Ease Over Efficiency: Adopting Online Collaboration Platforms in Cross-Institutional EMI Context

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ABSTRACT

This study explores the effectiveness of the online collaboration platform, ClickUp, for collaborative learning in Taiwanese English as a Medium of Instruction (EMI) courses. Analyzing data from 214 undergraduates across five universities using a UTAUT-based model, this research investigates factors influencing students' behavioral intentions. Results indicate that both Attitude toward Using Technology and Effort Expectancy serve as significant predictors of behavioral intention, whereas Performance Expectancy influences behavioral intention indirectly through these factors. In contrast, Facilitating Conditions were found to exert a significant negative influence on behavioral intention. Qualitatively, participants praised ClickUp's intuitive interface and peer-review utility for improving writing proficiency, interpreting its benefits through the lens of Cognitive Load Theory, though some reported challenges related to time management and group dynamics. Collectively, these results suggest that the adoption of user-friendly collaborative platforms such as ClickUp can foster greater student engagement and improve writing outcomes in cross-institutional EMI settings by prioritizing ease of use to manage cognitive load.

Keywords: EMI, Online collaboration platforms, Behavioral intention, UTAUT, Collaborative learning, Cognitive load theory

1. Introduction

The intersection of technology and language learning, especially within an English as a Medium of Instruction (EMI) framework, has garnered increasing scholarly attention in recent years. In the context of globalization, universities in Taiwan have increasingly adopted English as a Medium of Instruction (EMI) to enhance students' international competitiveness and English proficiency [1], [2]. Defined by Macaro [3] as the use of English to teach academic subjects in non-native settings, EMI aims to create an immersive language environment. Despite this necessity, students often struggle to express complex ideas due to limited linguistic proficiency, highlighting the need for supportive tools to facilitate collaboration and peer feedback [4], [5]. However, the integration of technology in EMI courses, especially regarding Online Collaboration Platforms (OCPs), remains underexplored. Recent studies emphasize that students in digital EMI environments face a "double jeopardy" of simultaneous content and language processing, which significantly elevates cognitive load.

Online Collaboration Platforms (OCPs) are cloud-based tools that facilitate group assignments, document exchange, and synchronous feedback mechanisms in educational environments. Such

platforms enable learners to customize their interaction modalities, thereby enhancing their overall collaborative engagement [6]. OCPs enhance teaching efficiency and enable students to engage in courses irrespective of their physical location, thus significantly increasing instructional flexibility. While OCPs are acknowledged as effective tools for online peer review [6], most existing research has utilized the Unified Theory of Acceptance and Use of Technology (UTAUT) model to assess students' broader technology acceptance. Nevertheless, there is a critical research gap concerning how project management tools specifically provide "process scaffolding" to mitigate extraneous cognitive load during cross-institutional peer feedback.

Nevertheless, the targeted application of project management platforms to support cross-institutional peer review in EMI courses remains an underexplored area. Previous studies were often designed for general academic needs; however, evolving societal contexts now necessitate applying the UTAUT model to more pragmatic scenarios. Few studies have investigated how ClickUp, as a collaborative tool, influences students' behavioral intentions when engaging in the complex task of revising final papers from peers at different universities. This study fills this gap by investigating the determinants of students' acceptance of ClickUp in a Taiwanese EMI context, combining quantitative and qualitative analyses of the cross- institutional peer feedback process.

Therefore, this study aims to address the following research questions:

1) What are the key determinants (e.g., Performance Expectancy, Effort Expectancy, Attitude toward Using Technology) influencing students' behavioral intentions to use ClickUp in EMI collaborative learning?
2) What are the perceived benefits and challenges of using ClickUp for writing, as reported by learners?

2. Literature Review

2.1 Online Collaboration Platforms (OCPs) in Cooperative Learning

The proliferation of online collaboration platforms (OCPs) has profoundly reshaped pedagogical practices, particularly within cooperative learning paradigms, by facilitating remote and asynchronous interactions among learners. Grounded in social constructivism, OCPs enable students to collaboratively build knowledge, transcending traditional limitations of time and physical location [7], [8]. Contemporary research highlights the pedagogical efficacy of OCPs in enhancing writing instruction. For instance, Google Docs has been widely adopted for collaborative essay writing [9], [10], [11]. While traditional tools like Google Docs excel at simultaneous content creation and editing, ClickUp provides a distinct layer of "Process Scaffolding". Unlike Learning Management Systems (LMS) such as Moodle, which focus on course administration and content delivery, ClickUp offers integrated task dependencies, visual workflows, and automated status tracking. This distinction is critical in cross-institutional contexts, where logistical coordination—rather than writing itself—often becomes the primary bottleneck for collaboration.

ClickUp distinguishes itself by offering a comprehensive array of integrated features, such as document editing, task management, progress tracking, and synchronous commenting, all within a unified interface [12]. This integrated approach is especially beneficial in cross-institutional contexts, which demand robust coordination frameworks for students across multiple universities. Prior

research on peer review in EMI contexts has identified several challenges: students' limited English proficiency may hinder effective feedback provision [1], [4], and asynchronous collaboration across institutions often creates coordination difficulties. ClickUp's structured workflow, which includes explicit task assignments, deadlines, and transparent progress monitoring, can mitigate these challenges by providing essential scaffolding for collaborative writing projects.

2.2 The Cognitive Load Theory Framework in EMI Collaborative Writing

Cognitive Load Theory (CLT) posits that learning is constrained by the limited capacity of working memory. In EMI writing, students encounter what research terms a "double jeopardy": high intrinsic load arising from complex subject matter and high extraneous load from simultaneously navigating a second language.

To address these complexities, a multifaceted framework is required that acknowledges three simultaneously operating cognitive load: intrinsic load (inherent task and language difficulty), extraneous load (poor instructional design, social pressure, and inadequate tools), and germane load (authentic collaborative processing and schema development).Veddayana et al.[13] suggest that collaborative platforms can function as external cognitive reservoirs, allowing groups to share the mental burden of task management. By reducing the "search-and-coordination" load, OCPs enable students to allocate more germane resources to deep reflective writing and peer critique.

Research evidence suggests several critical design principles for technology-enhanced EMI writing. First, intrinsic load cannot be eliminated but can be managed through careful task sequencing, starting with simpler writing tasks before progressing to complex collaborative projects. Second, extraneous load reduction is achievable through thoughtful interface design, clear instructions, appropriate technological scaffolding, and explicit collaborative norms. Third, maximizing germane load while managing total load requires designing collaborative structures that promote authentic peer interaction, meaningful feedback exchange, and genuinely distributed cognitive work [14], [15].

2.3 The Unified Theory of Acceptance and Use of Technology (UTAUT)

This study employs the Unified Theory of Acceptance and Use of Technology (UTAUT) model, developed by Venkatesh et al. [16], to analyze students' adoption of ClickUp. The original UTAUT delineates Performance Expectancy (PE), Effort Expectancy (EE), and Facilitating Conditions (FC), as primary determinants of Behavioral Intention (BI). This framework has been extensively validated across various educational technology applications [17], [18]. In this study, the UTAUT model was modified to incorporate Attitude towards Using Technology (ATUT) and Anxiety (ANX), while excluding Social Influence, to specifically examine individual platform interaction within a cross-institutional setting.

2.3.1 Hypotheses development

Performance Expectancy (PE) is defined as the degree to which a student believes that utilizing the system will enhance their task-related performance. In the context of EMI, students' Performance Expectancy (PE), defined as their perception of ClickUp's utility in enhancing writing efficiency, is expected to positively influence their behavioral intention to adopt the platform. Effort Expectancy (EE) refers to the ease of use associated with the system. Considering the intricate dynamics of cross-institutional collaboration, a highly intuitive interface is paramount for platform adoption [12].

Facilitating Conditions (FC) encompass students' perceptions of the available resources and support for employing the system. Attitude toward Using Technology (ATUT) and Anxiety (ANX) are affective factors included to capture the emotional responses to novel technology, a consideration especially pertinent in demanding EMI settings. Drawing upon these theoretical underpinnings, this study seeks to empirically validate the proposed relationships between these constructs and students' Behavioral Intention (BI).

3. Research Design

3.1 Context

This empirical study was conducted within a specialized English-Medium Instruction (EMI) course titled "Religions in Taiwan". The research cohort consisted of 214 undergraduate students recruited from five distinct universities. All extracurricular assignments and reports were completed in English. The course was delivered by a single professor across all participating universities, ensuring pedagogical consistency throughout the study period. Given the diversity of institutional contexts, substantial variation existed in the proportion of international students and participants' relative levels of English proficiency. All participants provided informed consent and were informed of their right to withdraw at any time. To ensure anonymity, participant quotes in the qualitative analysis are identified only by nationality and student ID codes.

The distinctive pedagogical activity was designed around cross-institutional peer review. ClickUp served as the central hub for this collaboration, allowing for task assignment, progress tracking, and real-time commenting. Such features are critical for supporting EMI courses, where students require structured collaboration to improve both content mastery and language proficiency [9], [10]. Every student utilized ClickUp to review and revise final papers written by students from other participating institutions. This process required students not only to correct grammatical errors but also provide qualitative feedback and constructive commentary on content. This methodology moved beyond automated essay correction, emphasizing a genuine human interaction between Taiwanese and international students in the essay evaluation process. The following infographic illustrates the cross-institutional peer review mechanism for EMI courses involving 214 university students across five universities with diverse backgrounds, managed through ClickUp for submission, review, and feedback processes.

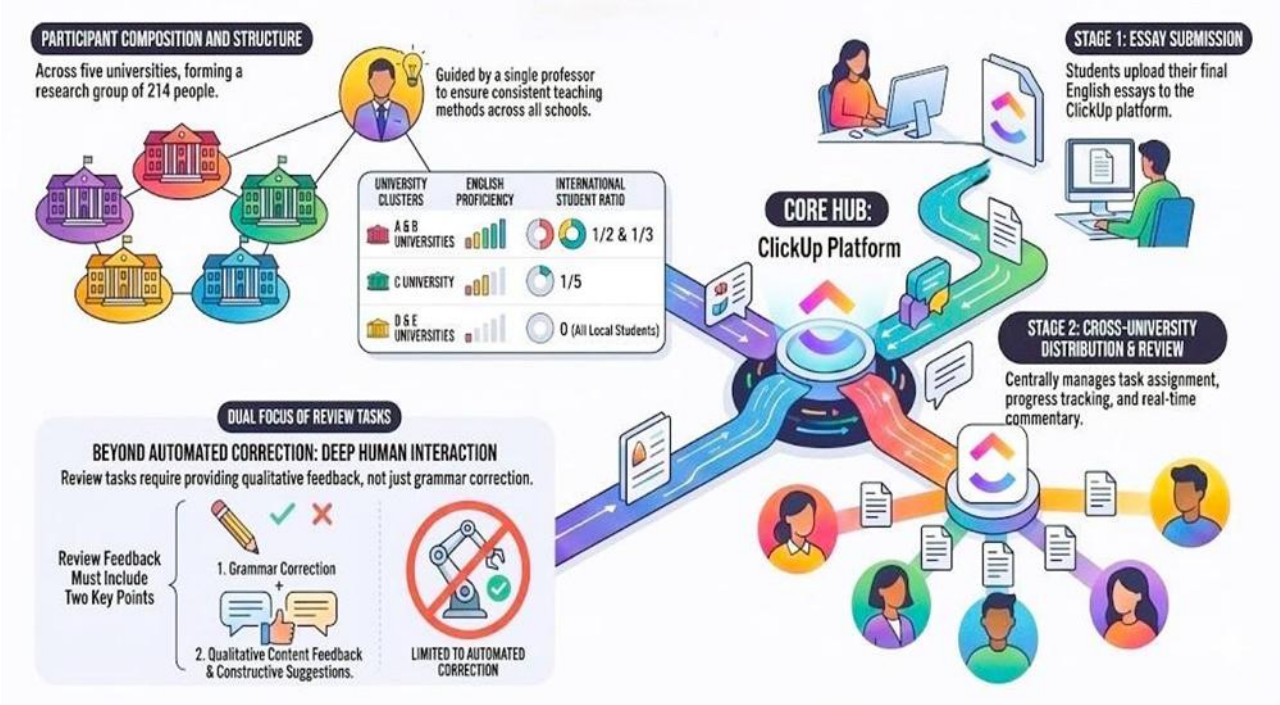

Fig 1. The conceptual framework

3.2 Data Collection Procedure

Data were collected through a three-phase process:

Phase 1 (Week 1-14): Students engaged in cross-institutional peer review via ClickUp, reviewing 2-3 papers from peers from other universities.

Phase 2 (Week 15): An online 23-item questionnaire, adapted from Chiu and Wang [19], was administered through Google Forms, yielding a 100% response rate (N=214).

Phase 3 (Week 16): Semi-structured interviews were conducted with 6 purposively selected students representing a range of English proficiency levels and nationalities, to explore their deeper insights into their experience.

3.3 Data Analysis

Structural Equation Modeling (SEM) was employed to analyze the relationships between the UTAUT constructs and students' behavioral intentions to use ClickUP. The SEM analysis followed a two-step approach, as recommended by Anderson and Gerbing [20], which involved first assessing the measurement model for reliability and validity, followed by evaluating the structural model to test the hypothesized relationships. Additionally, qualitative data from semi-structured interviews were analyzed using thematic analysis [21] to capture students' experiences with this cross-institutional peer review mechanism.

4. Results and Discussion

4.1 Measurement Model

4.1.1. Convergent validity

The evaluation of the measurement model adopts “Confirmatory Factor Analysis” (CFA), which is a component of Structural Equation Modeling (SEM) analysis. The evaluation and refinement of

the CFA measurement model variables in this study were conducted according to the proposed two-stage model. If the fit of the measuring model is acceptable, the analysis can proceed to the complete SEM model.

The measurement model was estimated by the most probable likelihood method, and the estimated parameters included unstandardized and standardized factor loadings, multivariate correlation square, composite reliability, average variance extraction, standard error, and significance tests. A good measurement model should demonstrate both convergent validity and discriminant validity. According to Fornell and Larcker [22], the criteria for convergence validity are as follows:

(1). Unstandardized factor loadings are positive and significant (P<0.05);

(2). Standardized factor loadings are positive and greater than 0.5;

(3). Composite Reliability (CR)>0.60;

(4). Average Variance Extracted (AVE) >0.36 acceptable, >0.50 is ideal.

Ideally, standardized factor loadings should exceed 0.7, although values above 0.6 are generally considered acceptable. Consequently, squared multiple correlations (SMC) should ideally exceed 0.5, with 0.36 serving as the acceptable minimum threshold.

This study examined six main constructs from the UTAUT model: performance expectancy (PE), effort Expectancy (EE), facilitating conditions (FC), anxiety (ANX), attitude towards using technology (ATUT), and behavioral intention (BI) to use ClickUp. As shown in Table 1, the standardized factor loading ranged from 0.662 to 0.949, which fall within acceptable ranges, indicating adequate item reliability (>0.36); The composite reliability values of the study dimensions ranged from 0.871 to 0.95, all exceeding the recommended threshold of 0.7, indicating good internal consistency. The AVE values ranged from 0.604 to 0.876, all above 0.5. According to the criteria proposed by Fornell and Larcker [22], each construct demonstrates good convergence validity.

Table 1. The analysis of measurement model results

Construct	**Item**	**Significance of estimated parameters**				**Item Reliability**		**Construct Reliability**	**Convergence validity**
		Unstd	**S.E.**	**Unstd./S.E.**	***p*-value**	**Std.**	**SMC**	**CR**	**AVE**
PE	PE1	1.000				0.850	0.723	0.916	0.731
	PE2	1.145	0.068	16.838	***	0.878	0.771		
	PE3	1.040	0.061	17.135	***	0.887	0.787		
	PE4	0.978	0.068	14.450	***	0.802	0.643		
EE	EE1	1.000				0.662	0.438	0.924	0.757
	EE2	1.519	0.129	11.805	***	0.919	0.845		
	EE3	1.605	0.131	12.213	***	0.963	0.927		
	EE4	1.417	0.122	11.649	***	0.904	0.817		
ATUT	ATUT1	1.000				0.844	0.712	0.935	0.782
	ATUT2	1.026	0.058	17.760	***	0.902	0.814		
	ATUT3	1.045	0.058	18.030	***	0.909	0.826		

	ATUT4	0.986	0.058	17.034	***	0.881	0.776		
FC	FC1	1.000				0.934	0.872	0.871	0.633
	FC2	0.883	0.047	18.862	***	0.880	0.774		
	FC3	0.614	0.053	11.659	***	0.669	0.448		
	FC4	0.658	0.057	11.492	***	0.663	0.440		
ANXIETY	AN1	1.000				0.678	0.460	0.856	0.604
	AN2	1.290	0.116	11.081	***	0.871	0.759		
	AN3	1.394	0.124	11.281	***	0.905	0.819		
	AN4	1.195	0.146	8.203	***	0.614	0.377		
BI	BI1	1.000				0.959	0.920	0.955	0.876
	BI2	0.957	0.031	31.055	***	0.949	0.901		
	BI3	0.868	0.035	24.751	***	0.899	0.808		

Unstd.: Unstandardized factor loadings; Std: Standardized factor loadings; SMC: Square Multiple Correlations; CR: Composite Reliability; AVE: Average Variance Extracted.

4.1.2. Discriminant validity

In terms of discriminative validity, this study employed the more rigorous AVE method. Fornell and Larcker [22] pointed out that the discriminant validity should be assessed by simultaneously considering convergent validity and the correlations among constructs. Accordingly, the square root of the AVE for each construct should be greater than the correlation coefficients between that construct and other constructs. Meeting this criterion indicates that the model demonstrates discriminant validity.

As shown in the table below, the square root of AVE of each construct (diagonal elements) in this study is greater than most of the correlation coefficient outside the diagonal. Therefore, the constructs in this study exhibit good discriminant validity.

Table 2. Discriminant validity of measurement models

	AVE	PE	EE	ATUT	FC	ANXIETY	BI
PE	0.731	**0.855**					
EE	0.757	0.671***	**0.87**				
ATUT	0.782	0.892***	0.672***	**0.884**			
FC	0.633	0.554***	0.653***	0.612***	**0.796**		
ANXIETY	0.603	-0.204**	-0.480***	-0.218**	-0.427***	**0.777**	
BI	0.876	0.832***	0.662***	0.884***	0.501***	-0.199**	**0.936**

Note: The items on the diagonal in bold represent the square roots of the AVE; off-diagonal elements are the correlation estimates.

4.2 Structural Model Analysis

Structural Equation Modeling (SEM) was employed to test the hypothesized relationships. Following the recommended two-step approach [20], the measurement model was first verified, followed by the structural model evaluation. Model fit was assessed using multiple indices, including the Chi-square/degree of freedom ratio (χ^2/DF), RMSEA, SRMR, TLI, and CFI. As shown in Table 3, the model fit indices generally meet the acceptable standards in the literature. The χ^2/DF value of 2.736 falls within the ideal range (< 3), and CFI (0.921) and TLI (0.908) are both above the 0.90 threshold. Although RMSEA (0.090) and SRMR (0.109) are slightly above conservative ideals, the overall indices suggest an adequate fit for the research model in a cross-institutional context.

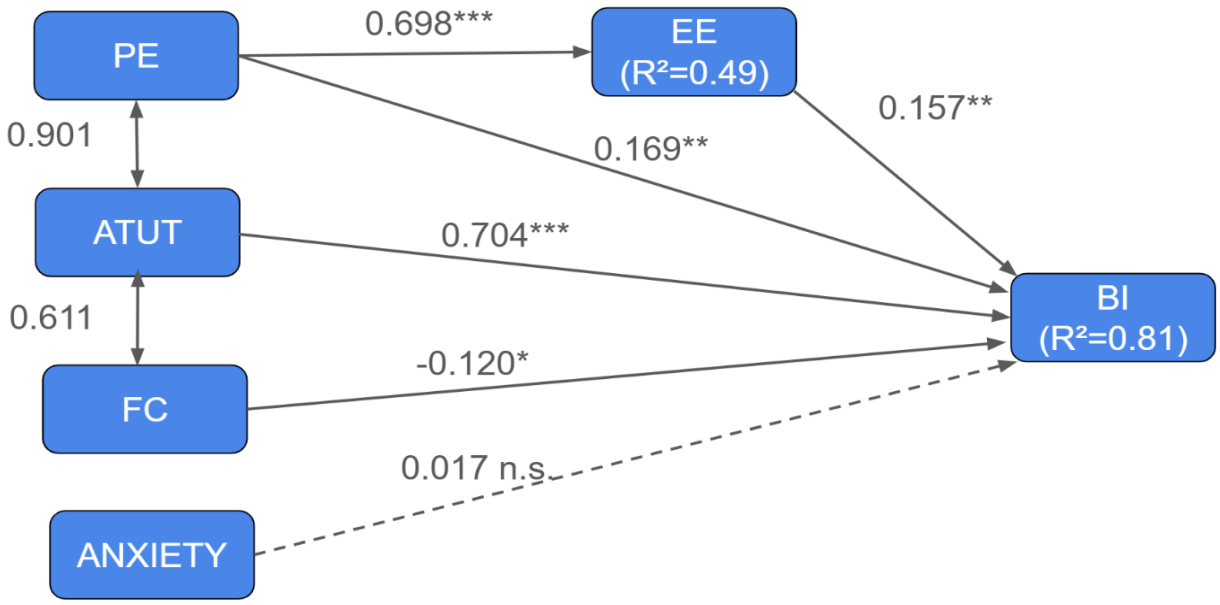

Figure 2. Structural model results

Note: Values on paths are standardized coefficients (β). R^2 indicates the squared multiple correlation (variance explained). PE = Performance Expectancy; ATUT = Attitude towards Using Technology; FC = Facilitating Conditions; EE = Effort Expectancy; BI = Behavioral Intention. ANXIETY path is non-significant (n.s.). *p < .05, **p < .01, ***p < .001.

Table 3. Model fitness

Model fit	**Criteria**	**Model fit of research model**
χ^2	The small the better	596.527
DF	The large the better	218
Normed Chi-sqr (χ^2/DF)	1<χ^2/DF<3	2.736
RMSEA	<0.10	0.090
SRMR	<0.09	0.109
TLI (NNFI)	>0.9	0.908
CFI	>0.9	0.921

Figure 1 and Table 4 illustrate the path coefficients. The results indicate that Attitude toward Using Technology (ATUT) is the strongest predictor of Behavioral Intention (BI) (β=0.834, p<0.001). Effort Expectancy (EE) also significantly predicts BI (β=0.248, p=0.004). Additionally, Facilitating Conditions (FC) show a significant negative influence (β= -0.131, p=0.025). Contrary to the original UTAUT hypotheses, Performance Expectancy (PE) did not have a significant direct effect on BI (β=0.223, p=0.169). However, PE significantly influenced Effort Expectancy (β=0.583, p<0.001). This suggests a "Motivation-Induced Perception" specific to high-stakes EMI projects: when students recognize the high utility of a platform for managing complex logistics (PE), it psychologically reduces their perceived effort (EE), effectively acting as a motivator that makes the interface feel "easier" to navigate. Anxiety (ANX) was not a significant predictor (p=0.696). The model explains 80.5% of the variance in Behavioral Intention (R^2=0.805), indicating a strong explanatory power.

Table 4. Regression coefficient

DV	IV	Unstd.	S.E.	Unstd./S.E.	*p*-value	Std.	R^2
EE	PE	0.583	0.068	8.522	***	0.698	0.488
BI	ATUT	0.834	0.140	5.952	***	0.704	0.805
	ANXIETY	0.026	0.067	0.391	0.696	0.017	
	FC	-0.131	0.058	-2.239	0.025	-0.120	
	PE	0.223	0.162	1.375	0.169	0.169	
	EE	0.248	0.087	2.859	0.004	0.157	

4.3 Qualitative Results

Semi-structured interviews underwent thematic analysis [21] to complement the quantitative findings, revealing three salient themes: platform usability, collaborative dynamics, and task perception.

1. Platform Usability and Skill Enhancement

Participants consistently praised ClickUp's interface design. Taiwanese and Southeast Asian students especially appreciated the platform's language assistance capabilities. For instance, a Taiwanese student noted that "using grammar checking functions helped [me] further improve [my] English." An Indonesia student highlighted the platform's technical reliability, stating that features such as "synchronized editing and version control" allowed the group to "easily revert to a previous version, avoiding data loss." Such feedback corroborates the elevated Effort Expectancy (EE) scores observed quantitatively.

2. Collaborative Dynamics and Challenges

Cross-institutional collaborative experiences elicited both positive evaluations and operational challenges. While some students, such as a participant from the U.S., felt the platform "expanded avenues for communication," logistical hurdles were frequently reported. A Singaporean team leader remarked that "the efficiency and schedule control of the Taiwan team members were not good enough," often resulting in delayed deliverables. Similarly, a German student observed a degree of

"Cultural Reticence" among Taiwanese peers, which led their group to "write our subjects separately" rather than engaging in true co-authoring. This behavior is interpreted as a strategy for "Reflective Observation" and face-saving within Confucian heritage cultures, rather than a lack of engagement.

3. Task Perception

Students perceived cross-institutional peer review as an innovative but cognitively demanding task. Although ClickUp effectively structured the review process, students reported that the cognitive load involved in peer critique required "high self-discipline" to avoid impeding group progress. A Taiwanese student explicitly stated, "The biggest issue is that it is time-consuming and less productive than individual work."

The qualitative data illuminate why Effort Expectancy (EE) and Attitude toward Using Technology (ATUT) significantly predicted Behavioral Intention (BI), while the direct effect of Performance Expectancy (PE) remained non-significant. Temporal demands and coordination complexities in cross-institutional collaboration appear to have diminished perceived efficiency benefits.

4.4 Synthesis Quantitative and Qualitative Results

Integrating SEM findings with qualitative data revealed a coherent pattern: although students acknowledged ClickUp's utility (as evidenced by high PE scores), cross-institutional logistical challenges undermined perceived efficiency gains. This finding contrasts with prior UTAUT studies conducted in single-institution contexts [17,18], in which PE typically serves as a direct predictor of behavioral intention (BI).

Three principal factors explain this divergence:

1. Coordination Overhead: Qualitative data revealed that time zone differences, unequal workload distribution, and communication barriers created friction that offset efficiency gains.

2. Task Novelty: Cross-institutional peer review required students to navigate unfamiliar institutional norms (e.g., citation styles and writing conventions), increasing cognitive load.

3. Cultural Differences: International students noted that Taiwanese peers' "passive" communication style, as observed by a German student, hindered collaborative efficiency.

Conversely, EE's predictive strength stemmed from ClickUp's intuitive interface, which reduced the technical burden of coordination. As one Indonesian student noted, features such as "synchronized editing and version control" provided a safety net that encouraged active participation. These findings suggest that in cross-institutional contexts, perceived ease of use functions as a foundational requirement for engagement, superseding performance-related considerations.

5. Conclusions

This research examined factors influencing students' adoption of ClickUp for cross-institutional peer review within EMI courses. The findings extend the application of the UTAUT model to cross-institutional EMI contexts, revealing context-specific dynamics. Attitude toward Using Technology (ATUT) and Effort Expectancy (EE) emerged as principal determinants of Behavioral Intention, indicating that adoption hinges on favorable technology attitudes and perceived usability. This finding aligns with prior research highlighting the critical role of user-friendliness in e-learning adoption [23], [24], [25].

Contrary to the original UTAUT model [16], Performance Expectancy (PE) failed to directly predict Behavioral Intention (BI). From the perspective of Collaborative Cognitive Load Theory, this suggests that in demanding EMI settings, students prioritize "ease over efficiency." When the cognitive cost of navigating a tool is perceived as high, performance benefits become secondary to the immediate need for psychological comfort and reduced mental effort. In other words, although students acknowledged ClickUp's utility, reflected in PE's significant effect on EE, this recognition did not directly influence adoption intentions. Qualitative evidence indicates that cross-institutional coordination difficulties, including temporal constraints and interpersonal dynamics, attenuated perceived efficiency advantages.

5.1 Pedagogical Implications

The findings provide practical guidance for educators integrating OCPs into EMI curricula. Given that Attitude toward Using Technology (β=0.834) and Effort Expectancy (β=0.248) strongly predicted behavioral intention (BI), usability should constitute the foremost selection criterion for collaborative technologies in EMI contexts. Educators are encouraged to pilot platform usability prior to deployment, scaffold feature introduction, and provide dedicated technical assistance to mitigate technology anxiety and facilitate adoption.

A counterintuitive finding is that Performance Expectancy (PE) failed to directly predict behavioral intention (BI), despite students' acknowledgment of ClickUp's utility. Qualitative data suggest that cross-institutional coordination complexities offset perceived efficiency gains. To address this issue, instructors may mitigate coordination challenges by: (1) establishing pre-collaboration protocols with clearly defined roles, (2) implementing incremental deadlines to enhance accountability (e.g., Days 1-3: introduction review; Days 4-6: methodology assessment), and (3) providing exemplar feedback and rubrics to support culturally-sensitive peer critique.

5.2 Limitation and Future Work

Despite yielding important findings regarding ClickUp adoption in EMI contexts, several limitations should be acknowledged.

1. *Sample and Context Limitation*

Data were collected from 214 undergraduates across five Taiwanese universities enrolled in a "Religions in Taiwan" EMI course, potentially limiting generalizability to other disciplines (e.g., engineering, business) or cultural settings. Future research should expand the sample to include diverse EMI disciplines to validate the model's broader applicability.

2. Methodological Limitation (Cross-sectional Design)

The cross-institutional design, with data collected at semester's end, precluded examination of temporal changes in English proficiency or behavioral intentions. Longitudinal studies could provide insight into how platform acceptance evolves as students gain familiarity with technological features over time.

3. Challenges in Cross-Institutional Collaboration

Qualitative data revealed temporal management and interpersonal challenges inherent in cross-institutional collaboration. These logistical challenges likely influenced perceived performance expectancy (PE), rendering its direct effect on behavioral intention insignificant in the proposed

model. Future studies could examine targeted pedagogical strategies (e.g., synchronized scheduling or pre-collaboration rapport-building activities) to address coordination barriers.

Finally, as this study focused exclusively on ClickUp, comparative research examining alternative platforms (e.g., Google Docs, Trello, or Notion) could identify which platform features- such as synchronous editing versus task management- most effectively support EMI learning outcomes. Further investigation into the observed negative Facilitating Conditions may also elucidate how technology acceptance varies under demanding collaborative conditions.

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Conflicts of Interest

The author confirms that there are no conflicts of interest.

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