Lived experience of subject matter experts in the instructional design process for blended learning at The Maldives National University: a phenomenological study

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ABSTRACT *Blended learning requires the detailed combination of both in-person and online learning activities. To achieve the best result of improved learning outcomes, the conversion of a face-to-face course for blended learning delivery should follow a systematic process of instructional designing. The process involves collaboration between instructional designers (IDs), who are well-trained in adult pedagogical methods, and faculty Subject Matter Experts (SMEs), who provide expertise on the content to be delivered through the blended course. As a review measure on the instructional design process at the Maldives National University (MNU), this study explored the experiences of SMEs as they interact with instructional designers to design and develop blended learning courses. Ten SMEs who collaborated with instructional designers in the instructional design process for different subjects for the past four years were interviewed to share their experience. The thematic analysis of the results depicted that the instructional designing process improved their pedagogical approach and delivery with increased student satisfaction and made the teaching and learning process easier and effective. Along with it many agreed that the academic workload is a major challenge. The study implies instructional design process as a requirement for the best result of improved learning outcomes in blended learning. The process allows the implementation of blended course structures and pedagogical choices for interaction, material distribution, learning facilitation, direct instruction and constructed organisation and design throughout the course with dedicated student participation and critical reflections for both in-person and online learning. Hence, the process should be continued and solutions should be sought to overcome the challenges for the successful implementation.*

Keywords: Instructional design, phenomenological, blended learning, teaching and learning

   Educators continuously look for innovative methods to improve the teaching and learning process in order to ensure that the learners achieve the required learning outcomes. One of the new and innovative delivery methods include combining the elements of in-person teaching with technology-enabled learning to bring people together virtually (Cleveland-Innes & Wilton, 2018). This has resulted in the delivery approach called blended learning and it has been growing rapidly making it a highly focused area among researchers in academia. Blended

learning involves a combination of face-to-face and online learning activities. Hence, for blended delivery, a detailed combination of learning activities using in-person and online environments is required. To achieve the best result of improved learning outcomes, the conversion of a face-to-face course for blended learning delivery should follow a systematic process of instructional designing (ID). The process involves collaboration between instructional designers (IDs), who are well-trained in adult pedagogical methods, and faculty Subject Matter Experts (SMEs), who provide expertise on the content to be delivered through the blended course (Cleveland-Innes & Wilton, 2018). The process of designing a course for blended delivery or converting a face-to-face course into blended delivery is a collaborative endeavour between instructional designers and SMEs (Arnold, Edwards, Magruder, & Moore, 2018).

"Instructional design considers the learner, learning outcomes, the content of what is to be learned, instructional strategies, and results of instructional interventions" (McGee & Reis, 2012, p.17). The process bridges both in-person and online learning including appropriate learning activities for each, and activities that link the two environments become a new and critical area for learning objectives (Cleveland-Innes & Wilton, 2018). In higher education, the demand for instructional design expertise continues to grow (Kumar & Ritzhaupt, 2017) as institutions strive to provide flexible and on-demand learning formats for nontraditional learners (e.g., online certificates, blended and hybrid courses, flipped classrooms, and stackable credentials) (Mancilla & Frey, 2020). Higher education has embraced instructional technology as a means of supporting instruction in conventional classroom settings and in delivering online instruction to geographically dispersed learners (Nworie, 2022).

The Maldives National University (MNU) being the leading public higher education institute has been offering courses in blended mode from 2002 (Hashim, 2014). With the integration of Moodle as Learning Management System (LMS) the courses in blended mode were offered through a dedicated centre called Centre for Open Learning (COL). However, the instructional designing process was not formally in place. with the importance of the instructional designing process for blended delivery, a system was put in place from 2019 with the establishment of a new centre called Centre for Educational Technology and Excellence (CETE). The centre acts as a central hub to support faculties in providing instructional designing support to faculties and conduct research and training related to effective strategies to integrate technology in teaching and learning (MNU Annual Report, 2019).

Research has shown that many individuals within the higher education sector do not seem to understand the field of instructional design (ID) or what instructional designers (IDs) can contribute to an online course development project (Hart, 2018). Therefore, this study was conducted to give instructional designers the opportunity to describe their experiences working with faculty subject matter experts (SMEs) to develop courses for online higher education institutions as Hart, (2018) has proposed. In this manner, high-quality, engaging, and informative online higher education courses are developed when a strong working relationship exists in which instructional designers and faculty SMEs respect one another's opinions and expertise. In order to determine the best methods for strengthening the working relationship between instructional designers and faculty SMEs, it is

important to discover how instructional designers describe their experiences when working with SMEs and their beliefs about how those experiences affect the quality of a course for an online higher education institution (Hart, 2018).

Because there is a gap between what instructional designers stated they do on a regular basis, and what their goals are, with barriers to attaining those goals, it would be beneficial to conduct research on institutional expectations of the instructional design role. Institution as a whole would benefit from such research when crafting job descriptions, onboarding new instructional designers, and evaluating an institution's overall culture and goals and how instructional design fits into it (Arnold, Edwards, Magruder, & Moore, 2018). The role of instructional design in academia is multifaceted and varies based on placement within individual schools, departments, or centres for teaching and learning. Therefore, the study is conducted as a review measure on the instructional design process at the Maldives National University (MNU). Hence, it explored the experiences of SMEs as they interact with instructional designers to design and develop blended learning courses.

Research Objectives

- Examine the ways that the instructional design process assisted SMEs in improving their teaching and learning practices in blended learning delivery.

- Identify the reflection of students' learning within a subject designed by following the instructional design process based on SMEs' observation.

- Determine the challenges faced by the SMEs during the instructional design process at MNU.

- Identify recommendations from SMEs to improve the instructional designing process for blended course delivery at MNU.

Instructional designing and roles of instructional designers in blended learning course designing

As online education has become more widely accepted and the demand for online courses in higher education continues to increase, the role of ensuring the quality of online and blended courses has intensified. One such role, instructional designer, has proven to be a valuable asset to, and a critical component within, colleges' and universities' pursuits in access to distributed learning (Bennett & Albrecht, 2014).

The literature offered a variety of definitions for instructional design, and those who hold that role. Some of the key definitions used in this study originate from Sims and Koszella (2008) who define instructional design as a "purposeful activity that results in a combination of strategies, activities, and resources to facilitate learning" and an instructional designer as "a person with the competencies to design instruction" (p. 570). As an academic field, "instructional design" has had a long history and is considered as one of the most popular terms presently used to refer to the field and the instructional design and instructional technology (IDT) practitioners (Nworie, 2022).

With high expectations to create an equitable experience in online and blended modalities for students when compared to the traditional face-to-face format, instructional designers constantly have to expand their skill set and responsibilities to provide students with dynamic activities and sound design approaches in the online and blended courses being offered (Bennett & Albrecht, 2014). However, instructional designers are often mistaken as information technology professionals who have a high degree of technical knowledge but little knowledge about the academic side of course development and online teaching (Bennett & Albrecht, 2014).

As the field of instructional design continues to mature and evolve, the professional roles and competencies of the individuals who are identified as instructional designers have become increasingly important. In particular, instructional designers working in the professional context of higher education serve important roles within their organisations. A few notable professional organisations provide standards for instructional design professionals (Martin & Ritzhaupt, 2020), yet the unique case of higher education provides several opportunities and obstacles for these professionals to use their academic preparation and experiences to best serve their institutions.

Instructional designers in higher education provide both professional services and products to their stakeholders in the form of course design, development, and evaluation; professional development opportunities; and technical and pedagogical support for faculty, staff, and students (Anderson, Love, & Hagga, 2019; Kumar & Ritzhaupt, 2017). Additionally, it is not uncommon for instructional designers to provide ongoing professional development opportunities for faculty staff. This is to learn about emerging technologies for teaching and learning or instructional strategies to best engage their students through workshops, one-on-one consultations, or teaching and learning certification programs within their institutions. Providing ongoing technical and pedagogical support is also a common job requirement that involves faculty, students, and staff, such as academic advisors or tutors (Kumar & Ritzhaupt, 2017). This ongoing support might manifest as assisting students or faculty with the use of the institution's Learning Management System (LMS) or in the form of answering direct questions about appropriate technologies to support a specific type of instructional strategy. Additionally, instructional design work necessitates collaborations with nonacademic staff, information technology units, administrators, and librarians (Anderson et al., 2019). As the roles of these professionals appear to be constantly evolving, instructional designers in higher education are in-demand professionals that must possess a wide-range of competencies based on their different roles. Such roles include instructional designers, educational/instructional technologists, curriculum designers, course developers, multimedia producers, unit managers, trainers, and more (Nworie, 2022).

Instructional design process at MNU

The instructional design process applied by CETE in MNU to design courses/subjects for blended/online learning demands a highly structured and an intensive communication process during each phase of the ADDIE model which is one of the most common models used in the instructional design field as a guide to producing

an effective design (Aldoobie, 2015). This model is developed systematically and rests on the theoretical foundation of learning design. This model is structured with sequences of systematic activities in efforts to solve learning problems related to learning resources that are in accordance with the needs and characteristics of students (Susiana, 2019). It consists of 5 major phases as shown in Figure 1 namely: 1) analysis, 2) design, 3) development, 4) implementation, and 5) evaluation.
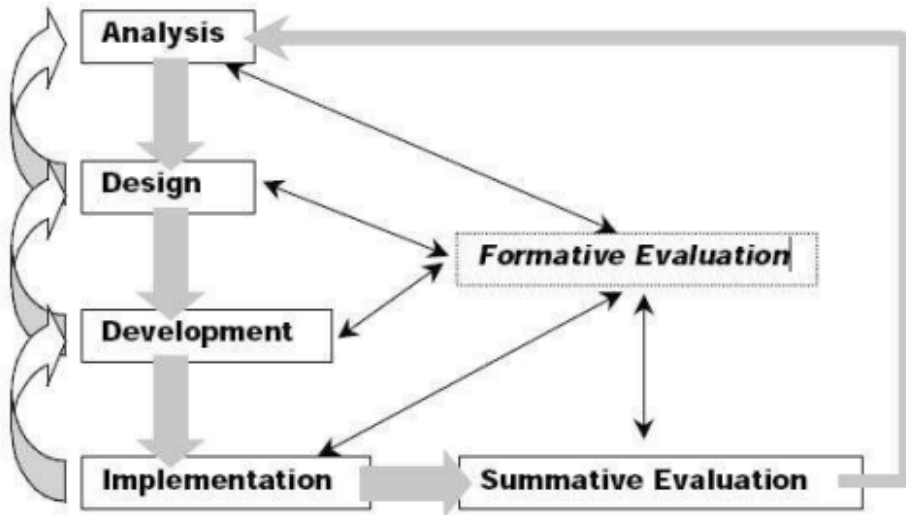

Figure 1. ADDIE Instructional Design Model illustrated by Mutlu (2016)

Each of the phases of the model involve several tasks that instructional designers and SMEs collaboratively work to complete. To assist the process, special tools are used during different phases and one deliverable from each phase leads to the next phase. Reviews are carried out in each of the phases and if required it is allowed to go back to the previous phase. Table 1 summarises the detail of the ADDIE process followed at MNU.

Table 1
Summary of ADDIE process at MNU

Phase	Tasks	Tools	Deliverables
Analysis	• Analyse existing course outline, resources • Determine instructional needs • Determine learning outcomes and assessments • Update course outline • Plan design process	• Subject outline Analysis Tool • Learning Outcomes tool • Course Map	• Learning needs identified • Course outline finalised with learning outcomes and aligned assessments • Agreed upon timeline for project progress
Design	• Identify instructional model • Identify instructional strategies • Design learning activities for both F2F and online • Identify and design learning resources • Design storyboards for resources and lessons	• Blended Learning blue-print template • Semester schedule template • Storyboard template	• Completed blue-print with integration of F2F and online learning activities • Learning resources identified • Storyboards
Development	• Develop lessons using appropriate instructional approach • Develop/adapt learning resources and learning activities based on storyboards	• Lesson development tool matching for learning activities and assessments • Digital tools	• Lessons developed for the learning objects • Resources integrated with learning objects
Implementation	• Implement (author) Moodle course page to provide learning path • Formulate facilitation and monitoring plan • Live Moodle and delivery	• Moodle authoring guideline/checklist • Facilitation checklist • Facilitation plan template	• Curated Moodle course page for the whole semester • Facilitation checklist and facilitation plan completed
Evaluation	• Peer review • Monitor progress • Student evaluation	• QM Rubric • Peer review checklist • Student evaluation questionnaire	• Evaluation reports

Methods

The study followed a phenomenological design. A phenomenological design is used to explore the essence of a phenomenon by gathering the lived experiences of the participants (Moustakas, 1994). Phenomenological research gives an opportunity for participants to share their points of view and lived experiences. This design is appropriate when trying to identify cross cutting themes among the participants who shared in the experience (Frederick, 2021). The experiences of the phenomenon as told by the subjects are analysed to uncover the underlying perceptual and conceptual themes that structure or characterise a given experience. Phenomenology is unique in that it makes no prior assumptions about the phenomenon (Partis, 2003).

Participants of the research were SMEs who worked with instructional designers through the whole process of instructional designing to convert face-to-face courses into blended learning delivery mode at MNU from January 2019 to June 2021. Semi-structured interviews, using the episodic interview method were used to collect data. Total of ten SMEs were interviewed by applying the episodic narrative interview method. It is a systematic, "funnelled" approach that is used to encourage research participants to convey bounded stories about their experiences of particular phenomena. Semi-structured interviews structured to address the major objectives of the study, allowed the researcher "to respond to the situation at hand, to the emerging worldview of the respondent, and to new ideas on the topic" (Merriam, 1998, p. 74). Interviews were transcribed and the data was analysed using the thematic approach. Thematic analysis helps researchers to analyse a large range of data sets to find patterns and develop themes. By using thematic analysis, it is possible to analyse the data collected under different circumstances at different times and precisely ascertain the relation between concepts and weigh them according to their recurrence frequency, in relation to the whole content. It is now accepted to be the best approach (Jnanathapaswi, 2021) for research involving meaning recognition and interpretation. The analysis process followed the steps presented by Brand and Clark (2006) as illustrated in Table 2: 1) familiarising data, 2) generating codes, 3) searching themes, 4) reviewing themes, 5) defining and naming themes, 6) producing reports.

Table 2
Steps for thematic analysis presented by Brand and Clark (2006)

	Phases	Description of the analysis process
1	Familiarizing Data	1. Narrative preparation, i.e. transcribing data
		2. Rereading the data and noting down initial ideas
2	Generating Codes	1. Coding interesting features of the data systematically cross entire data set
		2. Collating data relevant to each code

3	Searching Themes	1.	Collating codes into potential themes
		2.	Gathering all data relevant to each potential theme
4	Reviewing Themes	1.	Checking if themes work in relation to the coded extracts.
		2.	Checking if themes work in relation to the entire data set.
		3.	Reviewing data to search for additional themes.
		4.	Generating a thematic «map» of the analysis.
5	Defining & Naming Themes	1.	On-going analysis to refine the specifics of each theme and the overall story of the analysis.
		2.	Generating clear definitions and names for each theme.
6	Producing Report	1.	Selection of vivid, compelling extract examples.
		2.	Final analysis of selected extracts.
		3.	Relating the analysis back to the research question, objectives and previous literature reviewed.

Results and Discussion

The results of the analysis were organised based on the research objectives. The themes that emerged for each of the objectives after the data analysis is presented in the following sections.

Objective 1: Examine the ways that the instructional design process assisted SMEs in improving their teaching and learning practices in blended learning delivery

Data analysis for the questions related to how the instructional designing process assisted SMEs in improving their teaching and learning practices in blended learning delivery resulted in 6 major themes as presented in Table 3. These themes are: 1) constructive alignment, 2) update subject outlined, 3) technology enabled student-centred learning approaches, 4) face-to-face and online learning integration, 5) curated Moodle course page for semester, and 6) weekly facilitation and monitoring.

Table 3

Ways that the instructional designing process assisted SMEs in improving their teaching and learning practices

Theme	Codes	Sample Text
Constructive alignment	Assessments aligned with learning outcomes – specific learning outcomes formulated	*"Our outlines did not have intended learning outcomes for the weekly topics as well as specified course outcomes assessed from the assessments. Through the process we were guided on formulating weekly intended outcomes from the topic and relate course outcomes to the assessments."*
Update subject outlines	Review subject outlines Revise subject outlines	*"Through the process, we were able to update our outlines. The flow of content and distribution to weeks, resources identified as well as content updated"*
Technology enabled student-centred learning approaches	Student engaging learning activities Interactive online learning tasks online tasks with digital tools Learning activities using different Moodle tools	*"Instructional designers assisted to implement online learning activities like quizzes, discussion forums and comment sections so students can interact and be engaged while they attend online asynchronous lesson in Moodle"*
F2F and online learning integration	Combination of online and F2F activities Relation with online and block classes Identification of online and F2F content Specified online and F2F learning hours	*"With the help of instructional designers we were able to identify the content that would be more suitable to be delivered online and which would be more suitable to be conducted during block classes. So we were able to relate online tasks with the block classes"*
Curated Moodle course page for semester	Moodle content for whole semester Complete Moodle Page All resources on Moodle page Weekly organised Moodle Page	*"The Moodle page was designed and completed for the 14 weeks of the semester at the beginning of the semester"*

| Weekly facilitation and monitoring | Automatic activity completion
Student progress check
Scheduled facilitation | *"Instructional designers configured the Moodle page with automatic activity completion and progress check function"*

"Guided facilitation schedule for each week help to identify the role of lecturer during online activities and automatic configured Moodle page allowed us to monitor student's progress" |

SMEs highlighted that the instructional designing process allowed them to align the assessments with the learning outcomes of the subject which ensured that the students learned what they are supposed to learn. In addition, specific intended learning outcomes for weekly lessons were formulated which according to the majority of the SMEs were not formulated in their subject outlines. Constructive alignment is considered as a key element in education design through which teaching, learning activities and assessment tasks are devised to achieve intended learning outcomes (Ali, 2018). This is achieved mainly through the mapping of learning outcomes with assessment tasks carried out in the Analysis phase of the instructional design process (see Figure 2)

Tool 1: Course Map

PUB509 – Health Promotion
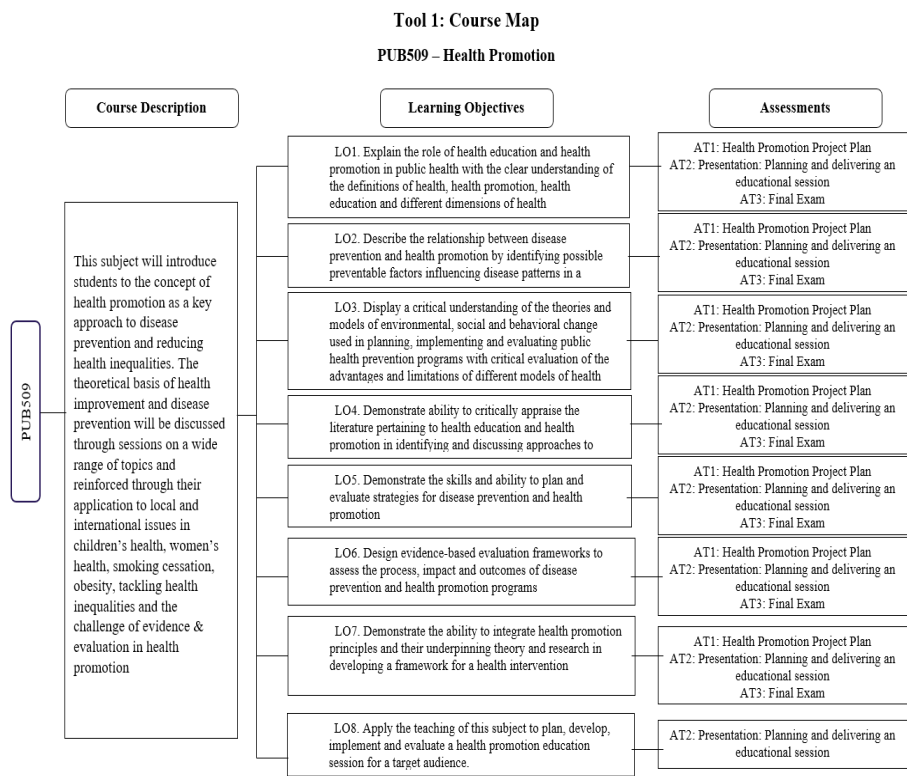
Figure 2. Course mapping tool for constructive alignment

Another important benefit that the SMEs highlighted was being able to review and update the subject outlines through the instructional designing process. They were able to organise and structure the content which maintained a flow relating the contents delivered within weeks based on the learning outcomes to be achieved. Furthermore, it created a technology enabled student-centred learning environment through learning activities that allowed students to integrate and engage and be self-regulated learners. The online learning activities were implemented on the Moodle using different digital tools available in Moodle such as quizzes, discussion forums, interactive videos and comment sections. Student engagement in online learning is mostly considered more ambiguous and challenging to achieve than in face-to-face classroom settings (Andrew, Lennon, & Weber, 2021). Instructional designing process focuses on designing and developing learning activities that promote student engagement allowing online student-centred learning environments through integration of technology. Hence, with the assistance from instructional designers who are well-trained in adult pedagogical methods and integration of technologies helped SMEs to achieve it within their subjects.

One of the key aspects for a successful implementation of blended learning is the integration of online learning and face-to-face interaction during the classrooms. SMEs reported that by following the instructional designers process, they were able to relate both the content delivered through asynchronous online learning through Moodle as well as the content delivered during their face-to-face classes. It helped them to identify the part of the content that best suits to be delivered online and the parts that best would be suitable for face-to-face and guided instructions. During the design phase of the instructional designing process, a detailed blueprint as shown in Figure 3 is produced which assists in visualising the integration of online and face-to-face learning activities for particular learning outcomes. This document acts as the roadmap for planning, designing, and developing the blended learning environment.

Blended Learning Blueprint

Subject	PUB509 – Health Promotion
Faculty	Faculty of Health Sciences
Term	Term 1, 2021
Subject Matter Expert	Zahudha Abdul Azeez (zahudha.abdulazeez@mnu.edu.mv)
Instructional Designer	Ibrahim Adam (ibrahim.adam@mnu.edu.mv)

Week	Unit/Topic	Learning Outcome	Online			F2F	
			Learning Path and workload Plan	Learning Activity Details	Lesson Takeaway Task	Learning activity details	Resources
1	1.1. Theory and concepts of health and health promotion	• Identify the WHO definition of health • State the idea of theory and concept • Explain The Health Belief Model (HBM) and Health Field Model (HFM) that support the practice of health promotion and disease prevention • Define health promotion • Describe the 3 key elements of health promotion • Explain the role of health promotion in prevention • Discuss the major milestones in health promotion • Discuss about the three domains of new public health	Welcome to week 1. This week you will be introduced to theory and concepts of health and health promotion. The following learning path will guide you towards completion of the learning activities for the week: 1. Know the learning outcomes for the week 2. Read through the learning tasks assigned and get to know about the time needs to be spend for each task 3. Watch the video about definition of health and ret-think about definition of health (5 minutes) 4. Read the article with the title "Health Promotion: An Effective Tool for Global Health" (1 hour) 5. Review the web article on "The Health Belief	**Learning Activity 1.1:** *What do you imagine when you think about health—your health? Do you view yourself as healthy? What health goals do you possess now for your-self and your family? Do factors in your community contribute to your personal health and your family's health? Is your community healthy? In your own unique way, how do you define health?* These critical questions beckon examination by the client and the health care professional. Searching for their clarification provides opportunities for discovery about images of health and direction for professional health care interactions and interventions. Resource 1.1 is a video where Dr. Andrew Weil discusses the definition of health. Watch it to understand how he defines health. Resource 1.1: Video: Definition Of Health Author: Andrew Weil, M.D. https://youtu.be/n4AU-XNq04k	The takeaway task for the week is to attempt a self-assessment quiz to check your understanding on health promotion and health promotion strategies. Link: Week 1 takeaway task: Self-assessment quiz 1	Introduction of lecturers and students and welcoming (5 minutes) Brief summary presentation on Theory and concepts of health and health promotion (45 minutes) Divide the students in groups and allow them to complete Worksheet 1 where they are provided with some examples of health promotion that uses one or more of the key health promotion	PPT Slides: Lecture 1: Theory and concepts of health and health promotion Worksheet 1

Figure 3. Blended Learning Blueprint

Upon completion of developing the learning activities and resources, those get implemented within the Moodle course page for each subject (see figure 4). SMEs reported the curated Moodle course page for the whole semester as an important benefit they received through the instructional designing process.

The last important theme emerged from the responses of the SMEs was being able to easily facilitate learning and monitor student's progress. In constructive blended learning, the role of a teacher is to be "the faithful supporter of students' construction of knowledge and the facilitator and collaborator of students' learning" (Xu & Shi, 2018). So, to be a supporter or guide, it is important to monitor students' progress. The implementation phase of instructional designing process ensures that the SMEs who involve in delivering the content are provided with online facilitation plan describing their role in the online asynchronous learning through Moodle (See Figure 5a: Facilitation Checklist, Figure 5b: Facilitation Plan).

Figure 4. Curated Moodle Course Page

WEEKLY ONLINE FACILITATION CHECKLIST
PUB509, TERM 2, 2021

Week	Facilitation Tasks	Expected Completion on	Check
1	Posting welcome and introduction on organisation of lessosn, feedback and online teaching and learning notice to announcement forum	22-Aug-21	
	Students progress and engagement check 1	23-Aug-21	
	Follow up and Guiding students to discussion based on their replies to Week 1 Discussion Forum	24-Aug-21	
	Sending Reminder to Students to Complete the Weekly Lesson Takeaway Task	25-Aug-21	
	Follow up and concluding discussion by Posting overall comment to conclude the Week 1 Discussion Forum	26-Aug-21	
	Students progress and engagement check 2	26-Aug-21	
	Followup and replying on students doubts/concerns on Social Forum	26-Aug-21	
	Post overall feedback and comments as a summary for the week on social forum based on students performance on Week 1 Lesson Takeaway task quiz	29-Aug-21	
	Mark students attendance based on activity completion	29-Aug-21	

Figure 5a. Facilitation Checklist

Figure 5b. Facilitation Plan

Moreover, Moodle course pages are configured with automatic monitoring of student progress (Figure 6a) and generation of activity completion reports (Figure 6b) to assist SMEs in their monitoring and facilitation process.

Figure 6a. Automatic monitoring of student progress
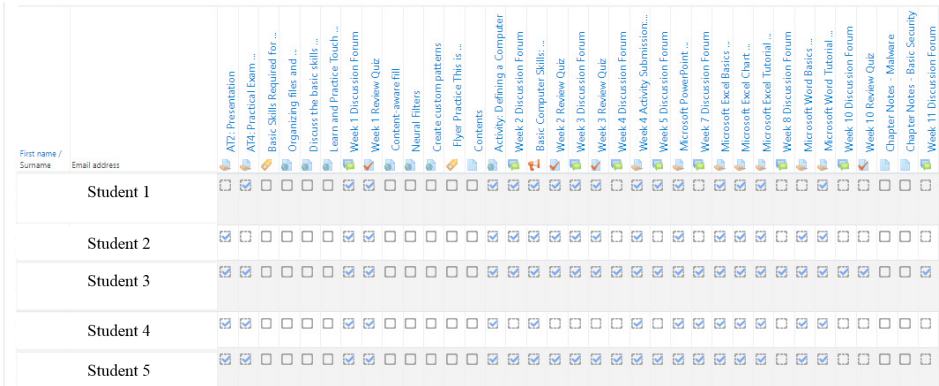
Figure 6b. Activity completion report

Overall, SMEs report that they have benefitted from the instructional designing process in improving their teaching and learning practices in blended delivery of subjects within a student centred learning environment through curriculum designing to facilitate and monitoring of student's learning.

Objective 2: Identify the reflection of students learning within a subject designed by following instructional designing process based on SMEs observation

The themes emerged for the analysis of data related to the second objective of identifying reflection of students' learning included clear requirements from students, manageable online tasks, unfamiliarity with Moodle and technology, and weekly lecturer interaction. Table 4 illustrates the detail of the themes, codes and sample text.

Table 4
Reflection of students based on SMEs' observation

Theme	Codes	Sample Text
Clear requirements from student	Weekly lesson structure Organised semester schedule Clear workload and learning path Self-monitoring of progress	*"Students were really happy and satisfied. They were very clear of their roles, what needs to be completed online and what are their expectations when learning in blended mode."*
Manageable online tasks	Comparatively easy online tasks Interactive online tasks Ability to complete tasks within week	*"Unlike previously given tasks which were quiet heavy to complete online, the bite sized smaller yet interactive online tasks helped students to complete without much hassle "*

| Unfamiliarity with Moodle and technology | Lack of technical skills

Need for Moodle training | *"Some students needed training on Moodle which I provided online. It took a while for students to get familiarised with all the Moodle tools"* |
| Weekly lecturer interaction | Weekly feedback

Timely grading of tasks

Immediate automatic feedback | *"Taking part in discussion forums related to weekly topics has helped students to have contact with the lecturer without waiting for block classes. This was highlighted by students as a helpful mechanism to clear their doubts"* |

SMEs observed that informing students of their roles, responsibilities, and expectations in blended delivery mode increased satisfaction of students. The instructional designing process provided students with weekly lesson structure (Figure 7a), self-orientation guide (Figure 7b), interactive lessons (Figure 7c), clear learning path and the workload (Figure 7d) for the online learning which is organised within the course page of the Moodle for the respective subject.

Week 3: Conceptualization of research questions, selection of qualitative research designs

At the end of the week, students should be able to:

- Explain how to write justification research problem in qualitative study

- Formulate research statement

- Formulate research aim, objective and research question in a qualitative study

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📄 Week 3 Learning Path and workload Plan

📗 Lesson 3: Conceptualization of research questions, selection of qualitative research designs

📋 Week 3 Discussion Forum

📖 Week 3 Takeaway task submission link

Figure 7a. Weekly lesson structure in Moodle

Figure 7b. Self-orientation guide

Figure 7c. Interactive Lesson

Figure 7d. Interactive Lesson

SMEs highlighted that most of the online tasks that they previously assigned for the students were quite heavy in terms of the content as well as time required, so that students feel difficulty in completing them. However, when the instructional designing process was followed, they were able to provide bite-sized smaller tasks, yet allow students to achieve the learning outcomes. This has made students able to manage completing those tasks. In addition, through discussion forums and other means of online communication through Moodle, resulted in weekly interaction with students and lecturers which most SMEs report that were lacking in their previous teaching in blended delivery. So SMEs believe that this again resulted in student satisfaction. However, they highlighted that some students were unfamiliar with the Moodle platform and they lack technical skills. However with orientations and frequent interaction students were able to manage.

Objective 3: Determine the challenges faced by the SMEs during the instructional designing process at MNU

SMEs responses to the challenges during the instructional designing process generated 5 major themes as shown in Table 5. These include: 1) academic workload, 2) SME for multiple subjects, 3) unavailability of resources, 4) unfamiliarity of digital pedagogy, and 5) unfamiliarity with technology.

Table 5
Challenges faced by the SMEs during the instructional designing process

Theme	Codes	Sample Text
Academic workload	Insufficient time to fully contribute Additional task beyond the workload Unable to respond timely	*"Usually the design process is conducted one semester prior – for example those subjects offered next semester will be converted this semester. With the full workload of this semester it is very difficult to give full potential within working hours to the design process."*

SME for multiple subjects	Content support for many subjects Many subjects for same semester	*"There are 3 subjects that I teach that will be offered next semester in blended mode. So if I need to convert those subjects for blended delivery, then I have to be SME for the three subjects. I don't think it would be practical as this semester I tried to provide for two subjects."*
Unavailability of resources	Lack of online learning resources No collections of previous materials Difficulty in producing new learning resources	*"Even though we have identified core text for the subject, if we need to implement online lessons in Moodle, we require online learning resources such as videos, interactive slides, reading materials, and interactive quizzes. But we do not have those identified in the outline and for some it is really difficult and time consuming to find appropriate resources on the Internet."*
Unfamiliarity of digital pedagogy	Lack of knowledge on online delivery methods Unawareness on asynchronous online learning tasks Unaware of pedagogical use of Moodle and digital tools	*"We mostly have content knowledge. We are not certified teachers so we do not know about pedagogies and teaching and learning practices. Especially to integrate technology and teaching. But somehow instructional designers guidance allowed us to discover different techniques"*
Unfamiliarity with technology	Not familiar with Moodle Not familiar with digital tools	*"I am not that familiar with technology. Started using Moodle once I joined MNU. Also not so familiar with available tools and how to implement those. So even if a task is designed to use particular tool by instructional designers, needed training or guidance on how to use it"*

SMEs are from Faculties who already have a workload of teaching, doing research and other administrative tasks related to academic workload. Since the instructional designing process starts one semester prior for the subjects to be delivered in the coming semester, SMEs are already allocated with workload for the current semester. Therefore, SMEs claim that contributing to the instructional designing process becomes an additional task over their workload which causes them to be unable to respond to instructional designing timely due to time constraints during the working hours. So workload becomes the major challenge for the SMEs. Another challenge which is related to workload is that some faculty had to put on the hat of SME for more than one subject. Usually SMEs

are assigned based on their teaching experiences for a subject. So if one person teaches many subjects that are offered in the coming semester, then that staff has to be SME for all the subjects this semester in addition to their current teaching workload. Therefore, SMEs stated that this was a challenge to support during the instructional designing process.

Content or materials play an important role especially in online learning. Since, blended learning involves part of the learning interactions to be delivered online, where students learn asynchronously, content that is specially designed and developed for online delivery is important to allow self-learning. However, lack of such resources is among the challenges that SMEs highlighted. When they do not have collections of resources, they have difficulty in developing their own materials at MNU. In addition, unfamiliarity of digital pedagogy and digital technologies are also among the challenges reported by the SMEs. Due to that they are unaware of online delivery methods or strategies, suitable asynchronous learning tasks, and pedagogical use of digital tools. However, they highlight that they were provided guidance and training by instructional designers which allowed them to cope during the facilitation.

Objective 4: Identify recommendations from SMEs to improve the ID process for blended course delivery at MNU

The final objective of the study was to identify recommendations that SMEs suggest to improve the process of ID process for blended course delivery at MNU. The analysis of data resulted in 5 major themes including: 1) Workload adjustments, 2) assigning one instructional designing per SME, 3) use of same tools/templates, 4) consistency in instructional designers knowledge, and 5) offering courses in blended learning mode after completing the instructional designing process. table 6 presents the data analysis results.

Table 5

Challenges faced by the SMEs during the instructional designing process

Theme	Codes	Sample Text
Workload adjustments	Include design in workload Need adjustments in workload	*"It would be really helpful if supervisors adjust semester›s working load to consider relevant time for the design process."*
One instructional designer per SME	Assign one instructional designer per SME One instructional designer for same subjects of SME	*"I had to deal with two SMEs for two different subjects. It is really difficult to find time and follow instructions from two different SMEs."*

Use of same tools/ templates	Different templates sometimes confuses Stick to same templates	*"It seems different instructional designers use different templates for Blueprint and other tools. So switching between templates was not easy for me."*
Consistency in instructional designers knowledge	Instructional designers at different level of knowledge Inconsistency in experience of instructional designers Skill up instructional designers to minimise inconsistency	*"I believe that current instructional designers at CETE are not at the same level regarding instructional design. Some know very well but others I have interacted with seem to lack knowledge and skill. So it would be great if those are also well-trained."*
Offer courses in blended mode once design process is complete	Make whole course ready for blended delivery Offer courses when ready	*"What we practise is to offer courses in blended mode even if the course is not ready to be delivered in blended mode. So while teaching at the same time working on the same course it is not practical."*

Since a major challenge that SMEs face is related to their academic workload, bringing adjustments to consider time for the instructional designing process is marked as the most important recommendation from the SMEs. This will allow them to spend sufficient time in giving support and providing timely review and feedback while collaborating with instructional designers. The other recommendation by SMEs is the assignment of the same instructional designer for one SME. At the moment, CETE assigns instructional designers for subjects without considering SMEs.

Therefore, there are chances that SME for more than one subject assigned by faculty would have to deal with different instructional designers from CETE in the same semester to complete the instructional designing process. This causes SMEs to adjust their schedule for two different instructional designers and sometimes following instructions from different instructional designers makes it difficult and confusing for them. Also they have noticed that the templates for the tools used by different instructional designers are different which again causes trouble of confusion where they have to adjust to different templates. Hence SMEs suggest having consistent templates to be used by all instructional designers which are the same.

Furthermore, SMEs interactions with different instructional designers allowed them to observe that some instructional designers do not have required skills while others are very well skilled. Hence, their experiences during the process are different while working with different instructional designers and suggest to skill up instructional designers so that they are at a consistent level regarding knowledge and application of instructional designing principles and approaches.

As a final recommendation, SMEs highlight to offer courses in blended delivery mode after completing the instructional designing process for the course. They are

unhappy with the current practice of offering courses even when the course is not fully designed and developed to be delivered in blended mode and continue the instructional designing process as they go teach.

Conclusion and Implications

Blended learning requires critical combination of learning activities using in-person and online environments. To achieve the best result of improved learning outcomes, the conversion of a face-to-face course for blended learning delivery should follow a systematic process of instructional designing. The aim of the study was to review the current instructional designing process at MNU to find possibilities to improve the process by gathering perceptions of SMEs based on their experiences. The results suggest that the current practice of instructional designing at MNU improved academic staff's pedagogical approach and delivery with increased student satisfaction and made the teaching and learning process easier and effective.

However, there are challenges that have to be addressed in order to sustain the process within MNU. Major concern from the SMEs is the academic workload where they feel that it does not provide them enough time to provide support and responsiveness to instructional designers. The study implies instructional design process as a requirement for the best result of improved learning outcomes in blended learning.

The process allows the implementation of blended course structures and pedagogical choices for interaction, material distribution, learning facilitation, direct instruction and constructed organisation and design throughout the course with dedicated student participation and critical reflections for both in-person and online learning. Hence, the process should be continued and solutions should be sought to overcome the challenges for the successful implementation.

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