

Embracing Berge's Online Facilitation Framework to Reflective Teaching: Insights from Online Tutors at Open University Malaysia

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Abstract

Open University Malaysia is an open and distance learning institution that has been in operation for about two decades. Open University Malaysia's blended learning mode stresses self-managed learning, supported by face-to-face and online learning. However, the COVID-19 pandemic forced Open University Malaysia to embrace a fully online teaching and learning mode. The fully online teaching and online led to many online tutors questioning their new roles as pedagogical, managerial, and social facilitators in this virtual learning environment. Numerous training programmes, standard operating procedures, guidelines and policies were implemented to lead and facilitate this change of roles for these online tutors. In light of this change, this study aims to measure how online tutors reflect on these critical roles (as outlined in Berge's Model, 1995) as they facilitate and manage their e-lessons in the unique context of Open University Malaysia virtual learning environments. A self-reflective survey instrument, was administered to 113 online tutors, seeking to unravel their insights and practices on the three pivotal roles integral to Open University Malaysia's virtual teaching practices: pedagogical, managerial, and social. Findings highlight the significance of these roles, shedding light on the challenges, strengths, and areas for improvement within the Open University Malaysia context. The outcomes provide valuable insights for educational institutions, policymakers, and training programmes aiming to enhance the effectiveness of online teaching. Moreover, by focusing on the diverse roles of online tutors, the findings also contribute to the ongoing discourse on optimising virtual learning environments, particularly within the framework of Open University Malaysia.

Keywords: Open University Malaysia, open and distance learning, online facilitation, online facilitator, virtual classroom, Berge

1. Introduction

The landscape of distance learning has undergone a remarkable transformation over the years, evolving from early teleconferencing and correspondence methods to today's dynamic and interactive online platforms. This progression has highlighted the growing importance of effective online teaching strategies and frameworks to meet the diverse needs of learners. In this evolving educational environment,

reflective teaching practices have become essential for online tutors. In the context of distance learning at Open University Malaysia (OUM), reflective practice is particularly vital as educators navigate the complexities of online teaching. This approach enhances individual teaching effectiveness by incorporating diverse perspectives and feedback and fosters a supportive and collegial atmosphere among OUM's educators. Such an environment encourages continuous professional growth and adaptation, which is crucial for maintaining high-quality distance education. The mutual support and shared learning experiences among online tutors contribute to a dynamic and responsive online teaching community, ultimately improving the overall learning experience for students at OUM.

OUM has established itself as a pioneering institution in open and distance learning, boasting nearly two decades of experience. Since its inception, OUM has been at the forefront of providing accessible and flexible education through a distinctive blended learning approach that uniquely combines the benefits of self-managed learning with support from both face-to-face and online resources. This innovative model has allowed OUM to provide flexible and accessible education to diverse students. In the early years of teaching at OUM, tutors and students participated in a blended learning mode for the tutorial sessions, with instruction primarily delivered through correspondence and early digital platforms. Although the Learning Management System (LMS) was available, it was primarily used as a repository for learning resources and periodic forum postings rather than as a central tool for instruction.

The situation drastically changed when the higher education landscape underwent a significant shift due to the global Covid-19 pandemic. In response to the challenges posed by the pandemic, OUM decided to transition from its more familiar blended mode of learning to a fully online format. This abrupt shift was necessitated by the need to prioritise the health and safety of students, faculty, and staff, aligning with global efforts to curb the spread of the COVID-19 virus. This transition to fully online learning at OUM reflects the institution's adaptability and commitment to ensuring continuous and uninterrupted education. Preliminary surveys conducted in the past semesters have found that despite numerous workshops and training programmes conducted, online tutors still need to be cognisant of these required roles. Upon further checking through informal interviews and feedback to Learning Centres, the online tutors shared that they still find it challenging to effectively balance these roles while ensuring completion of the syllabus and achievement of course learning outcomes.

This significant shift to an exclusively online format has brought forth a unique set of challenges, particularly for online tutors who are now tasked with embracing new pedagogical, managerial, and social roles within virtual learning environments. Traditionally accustomed to a blended learning mode, the sudden immersion into fully online education necessitates a swift adjustment and acquisition of skills to successfully ensure adult learners' learning engagement and sense of belonging in virtual learning environments. Moreover, it is essential to acknowledge that prolonged absence of physical human interaction may cause them to experience academic, emotional and psychological isolation in the learning process (Lim & Vighnarajah, 2018; Vighnarajah & Jolene, 2018). In Vighnarajah and Jolene's (2018) study exploring the negative impact of isolation on diverse student populations in higher education, it was found that these feelings of isolation often led to academic challenges, such as difficulties participating in class discussions, completing assignments, and connecting with the subject matter. Emotional well-being was also negatively affected, with students experiencing loneliness, stress, and anxiety due to feeling isolated (Vighnarajah & Jolene, 2018).

Engagement in a fully online learning format warrants a different approach in terms of pedagogical delivery and, importantly, in initiating and sustaining a positive social dynamic that is different from that of blended learning. In the blended learning mode used previously, learners could meet with their tutors in person during classroom tutorials and continue their discussions in online forums after their meeting sessions. In a fully online setting, without face-to-face interaction, these online tutors play a critical role in building online learning communities. They aim to provide robust online learning support and create a non-threatening, safe, engaging, and meaningful learning exchange in virtual learning environments.

OUM implemented several initiatives to enhance technological and pedagogical practices in response to the shift to fully online learning. These include the formulating of policies and standard operating

procedures (SOPs) and the development of guidelines outlining good practices. Training sessions have played a pivotal role in facilitating the transition to a fully online learning format. These training initiatives equip students, online tutors, administrators, and other stakeholders with the necessary skills, knowledge, and tools to navigate virtual learning environments effectively. The main goal of these measures is to address any concerns that could affect the effectiveness and efficiency of the fully online learning system.

The current landscape highlights a noteworthy gap in practice as online tutors navigate these multifaceted responsibilities in a virtual setting (Fiock et al., 2021; Fiock, 2020). Hence, this study aims to address the gap by investigating the self-reflective practices of the online tutors at OUM. It seeks to measure the extent to which they engage with their newfound roles, exploring their experiences in pedagogical, managerial, and social dynamics in virtual learning environments. By conducting this study, valuable insights can be gained to inform the institution, educators, and policymakers about the evolving needs and challenges faced by online tutors in the context of OUM's adoption of a fully online learning format. Additionally, the findings will guide the enhancement of support systems, training programmes, and the overall effectiveness of online teaching in this transformed educational landscape.

2. Literature Review

In the COVID-19 pandemic, the transition from blended learning models to fully online formats posed challenges for technological adaptation and emphasised the need for strong collegiality among educators in Open and Distance Learning (ODL) institutions. As institutions rapidly shifted to online environments, fostering a collaborative and supportive culture became crucial. Collegiality—characterised by mutual support, sharing of best practices, and collaborative problem-solving—played a crucial role in helping educators navigate the complexities of remote teaching. For instance, regular virtual meetings and collaborative workshops allow online tutors to discuss their experiences, share effective pedagogical techniques, and provide feedback on integrating new teaching strategies, fostering a culture of continuous improvement and collective problem-solving. This collaborative environment enhances online tutors' ability to adapt to new challenges, ensures consistent application of best practices, and supports the effective integration of instructional innovations into their teaching strategies.

Moreover, embracing collegiality among members of an ODL institution fosters a sense of community and shared purpose among educators. Embracing collegiality is especially vital in fully online environments where physical interactions are limited. Institutions can enhance the quality of teaching and support system by creating platforms for regular communication and collaboration, such as online forums, peer review groups, and interdisciplinary teams... This collective approach ensures that educators are equipped with the necessary technical skills and with pedagogical and emotional support. In this environment, frameworks like Berge's Online Facilitation Framework gain additional relevance. The framework's emphasis on online tutors' pedagogical, managerial, social, and technical roles aligns well with the need for a collegial approach. By supporting each other in these roles, online tutors can more effectively manage the challenges of online teaching, such as maintaining student engagement, addressing diverse learning needs, and navigating technological issues. Ultimately, a strong sense of collegiality improves online tutors' individual experiences and enhances the overall educational experience for students, contributing to the resilience and adaptability of ODL institutions during times of widespread disruption.

2.1. Interplay between Collegiality and Online Facilitation

In digital transformation era, online facilitation has become a cornerstone in education and professional development. This process involves guiding, supporting, and engaging learners within digital environments to promote active participation, critical thinking, and the meaningful construction of knowledge (Kowalski et al., 2017). Effective online facilitation aims to create dynamic virtual spaces where learners are not merely recipients of information but active contributors to their learning journey. The evolving landscape of education has prompted a shift from the traditional "sage on the stage" model to a more interactive and collaborative approach. Instructors are now expected to act as facilitators, guiding and supporting students rather than merely delivering lectures. This perspective, supported by

research from 20 years ago, highlights the ongoing transformation in teaching roles (Vighnarajah et al., 2008).

The transition also emphasises the need for online facilitators to create engaging, participatory environments where learners actively contribute to their learning process (Hsien et al., 2016). They further argue that this shift highlights the importance of fostering an atmosphere that encourages open dialogue, peer interaction, and mutual support, rather than simply delivering content. Effective online facilitators must adapt their roles to facilitate discussions, encourage collaborative projects, and provide timely feedback, creating a dynamic and interactive online learning experience. Moreover, integrating collegiality in online facilitation significantly enhances the quality of the learning experience. Building a sense of community among learners boosts engagement and fosters a supportive learning environment. Facilitators who actively promote a culture of respect, collaboration, and shared responsibility help learners feel more connected and valued. This collegial approach encourages participants to share insights, collaborate on problem-solving, and provide constructive feedback, leading to deeper learning and more meaningful educational outcomes. Thus, the interplay between collegiality and online facilitation is essential for creating an enriching and effective virtual learning environment.

2.2. Evolution of Online Teaching Roles

The transition to fully online learning environments has presented challenges and opportunities for online tutors. Historically, online education has relied on blended learning models that combine face-to-face interactions with online components, allowing for a more gradual integration of digital tools and pedagogical strategies. However, the sudden shift to fully online learning during the pandemic disrupted this balance, compelling online tutors to adopt new, more intensive roles in managing virtual classrooms. (Vighnarajah et al., 2024).

Berge's Online Facilitation Framework (1995) has been instrumental in defining online tutors' key roles, including pedagogical, managerial, social, and technical responsibilities. This framework underscores the multifaceted nature of online teaching, where integrating these roles is crucial for the success of online learning environments (Martin et al., 2020). Pedagogical roles involve designing and delivering course content, while managerial roles focus on administrative tasks and ensuring the smooth operation of online sessions. Social roles are essential in fostering a sense of community among learners, which can be particularly challenging without face-to-face interactions (Fiock, 2020).

The following are the critical aspects of each role:

- i. **Pedagogical Role:** This involves exploring how online tutors perceive their instructional responsibilities in the online environment, focusing on aspects relating to lesson planning, content delivery methods, assessment strategies, and adapting teaching techniques to the virtual setting.
- ii. **Managerial Role:** This involves exploring how the online tutors handle administrative tasks, organise online sessions, manage resources, coordinate with students, and ensure the smooth operation of the virtual learning environment.
- iii. **Social Role:** This explores how online tutors build community and engagement within the online learning space. Building community and engagement include their efforts in fostering student interaction, providing support and feedback, and creating a positive and collaborative online learning environment.
- iv. **Technical Role:** This involves exploring the online tutors' ability to troubleshoot technical issues, maintain a stable and accessible virtual learning environment, and ensure the smooth operation of technical aspects.

The collective importance of these roles lies in their synergy, as successful online facilitation necessitates a balanced integration of effective teaching methods, efficient organisational skills, and creating a positive and interactive virtual learning environment.



Figure 1. Online facilitation framework (Berge, 1995) as cited by Martin et al. (2020)

The Berge (1995) Online Facilitation Framework, conceptualised by Zane L. Berge, is a pioneering model in online education and e-learning. This framework was developed during the early years of internet-based learning, and was instrumental in laying the groundwork for effective online teaching and learning practices, especially for distance learning programmes. At its core, the framework identifies an online facilitator's critical roles and responsibilities, emphasising the importance of guidance, support, and engagement in virtual learning environments. Berge's (1995) Online Facilitation Framework is highly regarded for its comprehensive approach to online facilitation, recognising that an instructor's role in virtual learning extends far beyond content delivery. This framework underscores the importance of creating a dynamic, interactive, and supportive online learning community, where learners are not just passive recipients of information but active participants in their educational journey.

At this juncture, it is essential to make clear the distinction between Berge's Online Facilitation Framework and the Community of Inquiry Framework. While Berge's framework provides a comprehensive look at the roles an online facilitator must adopt, the CoI framework delves into the kinds of interactions and presences that should exist within an online learning community to be effective. Berge's Online Facilitation Framework focuses on the roles and competencies necessary for effective online facilitation. It categorises these roles into four main areas: pedagogical, social, managerial, and technical. Berge emphasizes the multifaceted role of the instructor in online learning environments, advocating for a balanced approach that includes fostering meaningful discussions, managing the course and its technology effectively, and supporting students both academically and socially.

On the other hand, the Community of Inquiry (CoI) Framework, developed by Garrison, Anderson, and Archer, outlines three core elements essential to a successful online learning experience: Cognitive Presence, Social Presence, and Teaching Presence. This framework suggests that meaningful learning occurs through the interaction of these three presences, focusing on the development of critical thinking, establishing a supportive community, and the role of the instructor in designing and directing the educational experience. Both frameworks recognise the importance of social and cognitive elements in the online learning process, though from slightly different angles—Berge from the facilitator's roles perspective and CoI from the interaction of presences within the learning community. Berge's framework is not an example of the Community of Inquiry Framework but rather a separate model that similarly aims to improve online education. Both models can be used together to provide a more comprehensive understanding and approach to online teaching and learning. Berge's framework offers practical insights into the facilitator's roles and the CoI framework emphasising the critical elements of the learning environment necessary for fostering a deep and meaningful learning experience.

In the decades since its introduction, Berge's Online Facilitation Framework has influenced numerous online educational programmes and training courses (Berge & Mrozowski, 2001; Martin et al., 2020;

Martin et al., 2019; Ní Shé et al., 2019). The ideas underscored in this framework remain relevant, guiding modern practices in online education and shaping the development of new strategies and technologies for effective online learning. For instance, the study by Ni She et al. (2019) discusses the application and influence of Berge's Online Facilitation Framework in the context of online facilitation and teaching roles. This study highlights the framework's influence on current understanding and practices of online facilitation. It highlights its significant impact on how online teaching roles are conceptualised and executed in contemporary educational settings. They further argued that effective adherence to this framework encourages online tutors to create dynamic, engaging, and successful online learning environments.

2.3. The Importance of Social Presence in Online Learning

One of the key challenges in online learning is the need for physical presence, which can lead to learners feeling isolated. Research shows that social presence, the ability of learners to connect socially and emotionally in an online community, is crucial for learner satisfaction and success (Akyol & Garrison, 2011). In the context of OUM, the role of online tutors in establishing and maintaining a social presence is paramount. In the context of OUM, online tutors play a vital role in establishing and maintaining this social presence. This involves facilitating discussions and creating a supportive, inclusive environment where learners feel connected and engaged (Ní Shé et al., 2019).

Berge's framework emphasises the importance of social roles in online learning, particularly in building learning communities where learners can interact, collaborate, and support each other (Berge & Mrozowski, 2001). These social dynamics become even more critical in fully online settings, where face-to-face interactions are absent. Online tutors must actively engage with learners, providing timely feedback, encouraging participation, and creating opportunities for peer interaction (Ozturk et al. 2020).

2.4. Pedagogical and Managerial Challenges in Fully Online Learning

The shift to fully online learning has also highlighted the challenges associated with online tutors' pedagogical and managerial roles. Pedagogically, online tutors must adapt their instructional strategies to the online environment, which often requires rethinking content delivery, learner assessment, and the achievement of learning outcomes (Martin et al., 2021). Strategies such as multimedia, interactive tools, and online assessments have enhanced the online learning experience (Fiock et al., 2021).

Managerially, online tutors are responsible for organising and managing the virtual learning environment. This includes scheduling online sessions, allocating resources, and ensuring the technology is accessible and functional. Effective management is crucial for maintaining the course flow and addressing any technical issues that arise (Boyd & Sharma, 2018). Furthermore, the managerial role involves monitoring learner progress and providing support where needed, enabling learners to stay on track and meet their learning objectives (Cooper & Scriven, 2017).

2.5. Reflective Practice in Online Teaching

Reflective practice is a crucial component of effective online teaching, enabling online tutors to evaluate and refine their teaching strategies continuously. Berge's framework supports this reflective practice by encouraging online tutors to consider their roles and responsibilities at different stages of the online teaching process (Berge, 2021). This involves pre-engagement reflection, where online tutors plan their instructional strategies; during-engagement reflection, where they assess the effectiveness of their teaching in real time; and post-engagement reflection, where they evaluate the overall learning experience and identify areas for improvement (Rourke & Rourke, 2017).

The iterative process of reflection and adjustment is essential for continuously improving online learning environments. By engaging in reflective practice, online tutors can better understand their learners' needs, adapt their teaching methods accordingly, and ultimately enhance the quality of online education (Dempsey & Zhang, 2019).

3. Methodology

This study used a survey research design to explore the self-reflective practices of online tutors at Open University Malaysia as they navigate the pedagogical, managerial, and social roles integral to online facilitation. The survey research design is well-suited for this study, as it enables the efficient collection of data from a large group of participants, providing insights into the perceptions, attitudes, and experiences of online tutors in a fully online learning environment (Creswell & Creswell, 2018).

3.1. Research Design

The survey instrument was designed to capture self-reflective insights from 113 online tutors actively facilitating e-lessons for undergraduate and postgraduate students during the May and September 2023 semesters. This approach was chosen because it provides a comprehensive snapshot of online tutors' experiences and reflections across a defined period, thus offering a more nuanced understanding of their evolving roles in the online learning environment.

The survey assessed online tutors' engagement with the three key roles outlined in Berge's Online Facilitation Framework: pedagogical, managerial, and social. While the technical role is also part of Berge's framework, it was not included in this study due to the division of responsibilities at OUM, where dedicated departments like the Digital Resources and Centre for Learning Technology manage the technical aspects. This delineation allowed the focus to remain on the roles most directly connected to the instructional and interpersonal dynamics of online teaching.

3.2. Sampling and Participants

The study sample comprised 113 online tutors from 35 Learning Centres across West and East Malaysia. These online tutors were selected based on their active involvement in online teaching during the specified semesters. The sampling strategy was purposive, aiming to include a diverse range of online tutors to capture a broad spectrum of experiences and perspectives. The sample included tutors with varying experience levels, from seasoned educators to those newer to the online teaching format, thus enriching the data with a wide range of insights.

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All participants held relevant postgraduate qualifications, as mandated by the Malaysian Qualifications Agency, ensuring they possessed the necessary academic credentials for teaching at the higher education level. Additionally, the sample was professionally diverse, comprising lecturers from other universities, schoolteachers, and high-ranking administrators, which added depth to the analysis by incorporating a range of educational and administrative perspectives.

3.3. Survey Instrument

The Google Form survey instrument had two main sections: demographic information and self-reflective practices regarding the pedagogical, managerial, and social roles of online tutors. The demographic section gathered data on the participants' educational background, professional experience, and training related to online facilitation. This information was essential for contextualising the self-reflective responses and understanding the factors that might shape online tutors' perceptions and practices. The self-reflective section of the survey was designed to assess the extent to which online tutors engaged with their roles as outlined in Berge's framework. The survey included closed-ended Likert-scale items that prompted online tutors to reflect on their effectiveness in various teaching aspects, such as explaining concepts, facilitating discussions, managing online sessions, and fostering a positive learning environment.

The Likert-scale response options ranged from "strongly disagree" to "strongly agree", enabling the quantification of responses and the identification of trends and patterns across the sample. Online tutors were asked to complete the self-reflection survey twice - once in the middle of the semester and again at the end. This longitudinal approach enabled the researchers to capture changes in online tutors' self-reflection over time, providing insights into how their perceptions and practices evolved as they progressed through the semester.

3.4. Data Collection and Analysis

The data collection was conducted online using a secure platform that ensured the confidentiality and anonymity of the respondents. This approach was chosen to facilitate online tutors' participation across the various learning centres, making it accessible and convenient for all participants, regardless of their location.

The data collected from the surveys were analysed using descriptive statistics to identify the mean scores for each item across the two self-reflection points. This analysis provided a clear understanding of the areas where online tutors felt confident and where they saw room for improvement. The mean scores were compared between the two reflection points to assess any shifts in self-perception, which were then discussed concerning the broader context of online facilitation at OUM. Furthermore, the data were disaggregated by demographic variables to explore potential differences in self-reflective practices based on factors such as educational background, professional experience, and prior training. This allowed for a more detailed analysis of how these variables might influence online tutors' engagement with their roles in the online learning environment.

3.5. Ethical Considerations

The study was conducted per OUM ethical guidelines for research involving human participants. All participants provided informed consent and were assured of their right to withdraw from the study without penalty. Participant confidentiality was maintained throughout the research process, with data being stored securely and accessible only to the research team.

3.6. Limitations and Future Research

While the study provides valuable insights into the self-reflective practices of online tutors at OUM, it has limitations. The reliance on self-reported data may introduce bias, as participants could overestimate or underestimate their effectiveness due to social desirability or self-perception issues. Future research could benefit from a mixed-methods approach, incorporating qualitative interviews or focus groups to triangulate the findings and offer a more in-depth understanding of the challenges and successes experienced by online tutors.

Furthermore, this study was confined to the context of OUM, and the findings may not be generalisable to other institutions with different online learning environments or pedagogical frameworks. Comparative studies across multiple institutions could offer broader insights and help identify best practices in online teaching across diverse educational settings.

4. Findings of the Self-Reflective Survey

The survey encompasses a comprehensive coverage of 113 online tutors, sampled across 35 Learning Centres throughout Malaysia. These online tutors play a pivotal role in delivering online education for undergraduate and postgraduate courses in various academic disciplines. Following are some insights into the demographic information of the surveyed respondents:

- i. **Educational Background:** All respondents possess relevant postgraduate qualifications necessary for teaching at the higher education level, as per the Malaysian Qualifications Agency (MQA) requirements.
- ii. **Professional Diversity:** The cohort of online tutors is notably diverse in terms of professional backgrounds, which includes lecturers from other universities, schoolteachers, and high-ranking administrators. This diversity enriches the online teaching environment with various perspectives and methodologies stemming from their varied experiences in different educational, administrative, and industry contexts.
- iii. **Industry Experience:** Many respondents come with significant industry experience, especially those in administrative roles. This practical experience is invaluable in providing students with knowledge in the online classroom, effectively connecting theory with practice. This aspect is particularly beneficial in courses that demand practical understanding alongside academic knowledge.
- iv. **Training and Development:** OUM also ensures that new online tutors receive comprehensive training, designed around Berge's Online Facilitation Framework. This provides a structured foundation that guides new online tutors in mastering the nuances of online learning and facilitation, emphasizing interaction, community building, and support, which are crucial elements in fostering an engaging and productive learning environment.

The ensuing discussion highlights the online tutors’ self-reflection on their roles in facilitating and managing the e-lessons. Descriptive statistical analysis was carried out for the Items in each dimension.

4.1. Self-Reflective Results for the Pedagogical Role

Based on the results presented in Table 1, the highest and lowest mean scores during the first self-reflection were recorded for Items 1 and 9, respectively. The highest mean score was also recorded for Item 1 after the second self-reflection. Item 8 also recorded the lowest mean score after the second self-reflection. All the Items in Table 1 showed a higher mean score for the second self-reflection. Based on the self-reflection scores in Table 1, it is pretty clear that overall, online tutors seem to be aware of their pedagogical roles.

Table 1. Descriptive statistics on Online Tutors’ Self-Reflection on the Pedagogical Role

No.	Item	Self- Reflection A Mean (SD)	Self-Reflection B Mean (SD)
1	I was able to explain concepts clearly and effectively	2.797 (0.446)	2.823 (0.383)
2	I made good use of examples and illustrations	2.717 (0.526)	2.770 (0.443)
3	I reinforced important points in the course module and discussions	2.726 (0.468)	2.805 (0.420)
4	I posted additional useful and helpful learning resources for learners	2.598 (0.544)	2.723 (0.506)
5	I posted questions to learners to encourage learners to participate in discussions	2.602 (0.575)	2.637(0.613)
6	I discussed recent developments and real-life examples related to content in order to broaden learners' understanding and ability to apply the subject matter	2.566 (0.596)	2.655 (0.547)

No.	Item	Self-Reflection A Mean (SD)	Self-Reflection B Mean (SD)
7	I stimulated students to think critically about the topic/concept discussed	2.496 (0.629)	2.611 (0.558)
8	I was able to lead forum discussions and facilitate discussions without dominating them	2.478 (0.628)	2.451 (0.597)
9	I was able to synthesise learners' posts and encourage continued dialogue	2.381 (0.602)	2.451 (0.597)
10	I provided helpful, timely guidance in helping learners prepare to successfully complete assignments	2.743 (0.478)	2.832 (0.376)
11	I was sensitive to learners' difficulty with coursework and provided extra attention and resources when appropriate	2.628 (0.503)	2.761 (0.468)
12	I allowed for Q & A during the e-Tutorials	2.788 (0.432)	2.841 (0.391)
13	I demonstrated good knowledge of content through discussions and exchanges with Learners	2.726 (0.468)	2.832 (0.376)
General Weighted Average		2.634 (0.530)	2.707 (0.483)

4.2. Self-Reflective Results for the Managerial Role

Based on the results presented in Table 2, only the mean score for Item 8 showed a reduction after the second self-reflection. Perhaps the online tutors need to be reminded before the start of each semester to encourage learners to go through the e-lessons and complete the activities. This is one way for the learners to test their mastery of the content they have just studied in their module or during the e-tutorial sessions. Furthermore, with the introduction of Online Activities as part of the course assessment for certain courses, the e-lessons have taken on a new meaning. Not only will students who complete the activities after each e-lesson gain the necessary practice, but they will also develop the confidence to complete the Online Activities. Not surprisingly, Item 12 had the highest mean score during the initial and final self-reflection. It shows that all online tutors understand they must conduct a certain number of e-tutorial sessions for their courses and prioritise this over all else while not downplaying their other managerial roles. So overall, the online tutors seem to be quite well aware of their managerial roles.

Table 2. Descriptive statistics on Online Tutors' Self-Reflection on the Managerial Role

No.	Item	Self-Reflection A Mean (SD)	Self-Reflection B Mean (SD)
1	I contacted learners via email/direct message (my Inspire) to introduce myself and announce my availability to provide help in the forum	2.336 (0.751)	2.434 (0.623)
2	I logged in to myInspire frequently (i.e. 3 times or more per week)	2.628 (0.585)	2.611 (0.574)
3	I checked the forum frequently (i.e. every two days) as expected by OUM	2.664 (0.475)	2.673 (0.471)

No.	Item	Self-Reflection A Mean (SD)	Self-Reflection B Mean (SD)
4	I was visible in the forum and posted at least 15 postings a week as expected by OUM	2.451 (0.744)	2.540 (0.655)
5	I addressed all learners’ inquiries and concerns within 48 hours, as expected by OUM	2.646 (0.744)	2.661 (0.655)
6	I contacted learners via email/phone/message (myInspire) to encourage participation	2.177 (0.566)	2.310 (0.522)
7	I maintained professionalism in the forum and in any communication with learners via email/message	2.779 (0.438)	2.832 (0.376)
8	I encouraged learners to go through e-lessons and complete the suggested activities	2.478 (0.670)	2.460 (0.641)
9	I added a discussion folder for discussion on non-course related topics to promote social presence	1.938 (0.782)	2.141 (0.766)
10	I observed netiquette standards and OUM behaviour policies	2.717 (0.453)	2.743 (0.496)
11	I used announcements to keep learners current	2.478 (0.656)	2.584 (0.608)
12	I conducted e-tutorials as scheduled	2.894 (0.309)	2.894 (0.309)
13	I was very active in the forum and participated regularly in forum discussions	2.584 (0.546)	2.726 (0.486)
14	I communicated clearly my expectations of the learners	2.611 (0.490)	2.673 (0.525)
General Weighted Mean		2.527 (0.586)	2.591 (0.551)

4.3. Self-Reflective Results for the Social Role

Based on the results presented in Table 3, Item 6 had the highest mean score after the first self-reflection. By contrast, Item 5 had the highest mean score after the second self-reflection. Moreover, Item 7 had the lowest mean score in both the first and second self-reflections. However, the mean score for Item 7 increased to 2.389 during the second self-reflection. Conceivably, the online tutors were initially unaware that encouraging students to introduce themselves plays an important part in promoting a friendly and non-hostile online environment. Upon realising this, they may have made the necessary “course corrections” to their roles and this is borne out in the mean score of the second self-reflection which is higher than the initial self-reflection score. Except for Item 6, it is encouraging to observe that all the other items showed higher mean scores during the second self-reflection. This could be because the online tutors are not aware that they should maintain a positive and non-threatening atmosphere in their forums, not just at the beginning of the semester but throughout the semester until the final week. The online tutors seem to be aware of the social roles that they need to perform as online tutors facilitating and managing virtual learning environments.

Table 3. Descriptive statistics on Online Tutors' Self-Reflection on the Social Role

No.	Items	Self- Reflection A Mean (SD)	Self-Reflection B Mean (SD)
1	I posted a welcoming intro in the forum	2.699 (0.479)	2.752 (0.434)
2	I was easy to communicate with	2.795 (0.406)	2.821 (0.385)
3	I used humour but carefully and sparingly	2.433 (0.625)	2.442 (0.611)
4	I provided individual help when learners needed it	2.637 (0.519)	2.735 (0.482)
5	I used the proper tone in responding to learners	2.779 (0.438)	2.858 (0.350)
6	I maintained a positive and non-threatening atmosphere in the forum	2.849 (0.359)	2.841 (0.368)
7	I encouraged learners to post their introductions and share experiences	2.319 (0.747)	2.389 (0.737)
8	I monitored discussions in the forum to maintain respectfulness among learners	2.779 (0.438)	2.823 (0.427)
General weighted average		2.661 (0.501)	2.708 (0.474)

The self-reflection survey consistently showed the participants' strengths were in the social aspects of their roles, as indicated by the highest overall performance scores in this dimension. However, they faced challenges in the managerial dimension, which had the lowest scores across both self-reflection instances. This pattern persisted even after the second self-reflection, suggesting a collective strength in social responsibilities but a continued need for improvement in the managerial aspects of their online teaching roles.

4.4. Discussion

4.4.1 Reflective Stages of Online Teaching

Berge's Online Facilitation Framework is a valuable tool for online tutors to structure their approach to facilitating learning in virtual environments. As technological developments in the education discipline evolve to include more demands from online tutors and students, it is imperative to acknowledge that effectively facilitating and managing online lessons require a dynamic interplay of pedagogical, managerial, and social roles by these online tutors (Hsien et al., 2016). In addition to this, the framework consists of several components that guide online tutors through the reflective stages of online teaching, including pre-engagement, engagement, and post-engagement phases, thereby enabling tutors to create and assess the overall impact of their facilitation strategies.



Figure 2. Reflective stages of online teaching

Before they engage with learners, the framework guides and prompts our online tutors to reflect on their teaching goals, strategies, and the specific needs of their students. This pre-engagement reflection allows the online tutors to align their instructional methods with the objectives of the course and the learning

preferences of their students. By considering their strengths and weaknesses as educators, online tutors can tailor their approach to better meet the needs of their online learners.

During the engagement phase, adherence to the framework encourages our online tutors to continuously reflect on their interactions with students and the effectiveness of their teaching methods. This ongoing self-assessment enables the online tutors to adapt their approach in real time based on student feedback and observed learning outcomes. They can identify areas where students may be struggling and modify their instructional strategies accordingly to provide additional support or clarification.

Post-engagement reflection is another crucial aspect of Berge's framework. After completing an e-tutorial session, the online tutors are prompted to evaluate their teaching performance and the overall effectiveness of the learning experience. This reflection allows our online tutors to assess the extent to which learning objectives were achieved and to identify areas for improvement in future sessions (Berge, 2021; Martin et al., 2021; Mekonen & Fitiavana, 2021). By analysing their teaching practices and student outcomes, these online tutors can refine their approach and enhance the quality of their online instruction over time.

4.4.2 Application of Berge's Online Facilitation Framework for Reflective Teaching

The study's findings reveal several key insights into the roles of online tutors at Open University Malaysia (OUM) and how these roles are enhanced through the application of Berge's Online Facilitation Framework.

Pedagogical Support:

Berge's framework emphasises the importance of effective pedagogical support in online learning environments (Martin et al., 2020). Our findings align with this dimension, as online tutors at OUM have reported increased confidence in their teaching strategies through reflective practices. Online tutors have utilised reflective feedback to refine their instructional methods, which is consistent with prior research indicating that reflective teaching enhances pedagogical effectiveness. For instance, online tutors have improved their ability to design engaging course materials and tailor their teaching methods to meet diverse student needs, demonstrating a clear application of Berge's pedagogical support dimension.

Course Management:

The framework also stresses the significance of effective course management. Our study found that while online tutors generally feel confident in their pedagogical roles, there is a notable need for improvement in managing course logistics and administrative tasks. This aligns with previous research which has shown that online tutors often face challenges in balancing instructional responsibilities with administrative demands. Reflective practices have highlighted these challenges, prompting online tutors to seek better organisational strategies and tools. For example, online tutors have reported using reflective feedback to enhance their approaches to tracking student progress and managing course materials, which echoes findings from studies on the impact of reflective practice on administrative efficiency.

Social Interaction:

Berge's framework also underscores the importance of fostering social interaction within online learning environments. Our findings suggest that while online tutors have successfully used reflective practices to enhance their interactions with students, there is still room for improvement in creating a more supportive online learning community. This finding is consistent with research highlighting the role of social presence in online education and its impact on student engagement and satisfaction (Toma & Berge, 2023). Online tutors at OUM have utilised reflective practices to improve their communication strategies and build stronger relationships with students, enhancing their roles' social dimensions.

In general, the results of this study fit well with the existing literature on Berge's framework and online facilitation. Similar to prior research, our findings indicate that while online tutors generally excel in pedagogical and social roles, there are specific areas, particularly in course management, where reflective practices can drive significant improvements (Berge, 1995). This alignment with previous research

highlights the framework's continued relevance and its utility in guiding the development of effective online teaching practices.

5. Implications for Future Studies

This study contributes a vital piece to improving online learning and facilitation quality, advocating for a holistic approach that encompasses pedagogical, managerial, and social considerations. In doing so, this study moves the scientific discourse forward by delineating a clear path for self-evaluation of self-reflection into the intricate practices in online learning environments, especially for open and distance learning courses. This forward-looking perspective suggests practical applications for enhancing online tutor effectiveness and calls for a broader exploration of institutional policies and training programmes that could foster online learning environments conducive to reflective practice.

Specifically, the implications of this study in measuring the self-reflective practices of OUM online tutors based on Berge's Online Facilitation Framework are profound. This is particularly true in the way the framework scaffolds the online tutor's journey from pre-engagement preparations to post-engagement evaluations. The framework's emphasis on continuous reflection becomes a dynamic tool for pedagogical agility. This process of ongoing self-assessment, informed by direct student feedback and observable outcomes, allows online tutors to pivot their strategies in real time, addressing learning bottlenecks and enhancing engagement. The agility to adapt instructional methods mid-course based on reflective practice is a hallmark of effective online facilitation, fostering an environment where learning is both personalised and participatory. This also reflects the dynamics of online facilitation as an "intricate quality assurance process that involves the participation of learners and instructors working together to achieve the stipulated learning outcomes of the course" (Hsien et al., 2016, p. 1).

Given recent technological developments post-COVID-19 pandemic, future research could examine the role of technology in supporting the reflective practices advocated by Berge's Online Facilitation Framework. Investigating the effectiveness of different digital tools and platforms in facilitating pre-engagement reflection, real-time adjustments during course delivery, and post-engagement evaluations could offer practical guidelines for educators and institutions. This research could also extend to the development of new technological solutions designed to streamline the reflection process, making it more integrated into the daily teaching workflow. Further, exploring the psychological and emotional dimensions of reflective practice among online tutors constitutes another promising research avenue. Understanding the barriers to effective self-reflection, including time constraints, cognitive biases, and emotional responses to feedback, could lead to strategies that enhance the willingness and ability of online tutors to engage in this practice.

6. Conclusion

Open University Malaysia has established itself as an open and distance learning leader over the past two decades. The university has demonstrated a commitment to adapting to the changing needs of digital-age learners. This study offers a detailed examination of the self-reflective practices of OUM's online tutors, guided by Berge's Online Facilitation Framework. The findings highlight the crucial roles of pedagogy, management, and social interaction in effectively facilitating online learning in an entirely virtual environment. Berge's framework has emerged as a valuable tool for structuring the roles and responsibilities of online tutors, emphasising the need for a balanced integration of teaching methods, course management, and fostering a supportive online learning community. The study's findings suggest that while OUM tutors generally feel confident in their pedagogical and social roles, there is room for improvement in managerial aspects, particularly in maintaining learner engagement and managing the administrative demands of online teaching. This study emphasises the crucial role of reflective practice in effective online teaching. It reveals how online tutors continuously assess their performance and make real-time adjustments to enhance their teaching strategies, fostering a culture of continuous improvement. This not only elevates the quality of online education but also supports the professional development of

online tutors. The insights from this study apply to other institutions engaged in online and distance education. It suggests integrating reflective practices into institutional policies and training programmes, highlighting the need for ongoing support and professional development for online tutors. Additionally, the study encourages exploring tools and technologies that can facilitate reflective practice, especially given the rapid technological advancements in post-pandemic education.

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