UNIVERSITI TEKNIKAL MALAYSIA MELAKA

CHALLENGES OF INNOVATIVE TEACHING APPROACH IN TERTIARY
EDUCATION

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DECLARATION OF ORIGINAL WORK

I hereby declare that all the work of this thesis entitled "CHALLENGES OF INNOVATIVE TEACHING APPROACH IN TERTIARY EDUCATION" is originally done by myself and no portion of the work encompassed in this research project proposal has been submitted in support of any application for any other degree or qualification of this or any other institute or university of learning.
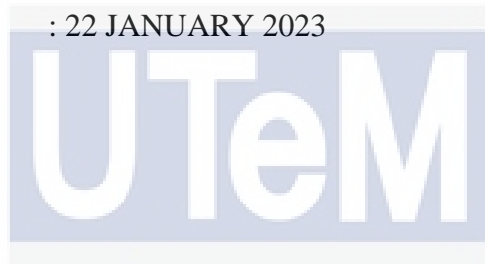
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ABSTRACT

This study aims to investigate emerging learning techniques and challenges that educators in the subject of management face throughout the innovation of teaching, Health and Education, and Computing. encountered in using Virtual Learning during the Covid-19 pandemic in particular. The study was conducted covering Public Higher Education Institutions in Malaysia and focused on the State of Melaka in particular. Previous studies have revealed that although similar studies to the latest have been conducted in different countries around the world, conducting it in other different countries like India and in different contexts may provide new information. This study uses the Pedagogy approach as a theory because it is relevant and appropriate. This study is supported by constructivism paradigms, qualitative design as well as qualitative case studies. Sampling techniques are intended to be used in this research. Samples will be given to 8 to 10 instructors as study participants. This qualitative case study is based on online and face-to-face interviews that will be issued to lecturers. Data is generated based on emerging themes. The findings of the study based on several articles show that the majority of educators find Virtual Learning useful and user-friendly tools. However, facing challenges, it is necessary to give adequate focus and clear instructions to students. In general, conducting online learning will inevitably raise internet connection issues, as well as data expenditure has been identified as a stumbling block that discourages students 'satisfactory engagement in Virtual Learning. Further discoveries reveal a variety of strategies including encouraging students to collaborate, grading student participation on the online platform, and consultations that can be used to overcome the challenges faced in using Teaching Innovation.

Keywords: teaching innovation, online learning, internet, educator, technique

ABSTRACT

BAHASA MALAYSIA VERSION

Kajian ini bertujuan untuk menyiasat teknik pembelajaran baru muncul dan cabaran yang mana tenaga pengajar di bahagian subjek pengurusan hadapi sepanjang melakukan pendekatan terhadap inovasi pembelajaran. Pelbagai cabaran yang perlu dikaji seperti kesihatan dan pendidikan serta pengkomputeran yang dihadapi dalam menggunakan Pembelajaran Secara Maya semasa pandemik Covid-19 khususnya. Kajian dijalankan merangkumi Institusi Pendidikan Tinggi Awam di Malaysia dan tertumpu di Negeri Melaka terutamanya. Kajian yang dijalankan sebelum ini mendedahkan walaupun terdapat kajian yang serupa namun, yang terkini telah dijalankan di negara yang berbeza di seluruh dunia, menjalankannya di negara lain yang berbeza seperti india dan dalam konteks yang berbeza mungkin memberikan maklumat baharu. Kajian ini menggunakan pendekatan Pedadogi sebagai teori kerana ia relevan dan sesuai. Kajian ini disokong oleh konstruktivisme paradigma, reka bentuk kualitatif serta kajian kes kualitatif. Teknik persampelan bertujuan digunakan dalam kajian ini. Sampel akan diberikaan kepada 8 ke 10 tenaga pengajar sebagai peserta kajian. Kajian kes kualitatif ini adalah berdasarkan temu bual dalam talian dan bersemuka yang akan dikeluarkan kepada pensyarah. Data dijana berdasarkan tema yang muncul. Dapatan kajian berdasarakan beberapa artikel menunjukkan bahawa majoriti pengajar menemui Pembelajaran Secara Maya berguna dan alat yang mesra pengguna. Walau bagaimanapun, menghadapi cabaran, perlu memberi tumpuan yang secukupnya dan arahan yang jelas kepada pelajar. Secara amnya menjalankan pembelajaran secara atas talian pasti akan timbul isu sambungan internet, serta perbelanjaan data telah dikenal pasti sebagai batu penghalang yang tidak menggalakkan penglibatan memuaskan pelajar dalam Pembelajaran Secara Maya. Penemuan selanjutnya mendedahkan pelbagai strategi termasuk menggalakkan pelajar bekerjasama, menggred penyertaan pelajar pada platform dalam talian dan perundingan boleh digunakan untuk mengatasi cabaran yang dihadapi dalam menggunakan pendekatan inovasi terhadap pembelajaran.

Kata kunci : Pembelajaran inovasi, atas talian, internet, teknik pembelajaran, pengajar

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CHAPTER 1

INTRODUCTION

1.1 Introduction

The researcher's topic is the application of teaching innovation, and this chapter offers information on background studies. Similarly, researchers debate the difficulties of teaching innovation in higher education. According to the researchers, this chapter is the start of a dialogue that will lead to a significant study. The researcher then addresses the problem statement, the research problem, the research purpose, the study's scope, limitations, and essential assumptions, as well as the study's impact.

1.2 Background of the study

We must first define **"Innovative Teaching"** as a prelude to this study. Innovative teaching implies that the instructor is the creator, but this does not always imply that the students are the creators. Innovation is about thinking of new methods to better a product, a process, or an idea, not merely doing something new. What can Tyler and other instructors do to help students become better innovators? We believe that three critical changes to lesson preparation can help them: teach declarative knowledge so that it sticks, explicitly teach thinking abilities, and use technology to increase access to information (Jane E. Pollock et al., 2021)

Innovative teachers in the modern era are instinctively aware of student issues such as a lack of understanding, a loss of attention, low engagement, or demotivation. They are always looking for innovative ways to keep kids focused, urge them to perform their best, and encourage them to achieve success. Innovative teaching occurs when good teachers are inventive and creative, constantly discovering and devising new techniques and content to guarantee that students have the best possible learning experiences. However, keep in mind that invention and innovation are not synonymous. Invention necessitates the presence of a

creative individual, whereas innovation necessitates the presence of a brave community (See Rogers' Diffusion of Innovation Theory, 2003). As a result, innovative teachers must have the confidence to implement new methods and content, especially if it contradicts the culture in which they operate.

Experts in higher education in the United States believe that strict adherence to policies can ensure the best possible learning environment for a varied group of pupils (Gurin, Dey, Hurtado, & Gurin, 2002). It's impossible to effectively teach these pupils from all walks of life while adhering to a set of precise courses and syllabus. Similarly, a teacher who uses the same lesson plans for all of his students will not be able to fulfill the goal of an effective learning process, and his students would suffer greatly. A teacher's intellect must be adaptable and innovative in order to keep kids from suffering. Students are requesting more freedom from their educational institutions (McDonald & Reushle, 2002). Flexibility is essential for meeting the various learning needs of diverse student cohorts (Yorke & Thomas, 2003).

Before diving into research on innovative of teaching approaches, I'd want to share some findings from a recent Covid-19 season study. During the epidemic, online teaching has been the subject of intense debate for everyone in university education, as many university staff experiences the extreme stress and workload associated with online mobile teaching, and a number of students complain about the quality of their learning experiences. The lack of pandemic warnings is one of the factors that makes online teaching so difficult. The teaching staff was suddenly and unexpectedly required to prepare and conduct online classes from home, posing a number of practical and technical challenges that many still confront today (Benjamin Skuse, 2021)

To summarise, some scholars have already begun or are planning to do this type of topic research, although Malaysia has a rich history of innovative teaching. As we all know, the internet is becoming more widely available, which means that people in Malaysia should be able to take advantage of online learning opportunities. It is preferable to do a straightforward study that is unquestionably new. Online instruction is becoming increasingly popular among university students.

1.3 Problem Statement

Innovation is an element that is difficult to categorize. Almost every "new" technique, program, resource or idea that deviates from the norm may be considered "creative" by some. On the other hand, some believe that only the most revolutionary, transformative or disruptive processes or materials are true "innovations". (Thomas Hatch, 2016). Many lecturers noted that the structure and curriculum of the courses they taught hindered their ability to use new teaching methods. "There are too many issues to deal with," said one of the lecturers. (Cachia et al. 2010) discuss how curricula are often cluttered with content, limiting opportunities for creative and innovative ways of learning in practice.

Furthermore, lecturers' efforts to reflect their teaching techniques to see if they meet the wants and needs of students. Personal efforts, teaching beliefs, teaching dedication, and personal expertise are among the characteristics that influence innovative and creative teaching, according to (Hamed et al, 2016). According to (Nicolaides, 2012), education is a powerful tool for social change and transformation, and innovative teaching practice is the only method to improve educational quality. The impact of technology on the education industry should be used to influence not only how education is provided, but also how students view education (Marshal, 2002).

However, there are several issues that lecturers can notice with centralizing different innovations in learning. One of these is the shift from in-person to online learning practices brought forth by the Covid-19 pandemic. This forces lecturers to develop a variety of learning strategies that are appropriate for the circumstance. The university quickly rushed to switch several courses and programs from physical transmission mode to online during the entire Covid-19 academic year, canceling campus events includes conferences, workshops, sports, and other programs (Gewin, 2020). Students who learn online become distracted, and some of them become so out of control that it affects their mental health.

According to Education Minister Dr. Mazlee Malik, lecturers should be dynamic and adapt to numerous developments while maintaining the essential ideals of higher education, as said at the Education Minister's Special Award Ceremony: Innovative Curriculum Design and Delivery 2018 (AKRI 2018). This shows that instructors should be more innovative while entering the field of education; further, the younger generation is increasingly interested in advanced technology and gadgets.

The problems that have been listed must be addressed in a variety of ways. One of the reasons why educators should be appreciated by the environment is because educators have a strong desire to have a clear voice in policymaking, which should not be overlooked. Teachers are highly trained, respected, and trusted professionals who deserve more say in policy decisions that affect their job and, in many cases, personal lives (Anna Mogato,2020). According to the Society for Human Resource Management 2020 (SHRM), continuous overtime may result in an overtime-dependent workforce, increased absenteeism, and poorer productivity.

1.4 Research Question

1. What are the most cutting-edge and effective educational systems and techniques available to students?
2. Do lecturers face challenges in implementing new learning techniques?
3. What is the most significant impact of the application of this new teaching technique to lecturers?

1.5 Research Objectives

1. To identify the most effective techniques in an innovative teaching approach that can improve and draw students' attention.
2. To explore the challenges that arise from the adoption of innovative teaching methods in higher education institutions.
3. To discover the extent to which alternative learning approaches impact students at the institute.

1.6 Scope and Limitation of Study

The purpose of this research is to look at the methods and barriers to bringing teaching innovation to the tertiary level. The focus of this study is on Malaysian lecturers who teach management courses. The disadvantage of this study is that it only covers lecturers who teach at Public Institutes of Higher Learning (IPTA), especially the lecturers at the Faculty of

Technology Management and Entrepreneurship at UTeM . herefore, the findings of the study can be used in every state in Malaysia. The basic assumption is that the researcher expects all respondents to be honest, truthful, and knowledgeable about the study issue.

1.7 Summary

In this chapter, the researcher discusses the background of the study and the problem statement. The purpose of this study is to examine the challenges in innovative teaching to tertiary education approaches. In this study, the researcher chose lecturers who teach in management majors in higher education because it is to get more accurate information. In addition, most in higher education there are challenges to be aware of. Therefore, the objective of the study in the study is (i) to identify the most effective techniques in an innovative teaching approach that can improve and draw students' attention (ii) to explore the challenges that arise from the adoption of innovative teaching methods in higher education institutions and (iii) to discover the extent to which alt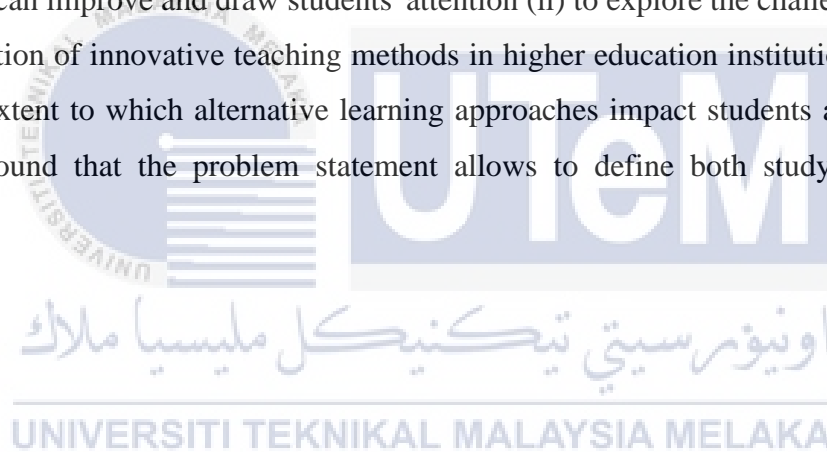ernative learning approaches impact students at the institute. Researchers found that the problem statement allows to define both study and research questions

CHAPTER 2

LITERATURE REVIEW

2.1 Chapter Overview

There are several sections in this essay. We begin by providing an overview of the techniques that lecturers can use to deliver sophisticated teaching methods. Next, review some of the responsibilities involved in teaching students the correct method. Next, consider how serious the challenges will be faced by lecturers especially in the field of management in emphasizing online learning strategies. Analyze the impact of COVID-19 on teaching and higher education innovation, to completion. Discuss the consequences, strategies, and issues actually experienced by the lecturers at the end of this study.

2.2 Introduction

The researcher focuses on the definition of instructional innovation in this chapter. Besides that, the researcher explains the process to students by introducing learning innovations. After that, the issue is to put innovation into practice, which is one of the subjects covered in this chapter. Finally, the study produced a theoretical framework for associating independent variables. It aids in the development of a clear set of ideas and a better direction and understanding of previous work relevant to the research question and the study's objectives throughout the review literature.

2. 3 Literature Review

Many students are left behind by an education system that some consider to be in crisis, (John Dunlosky et al., 2013). Improving educational outcomes will necessitate efforts in a variety of areas, but the underlying premise of this strategy is that one part of the solution is to

assist students in better regulating their learning through the application of effective learning techniques. Summarization, highlighting, the keyword mnemonic, imagery use for text learning, and rereading all obtained a low utility rating. For a variety of reasons, these strategies were deemed to be of limited benefit (Katherine A. Rawson & Elizabeth J. Marsh, 2013). As a reason, employing new techniques to bring students closer to learning in an innovative way is key, as this can improve their learning to some level.

Active learning techniques, a teaching technique that improves student participation in everyday classes, place students at the center of the classroom. Active learning advocate (James Ballencia, 2021) claims that the practice can benefit teachers just as much as students. According to research by the (Gates Foundation,2021), when used to augment math class, individualized learning can increase test scores. Over the last two years, students attending [personalized learning schools] achieved much better increases in math and reading than a virtual control group made up of identical students from comparable institutions. Teachers should demonstrate how to use their gadgets during the instruction or new material portion of a session, rather than using them just for guided or independent practice, according to the i5 approach (Laura J. Tolone,2021).

As the coronavirus takes a toll on education around the world, more and more teachers are being compelled to instruct their kids from home. There are significant hurdles and methods you'll need to successfully manage distant teaching. Challenges using online teaching tools due to technical issues. Distance teaching has become a lot less intimidating as a result of advances in EdTech over the last decade, but there are still some concerns to be aware of (Jackson Best, 2020). Before you begin, be sure your students have reliable access to technology. Online teaching, unless well created with deliberate instructional design decisions, can, unfortunately, turn students into passive learners. According to (Karen Quevillon, 2021) Students must be involved in the quality, breadth, and depth of their learning in order for it to be truly effective.

VARK is an abbreviation that stands for Visual, Auditory, Reading/Writing Preference, and Kinesthetic learning styles. VARK's primary concepts are detailed in Learning Styles. Again: Up the right tree, VARK! (Fleming & Baume, 2006). Identifying your students' learning styles, your overall curriculum with these styles will benefit the entire classroom. Someone who prefers visual learning enjoys looking at and observing items such as photos, diagrams, written instructions, and more (Callie Malvik, 2020). This learning technique is also known as "spatial" learning. Aural learners are affected by sound, music, records, rhymes, and rhythms,

among other things. They have a good memory for dialogues, and music elicits an emotional response in them (Rasool Somji, 2018). As an example, recommend that they go through the content while listening to music.

The classic five teaching styles, expert, formal authority, personal model, facilitator, and delegator, were developed by the late Anthony F. Grasha, a distinguished professor of psychology at the University of Cincinnati. To achieve learning objectives, the delegator organises group learning, watches students, provides guidance, and fosters interaction between groups and individuals. (Eric Gill,2020). The delegator method of teaching delegated much of the learning responsibilities to the students, who are encouraged to collaborate on projects related to the lesson subjects (think science labs, debates, etc.). The teacher is an active observer in this technique, guiding students in the appropriate way (Joseph Lathan, 2020).

Lockdown and social distancing measures imposed in response to the COVID-19 epidemic have resulted in the closure of schools, training institutions, and higher education facilities in most countries, according to an essay by (Sumitra Pokhel, Rashan Chhetri, 2022). Through numerous online platforms, educators are delivering high-quality education in a new way. During the pandemic, e-learning tools were critical in assisting schools and universities in facilitating student learning during the shutdown of universities and schools (Subedi et al., 2020). As a result, there exist a wide range of subjects with diverse requirements. Various disciplines and age groups necessitate various ways to online learning (Doucet et al., 2020). Students with physical limitations can also benefit from online learning because it allows them to participate in learning in a virtual environment that requires less movement (Basilaia & Kvavadze, 2020).

2.4 Innovative of teaching

Experiential learning stimulates critical thinking and creativity (Enaksi Sengupta, Patrick Blessinger, 2022), which is one of the teaching innovations. Educators frequently forget that they have a duty to dream and create spaces where everyone has the opportunity to be creative and bring out the best in themselves in their efforts to prepare students for real-world occupations and difficulties as well as equip them with 21st-century skills. The purpose of this program is to strengthen educators' and teachers' confidence and understanding in employing various innovations and methods in the classroom to inspire students to be more creative and

develop their critical thinking and problem-solving skills. Instructors will be able to manage the ever-changing realities in which they will successfully apply their 21st-century abilities to address difficult and open-ended challenges in this way, and will be excellent managers and directors of the future.

Moreover, half of the countries that create expert panels and peer panels use consensual innovation evaluation techniques (Vijaya Sherry Chand, Samvet Kuril, Ketan Satish Deshmukh and Rukmini Manasa Avadhanam, 2020). There are several roles that can be taken in teacher innovative behavior (TIB) in addressing student demands as well problems faced by universities (Thurlings et al., 2015; Andiliou and Murphy, 2010; Chand, 2014). Among its roles are conducting teacher-driven innovation assessments and assessing the differences between expert assessments and peer assessments. Through reviews of TIB, Thurlings et al. (2015) define TIB as "self-initiated, three-stage processes namely (1) deliberate generation of ideas, (2) promotion of ideas, and (3) realization of ideas. Like understanding incorporates not only ideational conditions but also "execution" in the creativity – innovation continuum (Fullan, 2011). Therefore, educators need to focus on the output of the innovation process, defining it as a self-developed educational action that has "produced achievement of specific educational goals and incorporating novel or unique response to student problems or needs.

Next, make the individual a correlation to the innovation of the instructor. In a review of innovative behaviour, Thurlings et al. (2015) provide a comprehensive list of things that can influence the innovative behaviour of an instructor under three streams namely demographics, individual factors and organizational factors. Demographic trends are known to be a weak correlation to workplace innovation in general (Hammond et al., 2011). Through this, the focus is on the public school system, where organizational factors such as supervisory processes and resources are common. Therefore, it focuses on individual factors, among which Thurlings et al. (2015) identified self-efficacy as very important to educators, Liu et al. (2016) stated the role of creative self -efficacy i.e. the ability to be creative in the workplace especially (Tierney and Farmer, 2002), as an educator who needs to prioritize innovation in learning. Closely related to this is intrinsic motivation, identified by Hammond et al. (2011) as a key factor in individual workplace innovation, and contributes to the state of creativity. Two other innovations, "learning orientation" and "proactive personality," are also cited in the same literature as key factors influencing other individual factors that contribute to instructor innovation.

The next innovation is (Rahul Khandelwal et al. 2020) that which educators provide opportunities and space for all students with disabilities to be involved in the classroom without discrimination, and development is given incentives using Information and Communication Technology (ICT). Individual recital of every faculty affiliate is a crucial aspect in achieving quality inclusive education. Educators must expand their abilities and competencies by breaking out of their comfort zones. In order to adapt and employ technology properly, an educational institution must also provide adequate facilities to academics and students without discrimination. This is a critical strategy for supporting educators in recognising and investigating the use of this epistemology in new innovative inclusive teaching pedagogy with industry 4.0 technology.

Higher education teachers, in general, require effective pedagogical competency in order to improve inclusive education without discrimination among students and their learning outcomes, which requires student involvement (Henard and Roseveare, 2012). Academics are convinced that they must combine a superior epistemology with a superior pedagogy of learning in order to alter teaching methods in higher education. Online self-guided learning is primarily used to supplement traditional personalized classroom education. Educators also have a responsibility to promote a really resilient educational approach through the effective use of ICT in enabling the teaching of institutional organizations, students, and academics.

Exploiting the power of communication technologies and inventive ideas to encourage the development of the mechanized industry is referred to as Industry 4.0 (Tyenge and Martinsen, 2018). Industry 4.0 and the exquisite factory of reality are made possible by a combination of physical cyber systems such as the Internet of systems and things. All of these elements are required and are part of the visionary Industry 4.0 concept, which makes companies more viable and competitive in the marketplace (Zheng, 2018). Teachers must adapt to new demands and take on new roles in their classrooms. Higher organizational outcomes from the minister of education and university directors are required to give and support teachers in their new teaching behaviors in complete adaption to new technologies in the education system. Universities provide teachers with training and the opportunity to have access to technology and learn how to use it technically and correctly in didactic concepts. To establish a plan for the necessary equipment and infrastructure, a higher degree of organization is required. Any new technology used to assist teachers in the classroom must meet specific requirements and overcome deployment obstacles.

T.M. Wong (2019) higher education institutions have been hailed for their ability to respond to technological advancements as well as shifts in social and cultural norms through innovation. The types of innovations mentioned by those who can are divided into two categories: those that use technology and those that do not. There are various examples of instructional innovations that utilize new technology, most notably the internet or mobile devices. Participants underlined the importance of real-time communication. MOOCs and reverse classrooms, as two widely used examples on the internet, have grown in popularity and demonstrated their efficacy in boosting student learning outcomes. There are certain developments in which technology plays a little role. The most common one included students' active learning, followed by the use of video in classroom teaching and student interdisciplinary collaboration.

2.5 Role of innovative

Provides a supportive environment that is rich in resources, and aids exploration creating an atmosphere in which ideas can be expressed freely (Enaksi Sengupta, Patrick Blessinger, 2022). The role of teaching also focuses on the topical literature to scrutinize efficient ways to elevate the realization of all learners in an inclusive setting (Rahul Khandelwal, Ashutosh Kolte, Prafulla Pawar and Elvira Martini, 2020). Considering group and organizational factors with the attention to the self-development approach and its factors would provide more awareness-training information (Fatemeh Narenji Thani et al, 2021). Adrian V. Ely,(2018) "Experiential learning approaches in post-graduate education for sustainable development and evaluates a number of teaching and learning activities (TLAs)". Principles must focus on risk-taking, collaboration, and communication (Jayson W. Richardson et al, 2021).

Starting with the Covid-19 epidemic, instructors must make rapid decisions on course content delivery, technology options, and strategies to aid transit students better than in a face-to-face online environment. The educators are also learning how to harness new technologies and adapt materials for usage in an online setting. Start with the previous face-to-face presentation in term 1, as shifting online allows educators to create relationships with students before implementing change. The capacity to create this relationship with students is a present advantage of the shift to an online model, especially considering how swiftly modifications

have been made to adapt to a changing environment, and both staff and students are learning to adapt together. Students are also willing to provide critical comments on their new experiences to educators directly, allowing instructors to adapt as the term progresses. The teaching team and staff teaching other courses shared their knowledge. This is a vital role for educators to play in learning from setbacks and immediately adapting to give students a better learning experience.

In Term 2, all classes were relocated online, and over 60% of students were enrolled. With more time to plan, instructors adopt a growth mentality, which allows them to further adapt teaching materials and approaches to the new environment. The majority of these adjustments are based on official and informal student feedback, instructor self-reflection on what is effective and what needs to be improved talks about what they find successful or not, and instructors have current experience with online learning. The biggest problem is figuring out how to form meaningful relationships with students who are far away, as well as how to stay involved with students and form a learning community in a new setting. Certainly, the teacher must play some roles in order to boost morale while maintaining consistency in online learning.

One of the roles of the teaching is a teacher is the sender or source of information in pre-tech education, instructional materials are information or messages, and students are the recipients of that information. In terms of delivery, instructors can use the "chalk-and-talk" method and overhead projector transparency to impart messages (OHP). This approach of directed instruction is based on the behavior learning perspective and is a common technique that has been employed in all learning institutions for decades as an educational strategy. In general, the teacher is in charge of the teaching process; content is delivered to the entire class, and teachers tend to stress factual knowledge. In other words, the lecture content is delivered by the teacher, and the students listen to the lecture. As a consequence, the learning mode tendsto be passive, and learners have limited control over their learning. Many teachers and students at most colleges have discovered that the traditional lecture technique in the classroom is ineffective in both teaching and learning. Students take on a completely passive role in such a presentation, and their attention begins to wane after 15-20 minutes.

Moreover, in terms of art-based teaching suggests the involvement of art in teaching practice (Anugamini Priya Srivastava, Vimal Babu and Swati Krutarth Shetye, 2019). Teachers play a critical role in shaping student behavior (Srivastava, 2017). They not only lead the way for the

pupils in the present, but also in the future. Somech and Drach-Zahavy (2000) claimed that, because teaching is a humanistic profession, teachers must exhibit extra-role behavior in order to properly assist students. A teacher will not be able to properly instruct children if they confine themselves to their job's mandated behavior. Extra-role activity refers to instructors' volunteer assistance to the institution, colleagues, and students in order to benefit the institution (Srivastava, 2017). Extra-role behavior (EXB) describes instructors' discretionary behavior, which encourages them to go above and beyond their official call of duty to help the organization (Srivastava and Dhar, 2017). Teachers' extra-role behavior in terms of operations includes teachers working on making the organization effective, protecting it from potential difficulties, giving helpful ideas, and being knowledgeable of their own and others' viewpoints (Srivastava and Dhar, 2017).

To improve the student experience, promote participation, and test objective learning performance, use a variety of assessment questions (Kate L. Morgan and Wei Chen, 2020). Increased commitment and desire to undertake difficult tasks result from cultivating a growth mindset (Mrazek et al., 2018). Many pupils are more likely to have more positive outcomes when they have a growth mindset, which promotes flexible thinking and creativity (Intasao and Hao, 2018). The importance of the growth mindset in affecting student performance is studied in educational literature, and it is found that students with a growth mindset seek and respond to criticism, and their performance improves significantly (Beatson et al., 2019; Ravensocroft et al., 2012; Tseng et al.,2020).

Instructors need to increase student engagement while learning by using video and talking to lecturers using their microphones during online class sessions (Joseph Kee-Ming Sia and Adamu Abbas Adamu, 2020). "The act of engaging: the condition of being engaged," according to (Merriam-Webster, 2021) which is described as "being intensely interested." Engagement can be described as a measure of a student's participation in the learning process in the context of education. This covers how they engage with the teacher and their classmates. In short, the level of student engagement is a good indicator of the likelihood of a successful learning experience. Learning in the classroom should be interesting, not necessarily entertaining. Low student engagement leads to boredom, loneliness, and low achievement - as well as higher dropout rates (from class or university). And nowhere is more true than in distance learning throughout this Covid-19 season. Therefore, instructors should take steps to ensure that students do not get bored quickly and attend class.

Allow groups of students to connect online, and divide group projects into smaller steps with smaller requirements (Caitrin Blake, 2020). Online courses allow students to complete assignments in a variety of methods and connect with one another about course material. Teachers should provide focused conversations and smaller assignments that lead to the completion of a group project to best simulate a face-to-face classroom. Many discussion boards enable the establishment of small group chats, allowing each team to have its own concentrated discussions. Students can use the small group discussion board to discuss the group project and complete the brainstorming process in the same way they would in a classroom, and teachers can encourage involvement by grading the talks. Teachers should present many smaller assignments for students to complete before to the final project, in addition to discussions. Proposals, outlines, draughts, and other mini-assignments are examples of this type of labor.

2.6 Technique Of Innovation In Teaching

The technique is about achieving or processing something, you need the ability, method, and practical abilities, as well as experience and knowledge (MaryC, 2020). A procedure, technique, or means of accomplishing something specifically according to a specified plan, according to Dictionary.com. As a result, it follows a logical, systematic, and thematic approach to instructions, research, experiments, and presentations, among other things. There are various strategies for communicating learning, for example. Therefore, the use of which techniques are the focus of management instructors during online or face-to-face learning makes an efficient innovation and makes the learning more interesting.

The fast development of information and communication technologies (ICT) has posed a challenge to traditional teaching methods and altered the worldwide educational environment. The teaching approach is currently divided into two distinct ways of thinking about education: traditional and ICT methods. Information technology is changing the way students, instructors, and staff learn and work all throughout the world. College life is being transformed by Internet-enabled phones, mobile laptops, digital cameras, and MP3 players. Colleges and universities are putting all kinds of student services, from laundry monitoring to snack delivery, online as the demand for technology grows. Modern Instructional Techniques :

Multimedia and mind map learning

Instructors conduct multimedia learning is the blending of various types of digital media, such as text, images, audio, and video, into a multi-sensory interactive application or presentation to send information to an audience. Traditional educational techniques have led to a mismatch between what students teach and what the industry needs. As a result, many educational institutions are turning to problem-based learning as a way to produce innovative graduates who can think critically and analytically to solve challenges.

Tony Buzan created the mind map in the late 1960s as a technique to help students take notes using simple phrases and images, but teachers can use mind maps to creatively explain concepts. Because of their visual quality, they are quicker to make and easier to recall and review. The mind map's nonlinear design makes it simple to link and cross-reference diverse elements. The primary idea underlying mind mapping is that by using the whole range of visual and sensory resources that educators use, we may learn and recall more effectively. Pictures, music, color, and even touch and scent have a role in helping the International Journal of Current and Modern Research recall knowledge for a long period in such a learning warehouse. The goal is to create a mental map that bases most of these activities on creativity, critical thinking, and cross-relationships between our own ideas.

Sharing information with an internet

An intranet is a private or internal network that uses the internet to communicate with the public and disseminate information via the World Wide Web (WWW). Data warehousing is a tool and repository for storing current and historical data gathered from multiple sources utilizing various operating systems (Rajesh Chutia, 2020). A virtual classroom is a web-based classroom that provides students with access to a wide range of courses. To answer the participants, this was combined with a discussion forum. Intranets have also been used to deliver online tutorials. Video conferencing is a method of transmitting audio and video data between two or more individuals through a computer network from separate locations.

Knowledge-based resources such as information, ideas, skills, experience, and expertise impact the speed and quality of innovation, as well as the outcomes such as organization competitiveness (Le and Lei, 2018) and achievement (Iqbal et al., 2019; Mardani et al., 2018). Knowledge-intensive organizations, like IPTs, are referred to as knowledge-based places (Yasir et al., 2017). However, the mere availability of information sources in an

organization cannot ensure their transformation into innovation and organizational competitiveness unless they are efficiently managed (Boroujerdi et al., 2019).

Knowledge sharing (Chion et al., 2019) is essentially a social interaction activity targeted at the exchange of knowledge in many forms such as suggestions, skills, expertise, and experience from an individual, group, department, or organization to others (Zaim, 2020). As a result, knowledge sharing is more focused on knowledge process gathering and distribution, allowing businesses to learn new problem-solving approaches, improve work processes, and develop core competencies (Crupi et al., 2020). The present literature implies that organizational innovation is generally driven by human resources, based on their cognitive talents, knowledge, and motivation, and subsequent involvement in idea production, particularly by the instructor, based on a bottom-up innovation approach (Andreeva et al., 2017; Zhou et al., 2019). As a result, organizations must utilize all resources available to encourage educators to participate in innovative activities such as idea formulation and execution in the classroom, as well as in the online classroom. However, in the context of knowledge-intensive work, these resources largely include knowledge-oriented leadership behavior (Rehman and Iqbal, 2020).

System reward for students

System of rewards (Malik et al., 2019). The instructors can develop ideas for creating content for the students to engage in class but with the concept of social media by using the incentive system. Students are encouraged to inspire themselves through rewards and incentives (Nadia.L, 2020). Students may become bored and miss assignments if they are too simple. Rewards and incentives, on the other hand, encourage pupils to take on challenges such as reading a specific amount of pages or finishing 10 consecutive homework assignments. This has an added benefit: if the student completes the task successfully, he or she will not only be awarded but will also gain an increase. In addition, you'll gain priceless self-assurance. Learning is more enjoyable when there are rewards and incentives (Nadia.L, 2020). The statement "making learning fun" has become a cliche, yet there's reason to believe it's true. According to several studies, students are more likely to feel engaged when their classes or activities are enjoyable. Students who are engaged in debates, projects, or tasks are more likely to focus on them than students who are not.

Ortega-Arranz et al. (2019) used a mixed-method approach to investigate the link between students' efforts toward obtaining badges and their MOOC participation. MOOCs are one of the strategies used to assess students' comprehension and ability to answer extra questions. After the instructor finishes the week's questions, the MOOC system reveals the total percentage. After the percentage is completed, the lecturers will check to see whether the students can complete almost all, and if they do, they will most likely be awarded diplomas that include additional Mandarin topics. This is one of the techniques that instructors might utilize to give a reward in the form of scientific knowledge.

Expert system

An expert system is a computer program that simulates the judgment and behavior of a human or an organization with expert knowledge and expertise in a particular field using artificial intelligence (AI) technologies. Using ICT media in the educational process is one technique to encourage the implementation of quality education (G Supriyanto et al.,2018). Its advancement in the field of ICT education is not only as an information and communication technology medium but also as a reference system that functions as a qualified expert. The term expert system is used in the field because of the high level of accuracy. Expert systems are a type of computer software capable of solving certain problems. Expert systems are utilized in a variety of artificial intelligence and education initiatives, including intelligent tutoring systems, intelligent learning environments, and adaptive hypertext systems, among others.

An expert system is a computer software system that decides how to solve an issue that can generally only be handled by a field expert using science, facts, and deep thinking approaches. The activities and support required to gain knowledge and make conclusions and explanations are included in expert system development. Expert knowledge and domain specialists who function as designers and builders play a key role in the development of expert systems. The system is then utilized for consultation by non-expert users once it has been completed. There are various critical components in an expert system, including the user interface, expert system databases, ease of knowledge acquisition, and inference methods.

Expert system implementation is widely used in a variety of industries, one of which is education. Expert systems are utilized in education for a variety of purposes, including recognizing student traits, analyzing student performance, and predicting student achievement. So is the evaluation system, which includes things like basic evaluations of student

competence, character-based education evaluations, and academic program evaluations. In the realm of vocational education, the expert system is also used to provide services such as professional profile counseling. There are numerous other applications of expert systems in education, with the primary goal of assisting in the achievement of educational objectives.

2.7 Challenges Of Innovative Teaching

The mental strain on Malaysian lecturers who must transition to online study is unfathomable. They must first learn how to use the learning management system before providing online classes in the lowest amount of time possible with minimal training and preparation (Bernama, 2020). There is no assessment of benefits and drawbacks, no strategizing - lecturers simply move to online instruction. As a result, the quality of teaching and learning could be jeopardized. Second, some instructors do not have access to high-speed Internet at home (Albukhary International University, 2020), so they rely on their phone network to perform classroom prep, and online tutorials, and stay in touch with students. This makes online learning less effective and efficient.

Finally, lecturers must modify examinations to accommodate the online learning environment. For example, turning final exams to coursework or take-home exams (Albukhary International University, 2020). What about tests in the field and in the lab? What will the lecturers do to change the work-integrated learning component of the degree course's assessment? Will the assessment shift allow for the achievement of unit learning outcomes? Fourth, because instructors must use computers for lengthy periods of time to read and provide feedback electronically, marking tests online exposes lecturers to computer vision sickness (Forster, 2020). Besides, since the pandemic breakout, responding to numerous students' questions via email has been a daily routine. The instructors experience a lot of anxiety, panic, and stress as a result of all of this.

2.7.1 Challenges into the Environment

The challenge of measuring innovation in the context of research and development. The use of either objective measures such as publication or, in the context of education, the more

common evaluator mediator assessment or both (Vijaya Sherry Chand, Samvet Kuril, Ketan Satish Deshmukh, and Rukmini Manasa Avadhanam, 2020).

A distinctive feature of the big challenge in the current environment is that university education has a responsibility to ensure that prospective graduates are proficient in the use of ICT (Enaksi Sengupta, Patrick Blessinger, 2022). This is because the world is now heading towards high technology and needs future leaders who have excellent ICT capabilities. Next, look at the environment "Challenges of COVID-19 rules that restrict relationships and limit lessons on online platforms" (Gloria Lihotetetso Matee, Nthabiseng Motlohi, and Palesa Nkiwane, 2022).

Addressing large challenges requires inclusive leadership that actively seeks individual ideas and input within and outside the team. Combining multiple perspectives provides a better understanding of the complex components of a problem and can lead to contemporary solutions.

2.7.2 For Students

Lack of usefulness and consistency of action, as well as change resistance (Lucas Veiga vila, Thiago Antonio Beuron, Luciana Londero Brandli, Luana Inês Damke, Rudiney Soares Pereira, and Leander Luiz Klein, 2019). "Have internet network problems and hurdles in online teaching," according to Nattaporn Thongsri, Chalothon Chootong, Orawan Tripak, Piyaporn Piyawanitsatian, and Rungtip Saengae (Nattaporn Thongsri, Chalothon Chootong, Orawan Tripak, Piyaporn Piyawanitsatian, and Rungtip Saengae (2021). This makes it difficult for professors to ensure that their students have access to a reliable network in order to attend classes, particularly during the Covid-19 epidemic season.

Challenges in terms of a student are also a priority. Focuses on mental and psychological perspectives such as mental health, stress, and student anxiety financial and academic uncertainty, depression, fear, anxiety about students, and social isolation (Shikha Rana, 2021). In the face of educational innovation, the majority of students are currently unable to adapt to the current scenario, which necessitates the use of all ICT abilities. Owing to the burden of online learning, which necessitates a good internet system, students are forced to abandon studying due to financial difficulties. According to Utusan Malaysia, a total of 21, 316 students, including primary and secondary school students up to university level, dropped

out during the Pandemic. This has a significant impact on Malaysia. Would be Universiti Teknikal Malaysia Melaka (UTeM) face the same problem as students who dropped out during the Covid-19 pandemic.

2.7.3 Learning Strategies

Active learning strategies make up a large portion of the creative learning strategies described. Students are encouraged to talk, contribute, participate, discover, and create using active learning approaches (Sam Thompson, 2021). Students are challenged through active learning, which asks them questions and requires them to solve problems and think critically. Above all, active learning includes students and necessitates their participation in the classroom. Students who take an active role in their education are more likely to succeed in your classroom.

How educational institutions and educators might use expertise to advise future professional development (Fernanda Edileuza Riccomini, Claudia Brito Silva Cirani, Carolina Corrêa de Carvalho, and José Eduardo Storopoli, 2021). An educator must be able to transform this ever-changing body of knowledge into something engaging and appropriate for his students. Instructors in management are especially adept at spotting the difficulties and roadblocks that will arise if students fail to attend classes.

2.8 Summary

The next chapters demonstrate the difficulties educators have in integrating innovation into the classroom and how to apply appropriate learning approaches in coping with changing situations like Covid-19. This case study focuses on identifying the most effective lecturing strategies as well as the features of new problems in implementing changes for more effective learning.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

Many studies have attempted to explain research on innovation in this learning. "Creative and systematic work done to increase knowledge and the use of this information to build new applications" is what research is defined as (Razzi, 2021). It has therefore been established that the goal of performing research is to gather information, solve problems, or gain knowledge. The goal of this section is to go over a few different research data collection methods as well as data analysis. This research focuses on learning methodologies and the obstacles to innovating in the field of education, particularly for management educators.

After identifying the title and field, the researcher builds three research objectives namely (i) To identify that the most effective techniques in an innovative teaching approach can improve and draw students' attention. (ii) To explore the challenges that arise from the adoption of innovative teaching methods in higher education institutions. (iii) To discover the innovative methods of training students in higher education institutions

3.2 Research Design

According to Shona McCombes 2021, a research design is a method for solving research questions using empirical data. Making judgments regarding your general goals and method is part of creating a study design. It's a step-by-step plan for gathering and analyzing data and information based on the research questions and objectives. Under the conditions, it is critical to rely on the researcher to give vital data to answer research questions that arise from research the issue is specific, clear, and concise as expected. A study might be structured to accomplish exploration, descriptive, descriptive, or assessment goals, or a mix of these goals. The researcher employs philosophical studies in this research.

This is because research philosophy (Collis and Hussey, 2022) is a framework that directs how research should be conducted based on assumptions about reality and the nature of knowledge. Positivism and interpretivism are the two basic research philosophies. This philosophy depicts two fundamentally different ways that we as humans interpret the world around us: positivistically, reality is independent of us, and researchers can observe reality objectively; and pessimistically, reality is dependent on us. Reality is considered very subjective in interpretivism since it is molded by our perceptions (Collis and Hussey, 2022).

Positivism is based on the natural sciences and emphasizes the scientific testing of hypotheses as well as the discovery of logical or mathematical evidence through statistical analysis (Collis and Hussey, 2022). As a response, positivists favor large sample sizes and data that is reliable, objective, and quantitative (Collis and Hussey, 2022). The researcher used positivism as a research strategy and formulated the following research question, (i) What are the most sophisticated and effective educational systems and techniques available to students? (ii) Do students feel more comfortable with online learning now, and how has learning evolved over time? (iii) Is it still appropriate for educators to use traditional teaching techniques?. In order to obtain the information or results, the researcher will conduct an interview with an 'expert' in the field.

3.3 Methodology Choices

According to Dr. Nikita Thattamparambil (2020), the success and general quality of the report are determined by the research approach used. Quantitative, qualitative, and mixed methodologies research are the three different sorts of research methods. Saunders et al. (2016) are a group of researchers who have come up with a novel way. The researcher decided to do a qualitative investigation in this case.

According to Dr. Nikita Thattamparambil (2020), qualitative research is about interviews, focus groups, case studies, discourse analysis, and literature reviews used to better understand the thoughts, concepts, and experiences of the public. It is basically a survey designed to gather the opinions and experiences of the public. Many types of qualitative research begin with an inductive approach to theory development. It is used to develop theories or theoretical perspectives that are richer than those that have existed in the literature.

The author describes a broad inductive approach for analyzing qualitative assessment data. The goals of using an inductive approach are to condense raw textual data into a brief, summary format, establish clear links between the evaluation or research objectives and the summary findings derived from the raw data, and develop a framework of the underlying structure of experiences or processes visible in the raw data. The general inductive approach is a collection of procedures for assessing qualitative data that is simple to apply and produces accurate and valid results.

The qualitative research approach, according to the researchers, is the most appropriate strategy for this study. This is because an expert interview is required, and data-gathering observations can also be made using this qualitative research method. Given that some educational innovations have been implemented. As a result, short interview questions had to be created, and insights gained through informal interviews with management-based instructors to collect accurate information in tackling obstacles utilizing new learning methodologies were gained through informal interviews.

3.4 Time Horizons

According to Saunders et al., the 2021 time horizon is the time frame in which the project is expected to be completed. There are two types of temporal horizons, according to the research onion. Cross-sectional and longitudinal studies concluded that cross-sectional studies were studies in which data were collected only once and continued throughout the day, week, or month according to the research question, whereas longitudinal studies were used when researchers wanted to study over a longer period of time, such as more than a year, in order to answer research questions. The researcher chose cross-sectional studies in this study since the case study was based on interviews conducted over a short period of time, and the time allotted to finish the research was limited, ranging from April to December 2022.

3.5 Research Strategy

The researcher employed a case study as a research approach in this study. According to Kendra Cherry (2021) case study is an in-depth examination of a person, group, or event. Almost every aspect of the subject's life and background was examined in the case study in order to uncover patterns and reasons for behavior. Case studies are useful in many domains,

including psychology, medicine, education, anthropology, political science, and social work. Individuals, groups, organizations, and associations, as well as processes of change, events, and a variety of other case subjects can be represented as 'cases' in case study research (Saunders et al., 2016). Case study methodologies are used by researchers to relate to obstacles in applying educational innovation to higher education.

A case study might be chosen with a purpose since it reflects or gives the researcher an opportunity to observe and examine a phenomenon for which there has been little prior discussion, according to Saunders et al. (2016). In order to monitor and analyze the scenario of adopting appropriate strategies in the face of teaching innovation, researchers employ case studies.

3.5.1 Questionnaire Design

Long-form written or typed responses is produced by qualitative surveys using open-ended questions. Questions will be designed to elicit viewpoints, experiences, stories, or accounts (Davey, L., Clarke, V., and Jenkinson, E., 2019). As they aid in identifying early themes or concerns to subsequently be explored deeper in the research, surveys are frequently a helpful precursor to interviews or focus groups. In order to gather fresh data, surveys can be utilised iteratively, changing and being adjusted as the research goes on.

There were two different kinds of questions: closed questions and open questions. According to Lorene Fauvelle, 2019 the respondent's stance on the topic or situation is particularly helpful in revealing new elements, sub-themes, issues, etc. that are unknown or unknown. This is especially true for open-ended questions used in qualitative research (interviews and focus groups).

After that, there will be two main periods of interview questions: general questions and particular questions. Ms. Namara (2009) offered the following qualities for good interview questions:

  i. Questions should be phrased in an open-ended manner so that responders can define their own words.
  ii. The language of questions should be as neutral as possible (avoid using evocative or judgmental language)
  iii. Questions should be asked one at a time.

iv.　The wording of the questions should be clear (this includes being aware of any phrases unique to the program or the respondents' culture).

v.　Be careful asking "why" questions.

3.5.2 Samplings Design

The sampling decisions made by qualitative researchers often help them better comprehend the subject they are examining. In this section, we will look at the sampling techniques that qualitative researchers often utilize as well as the various sample types that they are most likely to use in their work.

Non-probability sampling is a sampling strategy where it is unknown how likely it is that a person will be chosen to be a member of the sample (Matthew DeCarlo, 2021). It is unknown whether the non-probability sample genuinely represents a wider population due to the lack of knowledge regarding the probability of selection. It makes no difference because the purpose of non-probability samples or qualitative research is not to draw generalizations about a larger population.

3.5.3 NVivo

NVivo is a piece of software used for qualitative and mixed-methods research, according to Dr. Kent, 2022. It is specifically used to analyse the unstructured text, audio, video, and image data from sources such (but not restricted to) interviews, focus groups, surveys, social media, and journal articles. QSR International is the producer. It is accessible for both Windows and Mac operating systems as of July 2014.

Unstructured text, audio, video, or image data can be analyzed and organized with NVivo. Having the ability to playback audio and video files will enable NVivo to be used for interview transcription. Utilizing the NCapture browser add-on, it is possible to collect social media data from Twitter and Facebook. Import Evernote notes and images for study on the go. This shows that NVivo applications are suitable for research using qualitative techniques.

3.6　Data collection methods

3.6.1 Primary data

According to Syed Muhammad Sajjad Kabir (2018), when collecting primary data, use qualitative and quantitative methodologies to obtain such information. An important element

to keep in mind is that the data you collect is unique to you and your research, and no one else has access to it until you publish it. Primary data can be collected in a variety of ways. In this study, the researcher chose to use the interview method.

3.6.2 Secondary Data

Finding solutions to research questions that are distinct from those posed in the initial research is known as secondary analysis of qualitative data (Hinds et al., 1997). The majority of secondary data is used to support and strengthen study aims. This secondary information can be found on the internet, in publications, and in journals. Secondary data from official websites, media, publications, books, and journals about automation deployment is also used by the researcher. Secondary data allows the researcher to gain a better understanding of the concepts and issues involved in identifying the hurdles faced by educators in providing learning innovation. Finally, secondary data can be used to demonstrate that the primary data collected from respondents is accurate and reliable. As a result, the researchers used both primary and secondary data to accomplish this study.

3.7 Summary

This chapter gives an outline of how the research approach was used in this study. The adoption of an appropriate research methodology is necessary to produce reliable results. A deduction study was used as the research design in this investigation. In this study, qualitative methodologies were applied, and interviews were conducted. For a better understanding and to support primary data, researchers interviewed experts as main data sources and used secondary data from websites, newspapers, and journals as secondary data sources. Interviews with lecturers in the field of management will be done in order to acquire accurate data on the problems of implementing teaching innovation strategies.

CHAPTER 4

DATA ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter will provide further information regarding the findings and address the study objective. This chapter specifically aims to address the research issue of this study regarding the Challenges of Innovative Teaching Approaches in Tertiary Education during online learning. Three objectives were derived from this research to identify the most effective techniques in an innovative teaching approach that can improve and draw students' attention, explore the challenges that arise from the adoption of innovative teaching methods in higher education institutions and discover the extent to which alternative learning approaches impact students at the institute.

In this research, data were gathered utilizing qualitative research techniques through interviews with lecturers at the Faculty of Technology Management and Technopreneurs (FPTT). This is because the researcher wants to fully comprehend this study. The analysis focuses on the case study's findings about instructor innovation. First, the researcher intended to do interviews with at least six participants, lecturer. Due to time restrictions, the researcher was only able to interview a minimum of six professors who could be classified according to each level of education. A thorough grasp of the difficulties encountered and the strategies employed by the instructor himself can be gained through qualitative research approaches. The case study's findings will be further explained in three parts. The components are based on the previously stated objectives.

4.2 Respondents Background

The case study was conducted using qualitative research methods to conduct semi-structured interviews with six lecturers in various fields of management and different levels of education but from the same faculty. Interviews were also conducted face-to-face with four people and two people online.

Respondent A

Respondent A, a female respondent, was the researcher's first subject to be questioned. Respondent A has more than 10 years of teaching experience and has served as a coordinator in the faculty. This person holds a Master's degree and works as a lecturer in the subject of technology management. He uses online instruction techniques in Melaka. The researcher took 17 minutes to interview the first respondent.

Respondent B

Responder B, a male lecturer, is the second respondent for the researcher. He is referred to as a professor and has been teaching for more than 20 years. He is above 50 years old and holds a Doctor of Philosophy (Ph.D) qualification. He has managerial skills for innovation. Throughout the COVID-19 epidemic and up to now, he also employed online teaching strategies in Melaka. This respondent's interview lasted 21 minutes and 13 seconds.

Respondent C

The third responder for the researcher is respondent c, an Associate Professor position. The responder is a lecturer with more than 15 years of experience teaching with a focus on research. He clearly has a lot of expertise in several management-related domains, as evidenced by his Doctor of Philosophy (PhD) degree. He also employed online teaching techniques in Melaka throughout the COVID-19 epidemic and up until now. This respondent's interview lasted 24 minutes.

Respondent D

The fourth respondent, respondent D, is a senior lecturer with more than 10 years of expertise teaching business management courses. The respondent population is over 50 years old and has a Doctor of Philosophy (PhD). The respondent taught online in the state of Melaka during the COVID-19 pandemic. For the fourth respondent, the researcher took 20 minutes and 16 seconds to interview.

Respondent E

The researcher's sixth responder is respondent E. Despite having less than 10 years of experience and being a young lecturer in his 30s, the responder is an authority in supply chain management. Her academic background is at the master's level. He studied online in the state of Melaka throughout the epidemic. The researcher took 16 minutes and 44 seconds only to interview the first respondent.

Respondent F

The final respondent of the researcher is respondent F. The answer is a senior lecturer with over 15 years of experience and over 46 years of age. The respondent is the authority in managing and operating innovation. He has a doctorate in philosophy (PhD) in education. He studied online in the state of Malacca throughout the epidemic. Respondent F was the subject of an interview for over 24 minutes by the researcher. For the last respondent, the researcher took 24 minutes and 29 seconds to interview.

4.3 Findings

The respondents were interviewed at the Faculty of Technology Management and Technopreneurship. A few instructors also wanted to conduct interviews online and elsewhere, such as at a cafe. Our six responders took longer than fifteen minutes on average. Data analysis results were manually produced and analyzed. In fact, the questions posed to the respondents are dependent on the study's goals.

4.4 Effective techniques in innovative teaching :

The researcher has conducted several interviews with respondents who have the expertise to determine the best innovative strategies used in online learning, especially during COVID-19. There are several learning techniques mentioned by the respondents. The opinions of six respondents have different and similar answers. The researcher chose six different techniques to list.

Table 1: Shows some of the innovative teaching techniques used by the educator. Using online learning at the same time is the most effective approach to continuous learning.

Techniques Innovative	Respondents					
	A	B	C	D	E	F
Video & audio recording	√	√	√	√	√	√
Mind map	√	√				√
YouTube channel	√	√				
System reward		√				√
ULearn	√	√	√	√	√	√
Webinar	√	√				√
others			√		√	

Based on the table above, the researcher has collected data from the respondents by looking at the innovation techniques used by the respondents themselves. Respondents A, B, C, D, E, and F provided good cooperation by choosing the techniques used. The researcher can see that the technique is definitely beneficial not only to the respondents but also to the good of the students. However, this technique is not an option for all respondents because each respondent has their own choice and according to their suitability.

4.4.1 Video & audio recording

Based on the above, we may deduce that responders A, B, C, D, E, and F must utilize some variation of these techniques. Due to the fact that each of these methods has advantages of its own, the respondents pick the ideal method to employ as their learning method. For instance, the most popular method is to provide pupils recordings, whether they are audio-only or with video. All of the respondents chose this method because it is simple and allows each student the freedom to periodically display the class video wherever.

……I will show them a little video before the lesson begins so they can better comprehend what is being taught initially..

....I like to provide the student's video recordings since they may watch them repeatedly and at any time.

Interviewee

This shows that the usage of video recording is preferred since it facilitates learning for students. Additionally, respondent B said that the video recording shouldn't go longer than 5 minutes out of concern that students won't watch it. In connection with that, the respondents added that if a lecturer is unable to conduct the class during class time and decides to shoot the video instead of conducting the class in person, a video recording of the class is prepared.

4.4.2 Mind Map

According to the table above, responders A, B, and F all utilized the mind map approach. The development of mind mapping as a useful tool for associative idea generation An ever-expanding diagram made up of terms, phrases, concepts, facts, and statistics is created by starting in the center of the page with a primary theme or main idea and working outwards in all directions from there. Additionally, these respondents cite the ability of mind maps to teach students how to take notes in lectures more shrewdly, pay attention to the most crucial details or keywords, and review material in advance of tests or examinations as reasons why they believe mind maps are the best study tool.

Even for responses C, D, and E, the mind map approach is not overemphasized since it is too easy and straightforward. According to the responses, especially when learning online, this is not very new for the pupils. According to the research, this method is simple to apply, but not all teachers are on board with it. Students should benefit from mind maps and find it simpler to recall information more quickly and easily.

4.4.3 YouTube Channel

One of the platforms chosen by the respondents as a successful learning method is the YouTube channel. Despite the fact that very few people use it, YouTube has developed into a website that makes it simpler for students to locate teaching resources. Some respondents are in favor of using YouTube as a learning approach since it has been utilized as a platform for students to demonstrate their talents and create numerous chances for users.

According to the data above, it is clear that responders A and B use YouTube as a platform and a method to pique students' interest in learning. As an illustration, in the past, respondent A used YouTube as a venue for student presentations; however, students only published presentation videos on YouTube by filming a brief video. This method is also used by respondent B to gauge kids' originality. This demonstrates that by regularly watching the instructors' instructional films, students would indirectly learn how to create quality videos.

.....before starting the class, I will choose a simple and interesting YouTube video to use as a teaching tool for my students.

Interviewee

Even other respondents, such as respondents C, D, E, and F, stayed quiet on the YouTube Channel. However, the researcher is aware that while virtually all respondents have YouTube accounts, they do not all utilize them to their fullest potential, unlike respondents A and B. It is often evident that students will take advantage of the chance to skip the films that professors post on the YouTube website. Therefore, educators prefer to use live online learning strategies rather than recording videos to upload to YouTube.

4.4.4 System Reward

The term "reward system" refers to all financial, non-financial, and psychological benefits offered by a business to employees in exchange for their labor. Only responders B and F employ the incentive scheme, according to the aforementioned data. This helps draw students' attention to online learning and encourages their participation.

According to respondents B and F, the reward system may brighten up the classroom environment and lift students' morale. This is demonstrated by focusing on the idea of administering quizzes after class and utilizing the Kahoot platform as a technique to grab students' attention. With Kahoot, the teacher may take the initiative to prepare questions that are linked to the learning topic in order to assess how well the students know the material after the learning session.

Even among responses A, C, D, and E, adopting more all-encompassing approaches and having group discussions after class are preferred learning strategies. This demonstrates that respondents choose a routine and comfortable environment above engaging in more enjoyable activities. However if respondents A, C, D, and E do not highlight the reward system methodology, it's possible that they use an original and successful concept to create the class

online. Each responder has their own method for creating the greatest environment for the students and the class. Even while activities like Kahoot are used to pique kids' attention, some of them still find it dull. Each approach used by the respondents is, therefore, an expression of their ingenuity.

4.4.5 UTeM Official Learning Management System (ULearn) platform

Additionally, it can be noted that the ULearn website is specifically designated for usage by UTeM students, faculty, and staff as a key platform for sharing, making it the primary option for this. The respondents plan to utilize Ulearn as a platform for students to use as a reference, keep video recordings, deliver all exercises, conduct quizzes, write reports, and serve as an exam site. Ulearn should also preserve a complete record of each student's arrival. Ulearn is the greatest and easiest platform for respondents and students, as evidenced by this.

.....I do my best to address Ulearn, which is a simple platform, by including a variety of content to grab students' interest.

Interviewee

According to respondent F, as well as respondent B's comments, Ulearn makes it easy for teachers to monitor the extent to which they want their students to participate and view all materials posted to the website. This shows that Ulearn is more than just a reference tool; it is also an effective learning method that can be used by students to the fullest.

4.4.6 Webinar and others

A webinar enables a speaker from the hosting firm or organization to communicate multimedia information with audiences that can be situated anywhere, such as PowerPoint presentations, movies, web pages, or other multimedia.

According to the data above, only three respondents highlight learning strategies that provide extra webinar lessons. He stated that he likes to utilize basic PowerPoint as a tool for online learning, as evidenced by respondent A. Respondent B consistently highlighted to students the need of participating in online programs with a variety of ideas and components each week in order to create a unique learning environment. Different speakers were invited to talk during the webinar. Likewise with respondent F provided webinars by instructing students using the Instructional Resource Center website and Technology PSTP Utraining UTeM itself has provided training materials.

Respondent E emphasized the importance of students showing up to class as usual and conventional learning strategies that are innovative. Respondents E and D opted to use alternative tactics rather than pressing the seminar technique.

4.5 Challenges of innovative teaching methods.

The researcher has performed multiple interview sessions with knowledgeable respondents to determine the difficulties experienced by chosen respondents when using cutting-edge online learning strategies for pupils. Using learning strategies during the Covid-19 Pandemic has several obstacles. Following interviews with the chosen respondents, the researcher discovered that effective learning innovation strategies must be put into practice while overcoming numerous major obstacles.

Table 2: Show the challenges that arise from the adoption of innovative teaching methods in higher education institutions

Challenges	Respondents					
	A	B	C	D	E	F
Technological	√	√	√	√	√	√
Learning strategies		√				
Instruction	√	√		√		√
Environment		√		√		
Organization						
others				√	√	

The challenges that respondents A, B, C, D, E, and F selected have been outlined based on the facts above. There are five challenges total that respondents choose, with two major challenges receiving the most votes. The reasons why it is the biggest obstacle for the responders to implement innovative teaching strategies while online will thus be discussed one at a time.

4.4.1 Technologies

According to the above data, the respondents gave the technology challenge the most votes, and this task has the most influence on the respondents' use of cutting-edge learning strategies when they are online. The longest conversation throughout the interview was about technological obstacles, and according to all respondents' thoughts, these issues come in a variety of forms.

According to respondent A, the lecturers' main issue is the technology issue because not all students have access to sufficient technology, such as laptops. Even if they attend college, not all students have the money to buy computers, iPads, or other high-tech gadgets. Respondent A claimed that due to some students experiencing this problem during the Covid-19 outbreak, the faculty took efforts to collect data and learn more about how students' lack of technology prevented them from attending online classes.

…..since not all students have access to wifi or a good network and all internet charges rest on the individual student's shoulders, it is challenging to get students to open the camera.

Interviewee

In the opinion of respondent B, technological barriers are related to the internet network and challenging locations to obtain a good line. Students find it difficult to open a camera in an online class, let alone show up to class. According to respondent B, due to unexpected technical issues, teachers cannot ask students to unlock the camera. Therefore Respondent B only initiates communication in audio or chat rooms.

Respondent C believes that inadequate technology and methods are the major problems. This is due to the fact that it is challenging for students to submit assessments and test papers on time due to the inability to access the internet or the malfunction of technological instruments like laptops. Respondent D likes that students open the camera and audio during class since he likewise faces technical communication issues. In actuality, this is challenging since students consistently claim that they are unable to unlock the camera because it is broken, etc.

Respondents E and F said that the internet's accessibility issues make it difficult for students and teachers to connect with one another. It is challenging for the instructor to lead a conversation when there is communication difficulty. The fact that technological obstacles are

unpredictable and uncontrollable since they often involve line issues makes them applicable to all responders.

4.5.2 Learning Strategies

A person's method of organizing and employing a certain set of abilities to learn the material or complete other activities more quickly and effectively in academic and non-academic environments is known as a learning strategy (Schumaker & Deshler, 1992). According to the aforementioned data, some individuals choose to take up this challenge and had particular challenge-related characteristics. According to the findings, only respondent B identified learning tactics as their biggest obstacle to completing online courses.

Respondent B asserts that using learning tactics when taking classes online is quite limited. Respondent B has to put out an engaging program to draw students to his topic. Additionally, following the event or class, respondents took an effort to play games. In reality, he now had to focus on getting kids' attention and making sure they showed up for every event. This demonstrates how it is exceedingly challenging to compare face-to-face online learning methodologies since professors are unable to see the actual requirements of the students.

According to the researcher's observations, learning tactics are not a significant barrier for the respondents because different strategies may be applied even if just online, and lecturers can perform online activities without using as much energy as they would do in person. Respondents did not select learning techniques as the primary obstacle to creative teaching as a result.

4.5.3 Instruction

Online instruction is a type of learning where students and teachers connect electronically to study lectures, turn in homework, and converse. Based on the above facts, it is clear that everyone who responded has the same problem—online instruction—and that problem can no longer be disputed because it necessitates frequent interaction between lecturers and students. Respondents C, D, and E are the only ones who did not select instruction as their top problem.

…….*some students skip class discussions because they don't have reliable devices*.

Interviewee

He said the above based on an interview with respondent A. Students can overlook crucial information when taking classes or taking online tests. This makes it difficult for the teacher to make sure that the pupils comprehend the instructions, particularly when it comes to the exam. Respondent A is also concerned that a misunderstanding might result if the lecturers do not get the presentation during class.

4.5.4 Environment.

When discussing the environment, we might see a space or location that can be used for the activity. According to the researcher's findings, every responder stressed that one of the difficulties of taking online classes is the atmosphere due to the Covid-19 epidemic. This is a significant problem for pupils because of the many demands they are under throughout the epidemic. As a researcher, I can also observe how challenging it is for students who are in a poor setting to succeed in online programs.

According to respondent A, the environment is a key factor in ensuring that students have a decent location to live, enough internet access, and the ability to take online classes without discomfort. Because the majority of students sit in remote locations where it is challenging to access the internet and even make phone calls, lecturers have the issue of many students being unable to attend class. The inhabitants must adhere to SOP and stay at home to take care of their health in addition to the Covid-19 epidemic. However, students must choose a nice location with sufficient internet flow so they can attend class as normal. It is very difficult for students to have this kind of problem and respondent A also said that he cannot help if there is a problem with the internet in a bad area. In fact, he does not force and understand if students do not attend class due to a bad environment.

According to respondent D, a terrible environment will distract students from live online sessions. This is true because students are exposed to a variety of distractions at home, such as bothersome younger siblings, parents who need assistance, and a noisy atmosphere that makes them feel agitated and makes it difficult for them to concentrate on the lecturer. The respondents' residence is also their place of employment. Due to this, the respondents did stress that students choose a decent location before beginning the online course and make sure they can do the well-prepared exercises with other peers.

Respondents B, C, E, and F have the same perspective as respondents A and D based on the responses. This is due to the fact that issues with the student's accommodation and the internet network account for the majority of environmental troubles. Naturally, professors

cannot compel students to purchase a reliable internet connection if their neighborhood is undesirable. As a lecturer, all you have to do is come up with the finest strategies and approaches to make sure the students understand the material even when they are not in class but can still contribute more effectively outside of it.

4.6 Alternative learning approaches impact students at the institute :

There are various other possibilities that may be offered to the respondents, according to the researcher's interview, but only a few learning alternatives are used to guarantee that online learning can always be done efficiently. The researcher has selected the top three options.

4.6.1 Video presentation

During the online lessons, the respondents tried a variety of different things based on the possibilities that the researcher had posed during the interview. The majority of responders, according to the study, solely employ the video recording presenting technique. This is so that responses and students would find it simpler throughout the online course. The video presentation is made to eliminate any unanticipated possibilities. The respondents' first preference is thus to create a video presentation. As you can see in detail, a video presentation is a popular kind of multimedia material with a duration of a few seconds or minutes that highlights the advantages of a good, service, or concept through eye-catching visuals, straightforward language, and appropriate narration.

According to respondent A, who participated in the interview, video presentations should be used in online lectures since respondents find them to be simple and convenient for students to record anywhere and at any time. Additionally, video presentations are made to be supplied to the teacher so that it is simple for the instructor to assign grades and replay the video. Respondent A also said that a captivating video presentation helps pique students' curiosity about what the lecturer is teaching. Even respondent B made no decisions or comments throughout the interview on the video presentation.

4.6.2 Exhibit extra-role activities and programs

Programs are a formally established system of products, programs, or opportunities that assist individuals in achieving their goals. A scenario in which a lot of things are occurring or

being done is called an "activity." According to the researcher's conversation with respondents, some of them participate in additional programs and activities in class while online. Respondents C and E have decided to host extra programs for pupils. In order to explain what these respondents said, the researcher will use this method.

It is simple to put together extra programs or activities, and doing so can help us save time, money, and energy. Therefore, throughout this Covid-19, measures like hosting online programs also need to be encouraged. This is so that they won't think that taking the lesson online is uninteresting and that they won't get as much feedback as they would in a face-to-face setting. Respondent C went a different route and had a unique concept. He also underlined to the kids that they must open the camera for every lesson and activity they undertake. This makes it simpler for the responders to assess their students' attention spans and provide the necessary care.

Respondent E is leaning more toward conducting events and programs face-to-face, which is the more conventional method. But because of the epidemic, there have been so many changes that his wishes now require new ideas. In order to prevent students from becoming bored, responders also used the approach of conducting online programs, such as chats with group members and quick-fire games and quizzes.

Therefore, based on the researcher's observations, it is true that both respondents had distinct approaches and viewpoints. Because the activities or programs they wish to conduct online are challenging and limited, they engage in other ones that suit their needs and ideals.

4.6.3 Variety of assessment question

Three respondents gave this additional option their attention, allowing the researcher to detail a number of intriguing features. The diversity of alternate evaluation questions comes next. If you consider this option, it gives the responders the chance to determine whether the learning materials they are producing are up to the required standard and whether the online course participants can understand what is being presented. Additionally, the assessment must correspond to what is covered in class. Respondents have a variety of options, including innovative alternatives to traditional evaluation methods that may be utilized to create educational materials that hold students' interest.

According to respondent A, assessments are usually performed to make sure that students comprehend the material being covered in class. The idea of assessment may be used to gauge how attentively pupils listen to others. The respondent's assessment question is due in a short period of time, i.e. after class, providing students a deadline to submit so they may get the question right away. Given that students naturally have a procrastination-loving mindset, the instructor must take an effort to conduct an evaluation that will interest them and must highlight that it must be completed in order for them to receive additional credit.

According to respondent C, the evaluation would be completed after class and at regular intervals. By assigning homework to pupils before and after class, respondent C demonstrated initiative as well. Prior to the start of class, students are supposed to complete the job so they can read the questions and plot. After class, the assignment will be prepared and presented to the students. Therefore, the evaluation's goal is to determine how well the students comprehend what the responder is teaching and whether they can demonstrate that comprehension in the evaluation.

According to respondent E, assessment or further instruction for students is crucial to ensuring that they pay attention in class and do not misuse a teacher's instruction for other purposes. Assessments are conducted both individually and in groups. Additionally, assessment is completed quickly to ensure that the lecturer's output is high-quality. Respondent E prefers the conventional approach to online learning because he dislikes completing tasks or training online and wants to be able to observe the students' level of collaboration during a group evaluation. Online testing, however, too has its own initiative and is capable of giving pupils feedback.

Based on respondent B's statement that he enjoys assessing students and leading activities for them. The breakout session is one of the assessment concepts used, which involves doing group activities for the responders during class time to offer them the opportunity to discuss and solve problems and discover answers according to the predetermined time. This reveals how much imagination and time the students put into answering the question. based on D and F, the other respondents. They share the same opinions and are evaluated both during and after class. It is simple to do assessments during class, which is equivalent to having breakout sessions and Q&A sessions.

Based on the researcher's observations and conclusions on the alternative type of assessment question. To make sure that their courses and subjects run smoothly and

interestingly, the responders engage in a variety of activities and kinds of assessment. This alternative is one of the greatest ones to employ because it uses less energy than teaching a lesson in person. The researcher may thus draw the conclusion that assessment is something that every instructor must perform to ensure that students receive the right input.

4.7 Summary of Findings

The findings and analyses from this study's data, which was gathered through interviewing techniques, are presented in this chapter. To acquire a comprehensive image of the current situation with the term, questions have been presented based on three study objectives that stress identifying, investigating, and finding. Six academics who specialize in a range of various topic areas participated in the interview process. Only responders from the Faculty of Technology Management and Techno Entrepreneurs were allowed to participate in the study. Two respondents underwent online interviews, while the others underwent in-person interviews. During the most recent Covid-19 epidemic, each responder shared their expertise, experiences, and approaches for adopting innovative teaching. The approach that will be utilized to accomplish it in the chapter is defined in Chapter 3 of this essay. The findings from chapter three are presented in this chapter together with the respondents' responses, which are comparable to the study's goals and questions. Each responder had their own differences but provided the same response. The data from the interview are summarised in the table below.

Table 3: Summary of the Findings

Research Objective	Research Question	Findings
To identify the most effective techniques in an innovative teaching approach that can improve and draw student attention	What are the most cutting-edge and effective educational systems and techniques available to students?	Innovative Teaching ➢ Video recording ➢ Mind map ➢ System reward ➢ Webinar

To explore the challenges that arise from the adoption of innovative teaching methods in higher education institutions	Do lecturers face challenges in implementing new learning techniques?	Challenges
		
		1. Technological and technical
		   • Internet problem
		   • Incomplete gadgets
		2. Instruction
		   • Miscommunication
		   • Lack of focus
		3. Environment
		   • disturbances at home
		   • unstable line
		4. Learning Strategies
		   • Limited strategies
		   • limited time, place to do some activities

To discover the extent to which alternative learning approaches impact students at the institute.	What is the most significant impact of the application of this new teaching technique on lecturers?	Alternative
		
		1. video presentation
		   ❖ short duration
		   ❖ the instructor can see any time
		   ❖ upload on YouTube
		2. Variety of Assessment questions
		   ❖ Breakout session
		   ❖ During and after class do activities.
		   ❖ Q&N section
		3. Exhibit extra-role activities
		   ❖ Forum in ULearn
		   ❖ Kahoot
		   ❖ Quiz

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The discussion in this chapter is based on the findings of the data analysis on the topics covered in chapter four. The research questions for this study have been answered, and the research objectives for this study have been answered. The first objective is to identify the most effective techniques in an innovative teaching approach that can improve and draw student attention. The second objective is to explore the challenges that arise from the adoption of innovative teaching methods in higher education institutions. The last objective is to discover the extent to which alternative learning approaches impact students at the institute. The challenges of adopting successful teaching innovation among students of the Faculty of Technology Management and Entrepreneurship (FPTT) during online classes during the Covid-19 outbreak were also explored, along with some recommendations for more study.

The analysis's findings are explored and reported in Chapter 4. The research's findings and implications are presented in Chapter 5. The contribution, constraints, and recommendations for further study are then demonstrated.

5.2 Summary of findings

An overview of the results along with three key problems based on the study's goals. The three topics include cutting-edge teaching methods, significant difficulties with online learning, and the best solutions to those difficulties. First and foremost, this study sought to pinpoint the most successful creative teaching methods. There are several efficient methods that may be used, including video and audio recording, mind maps, YouTube channels, webinars, programs, and systems of rewards like games. The researcher discovered throughout the interviews that the teachers' main areas of interest were the YouTube channel, creating videos, and holding seminars.

Cathy Meilleur et al. (2021), It's noteworthy to see that the study methods that here shown to be the most successful are very active. The advantage of "active" educational methods over "passive" methods of teaching and learning has received increasing attention. In order to innovate in their teaching, educators employ a variety of methods. However, the researcher mainly focuses on the key techniques followed by respondents to guarantee the viability of online learning. These findings are based on results evaluated in Chapter 4. One of the methods that responders utilize most frequently is video recording. The study discovered that the primary method that may be used while engaging in online learning is, in fact, video recording. The respondent's video clip needs to be able to grab the students' interest. Researchers should only film videos for 10 to 15 minutes at a time to make sure students see them. The students will get bored if the video is too long and will just use the simple option to skip it.

Second, the researcher's focus is on exploring the challenges that develop when novel teaching strategies are used in higher education institutions. The researcher focused on this target since, based on it, she could only determine whether or not the first objective had a significant issue while doing innovative techniques for the teacher. However, the researcher has identified a number of hurdles from the findings of interviews with six respondents; the majority of them share a number of issues, and the difficulties they experience do definitely have a significant influence on them. Implementing cutting-edge online learning methodologies presents a number of difficulties, including those related to technology, the environment, instructions, learning styles, and organization. What the researcher can infer is that while obstacles have undoubtedly been experienced by each responder, it chooses to focus on technology as the biggest obstacle to completing online coursework. Technology unquestionably presents a significant difficulty since it affects most kids in the same way—the

internet network. The question for teachers, however, is how well their online learning lessons are understood by their pupils. The teachers are quite concerned that the children won't understand the material they are being taught.

Thirdly, the researcher conducted a study to ascertain how much alternate learning strategies have an effect on institutional pupils. Based on the researcher's observation of the many choices taken by the respondents to maintain the pupils' success in the class. The video presentation, several evaluation questions, displaying extra-role activities, and participating in games and programs were among the options picked. They each have advantages based on these possibilities. As a result, the researcher has selected a variety of assessment questions as the finest choice to give as an example. The majority of respondents selected this option because it helps instructors and students alike. The assessment researcher does more than simply administer exams to students; they also engage them in engaging activities like group breakout sessions. Researchers are drawn to this because by creating a breakout session, the students may quickly talk among themselves. As a result, it is clear both the teacher and the students themselves stand to gain the most from the finest option.

5.3 Theoretical Implications

Numerous ideas support research on innovation, methods, obstacles, alternatives, and education. This essay focuses on teaching innovation to students in higher education so they can understand fresh methods for online learning, as described in chapters 1 and 2. Innovation in education can take the form of fresh pedagogical theories, methodological frameworks, instructional strategies, instructional technologies, and learning methodologies.

One such chance for learning occurred during ADP's on-stage presentation on innovation, intersection, and scalability utilizing equitable technologies Essence, 2022. Diversity of distinct skills and diverse ways of thinking are necessary for innovation. Based on the previous chapter 2, experience-based learning stimulates critical thinking and creativity (Enaksi Sengupta, Patrick Blessinger, 2022) which is one of the teaching innovations. Kaltura, (2021) the proactive adoption of new teaching techniques and procedures in the classroom is known as creative teaching. These innovative teaching techniques are being used to raise academic standards, address pressing issues, and support equitable learning. Overall, even though creativity, imagination, procedures, and tools are offered, innovation cannot be applied without facts, prototypes, and any other data.

The goal of using these innovative teaching techniques is to enhance academic results and deal with pressing issues to advance equitable learning, according to Kaltura (2021). By giving students the chance to develop abilities like originality, flexibility, and resilience, innovation education may also assist in preparing pupils for a dynamic workplace. As educators, we may use educational innovation to enhance students' academic performance as well as the development of the soft skills necessary for future success. Additionally, may gradually teach the technologies that pupils will need to be familiar with.

5.4 Contribution of Research

The study's addition to the body of knowledge as supporting data. No matter if the innovation is employed in face-to-face instruction or online instruction, lecturers can use this study as a guide. Teachers can therefore educate their pupil's new innovative strategies.

This study may help increase other teachers' awareness of the difficulties associated with running online courses while utilizing cutting-edge methods. A few students are unable to enroll in online courses while the epidemic is ongoing. Therefore, it is important for teachers to consider and pay attention to ensure that the students and themselves are not burdened by the novel learning strategies utilized. When adopting online learning, teachers may manage and overcome difficulties with the help of awareness, experience, and general knowledge.

5.4.1 Contribution of practical learning :

"Knowledge is useless until it is used," the saying goes. (Anton Chekhov and others, 2021) The educational landscape has shifted. Students today concentrate on studying skills and information as part of their education. In many respects, practical learning has supplanted academic education. The best way to grasp life is via practical education, which is just as vital as academic knowledge.

Encourages Self-Learning through this process, your cognitive process gradually evolves. Starting at the beginning, the germ of practical education should be planted. A learner alters his learning method after understanding and using a practical strategy. This method of hands-on education also increases your confidence. Next, a useful memory aids Practical education is a valuable memory aid. It has long been believed and demonstrated that doing

anything independently helps you remember it better. Good memory comes from experience and practise. Let's use driving a car as an example. You can learn something more effectively when you practise it while driving.

Deep comprehension Students in theoretical education are sluggish and passive learners. Many pupils struggle with memorization and frequently end up mumbling their notes. Conversely, practical education helps pupils comprehend ideas at a deeper level. You learn more actively as a result. There will always be clarity in one's thinking as well. Enhanced Skill Set Bookish knowledge aids in test success, yet it lacks the necessary abilities for employment. Why do new hires need training before beginning their jobs? should prepare beforehand by honing their abilities and reviewing their fundamentals. A person's growth is greatly influenced by their skills. Your analytical abilities will benefit from this pragmatic approach. You are more able to comprehend and analyze.

Education is a valuable asset that has a lasting impact on a person's life. Good education makes you a responsible person on top of grades and employment. The greatest approach to get information and abilities to handle things is through practical education. You must continually study if you want to thrive in this cutthroat society and improve your abilities. Knowledge comes from books, but life lessons are learned via experience. When it comes to practical learning, the trial-and-error approach works best. You will learn from your errors and ensure that you never make the same ones again. You may learn a lot of difficult things by doing and experiencing them in real life.

5.4.2 Contribution of knowledge

Given the diversity of students, cater to their interests. On the other hand, they have almost no specialized knowledge. Basically, they are common, everyday answers. Not wrong, irrelevant or careless but constrained. Answers to questions about what is taught and why it is necessary to be better, more knowledgeable and more informed. The demand for and use of specialized knowledge is motivated by "ethical norms" and advancing the "interests of others "our students rather than simply by our desire to support the status claim that teaching is a profession.

The first is with learning style. Students can begin learning with a broader awareness of how the field has tackled comparable topics, perhaps from different points of view, with

different theories, or with different methods, rather than reading every paper looking for holes, gaps, or silences and giving focus on this.

The knowledge, skills, and interests of the students are another pedagogical factor to consider when deciding what to teach.The curriculum, with its traditional emphasis on levelling and development, directs the learning's next stages, yet it leaves some pupils with unanswered questions regarding those steps. This necessitates that educators understand and employ both formal and informal diagnostic testing. If they participate in online learning, what experiences do students bring? How might the experience be accessible to maximise its relevance and relation to fresh learning? What are the demands placed on families, families, and society? What already-knows a student? How do pupils' levels of understanding differ? The literature on assessment and teaching provides dependable methods for addressing these concerns. Understanding this literature helps you to be more focused.

Teachers are able to defend what they teach at any moment, notably in the past Covid-19, thanks to a mix of subject expertise, curriculum, and evaluation, as well as students as an expert resource. They must be able to make this argument since there is a shortage of instructional time. A school day, a term, and a whole year can only accommodate so many. There are a lot of potential interests at that moment. However, the problem is not critical; rather, it is of relative importance. Why is this student being taught this material at this particular time? From daily common knowledge alone, this cannot be satisfactorily answered. It can only be resolved by a dedication to in-depth knowledge and skill.

There is no one right approach to teach, according to our student experience and the teaching literature. This is not to imply that certain teaching strategies aren't superior to others, though. Knowledge These improved methods are based on both the scientific literature and practical experience. The research literature provides a broad overview of pedagogy (application of early organisers, clarity in explanations and instructions, upkeep of order, use of formative assessment and feedback) that is likely to be successful in most educational situations. But there is also subject-specific pedagogy literature (pedagogical content knowledge) that identifies strategies and sequences that are most likely to be successful in imparting a particular set of information, particularly for the present online learning approach.

Setting high standards and abstaining from making deficit-minded judgments must be the foundation of your defence against what you teach and how you teach it. In order to avoid making negative predictions about oneself and to be upbeat with and for everyone they educate,

instructors need to have a solid understanding of who they are. Teachers must be aware of their own pedagogical and personal blind spots and prejudices and work to overcome them through tenacity and tolerance. However, knowing ourselves well enough to maintain our own sanity and health is also crucial. The profession is marked by unselfish service and altruism, according to (Beaton, 2010). The importance of teaching cannot be overstated, but our personal health and well-being should never be put before teaching.

Understanding something is effective for teaching since it defines a profession. Because its specialized character provides information that is more trustworthy than general or everyday knowledge Because the core of teaching's social justice duty is to help students make informed judgments And since self-awareness enables us to act in ways that both further our objective and safeguard our a person's health.

5.4.3 Contribution of Theoretical.

The method of making a theoretical contribution is centered on improving an existing theory with some logic and evidence. Through a narrative analysis of the literature, this work has concentrated on a few theoretical contribution-related questions and their solutions (Zhou J Shafique MAdeel A et al., 2017).

Organizational leadership must completely operationalize innovation in a practical sense in order for a company to be considered innovative (Friedrich et al. 2010, Rosenbusch, Brinckmann, & Bausch 2011). According to a recent survey by the Center for Creative Leadership, innovation is seen favorably by leaders as one of the key prerequisites for organizational survival (Friedrich et al. 2010). However, in order to have a good impact on organizational performance, a business may need to take action and provide the right conditions for increasing innovation. Organizational objectives include being innovative in thought, method, and products as well as just understanding innovation.

Understanding the elements that contribute to an individual's creativity is crucial because companies are made up of individuals. The research has previously looked at a number of variables as significant antecedents to individual creativity, including work qualities, connection with supervisor, and culture and environment (Khazanchi, Lewis, & Boyer, 2007; Tellis, Prabhu, & Chandy, 2009). This essay focuses on how one's teaching style influences innovation and to what degree universities should and can teach it.

5.5 Limitation

There are various limitations in this study. The research was completed quickly, which is the first positive. There is time allotted to finish this. The study period, which runs from October 2022 to January 2023, is only a few months long. The second drawback of this study is the state's poor coverage, which only includes Melaka-based technopreneurs and instructors at the Faculty of Technology Management. As a result, it is impossible to extrapolate the study's findings to all of Malaysia. The researcher also has the challenge of not having enough time to interview the responder because the latter is a lecturer. The researcher had to do the interviews online since the responder was too busy and not a faculty member, which is another reason for the location restriction. Due to the laborious nature of the transcription process, researchers are likewise constrained. Finally, just six responders, the bare minimum, were available for the researcher to interview.

5.6 Recommendation of Research Future

The researcher believes that the results of this study will be useful to all readers and lecturers and instructors. If other researchers are interested, they can conduct more in-depth research on this subject. The researcher would want to make some recommendations for them to carry out this research using methods and difficulties to adopt online courses utilizing more innovative teaching strategies.

Using cutting-edge technology in the classroom and always adhering to the most recent trends in education are not the only creative teaching approaches, according to Ellie Tran (2023). AI may assist lecturers in doing a variety of tasks, suggesting one way that teachers can employ it in the classroom. Using AI does not mean that it takes the position of that one educator and does all tasks. It's not like in a science fiction film when robots and computers wander about and instruct pupils (or brainwash them). It enables professors to tailor instruction, lighten their burden, and manage classes more effectively. The LMS, plagiarism detection, automated marking, and evaluation are just a few of the usual tools that lecturers may employ.

The research also recommended that the teacher implement the idea of blended learning. A technique called blended learning mixes high-tech online education with conventional classroom instruction. It provides you and your students with greater freedom to design a productive learning environment and a unique educational experience.

It is challenging to overlook effective resources like the internet or supplementary e-learning applications during Covid-19 in the technology-driven society we live in. The primary means of communication between professors and students is technology. The world has been taken over by things like online sites for engaging and playing games, LMS for organizing courses, video meetings for professors and students, and other learning-related applications. For instance, it's still beneficial to use digital tools to assist in making lectures more exciting when schools reopen and students must engage in offline sessions. AhaSlides is a fantastic tool for blended learning that keeps students interested in both in-person and online sessions. On this platform, your students may take part in tests, games, brainstorming sessions, and many other classroom activities.

The researcher recommended that instructors at other Malaysian universities use more innovative teaching methods rather than passively studying online in class. This is due to the fact that instructors can employ a variety of more innovative efforts and concepts to introduce teaching methods to students in the future.

5.7 Conclusion

The purpose of this study is to analyze the approaches employed and the difficulties associated with introducing educational innovation to students during COVID-19. Overall, it can be said that all instructional strategies need to be improved and broadened in the future. The difficulties encountered must teach them something useful. Additionally, educators must be better equipped to handle extraordinary events like the recent Covid-19. As a result, a variety of fresh options have helped lecturers continue offering online programs. The innovation of eLearning is fresh and has even started to become popular among all teaching personnel in the present. The teaching staff should take more initiative to become more inventive instructors in the future if technological innovation is developing day by day. If you have a look at the three objectives the researcher outlined. Respondents offered supportive comments on all three. The first purpose that describes the approach is that each instructor has their own style and that all instructors at the University or other institutions can utilise the same tactics. The difficulties encountered cannot be ignored because they are a factor that can inspire fresh ideas for teachers to take alternative actions. As a result, in order to apply new learning in line with the present technological environment, instructors must be more creative and proactive.
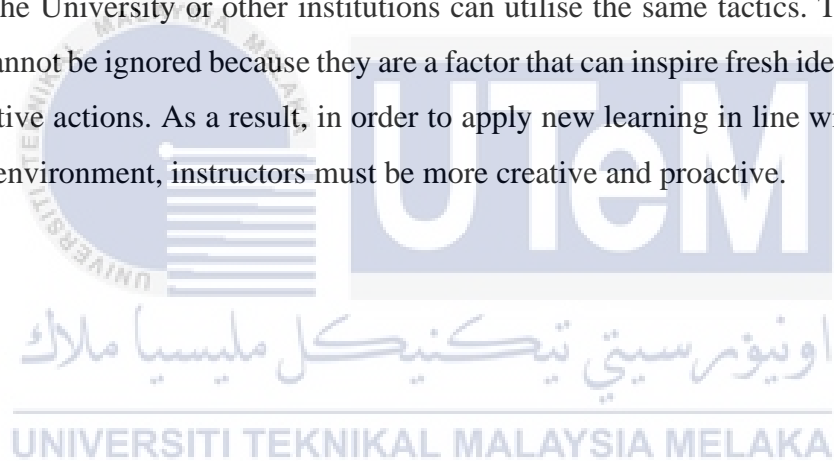
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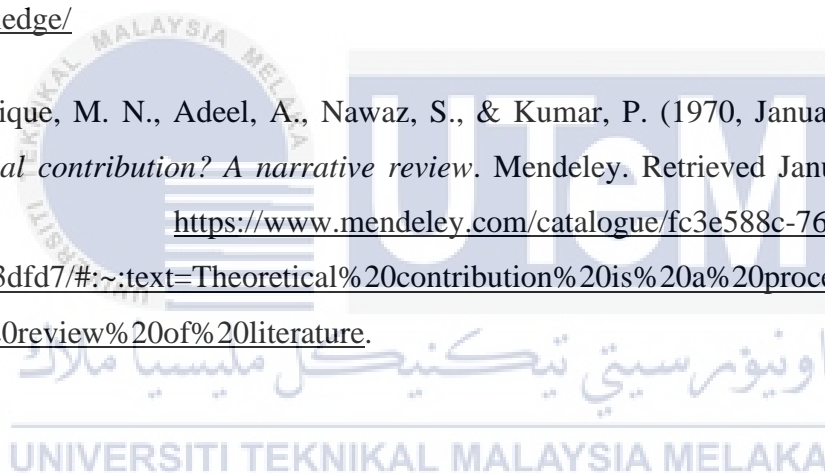
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Gantt Chart of Final Year Project (FYP) 1

WEEK/ ACTIVITIES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
FYP talk				■												
Search for FYP topic				■					M I D							
Meeting with supervisor					■											
Topic discussion					■				S E M							
Title confirmation						■										
RO & RQ Construction							■		E S T E R							
Submission Chapter 1								■								
Submission Chapter 2								■								
Submission Chapter 3									B R E A K					■		
First draft of FYP 1														■		
Submission of FYP 1															■	
Presentation 1															■	
Revised of FYP 1																■

APPENDIX 2

Gantt Chart of Final Year Project (FYP) 2

Week/Activity	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Briefing of FYP 2			▨	▨											
Confirmation of Question			▨	▨											
Distribution of Questionnaire			▨	▨	▨	▨	▨	▨	▨	▨					
Data Collection			▨	▨	▨	▨	▨	▨	▨	▨	▨	▨			
Data Analysis											▨	▨	▨		
Report Writing												▨	▨		
Do preparation of PSM presentation													▨	▨	
PSM Presentation & VIVA														▨	
Fix the mistake and submit a report														▨	▨
Thesis Submission															▨

Dear participant,

My name is Ummi Khairiah Binti Alias, and I attend Universiti Teknikal Malaysia Melaka as an undergraduate student studying Bachelor of Technology Management (innovation) with Honors (UTeM). The Challenge of Innovative Teaching Approaches in Tertiary Education is my current research topic. Parts A and B are several. You must respond to each one. The information you provide will be kept confidential and used only for academic research. We greatly appreciate the lecturer's help in organizing this part of the interview. GENERAL QUESTIONS in SECTION A This section briefly discusses your background. Your answers will be completely confidential. SECTION B: BACKGROUND, which requires learning more about your job range.

SECTION A: GENERAL QUESTION

This section briefly addresses your background. Your replies will be kept completely private :

SECTION A: GENERAL QUESTION	
Position in faculty	
Teaching Experiences	
Age	
Gender	
Qualification academic	

SECTION B: BACKGROUND

1. What are your category programs?
2. What location of your teaching during online learning?
3. What types of core management?
4. What is the duration per session of the synchronous online class?
5. Total students in your class?

RO 1: THE MOST EFFECTIVE TECHNIQUES

1. What are the techniques of innovation used during online learning?
2. Why do you take those techniques to be used as one of the elements in learning?
3. Where did you get the idea to do such a learning method?

RO 2: THE CHALLENGES USED IN TEACHING METHODS

1. What challenges have you faced while learning online?
2. What kind of risk do you expect in online learning?

RO 3: THE MOST SIGNIFICANT ALTERNATIVE

1. What alternatives are taken to ensure this online learning is effective?
2. Do you feel that online learning has a positive effect?
3. What can lectures do to ensure that online learning runs smoothly and is interesting?

ADDITIONAL QUESTION :

1. Do you think online learning is easier than face-to-face?
2. In your opinion, does online learning put a burden on lecturers and students?

CONCLUSION REMARK :

1. Did you have anything to add before we ended this interview session?

Challenges Of Innovative Teaching

Face To Face Interview

Date: 11 Nov 2022

Location: Mamak Café, Ayer Keroh, Melaka

Length: 17: 03: 00

Interviewee: Interviewer

Interviewer: Participant A

Q: Interviewer (x 1)

A: Participant (x 1)

Interviewer: Before starting our interview session, I would like to introduce myself, my name is Ummi Khairiah, I am from Kos BTMI section 2. The title of my PSM is challenges of innovative teaching approach in tertiary education and the objective of the study is about the challenges, techniques, and alternatives used.

Q: Can we start now?

A: Yes, can

Q: What are the techniques of innovation used during online learning?

A: The technique used is ULearn focuses, I also use youtube, Webex and I like to use mind maps and PowerPoint

Q: Why do you take techniques to be used as one of the elements in learning?

A: Because that easy to use, friendly and free online and also friendly to students and lecturers. A mind map can be student-creative and innovative, mind maps are also easy to remember.

Q: Where did you get the idea to do such a learning method?

A: Firstly, based on the experience of more than 15 years teaching, and second from knowledge used software and education techniques like mind map programs and frameworks.

Q: What can lecturers do to ensure that online learning runs smoothly?

A: I follow the objective of learning to teach next, I ensure the students respond every my teaching, and also I do assessments. I also the software and many people give comments there.

Q: Do you do any programs?

A: Yes, I also do webinars and assessments to ensure students can share their knowledge

Q: What kind of risk do you expect in online learning?

A: Internet down and power supply, computer, and internet data. Problem webcam also and electricity. Based on my experience there are few students who don't have any gadgets like computers and phone also data. So, I collect money from faculty, staff, and UTeM to give some money for students and help students get their own laptops

Q: What is the big challenge during online learning?

A: Most students don't have devices and facilities
     The stabling of technologies and I am so lenient during online learning and do video recording to put on YouTube for students because students can see any time and everywhere.

Q: What is another alternative to ensure this online learning is effective?

A: Pre-recording for students if you have free time and can see every time

Q: Do you feel that online learning has a positive effect?

A: Yes, because lectures can be ready for technology experiences and expose them to learning technology because the world works very fast.

Q: Do you think online learning is easier than face-to-face?

A: Yes, because be more flexible and students are also more creative

Q: Does online learning put a burden?

A: The first pandemic is a quiet burden, but now I think is not a burden actually it is easy to do the class.

Face To Face Interview

Date: 15 Nov 2022

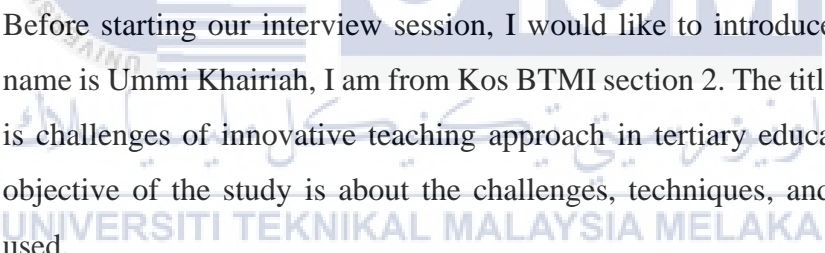Location: Professor's officer

Length: 21: 13: 00

Interviewee: Interviewer

Interviewer: Participant B

Q: Interviewer (x 1)

A: Participant (x 1)

Interviewer: Before starting our interview session, I would like to introduce myself, my name is Ummi Khairiah, I am from Kos BTMI section 2. The title of my PSM is challenges of innovative teaching approach in tertiary education and the objective of the study is about the challenges, techniques, and alternatives used.

Q: Can we start now?

A: Yes, can

Q: What are the techniques of innovation used during online learning? For example like mindmaps, video recording

A: I don't like using mind maps. The technique used is ULearn, I also use youtube, Webex

Q: Why do you take techniques to be used as one of the elements in learning?

A: Facilities students and give students are more creative

Q: Where did you get the idea to do such a learning method?

A: Firstly, media channels and life experiences

Q: What can lecturers do to ensure that online learning runs smoothly?

A: More creative. The instructor needs to be more strict like forcing and make sure the student is on camera to know the student is paying attention

Q: Do you do any programs?

A: Yes

Q: What kind of risk do you expect in online learning?

A: Internet problems and miscommunication

Q: What is the big challenge during online learning?

A: Internet problems and students' lack of interest in the class because students and instructors do not have eye contact. Asking questions to students is also difficult due to the internet. learning strategies are also a challenge because instructors need to diversify learning techniques and be more creative. Limited strategies and difficult instruction and lectures have to support through whatapps.

Q: What is another alternative to ensure this online learning is effective?

A: I played the video before class or earlier because I was concerned that anything might go wrong in class. Kahoot is another tool I enjoy using since it creates a fun and engaging environment.

Q: Do you feel that online learning has a positive effect?

A: No, the level of interactive students in this batch is less than before.

Q: Do you think online learning is easier than face-to-face?

A: No, because I don't have eye contact between the lecturer and the student

Q: Does online learning put a burden?

A: No actually but the lecturer has to prepare that material and platform for class early to test that line first. and I suggest that the instructor give a video recording of fewer than 10 minutes so that the students don't get bored watching it

Q: Any comments about this session today?

A: I think you are better prepared and memorized the title and objective of the study before the interview.

Q: Thank you Prof.

Online Interview

Date: 8 Dec 2022

Platform: Google Meet

Length: 24: 07: 00

Interviewee: Interviewer

Interviewer: Participant C

Q: Interviewer (x 1)

A: Participant (x 1)

Interviewer: Before starting our interview session, I would like to introduce myself, my name is Ummi Khairiah, I am from Kos BTMI section 2. The title of my PSM is challenges of innovative teaching approach in tertiary education and the objective of the study is about the challenges, techniques, and alternatives used.

Q: Can we start now?
A: Yes, can
Q: In your opinion, what is innovative teaching?
A: Innovative teaching is one of the challenges, and those challenges differ between lecturers. Due to the pandemic, there is a change in the way of learning and teachers need to change. The change was sudden. As you can see all universities and colleges use different methods to reach the student through e-learning. All institutions are also changing the way they learn and teach. Other instructors have other ways of doing that learning approach to students.
Q: What are the techniques of innovation used during online learning?
A: synchronous learning is very low compared to face-to-face so teachers need to have teaching techniques for students. Sometimes the instructor holds discussions in class

but there are also students who still do things on their own. For example, a teacher can give a variety of work and technology to a student but there is no benefit to him. Compared to face-to-face learning, I only use the discus technique on the side of the class and on the floor, even when called back to the class, they get a bigger impact from the discussion.

Q: What can lecturers do to ensure that online learning runs smoothly?

A: Every student has to open the camera and every student gives focus in the class. Ensuring that the effect of online learning is that students can feel not only given a lot of tasks so that students are stressed but knowing how to get student instruction.

Q: What kind of risk do you expect in online learning?

A: Problem of technologies

Q: What is the big challenge during online learning?

A: There is no bond between lecturers and students in online classes. Because of that, lecturers had to find other methods for teaching. Teachers need to be smarter. the second is a lost student because the student did not achieve what was delivered by the lecturer due to various distractions from home.

Q: What is another alternative to ensure this online learning is effective?

A: Open the camera and do group discussion

Q: Do you feel that online learning has a positive effect?

A: Yes, many of the advantages of online learning actually can reduce the energy of students and teachers to go to class. Students can discuss online with friends.

Q: Do you think online learning is easier than face-to-face?

A: Yes

Q: Does online learning put a burden?

A: It's not a burden. Online learning is good technology actually and you can deliver that learning. The burden can teach you about the learning process during online learning.

Q: Any comments about this session today?

A: No

Q: Thank you Prof.

Face to Face

Date: 19 Dec 2022

Location: Café FPTT

Length: 20: 16: 00

Interviewee: Interviewer

Interviewer: Participant D

Q: Interviewer (x 1)

A: Participant (x 1)

Interviewer: Before starting our interview session, I would like to introduce myself, my name is Ummi Khairiah, I am from Kos BTMI section 2. The title of my PSM is challenges of innovative teaching approach in tertiary education and the objective of the study is about the challenges, techniques, and alternatives used.

Q: Can we start now?
A: Yes
Q: In your opinion, what is innovative teaching?
A: Innovative teaching is the use of techniques in the learning and teaching process by using different equipment and systems.
Q: What are the techniques of innovation used during online learning?
A: I prefer video recordings like Webex and ULearn.
Q: What can lecturers do to ensure that online learning runs smoothly?
A: I will provide the best programs and make sure the facilities for students are good.
Q: What kind of risk do you expect in online learning?
A: Problem of technologies
Q: What is the big challenge during online learning?

A: The first challenge is that students find it difficult to pay attention due to internet problems that prevent them from attending class. The second challenge is caused by a bad environment such as noise and so on.

Q: What is another alternative to ensure this online learning is effective?

A: I give an assessment to each class and make sure the students do it. Giving exposure to students by holding various activities or programs such as games

Q: Do you feel that online learning has a positive effect?

A: online learning will have a good impact if the instructor's learning techniques achieve the objective

Q: Do you think online learning is easier than face-to-face?

A: Yes, it will be more fun if students give good responses and ask more questions

Q: Does online learning put a burden?

A: It's not a burden because the instructor can learn new techniques and get an up-to-date situation and use creativity more deeply

Q: Any comments about this session today?

A: No

Q: Thank you Dr.

Face to Face

Date: 29 Dec 2022

Location: Officer FPTT

Length: 16: 44: 00

Interviewee: Interviewer

Interviewer: Participant E

Q: Interviewer (x 1)

A: Participant (x 1)

Interviewer: Before starting our interview session, I would like to introduce myself, my name is Ummi Khairiah, I am from Kos BTMI section 2. The title of my PSM is challenges of innovative teaching approach in tertiary education and the objective of the study is about the challenges, techniques, and alternatives used.

Q: Can we start now?
A: Yes
Q: In your opinion, what is innovative teaching?
A: Innovative teaching uses different elements, in other ways.
Q: What are the techniques of innovation used during online learning?
A: Online I used many kinds of techniques to make sure that online learning runs smoothly for example I do discussions within a short time. But the most important thing I believe is that traditional ways. For me video recording is not interesting to do but don't have other equipment so, have to use it to get the instruction.
Q: Why did you choose that technique?
A: For me, if using Webex is the way you choose and you can get a better management perspective.

Q: What can lecturers do to ensure that online learning runs smoothly?

A: As a lecturer, I need to be more prepared to hold a class and the lecturer provides special tools for the class.

Q: What kind of risk do you expect in online learning?

A: The risk is about the delivery of the content lecture gives not being accepted or understood by students because lecturers need to make sure their delivery is effective sometimes students don't like to listen to that lecture style, that visual.

Q: What is the big challenge during online learning?

A: Student of participants. The presence and activity of the students during the class affect the atmosphere in the class.

Q: What is another alternative to ensure this online learning is effective?

A: you must plan how the online learning must be conducted

Q: Do you feel that online learning has a positive effect?

A: Yes, because that is proper learning for the environment.

Q: Do you think online learning is easier than face-to-face?

A: For me no, but the good thing about online learning is that I don't have to walk to class which means I can reduce fatigue. Online is not easier actually.

Q: Does online learning put a burden?

A: He will be a burden if we don't have a proper alternative. For the student, he will feel a burden due to the lack of gadgets and so on. But online classes will be great if everything is complete

Q: Any comments about this session today?

A: No

Q: Thank you Miss

Online interview

Date: 4 Jan 2023

Platform: Google Meet

Length: 24: 29: 00

Interviewee: Interviewer

Interviewer: Participant F

Q: Interviewer (x 1)

A: Participant (x 1)

Interviewer:	Before starting our interview session, I would like to introduce myself, my name is Ummi Khairiah, I am from Kos BTMI section 2. The title of my PSM is challenges of innovative teaching approach in tertiary education and the objective of the study is about the challenges, techniques, and alternatives used.

Q: Can we start now?

A: Yes

Q: In your opinion, what is innovative teaching?

A: Innovative teaching not only do lecturers or educators need to use technology to study, but they also need to change the way they conduct classroom instruction. For instance, instructors use a variety of instructional techniques and take innovation into account. Because of the pandemic, internet channels were employed for mood instruction rather than just one platform.

Q: What are the techniques of innovation used during online learning?

A: Previous to discussing the techniques employed in online learning or innovative teaching. Before the pandemic, instructors were accustomed to employing many techniques, including active learning and group discussion. However, while discussing

online education, I utilized Webex and Zoom. Even though I might just utilize this platform, I plan to use additional platforms overall. I utilize Kahoot, Mindmapping, and the Google Forms platform for evaluation. I also utilize the PSTP and ULearn programs. The main factor is that students will undoubtedly use the lecturer's content as a reference. The speaker may also provide a brief task or evaluation in addition to providing lecture notes. I am sure there are definitely more apps that can be used and as a lecturer, I also need to explore more of the apps.

Q: Why do you take those techniques to be used as one of the elements of learning?

A: As a lecturer, I need to make sure I do active learning. If I do a face-to-face class, I will give teaching notes beforehand and if it's an online class, I will do a synchronous method by pre-recording those classes. I also hold feedback from students to see how well my content can be understood by students. I understand what content I can use in class for example using canvas apps and so on.

Q: What can lecturers do to ensure that online learning runs smoothly?

A: For me, the position encompasses more than just the lecturer's responsibilities. However, the function of the teacher comes first, followed by the necessity for participation from the pupils. There must be strong support for the third platform. In order to support such material, other departments and the university itself must support everything, notably the line and wifi. Therefore, everyone involved in this situation must participate, and it is important for me as a lecturer to comprehend how students learn in order to compare how changes in mood affect students' academic performance.

Q: What kind of risk do you expect in online learning?

A: Due to internet issues that often arise during class, there is a communication gap between professors and students when learning online. Therefore, before entering the classroom, instructors and students alike must make sure that the platform will function properly and have a solid internet connection.

Q: What is the big challenge during online learning?

A: The second problem is that both students and professors must behave strongly. Of course, poor student online conduct is a challenge. The next step is to master every platform and tool lecturer, and although some applications are simple to use, others require significant preparation work.

Q: What is another alternative to ensure this online learning is effective?

A: as a lecturer, you are aware of how to handle the coming situation. For instance, we know that students may watch video recording repeatedly if we use the synchronous technique.

Q: Do you feel that online learning has a positive effect?

A: Yes, online learning gives a good effect because it can protect us from the dangers of the pandemic. Students can also see the lecturer repeatedly if they use the video recording method.

Q: Do you think online learning is easier than face-to-face?

A: Yes, because we have the flexibility of time to manage that class. However, I think online learning is not easier if there are challenges in terms of the internet

Q: Does online learning put a burden?

A: It isn't considered as a burden. However, a professor has a lot of work to do, including producing videos and offering engaging information. Even as a student, you must have a reliable internet connection in order to attend classes.

Q: Any comments about this session today?

A: No

Q: Thank you Prof.