

FOI-Based Experiential Pedagogy in Information Competency Education in the Era of Digital and AI-Mediated Learning

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Abstract

This research examines the efficacy of Festival of Ideas (FOI)-based experiential pedagogy in enhancing analytical competencies and student engagement in a postgraduate Information Competency course (IMC701) at Universiti Teknologi MARA (UiTM). Employing a mixed-methods case study design ($n = 22$), the study integrates assessment performance data, Programme Learning Outcome (PLO) attainment, and WhatsApp-mediated communication analysis. The manuscript is strengthened by explicit Course Learning Outcome (CLO) and PLO mapping derived from the official course information, FOI assessment brief, and lesson plan. Findings demonstrate a robust positive correlation between FOI performance and PLO attainment ($r = .894$, $p < .001$), with FOI scores explaining 79.9% of the variance in outcomes ($R^2 = .799$). The study proposes the FOI-AIMIL model and contributes to the social sciences by demonstrating how public knowledge events can be transformed into measurable, outcome-based and governance-aware teaching innovations.

Keywords: Experiential Learning, Festival of Ideas, Information Competency, WhatsApp Pedagogy, AI-Mediated Information Literacy, Outcome-Based Education

Introduction

Higher education is increasingly expected to prepare graduates who can interpret, evaluate and apply knowledge within complex social, economic and technological environments. In Information Science education, this expectation is especially important because students are required to understand information behaviour, communication processes, knowledge organisation and socio-technical systems as they operate in real institutional and public settings. However, conventional classroom-based instruction may not fully expose learners to the dynamic and contested nature of contemporary information environments, resulting in a gap between conceptual understanding and applied analytical competence.

Experiential learning offers a pedagogical pathway for addressing this gap by connecting concrete experience, reflection, conceptualisation and application (Kolb, 1984). In the current era of digital and AI-mediated learning, such an approach is increasingly relevant because

students must not only retrieve information, but also assess its authority, interpret its social meaning, and use it ethically within evidence-based academic work. Within this context, the Festival of Ideas 2025 (FOI 2025) was integrated into IMC701 as an authentic experiential assessment that required postgraduate students to observe public knowledge activities, relate them to Information Science frameworks, and produce a structured analytical report. WhatsApp-mediated communication was used as a supplementary scaffolding channel to support clarification, coordination and academic guidance.

The specific research problem addressed in this study is the limited empirical evidence on how public knowledge events can be transformed into structured, outcome-based learning assessments in Information Science education. Accordingly, this study evaluates the effectiveness of FOI-based experiential pedagogy by examining assessment performance, Programme Learning Outcome (PLO) attainment and WhatsApp-mediated instructional support. The study contributes to the social sciences by demonstrating how authentic public engagement can be converted into measurable pedagogical evidence through CLO-PLO alignment, statistical validation and a governance-aware AI-Mediated Information Literacy (AIMIL) framework.

Novelty and Contribution to the Social Sciences

This study is novel in its integrated treatment of FOI as more than an enrichment activity or field exposure. It positions FOI as a measurable pedagogical intervention that combines experiential learning, digital scaffolding, CLO-PLO traceability, statistical validation and governance documentation. Its contribution to the social sciences lies in offering the FOI-AIMIL model as a practical framework for converting informal public knowledge engagement into assessable evidence of analytical learning, information literacy and outcome-based educational quality.

Research Questions

This study was guided by four research questions: (1) How does FOI-based experiential pedagogy influence students' academic performance? (2) What is the relationship between FOI performance and PLO attainment? (3) How does WhatsApp-mediated communication support teaching and learning? (4) How can experiential learning be integrated with governance and AI-mediated information literacy frameworks?

Research Objectives

The objectives of this study are to evaluate the effectiveness of FOI-based experiential pedagogy, analyse the relationship between FOI performance and PLO attainment, examine the role of WhatsApp communication in learning support, and propose a governance-aligned pedagogical model for Information Science education.

Course Learning Outcomes and Programme Learning Outcome Alignment

The pedagogical intervention was embedded within IMC701: Seminar on Information Science, a 3-credit core course for the Master of Science in Information Management (IM770). The official course information identifies three Course Learning Outcomes (CLOs), covering cognitive, affective and psychomotor domains (refer to Table 1). The lesson plan further maps these CLOs to Programme Learning Outcomes (PLOs), while the FOI assessment

operationalises this alignment through an applied field-based reflection and analytical report (refer to Table 2).

Table 1

Official Course Learning Outcomes (CLOs) for IMC701

CLO	Official Course Learning Outcome	Domain / Level
CLO1	Explain how the different domains of Information Science contribute to the development of information society.	Cognitive (C5)
CLO2	Integrate the concepts, principles, and theories of Information Science when engaging with information agencies and institutions.	Affective (A4)
CLO3	Display independent learning in the retrieval and management of information resources.	Psychomotor (P4)

Source. Official IMC701 Course Information and Lesson Plan.

Table 2

CLO-PLO Matrix and Assessment Alignment Used in the Study

CLO	Programme Learning Outcome Linkage	Assessment Method	Relevance to FOI-Based Pedagogy
CLO1	PLO1, PLO2, PLO4	Final Test, Discussion	Provides the conceptual foundation on Information Science domains and information society.
CLO2	PLO2, PLO5, PLO7	Essay, Report, Presentation	Directly aligned with FOI analytical reporting through integration of concepts, principles and theories in real-world information environments.
CLO3	PLO3, PLO6, PLO8	Information Competency, Independent Learning	Supports students' independent retrieval, interpretation and management of information resources during FOI engagement.

The FOI assessment brief specifically aligned the task with CLO2 and CLO3. CLO2 emphasised the integration of Information Science concepts when engaging with information agencies and institutions, while CLO3 emphasised independent learning in retrieving and managing information resources. In the FOI task, these outcomes were assessed through theoretical integration, analytical depth, originality and reflection, structure and clarity, and academic writing and referencing.

Literature Review

Experiential learning theory provides the conceptual foundation for the FOI innovation. Kolb (1984) argues that meaningful learning occurs when learners engage with experience, reflect

upon it, conceptualise its meaning, and apply the resulting knowledge. The FOI assessment created this cycle by requiring students to observe real-world information activities, interpret them using Information Science frameworks, and produce a reflective analytical report.

Contextual teaching further supports this orientation by connecting learning content with real-life situations. In Information Science, contextual teaching enables students to move beyond abstract concepts toward applied understanding of information systems, knowledge dissemination, public communication, information behaviour, and digital governance.

Outcome-based education requires assessment tasks to demonstrate measurable attainment of intended learning outcomes. CLO-PLO alignment therefore becomes central to evaluating whether an innovation has pedagogical value. In this study, the FOI assessment is positioned as an authentic task that operationalises CLO2 and CLO3 while contributing to relevant PLO attainment.

Digital communication platforms have become part of contemporary higher education practice. WhatsApp is widely used for rapid clarification, peer support, reminders, and informal scaffolding. However, informal digital communication also creates governance challenges because important instructions may become dispersed across chat threads rather than archived within formal learning management systems.

The emergence of AI-mediated learning further raises the importance of information literacy, critical evaluation, transparency, and accountability. The proposed FOI-AIMIL model responds to this need by integrating authentic experiential learning with digital scaffolding and governance documentation.

Conceptual Framework: FOI-AIMIL Pedagogy

The FOI-AIMIL framework integrates four layers: experiential input, analytical processing, digital scaffolding, and governance assurance, as illustrated in Figure 1.. FOI provides authentic exposure to real-world information environments. Students then engage in observation, theoretical integration, reflection and academic reporting. WhatsApp operates as a responsive support layer, while LMS documentation, rubrics and evidence files provide the governance layer.

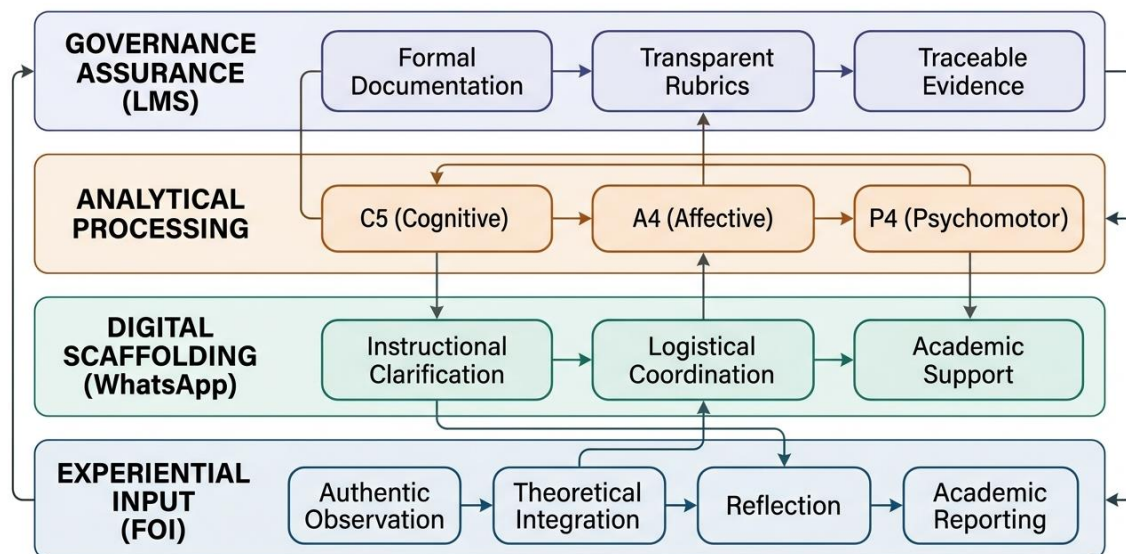


Figure 1 FOI-AIMIL Experiential Pedagogical Model

Note. The model positions FOI as an authentic experiential input, WhatsApp as a digital scaffolding layer, and LMS-based documentation as the governance layer.

Methodology

This study employed a mixed-method case study design. Quantitative data were obtained from assessment performance and PLO attainment records for 22 students enrolled in IMC701. Qualitative data were derived from WhatsApp-mediated communication between lecturer and students, focusing on instructional clarification, logistical coordination and academic support.

The FOI assessment required students to produce an analytical report of approximately 1,500 to 2,000 words. The report structure consisted of introduction, methodology, findings and discussion, reflection, conclusion and references. The rubric assessed theoretical integration, analytical depth, originality and reflection, structure and clarity, and academic writing and referencing.

The assessment alignment was anchored in the official CLO-PLO matrix for IMC701. CLO1 addresses students' ability to explain domains of Information Science; CLO2 addresses integration of Information Science concepts, principles and theories in institutional contexts; and CLO3 addresses independent learning in information retrieval and management. The FOI intervention primarily activated CLO2 and CLO3 through applied observation, analytical reporting and reflective interpretation.

Descriptive statistics were used to summarise performance. Pearson correlation was conducted to examine the relationship between FOI scores and PLO attainment. Simple linear regression was conducted to estimate the predictive contribution of FOI scores to PLO attainment. Qualitative WhatsApp communication was analysed thematically.

Ethical and Governance Considerations

Student performance data were analysed at cohort level and reported in aggregated form. Names and individual identifiers were not included in the analytical discussion. WhatsApp communication was interpreted as pedagogical evidence of instructional support rather than as private personal data. The study highlights the need for formal documentation of assessment instructions through LMS platforms to ensure transparency, traceability and audit readiness.

Findings*Assessment Performance*

The FOI assessment produced strong student achievement (refer to Table 3, and Figure 2). Scores ranged from 79% to 91%, indicating that all students achieved at least a satisfactory level of performance. Four students achieved the highest score range of 90% to 91%, eleven students were in the 85% to 89% range, three students were in the 80% to 84% range, and four students were in the 75% to 79% range.

Table 3

Distribution of FOI Assessment Scores

Score Range	Classification	Number of Students
90–91	Excellent	4
85–89	Good	11
80–84	Satisfactory	3
75–79	Needs Improvement	4
Total		22

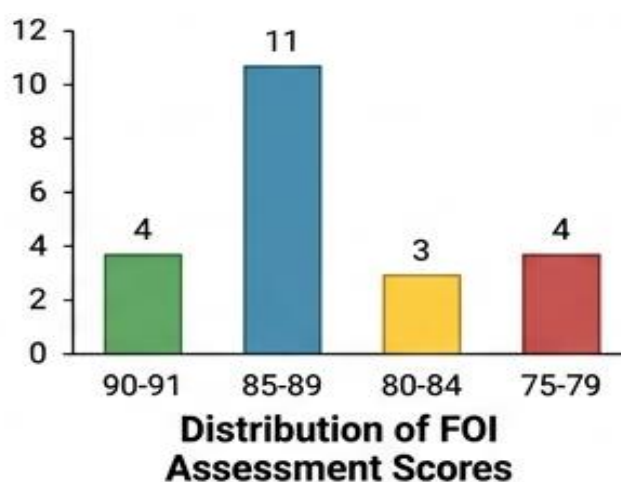


Figure 2: Distribution of FOI-Based Assessment Scores

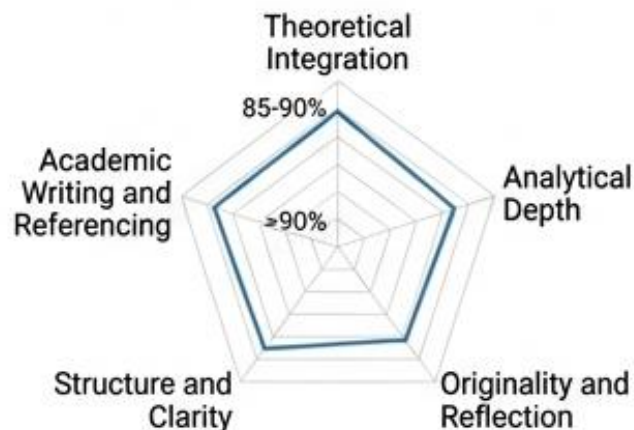


Figure 3: Rubric-Level Performance Profile

The rubric profile in Figure 3, indicates that students performed strongest in theoretical integration and analytical depth, while academic writing and referencing remained the main area for further improvement.

Statistical Validation: Correlation and Regression Analysis

A Pearson correlation analysis was conducted to examine the relationship between students' FOI final project scores and PLO attainment (refer to Table 4). The results showed a strong and statistically significant positive relationship between FOI scores and PLO attainment, $r(20) = .894$, $p < .001$. This suggests that students who achieved higher scores in the FOI-based experiential assessment also demonstrated stronger outcome attainment.

A simple linear regression was conducted with FOI score as the predictor variable and PLO attainment as the outcome variable (refer to Table 5). The model was statistically significant, explaining 79.9% of the variance in PLO attainment ($R^2 = .799$). The regression equation was: PLO Attainment = $22.198 + 0.716(\text{FOI Score})$. This indicates that each one-point increase in FOI score was associated with an estimated 0.716-point increase in PLO attainment (refer to Figure 4).

Table 4

Correlation between FOI Score and PLO Attainment

Variable Pair	n	Pearson r	p -value	Interpretation
FOI Score × PLO Attainment	22	.894	< .001	Strong positive correlation

Table 5

Simple Linear Regression Predicting PLO Attainment from FOI Score

Predictor	B	p-value	Interpretation
Constant	22.198	.004	Baseline PLO estimate
FOI Score	.716	< .001	Significant positive predictor
Model fit	$R^2 = .799$		Explains 79.9% of variance

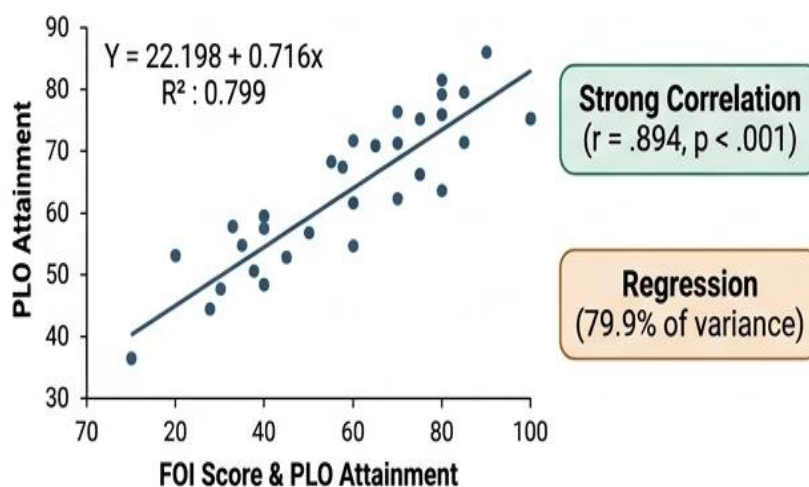


Figure 4: Regression Relationship between FOI Score and PLO Attainment

Findings: WhatsApp-Mediated Communication

Table 5

WhatsApp-Mediated Communication Findings

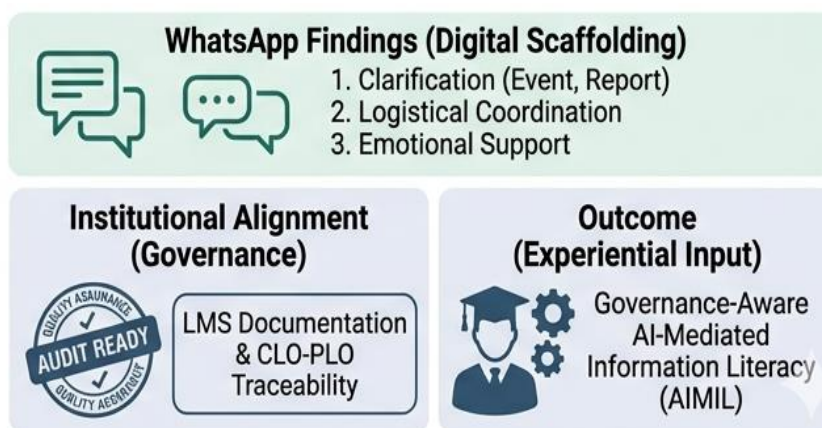


Figure 5: WhatsApp-Mediated Communication Findings

The WhatsApp communication analysis identified three dominant themes, as displayed in Figure 5. First, WhatsApp functioned as a clarification channel through which students asked

questions about the FOI event, attendance requirements, assignment options, report format and submission expectations. Second, it functioned as a logistical coordination channel, particularly regarding transport, parking, arrival timing and event navigation. Third, it functioned as an emotional and academic support channel, where students expressed concerns about workload and the lecturer provided reassurance and flexibility.

These findings show that WhatsApp added pedagogical value by reducing uncertainty and enabling timely support. However, the analysis also indicates that critical instructions should not remain solely in WhatsApp. For governance purposes, all essential assessment instructions, rubrics, submission links and deadline reminders should be duplicated in the formal LMS environment.

Discussion

Pedagogical Efficacy and Theoretical Alignment

The findings substantiate that FOI-based experiential pedagogy functions as a high-impact innovation within Information Science education. The robust student performance indicates a successful synthesis of theoretical frameworks within real-world knowledge environments. This outcome reinforces the core tenets of experiential learning theory and contextual pedagogy, which posit that meaningful cognitive development occurs when learners bridge the gap between abstract conceptualisation and reflective observation.

Statistical Significance and Predictive Validity

The statistical validation provides a rigorous empirical foundation for this innovation. The strong correlation ($r(20) = .894, p < .001$) and the high coefficient of determination ($R^2 = .799$) demonstrate that FOI performance is a primary driver of overall PLO attainment. From a measurement perspective, this suggests high *predictive validity*; the FOI assessment was not a peripheral activity but a central mechanism that effectively operationalised the intended learning outcomes. The regression equation (PLO Attainment = $22.198 + 0.716[\text{FOI Score}]$) further quantifies this impact, providing institutional stakeholders with a mathematical basis for the assessment's effectiveness in meeting program-level standards.

The inclusion of official CLO-PLO alignment further strengthens the validity of the innovation because the assessment design is traceable to approved course learning outcomes and programme-level expectations. Top-performing students demonstrated multi-framework integration, sophisticated discussion of information authority, and stronger reflective insight. Students who scored lower generally required stronger theoretical integration, deeper analysis and more robust referencing.

The Hybrid Instructional Ecology: Scaffolding vs. Governance

The qualitative analysis of WhatsApp communication reveals a sophisticated “hybrid instructional ecology.” While official LMS platforms provided the necessary structure and audit trails, WhatsApp served as a responsive scaffolding layer that managed the “liminality” of experiential learning—addressing student uncertainty and providing real-time emotional and logistical support. However, the study identifies a critical tension: the immediacy of digital communication must be balanced with formal governance. For an innovation to be audit-ready and publishable at the Scopus level, informal support channels must be mirrored by formal documentation and institutional LMS records.

The FOI-AIMIL Framework in the AI Era

Ultimately, the proposed FOI-AIMIL model contributes a governance-aware pedagogical framework suited for the digital and AI-mediated landscape. In an era where information is increasingly mediated by algorithms and generative agents, the ability to observe, verify, and document knowledge in a public forum (the Festival of Ideas) becomes a vital competency. This innovation ensures that students are not merely passive consumers of information but are equipped to evaluate authority, maintain transparency, and operate within the data-driven environments of the 21st century.

Implications

Theoretically, the study extends experiential learning by embedding it within digital communication and AI-mediated information literacy. Pedagogically, it validates FOI as a signature assessment model for Information Science education. Institutionally, it supports outcome-based education, CLO-PLO traceability, teaching innovation documentation and governance-aligned assessment practice. For policy and quality assurance, the model demonstrates how authentic public knowledge events can be converted into structured evidence of learning achievement.

Recommendations

Future implementation should include a one-page FOI assessment brief, a standardised reporting template, formal LMS announcement of all assessment requirements, a WhatsApp-to-LMS communication protocol, a rubric-based feedback sheet, and a student reflection checklist. Future studies should expand the sample across multiple cohorts, compare FOI and non-FOI groups, and use more advanced statistical techniques such as mediation analysis or structural equation modelling.

Conclusion

This study concludes that FOI-based experiential pedagogy is an effective, scalable, and governance-aware teaching and learning innovation for Information Science education. The integration of official CLO-PLO alignment confirms that the assessment was grounded in approved learning outcomes, while the statistical validation demonstrates that FOI performance was strongly associated with PLO attainment. The FOI-AIMIL framework offers a practical and theoretically grounded framework for experiential, digital and AI-mediated pedagogy in higher education, equipping students to evaluate information authority, maintain transparency, and operate within the data-driven environments of the 21st century.

Limitations and Future Research

This study is limited by its single-course and single-cohort design. The findings should therefore be interpreted as contextually grounded rather than universally generalisable. Future research should replicate the model across disciplines and institutions, include control or comparison groups, and incorporate student interviews to deepen interpretation of learner experience.

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