesson connects deeply with the learner's previous experience, then it comes to connecting to new challenges with open-ended questions as well as new assignments. They were assigned to create individual / group works, which at this stage helps learners feel they are an important part of the lesson and class. They are the ones who share new thoughts, knowledge, feelings, or experiences with new challenges. One crucial thing is to be able handle problems, tackle unexpected situations or deal with pressing issues in which the learner has expertise, aptitude or excel in different areas. Sharing new experiences on the same subject with different and varied answers or methods allows students to learn about the specialties of both themselves and of all their peers. It breaks down the mindset or wall in the mind that there is not one absolute answer. Acceptance of differences of thought, knowledge, feelings, or experiences creates a wide spectrum of learning, resulting in extensive and profound learning. This will lead to step 5: sharing and exchanging learning from practice (creatively because it breaks away from the original conceptual framework of answering multiple-choice tests with only one correct answer throughout their lives).

Step 5 (A) After the learner has successfully solved the challenge in Step 4, the student will be able to solve the problem that is more complex or challenging. By applying the knowledge that is available to solve problems creatively or jointly create new innovations through the most intense and challenging requirements (can be applied in real life because it is a problem or situation in our daily life). Students participate in thinking, analyzing, decision making and solving problems creatively, communicating and working as a team. This leads to hands-on experience, meaningful learning created by oneself with teachers as facilitators to help mentor or coach by asking creative and inspiring open ended questions. If they can't figure it out and can't answer, they would be encouraged with open ended questions until they could think and answer the question or solve the problem (the teacher's open-ended questions act like a guiding light). Then they will be happy and proud, being able to solve problems or create new things for the more challenging situations or contexts, as real-life situations don't have ready-made answers. Therefore, teachers do not provide ready-made answers, but provide students with the knowhow and how-to so as to promote advanced thinking processes (critical thinking, analysis, evaluation). Then the learners present their work or group innovations, and fellow members of the other groups acted as committee members or experts to evaluate their work and provide constructive feedback. The teacher used a technique to provide inspirational, not judgmental feedback that will affect the feelings or minds of the proponent, for example, it is not a sentence that this work is very good at all, but.... It's a great adaptation. (Adding a little more this section will complete the work, or the work will go global, etc.) Be inspired to learn Be inspired to develop your work in the next step that is higher than before. In addition, members can share and exchange learning from real practices. Hands-on experiences has been occurred within the group. Members also learn from the practical work of other group members (Dangchamroon, 2022). Members learn a variety of creative works, which will extend their thinking skills to the highest level which is the evaluation level (Bloom, 1956). Be able to

judge how their friend's performance is and how good it is. Also know what should do to provide more constructive feedback, if they want to do better.

Step 6 (C) is a discussion of the summary of the collected knowledge, ideas, feelings and experiences of being fully involved in learning activities in every step along the way. This will result in life-long and meaningful learning. Getting exposed to different and diverse ideas, experiences, and work pieces of classmates resulted in the writing quality because it is extracted from first-hand experience. One's experiences, conveyed as an anecdote in an essay, is a writing work that is not based on memorization. It is rather the transmission of ideas and composition with processed knowledge in written language through analytical thinking. In addition, when the students exchanged "Summary of collected knowledge" that friends reflected through written language or other communication channels such as video clips. With words, facial expressions, tones of voice, eye contact, body language and gestures all promote learning in the process of summing up knowledge. In addition, the learners learn to process the summary of collected knowledge from fellow students. It helps promote advanced thinking skills in terms of evaluation. They are able to assess the quality of their friends' writing and know how profound and impressive it is. From the above, the IMTEAC Model is proved to be valuable and important in promoting the characteristics of an inquisitive mind. It also helps promote life skills, self fulfilment, happiness and pride. Plus, it promotes 6 core competencies for learners, which can be applied for classroom learning activities and online learning activities. IMTEAC Model presents basic principles of knowledge management, knowledge exchange with emphasis on motivating learning processes. It focuses on instilling ethical values harmoniously into the lessons by giving a sense of "fun before information" relating previous experiences to new ones. Extending knowledge to practical practices that are challenging leading to sustainable learning through the process of knowledge extraction and summaries.

Then test these online learning activities out with 35 non-sampling graduate students enrolled in Innovation and Technology for Learning Management Semester 2 of Academic Year 2019 (April 2020). It was found that after the conduct of creative activities, the learning trait scores were statistically significantly higher than before by .05

2. For the results of conducting creative online learning activities: the Marvelous Station with IMTEAC Model via LINE application with a sample of 30 students over a period of 24 hours, it was found that the average score of the inquisitive mind of the samples was statistically significantly higher than before classes at .05 (table). The evaluation form consisted of 32 questions (Dangchamroon, 2016) under 4 main indicators including: 1st indicator: "Su"- behavioral patterns that include determination to learn/ study (listen, read). 2nd indicator: "Ji"- behavioral patterns that include recollection of existing knowledge, trying to understand what they have read and listened. 3rd indicator: "Pu"- behavioral patterns that include learning by questioning and talking. 4th indicator: "Li"- behavioral patterns that include learning by memorizing. In each area, there are four types of knowledge gained, namely: knowledge gained in class, knowledge gained outside class, knowledge gained on the weblog and new knowledge that pops up in mind. The pre-test/post-test scores were statistically analyzed using t-test for dependent samples (paired t-test). The sample group in this study consisted of 30 graduate students. After the study, the inquisitive mind scores of the samples were higher than before the study to a statistically significant degree at significance level .05.

Table 1 Average score, standard deviation and t-test of the Inquisitive mind scores of the samples between before and after the study

Inquisitive Mind	n	$\bar{X}$	S.D.	t	Sig.
before the study	30	2.87	0.13		
after the study	30	4.62	0.22	30.98	.000

* $p < .05$.

3. The result of the assessment of online learning activities: Tackle Marvelous Station with IMTEAC Model via LINE application by 5 experts from 5 institutions was as follows: the mean was 4.93 and Standard deviation S.D. = 0.06.

Discussions

The results of assessment on the creative online learning activities, through tackling the Marvelous Station with IMTEAC on Line application for graduate students enrolled in Innovation and Technology for Learning Management: CLM6607 by 7 experts showed an appropriate consistency score. The activity was applicable because the activity design was based on the analysis of learners, problems, needs of learners in terms of physical and mental readiness, learning style, tools or technology, content analysis, and activities designed according to the IMTEAC Model (Dangchamroon, 2016) which promotes an inquisitive mind and learning attributes that create interaction, with an emphasis on the fun before knowledge. Even though there were questions of how texting on Line could promote in depth knowledge, the positive atmosphere with creative communication through fun typed words and stickers on the chat together with creative learning activities through the chat are really encouraging and inspiring. This is in line with (Sproull & Kiesler, 1995 cited in Brown, 2002). No matter how tentative, people's ideas and mental models are to be shares. "In an online environment, words matter... Words are everything (Ryan & Deci, 2009)." Over the 3 days the teaching and learning activities conducted are as follows:

Marvelous Station Activity Day 1 "Analysis of technological innovation, digital media, electronic media, multimedia media" The key to creating works of art, creating innovations, technologies, electronic media, or multimedia media is imagination and creativity according to the formula $e = m^2ci$ (Allen, 2008: Motivation², Content Presentation, Interaction). Step 1 Getting ready to learn by using music, then using the Line Sticker Challenge to build readiness. Later, in step 2, create motivation for learning by watching the clip "Online learning via LINE" to make students see the importance of online learning activities through the LINE application. It promotes fun learning, enjoyable feelings or experiences, synchronous or real-time interaction, and exchange of knowledge in a positive learning atmosphere. LINE is an application or tool that supports this learning very well, which is why it was used for creative online learning activities. Then step 3 Relate and share previous experiences. This was a review of the assignment where students got to record their feelings. Connect with the value of this activity through clips "emotion records" (Life Skills: Realizing and appreciating oneself and others. Building good relationships with oneself and others. Dealing with emotions and stress. Problem analysis and the use of 5-step solution approach (Eng & Wantz, 1978). Assess each situation, issue and obstacle as well as various solutions then choose the best way. Step 4: Share new experiences. Start this process by engaging students with the question "How do digital media, technological innovation and multimedia promote learners' pursuit of knowledge?" Students got to participate in discussions on topics such as "How to make digital or multimedia

innovation interesting?" Step 5: Share, exchange, learn from hands-on practices by creating multimedia. Start with an uncommon self-introduction (stunning and interesting) as a creation or innovation level, and then select the coolest introductory clips of each group to compete with representative clips of other groups (evaluation level). The afternoon session is the start of the analysis of innovative and technological media, according to one's feelings towards the media nearby. Students then capture the pictures of innovations before creating one for the future world (individual contributions). Then the group selected innovations of fellow members to create group innovations by creating advertising media, then they analyzed the differences of advertising media viewed. Step 6 is the knowledge summary. It's the final stage of the Marvelous Station challenge. Day 1: Students summarized their knowledge by writing reflections and sharing them in an album in the LINE group.

Marvelous Station Activities Day 2. Step 1: Prepare before learning. At this stage, the instructor used a song and then used a Line sticker challenge to build readiness, creating awareness and excitement for the learners, followed by guessing words from the online clips of fellow members who have won 1 chance. Then step 2: create motivation for learning that integrated with Step 3: share previous experiences by using Long Ruay song to connect keywords that are related to innovation. Then Step 4: share new experiences by learning about the "magic" used in this important stage, which is to learn the formula for analyzing media technology innovations. Then analyze the advertising media. Step 5: Share, exchange, learn from practicality. After analyzing the media with the formula $e = m^2ci$, it comes to the learners selecting the best advertising media clip (from all the clips of all members of the group), then use the representative clips of the group to compete with other groups. And they voted for the best advertising clip. Then it came to the analysis of the performance media, the music video, and then each group sent a representative performance clip to compete with the other groups, then vote for the most impressive clip, followed by the analysis of the best animation clip. Step 6: Knowledge summary It's the final stage of the Marvelous Station challenge. On Day 2, students summarized their knowledge by writing reflections and sharing them at an album in the LINE group.

Marvelous Station Activities Day 3: "Creating Digital Media, Technological Innovation, Electronic Media, Multimedia Media" Step 1: Prepare before learning. In this stage, the instructor used music, then used Line sticker challenge and online word games to get students ready. Later, step 2: create motivation to learn. Use the song clip "How You Like That and Kill This Love] to connect the value and importance of imagination and creativity which is the key to technological innovation, digital media, electronic media or multimedia. Then, Step 3: share previous experiences. This was integrated with Step 4: share new experiences through clips of analysis of electronic media and digital media designs that promote learning to inspire students to see what their Master's seniors and Bachelor's juniors can do to assure them that they can do it as well. This leads to step 5: sharing and learning from hands-on practice. At this stage, all lovely members have created innovative technologies, digital media, electronic media, multimedia to solve problems and promote life skills according to the chosen topic. After creating a group work, each group shared and learned from the presentation. Fellow students provided constructive feedback or reflections, and acted as creative media judges for the impressive work pieces that followed the formula. $e = m^2ci$. Then they submitted the creative media innovation assessment score of each group of friends on the instructor's personal line. The instructor then announced the voting results. Finally, step 6 is the summary of the knowledge refinement. Students summarized the knowledge gained from the first stage on the first day to the third stage on the last day through clips, which required synthetic and analytical

thinking processes. This is also an important source of learning when knowledge is shared and exchanged with each other.

2. The result of conducting creative online learning activities with IMTEAC Model via LINE application was that the average score of attributes of an inquisitive mind of the samples was statistically significant higher than the beginning at .05. All online learning activities in the IMTEAC Model focused on activities that created engagement or fun interactions, happiness and joy. It also focused on creating an inspiring and positive vibe, which is a motivation that fosters a learning trait and promotes academic achievement. This finding is in line with other studies' findings that state students are engaged because they are inherently interested and enjoyable (Ryan & Deci, 2009). They found that in classrooms where teachers were more autonomy supportive, students tended to become more themselves, whereas in classrooms where teachers were more controlling, students tended to become intrinsically demotivated, and perceived themselves to be more competent, to feel better about themselves, whereas in classroom where teacher more controlling, students tended to lose motivation, to feel less competent, and to have lower self-esteem (Deci, Schwartz, Sheinman, and Raan, 1981 cited in Ryan & Deci (2009). Also Deci & Moller, 2005 cited in Ryan & Deci (2009). indicate that students tend to learn better when they are innately motivated, especially on defying tasks or those requiring conceptual development and understanding.

3. The evaluation results of using creative online learning activities on “Romp into the Marvelous Station” via the Line application as assessed by 5 qualified experts were that, overall, the IMTEAC model and the implementation of the model are found to be “the most appropriate” Since the researcher has used concept, principles and theories of Pedagogical Science, Technology and Educational Communication, Knowledge Management through Learning Exchange, Educational Psychology for creative online learning activities to create happiness and fun. Create a positive learning atmosphere for long lasting and meaningful learning outcomes for students and teachers, emphasizing advanced thinking processes by students who can generate knowledge on their own. Go through various activities from step 1 (I) prepare to start learning with a race/ challenge through a competitive game in the chat application, then step 2 (M) motivate learning through interesting open ended questions and discussions to emphasize the importance of the lesson learned through the story and then link to step 3 (T). Sharing previous experiences followed by a new challenge in Step 4 (E) sharing new experiences, then co-creating new innovations in Step 5 (A) Sharing and learning from hands-on practice, creating innovations. Step 6 (C) summarizes knowledge of each day (3 days), All these are online learning activities that focus on the feeling before knowledge with a focus on creative, inspiring interactions and a positive learning atmosphere. Emphasis is placed on teaching life skills through subjects. Focus on personal pursuit of knowledge, advanced thinking processes with 6 core competencies to promote the characteristics of an inquisitive mind. The experts' recommendations, various theories, including psychological theories, are utilized to design online learning activities that focus on learner participation (learner based). This is to make it interesting, valuable and can truly be applied. As the instructor for the organization design seminar, our goals were to provide an opportunity for learners to (a) learn the basic concepts of and models for organization design, (b) work collaboratively as a team in an online environment, (c) experience doing organization design for a real organization, and (d) have a learner-centered learning experience in the Fielding tradition that requires learners to take responsibility for their learning and the course environment (Sproull & Kiesler, 1995 cited in Brown, 2002). This is in accordance with the course design which is to use technological and other media to their greatest advantage for and online, team-based learning experience, the facilitator (Instructor) must clearly articulate the

design criteria for the course. As instructor for the organization design seminar, our goals were to provide an opportunity for learners to (a) learn the basic concepts of and models for organization design, (b) work collaboratively as a team in an online environment, (c) experience doing organization design for a real organization, and (d) have a learner-centered learning experience in the Fielding tradition that requires learners to take responsibility for their learning and the course environment.

Conclusion and suggestions

Creative Online Learning Activities using IMTEAC Model via Line Application on Romping into the Marvelous Station is based on principles, concepts, and psychological theories. It includes self motivation, creating inspiring learning, encouraging an inquisitive mind organizing learning activities that focus on learners to build knowledge on their own. Teaching life skills through knowledge management, technology to promote learning, designing and developing e-learning lessons, and e-learning, etc., The purpose is to enable the future teachers who are now graduate students to choose creative innovative media in the role of user, as well as the role of creator in designing and creating innovations that are new, interesting, stimulating imagination, and promoting learning. All these shall encourage the desire to learn as well as develop skills in creating innovative media to resonate with the learners as mentioned above through online learning. It is a real challenge. In addition to the 6 steps of IMTEAC mentioned earlier, another important part is the 6 elements of the IMTEAC Model: technology, knowledge, activities, instructors, learners and evaluation.

1. Technology. We chose LINE application as an online platform for the class. Without meeting face-to-face, hearing voices, but a positive learning atmosphere, fun competitions and games and sticker duels create excitement, alertness, excitement and keep learners focused on having fun while leaning remotely on the screen. Messages and expressions with multiple stickers by learners and instructors took place simultaneously, quickly and seamlessly. It also connects all activities through LINE with science and art to be continuous, smooth and creatively reflective. This kind of interaction creates a feeling of freedom, relaxation, no pressure, and does not focus on boring, informative content. It emphasizes on the content that touches the mind through fun activities, like playing a game with challenges, level by level. We can win together as a team (group) and as a team of the whole class.

2. Tacit & Explicit is the introduction and integration of all abstract sciences into materialized substances. In the role of user and creator, the first concept is to realize the importance of innovation, media, and technology that promotes learning as well as design and innovation problems. The educators shall train themselves to break out of the traditional mindset with problems close to them. Evaluate diverse media and innovation examples. Learn your strengths and achievements. Then learn backwards from a successful creator about what to start with, how to think, plan, design and develop then work as a team. And most importantly, act as an evaluator to learn how to give constructive feedback to create inspiring and creative communication.

3. Activities (in and outside online classes and on weblogs) This is the main objective of the research, therefore, transforming the above content through online learning activities with the LINE application is a new and challenging task. Most instructors and learners are familiar with VDO Conference. So this novelty and distinction must be viewed as a highlight instead of a limitation. With fun and interaction for everyone to engage, exchange and learn

in every activity and every step, starting with (I) a race to prepare students to get ready and at the same time relax (from personal issues; school workload assignments, parent- learner issues) (M) After watching the touching stories then discuss and exchange the knowledge then link to (T) Transmission of previous experiences. Relating the content to past experiences leads to the fulfillment of happiness and pride (transforming negative feelings about past experiences into positive and valuable learning as the driving forces), then link to new challenges (E) and lead to further innovation (A) Finally, summarize the knowledge gained (C) in the form of synthetic writing and reflection through clips, which encourages advanced thinking.

4. Instructors are key to building intrinsic motivation for students. An important feature is listening with the heart, not just hearing, but listening for understanding and creative communication to inspire learners, both in terms of creating a positive learning atmosphere and creative problem solving and learning activities that focus on building knowledge through activities that create happiness and fun.

5. Learners. The key attributes are open mind, eager to learn, participate in discussions and exchange learning both in class and outside the classroom, as well as write reflections on knowledge, experiences, ideas and feelings to exchange learning on a weblog. Be sincere and respond truthfully to every activity attended.

6. Evaluation. Pre- and post-learning attributes are important to help learners and instructors empirically identify learners' pre- and post-learning attribute scores. The features of an inquisitive mind or Su Ji Pu Li (Sutta Jinta Pucha Destiny: Philosopher's Heart) are part of the key attributes of learners in the 21 century.

New knowledge and the effects on society and communities

Creative Online Learning Activities using IMTEAC Model via Line Application on Ramping into the Marvelous Station in Innovation and Technology Learning Management has helped teachers who are now taking the role of graduate students develop advanced thinking skills in at least in 3 parts: 1. As a user who can analyze and evaluate innovative media on what conceptual keywords are and their importance. How the media presented those, and to what extent students will gain knowledge in Cognitive Domain, Affective domain, and Psychomotor domain? How do teachers connect them to the lessonst? Overall, is this innovative media appropriate? 2. As a creator, they can Innovative media are then selected to integrate with course content to promote learners' learning. As a creator who can analyze problems and identify the needs of innovative media development, including the design and development of innovative learning media that meet the requirements including learners' needs and nature. In addition, during the development of innovative media, the teachers have practiced evaluating peers' work by communicating creatively, inspiring fellow creators so that they can apply them to build or inspire students in the class to want to develop their own work without embarrassment, regret, or discouragement (how to comment creatively) It also promotes analytical skills at the advanced cognitive level, as well as incorporate life skills. Desirable attributes, combined with learning activities that promote 6 core competencies of learners with the IMTEAC Model, make learners reflect that they want to learn with teachers again. They are inspired to learn and inspired to develop themselves.

When graduate students apply the skills they have learned to develop innovative learning materials in the subjects they teach, this results in Part 3: Group Innovation Skills which leads to individual innovation skills in the course Individual Study. It is a research to create innovations in promoting learning through a systematic research process. The direct impact on full-time teachers in the role of graduate students is happiness and pride in their innovation. And when they are happy and enjoy learning, they are proud of their teaching profession. Many teachers have created innovative media for contests and joyfully received awards from government agencies.

The summary of knowledge realization through writing of graduate students that reflects the characteristics of an inquisitive mind (from listening- speaking- reading- writing). Day 1 (cited in Dangchamroon, 2020) is as follows: Step 1 (I) -> Have students send a Line sticker through the sticker challenge activity to set the positive learning atmosphere. Encourage students to be ready to learn, talk, greet, review previous knowledge recorded in the journal of feelings, and watch video clips. Take photos of positive and negative feelings in groups, which are relevant to the lesson. This is to motivate students so that they can relate to the feelings recorded in order to better understand themselves. Step 2 (M) -> After watching the video clip, questions are asked for students to interact with. Students got to provide feedback and reflect on the idea of the 5-step solution from the journal activity. This is to realize the problems, obstacles, various methods, assessing the situation and choosing the best way to deal with their feelings. Step 3 (T) -> The instructor asks how multimedia and digital media help promote learners' learning? What is "digital media"? How to make digital media interesting? The answer is> Digital media and multimedia help students learn more and understand more deeply since they come with clear and interesting illustrations. The images must be beautiful, colorful and modern plus movement and sound effects. All the elements must cater to the interests of the learners, suitable for the age, encouraging the learners to learn well, being able to study anytime and anywhere. Step 4 (E) -> The instructor encouraged students to create easy multimedia by making a self introduction clip that is stunning, impressive, with a wow effect and then exchanged with each other. This is a student-centered learning activity that allows students to dare to think out of the box and act it out. Student will acquire imagination and creativity which are the key to technological innovation. And the instructor motivates students through the self-introduction clip contest, having everyone vote and giving prizes by assigning the winner to challenge others in the sticker challenge activity. The afternoon session begins with a sticker duel (Step 1:I) to check readiness before the teacher (Steps 2- 3: M- T) starts showing a clip about Edgar Dell's Experience Cone. It says memorization lasts longer when you do something by yourself, and students will become creative when they are stimulated. Later, (Step 4: E), the teacher and students exchanged their knowledge through a 60-second mission in finding one picture of an innovation that solved the problem, which caused excitement and enthusiasm among the students. Step 5 (A) -> Group members choose 1 innovation of their group and create an advertising clip. This activity requires them to brainstorm, create and present their innovation. Make a video clip and exchange in the classroom (chat Line) Everyone gets to see the presentation ideas of each group. Compelling and creative presentations are the key to creating innovation for students and teachers. They get to be creative and imaginative about Innovation in the future and to exchange ideas as well as do it hands-on. When an unconventional ad is presented, the teacher showed the 3 advertising clips, and encouraged the students to think by asking what is different between the 3 advertisements. Step 6 (C) -> The activity generates knowledge in the production of technological media, realizing what factors we should focus on, which leads to a good understanding of media. And finally the professor summarizes the knowledge of media analysis

using the formula to calculate (the formula consists of motivation: we must create a challenging atmosphere, stimulate curiosity, perhaps by questioning, stimulating imagination and setting learning atmosphere. The learners shall enjoy what they have chosen or made decisions to learn. And it's best if the lessons are learner-based. When they enjoy the lessons, they can learn and process the content well. The content should be applicable and appropriate, not too easy and not too difficult. It should be in various forms, and meaningful where students can relate. It should be a fun and new experience where they get to learn to solve problems, practice in a fun way, and eventually, they will benefit from what they learn; the key to increasing motivation (Allen, 2008). Design screens and applications based on Edgar Dale's experience cone. The lessons should not involve only texts or images but should allow students to think critically then execute as well. They should be designed to challenge and make them proud of their finished work. This will help increase their motivation and encourage them to stay focused and learn more.

Example of processing the summary of knowledge through journals of graduate students that reflect the characteristics of an inquisitive mind (from listening-speaking-reading-writing)

Day 2 (cited in Dangchamroon, 2020) Friday (happy) Yayyy!, it is the 2nd day of the second subject I have taken with Professor Apicha. I feel like I have bipolar disorder because I'm happy to graduate, but I'm heartbroken that my wait for the class is about to be over. But then I will have to wait for a few more months to study with my teacher again. I will miss her. Thinking about this back and forth, the sounds of the Line notifications tell me that the battle of fun is about to begin. The Key to Innovation + The Key to Learning : These two things are not different because they share the same key factors; namely, 1. Creating a positive atmosphere 2. Student-centered learning management. Therefore, when the heart is there, the students will definitely gain both knowledge and love. Today's lessons went by quickly, not because the teacher taught fast, but it was like I had really slipped into the adventure world because the teacher showed us various VDOs, starting with laughter. When I realized it, I was in tears. The fellow teachers surrounding me at the time voted (bipolar = P(me)). But not only that. You have changed my world of viewing media or VDO of prints ever since you talked about $e = m^2 ci$. m = motivation, c = content presentation, i = interaction, e = e-learning outcome. It keeps repeating in my head. Until now, I was about to press the queue at the restaurant, but while waiting, I accidentally opened your YouTube video. I keep thinking about what m , c , i mean in this clip. $e = m^2 ci$ has changed my view of media. All of these are useful and can be applied very well for both classroom teaching and life. After a day slipping into the world of adventure, what we have gained is so meaningful to briefly describe in writing or speaking, but I know I am really happy and my heart is full of joy.

Example of a summary of knowledge through journals of graduate students that reflect the characteristics of an inquisitive mind (from listening- speaking- reading-writing) Day 3 (cited in Dangchamroon, 2020: KrooPond, 2020)

First of all, I would like to talk about the activities that teachers assigned last class, which is the journal. I have recorded my feelings for 15 days. At the end of it, I looked back and read what was going on. It was great that I knew my feelings and the reasons. And I learned that there were few negative feelings. In fact, there are only 2 things, the one that I often encounter is the frustration when my girlfriend complains. When I realized I was frustrated, I walked away to calm down. The teacher also recommended using a 5-step solution (Eng & Wantz, 1978). I just wrote down exactly the problem and assessed each situation to see which was good and which was bad, and chose the best solution. Then it came to what I learned last Thursday and Friday, $e = m^2 ci$ (Allen, 2008). All these were circling in my head. The

knowledge derived from e-learning regarding m²= motivation². Motivation is very effective. It leads to curiosity, challenges. C = Content Presentation. Engaging presentation of interesting content. I = Interaction (with learners) It encourages the recipients or the learners to relate to us and what we want to convey. The first day we did some analysis. The 2nd day we did a lot of analysis all day. We got to watch clips of both advertisements, animation and etc. and analyzed m c i from those clips. Especially this clip (The Legend Of The Crabe Phare: TheCGBros, 2018) gave me a headache. I'm proud to have done all these. How does it affect my life? I'd like to share it with you. After I studied on Friday, I was at home on weekends watching manga with my son YuYu Hakusho. It was a cartoon that I watched when I was a kid and it was so much fun, so I invited my kids to watch it. Instead of watching kicks and punches, my brain automatically started to process. Hey! (m) What challenge was created for us? Why do we want to see it? Why are we interested in it? Why do we need to follow it? Hey!, (c) what is the content being presented to us? (i) The producer creates emotional relevance. What interaction was created for us? Oh, the issue is offering sacrifices to the teammates. I sat down and analyzed this in stages, and when I changed the eating scene, I analyzed all the scenes, one by one. Even in the dining scene, I keep thinking why he had to eat this kind of food. (need assessments) I usually watch it for some quality time with my child, but it turned out that this time I couldn't talk to him about what MCI is. It is too complicated. And if you talk and analyze MCI for your child, it will be weird (laughs). However what I really got from today's activity was creating your own media from selected topics. My group selected Life Skills in the section. "Building good relationships with oneself and others" Now that we have the topic, we have to interpret the 5 factors that the teacher has given. What does 'others' mean? friends, or peers, or parents? But with the circumstances these days, kids are always on social media, addicted to games. They might lack interaction and relationship with parents, so I chose to work on the topic good relationships with parents (need assessments). I sat down and saw that we had 3-4 people. I was worried whether my friends would come, how to delegate, etc. Then all my groupmates arrived in the afternoon. We started to brainstorm (online) with all the magical powers that you gave me. It has to be new, full of imagination and creativity. The characters we put in must be extraordinary. There must be a fantasy element in order to attract children. Everybody fully participated. At first, it was a reintroduction of a true story of a student. When the teacher suggested that there should be some imagination involved, we changed to an alien to make it unique. Then we discussed what aliens have to say (Chuck Kapui Duk Dui) and analyzed MCI to see what colors it should be. Then G drew a picture. Mi added bright and beautiful colors, using all the principles that the teacher taught. Finally, when we create media or create something, we just think about MCI automatically. This is the same as what you discussed on the first day about the Edgar Dale experience cone. If we do or practice something hands-on, we will remember it well. We learned MCI on Friday. Weekends we didn't think about revising it, but it does automatically pop up while watching cartoons with my child. On Monday, it proved to be really applicable. I was really proud of this animation. Proud that friends like it and the teacher likes it. Above all, everyone in the group likes it very much. It's one of the best work pieces at the end of the semester for our group. Thanks to Teacher Apicha, who really put effort in teaching us. It feels like we have a weapon in our hands to create a medium. Utilize technology, putting together knowledge to work on something which has been proven that we can do it. Thank you very much.

In addition, effective teachers are typically described as those who develop relationships with students that are emotionally close, safe, and trusting, that provide access to instrumental help, and that foster a more general ethos of community and caring in classroom. These relationship qualities are believed to support the development of student's emotional

well-being and positive sense of self, motivational orientations for social and academic outcomes, and actual social and academic skills. They also provides a context for communicating positive and high expectations for performance and teaching students what they need to know to become knowledgeable and productive citizens (Wentzel, 2009)

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