



# TEACHING AND LEARNING INNOVATION FOR MAMMALS MICRO-CREDENTIAL@USM COURSE



## ABSTRACT

Challenge in online learning is selection of media for development interactive and innovative visual learning material. Visual media such as video, audio, animation and simulation elements can assist and stimulate student understanding and give positive impact to learning outcome. Another challenge for online learning is lack of learner engagement element, such as teachers and student (no chat room), between fellow students and students with learning material (less or no assessment and reflection). Learner engagement is necessary to strengthen understanding and assist learners to solve difficulty during the learning process and prepare self-paced learning environments. MAMMALS is Micro-credential@USM course, developed using the learning4life platform. These courses are mostly included in first year biology courses at the higher Institute of Education. To achieve interactive and innovative pedagogies, this online course was designed by focusing on the use of visual learning material. Using Mayers and Connectivism theory. A variety of media based on technology are utilized to produce visual learning materials, such as video recordings, video montages, video documentaries, animated videos, and infographics by using digital tools applications such as Genial.ly, Lumen5, Ed Puzzle, PowToon and Filmora. Therefore, these courses also use innovative delivery modes by using memojis iPhone as an instructor to engage and act as motivation tool to the learners. Self-assessment is one of the most important reflections for learner engagement with learning materials. Formative assessments are prepared by using various types of questions such as crossword puzzles, multiple choice, match and categories as a platform to improve learners understanding. Additionally, for learner engagement and to monitor learning, chat rooms for discussion are also used. This course also educates the digital competencies of learner as they are required to complete the task using a variety of digital tools, such as Genial.ly and Canva applications to produce infographics, posters, and videos to complete a task through summative assessment experience-based learning.

## OBJECTIVE

1. Introduce innovative and creative pedagogies in online learning by using various types of digital tools to develop visual learning material.
2. Providing a platform for learner engagement to enable self-paced learning.

## COMMERCIALIZATION POTENTIAL

May be utilized offline for rural pupils by transfer learning material and assessment into a CD.

## LEARNER FEEDBACK

<https://tinyurl.com/57tzcy7k>

## ADDED VALUE

1. Dr. Su memojis iPhone, the instructor, are used to introduce each topic, draw attention to topic activities, quickly define vital ideas, and provide context and explanation for each topic. Face expressions via Dr Su memojis are allow significant nonverbal clues that can convey essential interpersonal intentions, being present, engagement and motivation.
2. Drawing animation for module two (Functional adaptation of different Order of Mammalian) are used to help students understand to the topic via visual learning.
3. Interactive and creative digital learning tools such as Genial.ly, Lumen5, Ed Puzzle, PowToon and Filmora are used to develop visual learning material such as video recordings, video montages, video documentaries, animated videos, and infographics will encourage learner engagement and content's interaction with learner.

<https://tinyurl.com/3ehurkz7>

## USEFULNESS

1. Formative assessment uses various types of questions such as crossword puzzles, multiple choice, match, and categories for each module. The advantage of different types of question forms for students is to improve understanding and monitor learning. The Ed Puzzle tool, which pauses a video, is also used for formative assessment.
2. Summative assessment that instructs students to use various digital tools such as genially.ly and Canva applications, educate students the skills of utilising digital applications in learning.
3. Active learning techniques such as chat rooms and learner respond from peer post are also used to allow students develop critical and higher order thinking skills.
4. The experience-based learning given in the Final Assessment (Field Report) promotes learners engage in critical thinking.
5. At the end of the subtopic in the Module B, learners need to respond in the comments box by given star rating, to give reflection to the learners.
6. Learner engagement strategy :
  - a) Learning activities and assessment aligned with the learning outcome.
  - b) Interactive and creative digital learning are delivering by using visuals, audio, and video.
  - c) Subtopic module a short
  - d) Encourage learners to read, respond and learn from peer posts.

<https://tinyurl.com/4a3vdfd6>

Dr Norsuhana Abdul Hamid

**PPPJ** PUSAT PENGAJIAN PENDIDIKAN JARAK JAUH  
 SCHOOL OF DISTANCE EDUCATION  
 Universiti Sains Malaysia  
 11800 USM, Penang, Malaysia  
<https://pppj.usm.my>  
<https://www.facebook.com/School.of.Distance.Education.Official>  
<https://www.instagram.com/sde.usm/>  
 sdeusm  
 School of Distance Education USM

