NURTURING NEW NORMS IN E-ASSESSMENT

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Editors:
ANUAR MOHD YUSOF
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PREFACE

This book is a serial collection of teaching and learning (TnL) innovation from the competition of *Teaching Enhancement & Learning Innovation Carnival 2020* (eTeLIC 2020). It is the first-ever virtual carnival organised by the Centre for Academic Excellence and Development (CAED), Deputy Vice-Chancellor (Academic & International) Office, Universiti Malaysia Kelantan (UMK) on 21 September 2020 through an online platform, Google Meet. 114 entries from higher educational institutions and schools all over Malaysia had participated in the carnival. The carnival fits with the current situation that encourages remote teaching due to the COVID-19 crisis with the theme of *New Norm: Cultivating Online Learning.* Educators are massively affected and they critically need to learn, unlearn, and relearn to remain sustained and relevant in the inevitable paradigm shift to online learning. This book has 13 innovations in e-assessment with constructive alignment that takes into account cluster determination following MQF 2.0. The contributors of the book shared their current Teaching and Learning (TnL) innovations, ideas, as well as best practices that are critically needed to be adopted and adapted especially in the midst of the COVID-19 pandemic. The uniqueness of each approach is that combining a few Web tools such as Wakelet, Trello, Padlet, Google Suite, YouTube, Wix, FlipGrid, Kaizena and others to create all assessments can be monitored via online. The e-assessment can be applied across all disciplines either in Science or Social Science. The success of e-assessment approaches are measured in terms of CLO achievement, students' feedback, Teaching and Learning Evaluation and improvement of technologies. In addition, the QR code in every chapter denotes the explanation about the innovation in powerpoint slides. This book may serve as a guide not limited to lecturers but also to other educators such as schools, matriculations, polytechnics, and other institutions.

Editors
Anuar Mohd Yusof
Ruhil Hayati Hamdan
Nazahatul Anis Amaludin

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CHAPTER 8: CATS MODEL OF E-ASSESSMENTS FOR SOCIAL SCIENCES COURSE

Adibah Yusuf, Farah Zaini and Nadzirah Yusuf

Learning Outcome(s)

Cluster 1, 2, 3A, 3B, 3C, 4A, and 5.

Course Area(s)

Social Sciences

INTRODUCTION

The project is designed to coincide with the present-day generation that is more readily acceptable in terms of assessment methods that are parallel to their age, which is a technology-oriented age and not entirely dependent on traditional assessment methods. This project was specially created for first year students who register for the course.

The CATS Model of e-assessments approach initiative is designed and aimed to correspond with the current generation and its assess method which is more acceptable to their age, particularly a technologically advanced method that is not fully reliant on traditional evaluation methods. As previously stated, this project is prepared specifically for first-year students enrolled in the Introduction to Social Sciences course.

As specified, the course is offered to the first year students of the Faculty of Social Sciences, therefore, as they are new to the syllabus, the Introduction to Social Science course is often regarded as "dry" and monotonous because it entails a lot of reading materials, long

and solid lecture notes and lecture-based classes. As lecturers, we cast the e-assessment approach on making this course entertaining and capable to allot students with diverse impressions following the course. Hence, we chose to shift from traditional assessment approaches to e-assessment approaches through the CATS Model which was implemented by Angelo and Cross for college teachers and students in 1993. By utilising this strategy, the students are able to involve themselves with various assessment activities and enable to produce 5C's, that would be Creative, Competitive, Competent, Confident and Critical Ideas students.

INNOVATION

In an e-learning environment, there are various ways for getting the learning elements online as there are vast tools available to perform the e-assessment in Social Sciences courses. Although some of the tools are developed by individual organisations for their own purpose, there are public platforms which can be utilised by the general audience. The CATS model of e-assessment in social sciences courses, which uses UNIMAS eLEAP (University e-learning platform) is the focus of this study and public platform as assessments platform.

eLEAP is the name of the integrated learning platform developed by UNIMAS for convenient e-learning between students and lecturers. While the public Web2.0 tools consist of various forms of free or paid applications such as Kahoot, Wix, Flipgrid, Padlet and others.

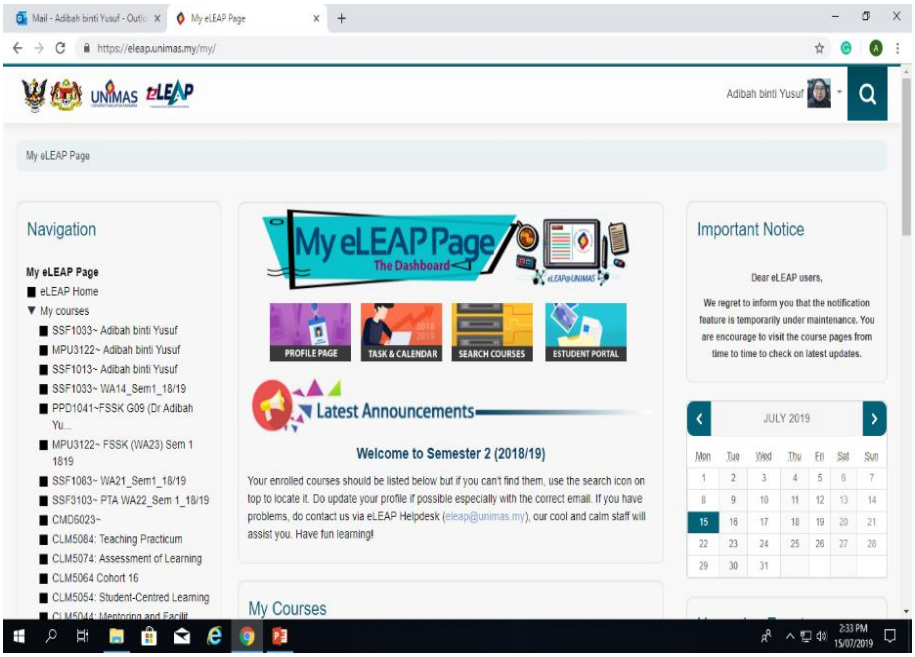

Figure 8.1: UNIMAS eLEAP platform

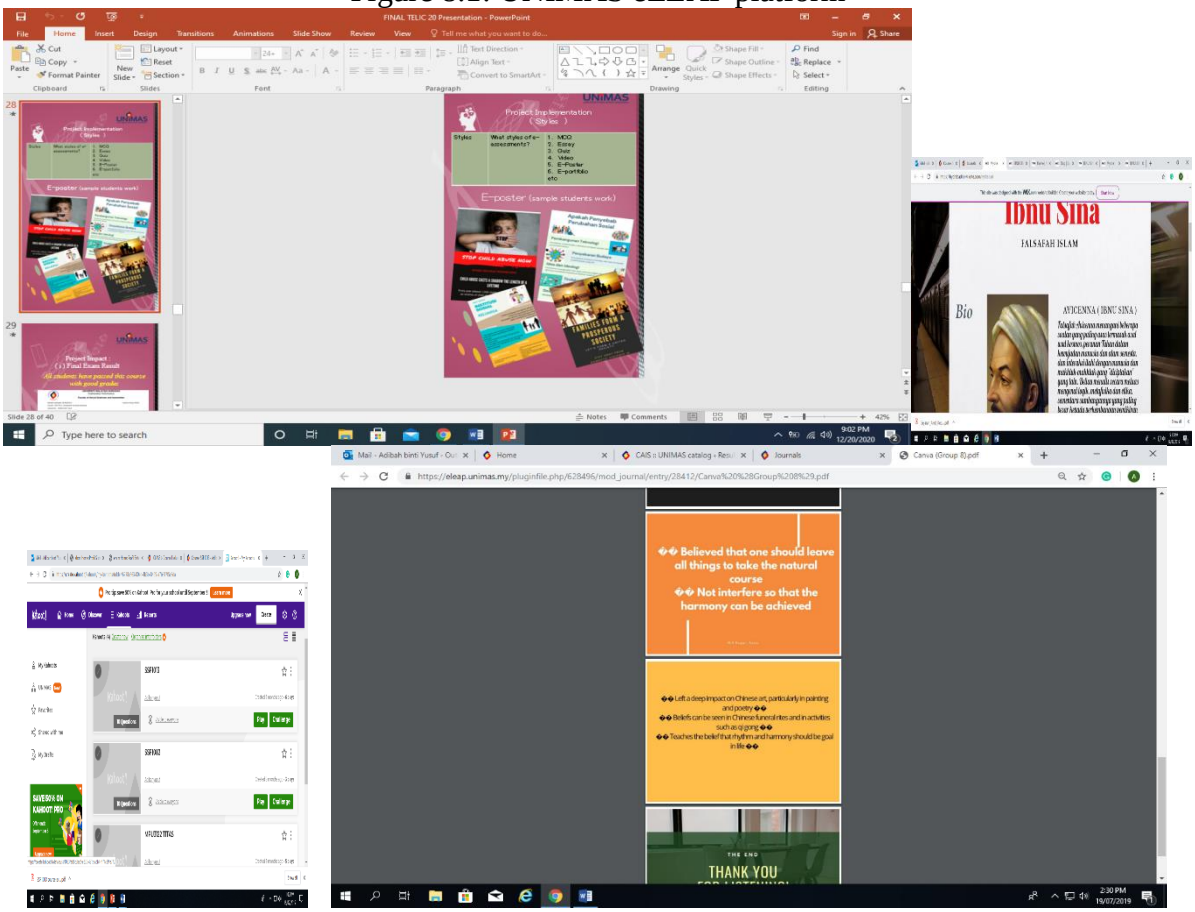

Figure 8.2: Sample of public platform

Project Rationale:

1. The need to expose in sync with existing technology to the e-assessments process facilitates fast and unambiguous learning progress, making it simpler to provide students with relevant materials and analyse on their performance and areas that require learning attention;
2. E-assessment not only helps students but also lecturers to vary learning mechanisms and strategies through innovation and technology. Together with this, e-assessment will also reduce the burden of cost, organising and running learning materials; and
3. In this pandemic, e-assessments are flexible and remote invigilation, which gives the ability to focus on their comfort and easier to adapt for students with disabilities.

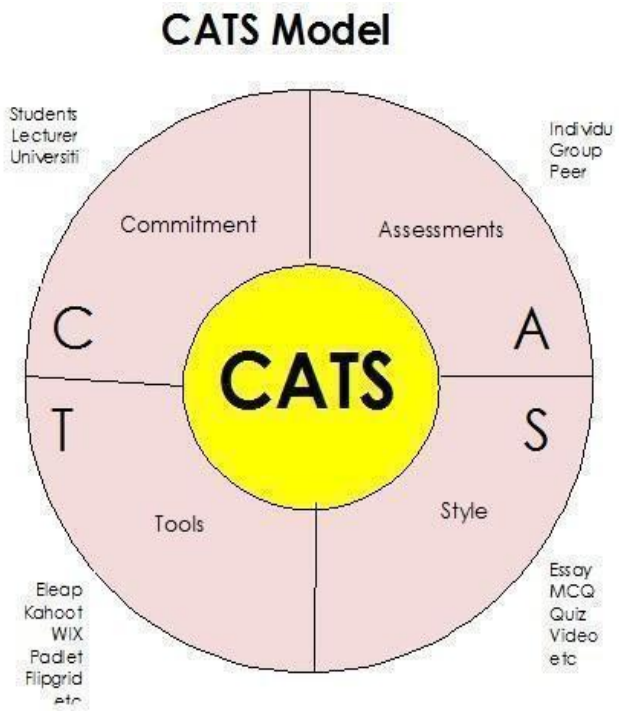

Figure 8.3: Project Model

The CATS Model was enforced by Angelo and Cross for college teachers and students in 1993. Classroom Assessment Techniques (CATs) provide a theoretical model for implementing CATs in higher education for the online classroom. Angelo and Cross mentioned "The central purpose of Classroom Assessments is to empower both teachers and their students to improve

the quality of learning in the classrooms". Instructors can employ formative assessments and address the instructional goal of meeting students' learning needs by implementing CATs.

Below are the values added for CATS Model of e-Assessments for Social Sciences Course:

1. Value added for 4 main aspects, commitment, assessments, style and tools.
2. Eleap Online (UNIMAS elearning platform) and Public platform;
3. Course : SSF1013 Introduction to Social Sciences;
4. Year 1, Session 2-2019/2020; and
5. Number of students: 75 students.

DESCRIPTION OF APPROACH

Over the years, the immense progress of the Internet and related technology made online education an acknowledged process of learning. Despite the existence of a number of well-known platforms, such as Learning Cloud, it was still not the prime choice for students or mainstream academic institutions. Then the COVID-19 outbreak happened. According to Sobaih, Hasanein and Abu Elnasr, the pandemic has influenced the interaction between teachers and students in higher education institutions and has changed the teaching-learning process. Universities were forced to carry out their activities with students exclusively online as a result of the pandemic. (ref: Sobaih, A.E.E.; Hasanein, A.M.; Abu Elnasr, A.E. Responses to COVID-19 in Higher Education: Social Media Usage for Sustaining Formal Academic Communication in Developing Countries. *Sustainability* 2020, *12*, 6520.)

The pandemic indeed has sparked a worldwide shift in today's academic structure. In the last few months, almost every university and institution has introduced online versions of their regular learning courses. From the good old e-learning courses to pre-recorded sessions, afterwards to live virtual classrooms, online learning has evolved at an unprecedented rate. Previous research has shown that E-learning has numerous advantages for students because it is more flexible and student-centered. However as argued by Yusuf and Al-Banawi (2013), there are a few other factors to consider as well in students' learning processes, such as a lack of motivation, delayed feedback or aid since teachers are not always present when students need help during studying, or feelings of loneliness owing to a lack of physical presence of classmates. (ref: Yusuf, N.; Al-Banawi, N. The Impact of Changing Technology: The Case of E-Learning. *Contemp. Issues Educ. Res.* **2013**, *6*, 173–180.) Due to this, lecturers like ourselves

are forced to find a way to make the learning courses interesting and comprehensible, hence we have chosen the CATS model. There are many substantial benefits of the CATS model that are curated for the learning requirements in the digital world of knowledge. Even without the quarantine restrictions of such trying times, these advantages remain as true as ever.

CATS model also allows the freedom to gain knowledge endlessly, beyond geographical boundaries and without hassles of long commutes or relocation. The Internet provides you with wide access to never-before knowledge repositories. As Murray (2015) contends, “Together, these advances are propelling us toward a new industrial revolution,”. (ref: Murray A. 2015. The New Industrial Revolution. p.6. Retrieved from https://fortune.com/2015/04/22/fortune-new-gigaom-writers/) Lecturers must either figure out how new technologies will revolutionise their teachings. Therefore, the movement of online research materials has resulted in a diversity of informal scientific communication methods. Sail through the ocean of textual contents or learn using self-explanatory animations or videos at minimal to no cost.

CATS model beats the traditional ventures hands-down with flexibility and easy operations. It expands tasks accordingly and makes it easier to manage. All CATS model contents are created keeping user experience a primary focus which also gives the students the tools they need to develop into productive and systematic learning development. Apart from that, CATS model ways of learning are best suited for students as this digital revolution has led to remarkable changes on how the content is accessed, consumed, discussed, and shared. Social contact was at the heart of the previous big wave of technological advancement. The next one could feature ubiquitous computing, a developing general technological paradigm. This approach isn't restricted to a single technological platform. Instead, it depicts information and communication environments in which computer sensors (such as RFID tags, wearable technology, and smart watches) and other equipment (tablets, mobile devices) are integrated with a variety of objects, people, information, and computers, as well as the physical environment.

Unlike classroom teaching, this type of module learning can access the learning course content in an unlimited number of times. This is especially required at the time of revision when preparing for an exam. Students are able to look up for materials and understand expeditiously on the syllabus that they are unclear with. In the traditional form of learning, when one cannot attend the lecture, one must prepare for that topic on their own; but with this CATS model, you can attend the lectures whenever they need with ease.

A prime benefit of CATS model is that it makes sure that the students and lecturers are synchronised with modern learners which enables the students to access updated content. The CATS model is a way to provide quick delivery of lessons. As compared to traditional classroom teaching methods, this mode has relatively quick delivery cycles. This indicates that the time required to learn is reduced to 25%-60% of what is required in traditional learning.

The CATS model helps in creating and communicating new training, policies, concepts, and ideas. Either it is for formal education, entertainment or even organisation, it is the fastest way of learning. CATS model enables lecturers to get a higher degree of coverage to convey the message consistently for their target audience. Information and communication technology is currently transitioning to a new stage based on ubiquitous computing as well as alludes to a situation in which computer technology is embedded in practically everything, allowing everyone to access and manage their surroundings at any time and from any location. This model ensures that all learners receive the same type of training with this learning mode.

On the other hand, as the CATS model is a paperless and eco-friendly method of learning, it protects the environment to many extents. It has been found that distance-based learning programs consumed around 90% less power and generated 85% less amount of CO_2 emissions as compared to traditional campus-based educational courses. The rapid development of technology now requires innovation and transformation in education. This model focuses on commitment, assessment, tools, and styles (Table 8.1). For example, the need for a commitment from universities, instructors, and students. Assessment involves individuals, groups and peers. They are two tools used in this method. eLEAP system developed by UNIMAS and strictly for their lecturers and students only. While the public platforms such as Kahoot, Padlet, and Canva that are accessible to the public.

The style or methods used for evaluation are MCQ, essay, quiz, video, e-video, e-poster etc. According to Mosa, Yoo, and Sheets (2011), mixed assessment patterns are two main elements, learning in the classroom with online learning.

Table 8.1: Components of CATS Model

Model	**Question(s)**	**Components**
Commitments	1. Who? 2. What? 3. How? 4. Where?	1. University, Instructor, Students 2. Good commitments 3. Fully online 4. Individual places

	5. When?	
Assessments	What type of assessments?	1. Individual 2. Group 3. Peer
Tools	What type of tools?	1) Developed by organizations (eLEAP UNIMAS) 2) Public platforms (can used by anyone): Wix, Flipgrid, Kahoot, Padlet, Canva, Quizzes, etc.
Styles	What styles of e-assessments?	1. MCQ 2. Essay 3. Quiz 4. Video 5. E-Poster 6. E-portfolio

The CATS model has a positive influence on an organisation's profitability. It makes it easy to grasp the content and digest it:

1. It results in improved scores on certifications, tests, or other types of evaluation;
2. Higher number of students who achieve 'pass' or mastery' level;
3. Enhanced ability to learn and implement the new processes or knowledge at the workplace; and
4. Help in retaining information for a longer time.

Project Impacts / Results

1. All students have passed this course with good grades;
2. All CLOs are achieved;
3. Blended Course with 3 STARS;
4. Good feedback/ comments from students; and
5. All students responded with a course evaluation result was 94.64%,.

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