



**UTM**  
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## Executive Summary

25<sup>th</sup> September 2018, we had attended the tentative program held by New Academia Learning Innovation 2018 (NALI) which is located at Sultan Iskandar Hall, UTM. We arrived there at 3.00 pm.

Then, we went to 1<sup>st</sup> floor as the exhibition was there. There was many booth, but we went to the booth that was assigned by Dr. Aryati Bakri which is from booth 25 to booth 30 but there was some booth that did not attend by the staff. Booth 25 was about Conceptual Diagram: An Innovative Approach In Teaching Nursing Concept, booth 26 was about the Implementation of Hollistic Social Learning Environment, booth 27 was about the Enhancing Students' Involvement And Success in E-learning Through Learning Analytics Intervention, booth 28 was about Project-Based Learning Approach Through Mock-up Workshop For Value Management in Construction, booth 29 was about Edutainment Mobile Application - Kembara Nombor, and the last booth 30 was about Application Development of Augment Reality in Geometry Topic Based On Multimedia Learning Cognitive Theory.

Second day, 26<sup>th</sup> September 2018, after we finished our class then we went to the tentative program again at 10.00 am. We went to the 1<sup>st</sup> floor as the talk was there. The first person giving talk is Anssi Ikonen from Metropolis University of Applied Science, Finland. The title of the talk was “21<sup>st</sup> Century Teaching and Learning in Engineering Education” and it lasts 1 hour.

At about 11.15 am, we were allowed to walk around the NALI exhibition. After that we go to the booth that did not attended by the staff the day before that to get more detail and information about the booth.



*Figure 1: The photo we went to NALI exhibition*

## Introduction

UTMLead has given opportunity to carry out initiatives under the New Academia Learning Innovation (NALI). NALI exhibition organised by the Centre for Teaching and Learning (CTL) which is under UTMLead. NALI is a framework comprising student-centered and blended learning philosophy, multiple learning modes and materials towards achieving entrepreneurial academia. Under the support of Dasar e-Pembelajaran Negara (DePAN), UTM through NALI had carry out courses that implement blended learning approach. Applying blended learning modes of NALI is the practical on using both online and face-to-face learning experiences when teaching students. Picture 1 illustrates the model that CTL, UTMLead follows

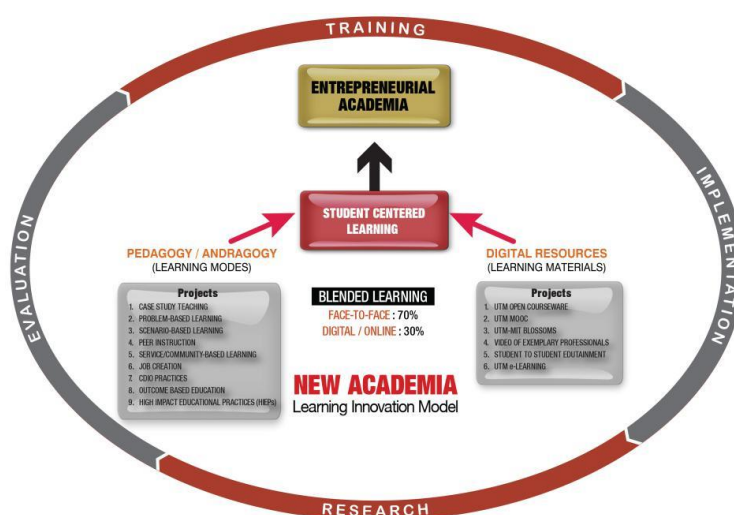


Figure 2: New Academia Learning Innovation

NALI's objectives is to coordinate teaching and learning models, activities, materials, environments and system with Malaysian National Higher Education Strategic Plan, needs of employers and requirements of accreditation bodies, to regulate finest teaching and learning practices from the World's best universities, and lastly to build consequential and interactive learning activities, materials, environments and systems appropriate to UTM Graduate Student Attributes.

## Exhibition contents

### BOOTH 25 – CONCEPTUAL DIAGRAM: AN INNOVATIVE APPROACH IN TEACHING NURSING CONCEPT

Booth 25 was about Conceptual Diagram: An Innovative Approach in Teaching Nursing Concept. The nursing curriculum has update their new way of learning by using conceptual diagram. This is to ensure that graduates are competent and globally competitive. This study paved way to a new teaching approach in teaching nursing concept where a conceptual diagram is used to integrate with the aid of technology such as online class, computer, audio-visual aid. This strategy promotes active participation and engagement among the students during class sessions. The changes and improvement that they did in this teaching concept are common learning shifted from instructor-centered to student centered. Furthermore, interaction and engagement of student is evident and observed during class discussion. This study employed the use conceptual diagram and audio-visual aid in the discussion of disease process after the students were tasked to study the assignments posted online. The practice of conceptual diagram uses a systematic technique of presentation of topics where integration of above mentioned strategies are used. As a conclusion from this, in all areas of learning measured in this study, a significant difference existed between the experimental group and control group. This indicates that the retention and critical thinking skills of the participants were greatly improved. Therefore, the practice of traditional teaching and conceptual diagram is effective, however, conceptual diagram was found to be more implicit in enhancing the retention and critical thinking learning skills of nursing students.

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## BOOTH 26 – IMPLEMENTATION OF HOLISTIC SOCIAL LEARNING ENVIRONMENT

Booth 26 about Implementation of Holistic Social Learning Environment. As we know, the amount of unemployed fresh graduates has increase from year to year. One of the reasons of the unemployment is lack of soft skills and communication skills. However, the Ministry of Higher Education (MOHE) have list out the alternatives to overcome this problem. In order to survive in industries, a well-rounded graduate with both character and knowledge need to be produced. Not only that, students need to have critical thinking skills and social skills. Therefore, this study intends to design, implement and evaluate an online social based learning environment that provides the elements of social and cognitive. Learning module have been designed to fulfill social and conceptual aspects in the online learning. This helps students to develop their social and critical thinking skills. The learning module also helps the students to become the creator of their own knowledge and break the common way of studying so that they will not bored. The objective of this study is to design and implement an online learning environment based on holistic approach to append critical thinking skills. Other than that, to main purpose of this study is evaluate the effects of students holistic learning in online social learning environment based on holistic approach on students' performance. Develop framework of holistic learning approach through social based learning environment is the goal of the study. The elements used in this study are social, cognitive and teaching. These elements are combine to form a module as a guideline that was used to conduct learning in holistic social learning environment. Holistic Study Learning Environment is student-centered study where applied the problem-based learning by giving students a real-world problem to the course. Student need to discuss in a group to solve the problem given in online setting through CN. This program gives benefits for student who have difficulties in studying. With the help of this learning, students have a better understanding of what being taught in the class. Other than that, students learnt even more detailed knowledge about their studies. This kind of learning attract students to study and enjoy the subject that they learnt without stress out. Students become the decision maker to solve the problem given to them with facilitation by instructor. This will demonstrate to them that they have the authority to take on their roles by voicing out their opinion. This will make students feel that their opinion matters and can help shaping the decisions. Last but not least, students will actively be taking part in the group discussion to solve critical tasks.

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## BOOTH 27 - ENHANCING STUDENTS' INVOLVEMENT AND SUCCESS IN E-LEARNING THROUGH LEARNING ANALYTICS INTERVENTION



Figure 3: Poster of ENHANCING STUDENTS' INVOLVEMENT AND SUCCESS IN E-LEARNING THROUGH LEARNING ANALYTICS INTERVENTION

Nowadays modern world, various technologies have been created to help students in their study and learning. Learning through online can ease student in many ways such as help they improve their understanding about certain topic and easy for them to search for information. Internet are very useful in this modern world today. By implementing this internet technology in the universities, we can change from learning from face-to-face method into an online learning. This is called online courses or blended courses. Unconditionally, by implementing this method through learning, lecturers will easily to deliver learning materials to student and students just have to log in to their e-Learning account to search for the learning materials inside it. Hence, the data generated by the students in e-Learning can be easily tracked. This learning intervention will help students and lecturers to easily organize their time and timetable. It also enhances the involvement of students and lecturers in e-Learning. The benefits for students are:

### PERFORMANCE

- Academic achievement
- Cognitive Retention

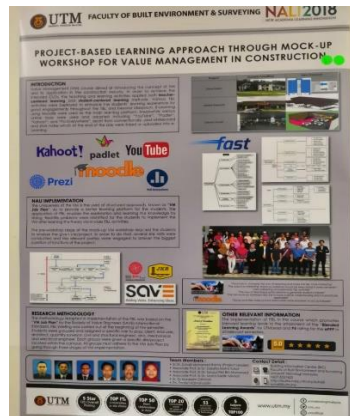
### ENGAGEMENT

- Motivation
- Cognitive engagement
- Learning behaviors

### EMPOWERMENT

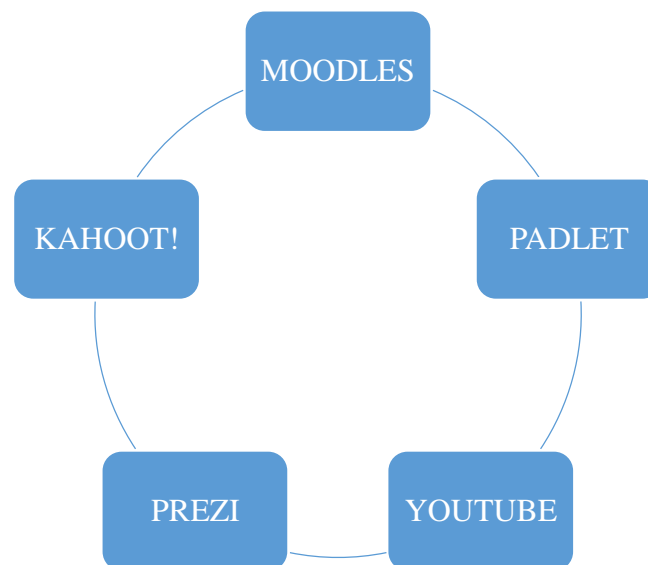
- E-learning environment
- Learning process

## BOOTH28 - PROJECT-BASED LEARNING APPROACH THROUGH MOCK-UP WORKSHOP FOR VALUE MANAGEMENT IN CONSTRUCTION



*Figure 4: Poster of PROJECT-BASED LEARNING APPROACH  
THROUGH MOCK-UP WORKSHOP FOR VALUE MANAGEMENT IN  
CONSTRUCTION*

In this digital era, student sources are not limited just to books or module for studies, they are also, exposed to the media platform that can give them a different learning experience and interface. For example, students can use alternative way of studying if study manually through books has make them lost, to overcome the problem, we may refer to other sources such as YouTube, Moodles, Kahoot, Padlet and so on to obtain a clear view through tutorials. By implemented Value Management courses (VM) in teaching and learning (T&L), it will eventually enhance students' learning experienced beyond the classroom. Moodles are used in e-learning as a main platform for learning. All this are linked for replacing the conventionally of using whiteboard in the class.





## BOOTH 29 - MOBILE APPLICATION-KEMBARA NOMBOR

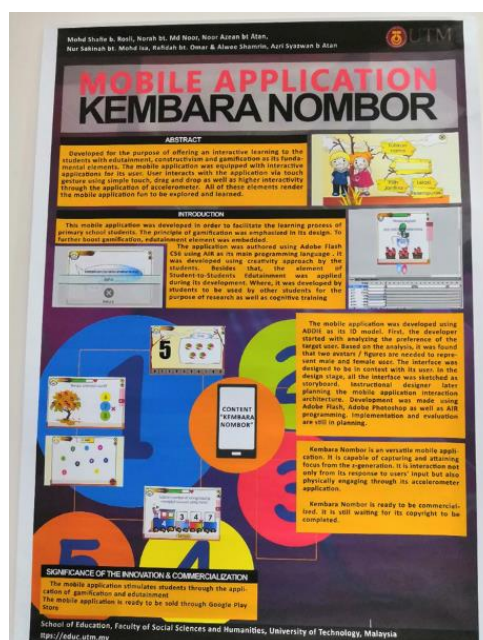


Figure 5: Poster of MOBILE APPLICATION-KENBARA NOMBOR

After that, we went to the exhibition booth 29 which is with the title of MOBILE APPLICATION-KEMBARA NOMBOR and we found out that the staff at there was absent. Then we look at the signboard and look after the poster on the signboard. The detail of it. The team leader of booth 29 was NORAH BINTI MD NOOR. The purpose of this booth was using an interactive learning method with edutainment, constructivism and gamification as the fundamental elements. This mobile application was equipped with the interactive application for its user. The user is able to interact with the application via touch gesture. This action would be a higher interactivity for the user and they will pay more attention in it as this is an effective way in the learning process. The mobile application was developed in order to facilitate the learning process of primary school student. Kembara Nombor is a versatile mobile application and it is capable of capturing and attaining focus from the z-generation.

## BOOTH 30 – APLIKASI AUGMENTED REALITI (AR) DALAM TOPIK GEOMETRI (GeoAR)



Figure 6: Poster of APLIKASI AGUMENTED REALITI(AR) DALAM TOPIK GEMETRI (GeoAR)

The last exhibition booth that we went was booth 30 with the title of Aplikasi Augmented Realiti (AR) dalam topik Geometri (GeoAR). We have meet the staff Dr. NUR FADHILAH ZAKAR

that explain about the GeoAR for us. She said that the technology of Augmented Reality (AR) was necessary in this industrial revolution 4.0. The AR technology allow the user to interact the earth with virtual and reality. The GeoAR was develop to use in the education of geometry as the user can easily understand the distance in the earth by using the Tracker AR which is Combination Multiple Tracker. The staff have also show us the use of this application. First, put GeoARObserver component on the AR camera which is your phone that had download the application and put the GeoARLocation component on your object. After that, if the AR camera is being tracked and replicate the phone movements then we will see the object as if it was located at the given coordinates. She also suggests those who wanted to study the geometry should download this application as this is the easy way to get to understand in the AR scene.

## Trend of NALI

As the technological development of Malaysia is developing nowadays, the trend in this modernization era was based on internet hence the updated learning and teaching system for students is important, the systems for students to learn their course should be easy and convenience. This system can allow student to study their course anywhere and anytime while they are busy at some moment, student can also do revision on internet as they are free, this can help the students to consolidate their knowledge.

In the trend nowadays, the students are required to have the professional skill for their future as they graduate from the university, therefore Centre for Teaching and Learning (CTL), have organized a program which name New Academia Learning Innovation Model (NALI) as a framework use to comprise student-centered and blended learning philosophy, the learning modes in this framework is multiple and the materials is achieving the entrepreneurial academia. There is two learning mode in this framework which is learning mode (Pedagogy/Andragogy) and learning materials (Digital Recourses). Example for learning mode is problem-based learning, service learning, peer instruction, case study teaching and etc. while the example of the learning materials is UTM MOOCs, UTM-MIT BLOSSOMS, student to student edutainment etc. NALI align UTM teaching and learning models, activities, materials, environments and systems with Malaysian National Higher Education Strategic Plan, needs of employers and requirement of accreditation bodies. Secondly, NALI will also emulate the best teaching and learning practices form World's best universities. NALI also allow UTM to develop its own identity which related to teaching and learning models. Besides that, NALI can help to create meaningful and interactive learning actives, material, environments and system which is suitable for UTM Graduate Students Attributes. NALI will success to attract attention from the public then it will become more famous. Many people will join these frameworks as it is the 21<sup>st</sup> century teaching and learning mode for public in this NALI talk series and workshop.

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## REFLECTION

Fadhilah binti Nasir:

What I got from the exhibition NALI is studying and learning is important to us. No matter how hard it is, there always have another alternative to make students have better understanding in the subjects. As we know, technology have grown rapidly these days. The utilization of technology has made the live of students or lecturer easier and manageable. As a student, technology such as computers and internet are used to come up with presentation or carry out some research for better understanding. The usage of technology in education also gives the guarantee as when they graduate, the student will have no difficulties to use it during their work time. Thus, technology is really important in education to have a quality generation in the future.

Ahmad Syamil Aiman bin Mezuki:

The NALI exhibition give me many new knowledge about new technology in teaching and learning. I am really interested in the upcoming new era of education, because of the many merits our society can gain from the new systems/ideas/innovations. I really believe that if the ideas of NALI is implemented properly into our current educational system it can bring our country to much greater heights never be seen before this. I have high hopes towards this program provided it is launched properly. From the intel I have gained through this program, I found out that there is still a lot of ways to improve our education through various creative means, which in turn give me new hope for our generation that the digital age now can be used for our advantage. Imagine that technology can improve our education like this, what other sectors can it improve? Medical? Transportation? In my humble opinion, I really like NALI as it can spark up flames in newer generations.

Chia Yin Jian:

After visited to the NALI exhibition in Sultan Iskandar Hall in UTM, I have realized that the traditional teaching and learning method is no longer effective in this new era. As the technology is updated every day, the traditional method will cause the student study in a slow way and will cause a lot of misunderstanding in their study. Hence, the NALI exhibition have shown me the new method of learning and teaching which is based on online. This method will elevate the interest of student to study in their academic. This is a new experience for me to know more detail about this new learning and teaching method. Besides that, I have found out the method can help the student and educator to save their time and cost in the learning and teaching process. Therefore, to follow up the trend nowadays, the related department should be active to carry out this method to promote the benefit of it. The education level of this country will be evolved as this new method carry forward successfully in the whole country.

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## CONCLUSION

The task of each member	
Fadhilah binti Nasir	Visited to booth 25and 26 Handle the conclusion part and the exhibition content Give the reflection about NALI
Ahmad Syamil Aiman bin Mezuki	Visited to booth 27and 28 Handle the introduction part, executive summary and the exhibition content Give the reflection about NALI
Chia Yin Jian	Visited to booth 29and 30 Handle the trend of NALI, reference and the exhibition content Give the reflection about NALI

As a conclusion, technology has it pros and cons, and we should choose the most appropriate ways to use it or not it will misuse it in a wrong way. We have to lead the technology, not technology lead us. Technology itself play the biggest role in education. They transform the way of learning and teaching from traditional too much easier way which enable students to have a better understanding. With the worldwide reach of internet and the great features of smart devices that can connect to it, a new age of anytime anywhere education is about to begin. This is a great opportunity for the technologist to create a new and fresh alternative to change the old kind of learning so that an effective and efficient education is applicable to everyone in this world.

## REFERENCE

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