

# Gaps in Pre and Post-Operational Tasks for Open Distance Learning (ODL) Implementation

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**Abstract:** *This work aims to review the operational tasks involved in implementing Open Distance Learning (ODL). Since the outbreak of Covid-19, ODL has become popular, especially for postgraduate programs. The scope is to review the pre- and post-tasks studied in prior work on ODL implementation. Examples of pre-tasks include applications for accreditation, and post-tasks are students' performance in adopting the ODL approach. A systematic review methodology was used based on 15 articles retrieved from Google Scholar. The string used to perform the literature search is ("Open Distance learning" AND "postgraduate program" OR "computing" OR "Self-Instructional Material" OR "accreditation"). Results show that most prior work focused on post-tasks, such as students' performance and the effectiveness of Self-Instructional Material (SIM). At the same time, a few studies report on the pre-task hurdles of applying accreditation.*

**Keywords:** *Accreditation, Open Distance Learning (ODL), postgraduate program, Self-Instructional Material (SIM)*

## **1. INTRODUCTION**

The trend towards adopting Open Distance Learning (ODL) in postgraduate coursework seems to be demanding. The COVID-19 pandemic has accelerated the adoption of ODL, and people around the world are becoming accustomed to online learning. In Malaysia, several universities, such as Universiti Teknologi MARA (UiTM), have implemented ODL for postgraduate programs. UiTM offered an ODL-based Master of Cybersecurity in 2023, and the first batch already graduated. The ODL learning approach offers flexible pathways suitable for working professionals to continue studying while working (Rashid et al., 2025). ODL offers students to learn at his/her own pace. Advances in technology have made ODL more flexible, making it easier to access educational materials and eliminating barriers related to location and time. This advantage seems beneficial for students: it is cost-effective, allows them to study at their own pace, and eliminates physical barriers. For institutions, it can reduce infrastructure costs and serve more students.

To implement ODL, some processes must be done before and after it is put into place. Quality assurance is an important task that must be completed before implementation. In Malaysia, the Malaysia Qualifications Agency (MQA), under the Ministry of Education, oversees and maintains the quality standards for higher education. Quality assurance is achieved through accreditation. Before implementing ODL, institutions must undertake substantial preparatory work, including curriculum redesign, digital resource development, learning management system configuration, quality assurance documentation, and preparation for accreditation compliance (Marnnoi, 2024). Preparatory work, such as developing comprehensive course materials, recorded lectures, interactive assessments, detailed instructional guides, and extensive documentation portfolios required by program accreditation bodies, is mostly done by coordinators and subject-matter experts, usually lecturers and instructional designers (Rensburger et al., 2021). The program can only be run after getting accredited. After implementation, ongoing tasks include monitoring student engagement, managing virtual laboratories, continuously updating content to keep pace with rapidly evolving technologies, maintaining academic integrity in remote assessments, and preparing periodic accreditation reports. Additionally, faculty must maintain detailed records of student performance data, course delivery modifications, and continuous improvement initiatives to satisfy accreditation review cycles (MQA, 2021).

This documentation burden intensifies, yet no prior work investigates these matters. Hence, this study seeks to address the knowledge gap regarding pre- and post-operational tasks in ODL implementation. The research question developed is: Which pre-operational and post-operational tasks receive insufficient attention during ODL implementation? The hypothesis is that pre-operational tasks, such as accreditation documentation, are more often overlooked than post-operational tasks, such as student performance evaluations, in ODL implementation.

## **2. RELATED WORKS**

ODL came into the picture as early as 1728, when it was known as distance education (DE), and has evolved rapidly with advances in communication technologies (Bozkurt, 2019). While this teaching approach benefits students, it significantly increases the lecturer's workload during the preparation phase (Ali, 2025). Ali (2025) conducted semi-structured interviews with 24 university lecturers involved in blended learning (BL). Blended learning is slightly different from ODL. To the best of our knowledge, no research has investigated lecturers' workload in preparing ODL materials; the closest example is BL. One key difference is that BL requires some on-campus or learning centre attendance, whereas ODL requires no physical attendance (Rashid et al., 2025). Barriers to BL implementation include lecturer resistance, low lecturer self-efficacy, increased lecturer workload, university policy issues, and lack of institutional readiness (Ali, 2025).

The parallels between BL and ODL workload challenges are particularly relevant when considering the documentation and material development requirements both modalities demand. In both contexts, lecturers must transition from traditional teaching methods to creating comprehensive, technology-mediated learning experiences that function effectively with reduced or no face-to-face interaction. This transformation requires not only technical skills in using learning management systems and digital tools but also a pedagogical reimagining of how content is structured, delivered, and assessed. Workload intensification is especially pronounced in ODL, where the complete absence of physical meetings necessitates more thorough and

detailed self-instructional materials, anticipatory communication strategies, and robust online assessment mechanisms. Understanding lecturer experiences in BL thus provides valuable insights into the potentially greater challenges faced in pure ODL environments.

ODL research related to students usually is about self-directed learning habits and facing the continuous assessment (Kumari, P., & Asgar, A. (2023), effectiveness of teaching delivery methods (Amir, F.A, & Borhan, R (2021), student perceptions and actual usage of learning material (Bakar. et al, 2022) and students' difficulties in learning via ODL such as technology and internet, student-lecturer interaction, self-management time and difficulty level of assessment (Ghani et al (2022). Beyond these foundational concerns, student-centred ODL research has increasingly explored the psychological and motivational dimensions of distance learning. Studies have examined how factors such as perceived usefulness, technological acceptance, and confirmation of expectations influence overall student satisfaction and continuation intentions in ODL programs (Hashim et al., 2023). The digital divide remains a persistent challenge, with research highlighting disparities in students' access to reliable technology, adequate internet connectivity, and appropriate learning spaces, all of which significantly affect their ability to engage with ODL platforms fully. Furthermore, the absence of immediate face-to-face interaction has been shown to affect not only academic comprehension but also students' sense of belonging and community within their educational programs. Another critical area of investigation involves students' adaptive learning strategies in ODL environments. Researchers have found that successful ODL students typically develop specific competencies, including digital literacy, autonomous learning, and effective time management. However, the transition to these self-regulated learning behaviours does not occur naturally for all students, particularly those from traditional classroom backgrounds who may struggle with the independence and self-discipline required in distance learning contexts. Additionally, assessment anxiety in ODL settings presents unique challenges, as students must navigate unfamiliar examination formats, manage technical uncertainties during online assessments, and cope with limited immediate support when difficulties arise. These multifaceted student-related factors collectively underscore the complexity of ensuring equitable and effective learning experiences in ODL systems.

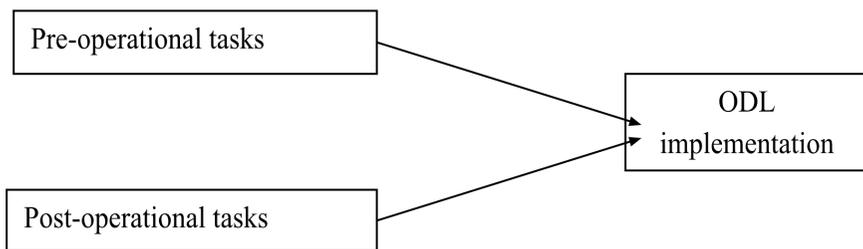
Self-instructional material (SIM) is a learning material that meets MQA requirements and enables students to learn independently without direct instruction from lecturers (MQA, 2021). In addition to the course lecturer, ODL course material should be developed in collaboration with curriculum developers, instructional designers, graphic designers, and educational technologists (Rensburg, E.V et al., 2020). Research on SIM is related to faculty development programs for the lecturers to prepare the material (Asgar & Satyanarayana, 2021), SIM instructional design (Bakar et al, 2022), Hamidon et al. (2023) and students' engagement through self-study (Tessema, M.A., & Lekthetho, M, 2024). The quality and effectiveness of SIM are crucial determinants of ODL success, as these materials must not only convey content accurately but also motivate learners, provide clear learning pathways, and facilitate meaningful knowledge construction in the absence of traditional classroom dynamics. Furthermore, SIM development requires ongoing evaluation and refinement to ensure alignment with evolving pedagogical approaches and technological capabilities.

Accreditation is a formal recognition conducted by certain agencies. In Malaysia, MQA performs this function for all educational institutions. Ozen (2022) reviewed the importance of quality standards and accreditation for ODL implementation. However, detailed operational processes are not mentioned. Rashid et al. (2025) researched pre-ODL implementation but focused more on students' flexibility elements, such as communication timing, modes, and platforms. A review paper by Zawacki-Richter and Jung (2022) emphasises the importance of internal and external accreditation worldwide.

The implementation of ODL has significantly increased the lecturer workload, primarily through the exponential rise in documentation requirements that are often unrecognised by institutional management. Unlike traditional face-to-face courses, where teaching materials can be relatively informal and supplemented by direct classroom interaction, ODL requires comprehensive, self-contained documentation that anticipates and addresses every possible student query in the absence of immediate instructor presence. Lecturers are required to develop detailed Self-Instructional Materials (SIM) that meet stringent Malaysian Qualifications Agency (MQA) standards, encompassing not only content delivery but also learning objectives, activities, self-assessment exercises, and multimedia integration—a process that can take three to five times longer than preparing conventional lecture notes. Beyond SIM development, lecturers must

create extensive course guides, detailed assessment rubrics, video recordings, interactive modules, discussion forum prompts, and multiple versions of assessment materials to ensure academic integrity in online environments. The accreditation process further compounds this burden, requiring meticulous documentation of learning outcomes mapping, quality assurance evidence, student engagement metrics, and continuous improvement records. Additionally, the collaborative nature of ODL material development means lecturers must coordinate with instructional designers, graphic designers, and educational technologists, adding layers of meetings, revisions, and approval processes to their already saturated schedules. This documentation-heavy approach, while necessary for quality ODL delivery, effectively transforms lecturers from educators into content producers and administrative processors, with insufficient recognition, training, or time allocation provided to manage these expanded responsibilities. The irony is that while institutions celebrate their ODL offerings as innovative and student-centred, the actual cost is borne disproportionately by lecturers whose pedagogical expertise and research productivity are increasingly compromised by relentless documentation demands that serve accreditation requirements more than genuine educational enhancement.

Figure.1 illustrates the theoretical framework of this study. The dependent variable is ODL implementation, and the independent variables are pre-operational and post-operational. The pre-operational task might be an accreditation process, such as SIM preparation and evaluation. The post-operational task might involve student-related processes, such as monitoring student engagement and conducting continuous assessment.



**Figure 1.** Theoretical Framework

### **3. METHODOLOGY**

This work used a systematic review methodology to search for related articles (Shuhida, 2022). The Google Scholar database has been used to search for related articles. The string used to perform the literature search is (“Open Distance learning” AND “postgraduate program” OR “computing” OR “Self-Instructional Material” OR “accreditation”). The selection criteria are based on ODL implementation, focusing on pre- and post-operations, student-related, lecturer-related, SIM-related, and accreditation-related. The term “related” is used to indicate, in general, the research done by the selected articles. 15 articles published in English between 2021 and 2025 were selected. The review aims to provide an overview of patterns in pre- and post-operational tasks related to ODL implementation, focusing on elements related to students, lecturers, SIM, and the accreditation process. By employing a systematic literature review, it was possible to discern trends and patterns and to evaluate the existing literature on ODL implementation issues.

### **4. RESULTS**

Table 1 shows the results of the review. The column table is divided into Pre-post ODL, Student-related, Lecturer-related, SIM-related, and Accreditation-related. Based on the table, several distinct patterns emerge across 15 selected articles. It shows that post-ODL has 13 articles and only two research articles on pre-operation tasks for ODL implementation. A predominant emphasis on ‘student-related’ has been the majority, with 10 out of 15 studies addressing this issue. ‘Lecturer-related’ aspects receive moderate attention, appearing in 6 studies, including works by Rensburg et al. (2021), Asgar & Satyanarayana (2021), and Ali (2024). This indicates recognition of educators’ roles in ODL success, though less extensively explored than student factors. ‘Self-Instructional Material (SIM)’ concerns are addressed in 6 studies, suggesting growing awareness in SIM development and quality. ‘Accreditation-related’ research remains notably underexplored, with only 3 studies (Rensburg et al. (2021), Zawacki-Ritcher & Jungs (2022), and Ozen, E.) (2022) addressing quality assurance and institutional recognition. This gap is particularly significant given the importance of accreditation for ODL legitimacy and student outcomes. The table reveals that while student experiences dominate

current research, critical areas such as accreditation, comprehensive lecturer support, and integrated approaches that address multiple dimensions simultaneously remain underdeveloped, pointing to important directions for future ODL research.

Bil.	Authors, Year	Pre or Post ODL	Student's related	Lecturer's related	SIMs related	Accreditation's related
1.	Rensburg et al. (2021).	Post	☐	✓	☐	✓
2.	Asgar & Satyanarayana (2021)	Post	☐	✓	✓	☐
3.	Amir, F.A, & Borhan, R (2021)	Post	✓	☐	☐	☐
4.	Ghani et al (2022)	Post	✓	☐	☐	☐
5.	Abdullah, Z., & Said, M.N.H (2022)	Post	✓	✓	☐	☐
6.	Bakar et al. (2022).	Post	✓	☐	✓	☐
7.	Zawacki-Ritcher, I.Jungs, 2022	Post	☐	☐	☐	✓
8.	Abdullah, Z., & Said, M.N.H (2022)	Post	✓	✓	✓	☐
9.	Kumari, P., & Asgar, A. (2023).	Post	✓	☐	☐	☐
10.	Hamidon, M.L. Abdullah, Y. Yusoff (2023)	Post	✓	✓	✓	☐
11.	Sharma, K., & Ravi, Indu. (2023)	Post	✓	☐	✓	☐
12.	Tessema, M.A. & Lekhethe, M. (2024)	Post	✓	☐	✓	☐
13.	Ali, R (2024)	Post	☐	✓	☐	☐
14.	Rashid,K., Kamar, I.F.M., Zahari, N.F, Rahmat, A. & Masri, M.H.M. (2025)	Pre	✓	☐	☐	☐
15.	Ozen, E. (2022)	Pre	☐	☐	☐	✓

**Table 1.** Gaps in ODL implementation (2021-2025)

## **5. CONCLUSION**

This study reveals significant patterns and gaps in ODL. This work has shown that pre- and post-operational tasks are important, but pre-operational tasks have not been explored much. The analysis demonstrates a clear temporal and thematic imbalance in the current literature. Temporally, there is an overwhelming focus on post-implementation studies (13 articles) compared to pre-operational research (2 articles), suggesting that the field has been predominantly reactive rather than proactive in addressing ODL challenges. Thematically, the review shows a pronounced focus on student-related factors, which appear in two-thirds of the studies examined (10 out of 15). While this emphasis acknowledges the centrality of learner experiences in ODL success, it comes at the expense of other equally critical dimensions. Lecturer-related aspects and Self-Instructional Materials (SIM) development receive moderate attention, each appearing in 6 studies, indicating emerging but still insufficient scholarly engagement with pedagogical delivery and content quality issues. Most concerning is the marked underrepresentation of accreditation-related research, with only 3 studies addressing quality assurance and institutional recognition frameworks. This gap is particularly problematic given that accreditation serves as a cornerstone for ODL legitimacy, stakeholder confidence, and ultimately, student outcomes in an increasingly competitive educational landscape.

## **6. SUGGESTION**

The review findings suggest that current ODL research remains fragmented, lacking integrated approaches that address multiple dimensions simultaneously. To advance the field, future research must adopt more holistic frameworks that balance perspectives on student, lecturer, material, and institutional quality. Additionally, there is an urgent need for pre-implementation studies that can inform strategic planning rather than merely evaluate outcomes. Addressing these gaps will be essential for developing robust, sustainable, and quality-assured ODL systems that meet the evolving demands of 21st-century education.

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## **9. AUTHOR'S CONTRIBUTION**

The authors declare no conflicts of interest regarding this article. Siti Arpah Ahmad was responsible for the principal components of this review paper, including article selection, drafting the introduction, and overall manuscript supervision. Zarina Zainol contributed to the research methodology section and analysed results.

## **10. CONFLICT OF INTEREST DECLARATION**

We certify that the article is the authors' and co-authors' original work. The article has not received prior publication and is not under consideration for publication elsewhere. This research/manuscript has not been submitted for publication, nor has it been published in whole or in part elsewhere. We testify to the fact that all authors have contributed significantly to the work, validity and legitimacy of the data and its interpretation for submission to IJELHE.

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