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Effects of Instructional Message Tone on Student Participation in Philippine Online Learning: A Quasi-Experimental Study

Mhel Cedric D. Bendo

Abstract: This study examines the association between invitation message tone and student participation in digitally mediated learning environments. Using a field-based quasi-experimental design, 40 students in the Philippines were assigned through an alternating allocation procedure to receive either a formal, context-rich invitation or a brief informal message directing them to the same online task. Participation was measured through link activation, task completion, and response timing using automated digital tracking. Results showed higher completion rates and faster response patterns in the formal message condition. Completion reached 100% in the formal condition compared to 50% in the informal condition ($\chi^2(1, N = 40) = 13.33$, $p < .001$, $V = .58$). These findings show that message structure is associated with how learners respond to academic requests in digitally mediated environments. While limited by a small sample size and context-specific design, the study provides applied evidence consistent with principles of transactional distance and teaching presence. The findings suggest that low-effort improvements in communication design may support participation in asynchronous open and distance learning systems.

Keywords: instructional communication, message tone, student participation, online learning environments, open and distance learning, digital communication, response patterns, asynchronous learning, Philippines, survey participation

Highlights

What is already known about this topic:

- Message design influences response behavior in digital and survey contexts.
- Structured and credible messages are associated with higher response rates.
- Participation in ODL depends on clarity of communication and instructional cues.

What this paper contributes:

- Provides field-based evidence linking message tone to actual participation behavior.
- Demonstrates differences in task completion and response timing using real communication settings.
- Extends communication research into authentic ODL environments rather than simulated contexts.

Implications for theory, practice and/or policy:

- Highlights message structure as a practical tool for improving participation in ODL systems.
- Supports transactional distance and teaching presence through applied communication design.
- Suggests low-cost communication strategies for institutions using digital messaging platforms.

Introduction

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Open and distance learning (ODL) environments increasingly rely on digital communication to support student participation (Boz, 2025). As academic activities shift toward remote and asynchronous formats, messaging platforms such as learning management systems and social media channels have become primary tools for initiating engagement. In these contexts, invitation messages function not only as administrative notices but also as signals of instructional relevance, influencing whether students initiate, delay, or disregard academic tasks. This is particularly evident in the Philippine educational context, where mobile messaging platforms are widely used for academic coordination across secondary and higher education settings.

Research in survey methodology and digital communication shows that message design is associated with response behavior. Features such as tone, structure, clarity, and contextual detail influence how recipients interpret the importance and credibility of a message in digitally dense environments. Within educational settings, participation is reflected through observable behaviors such as task initiation and completion. In notification-rich systems, students often make rapid decisions about whether a message requires immediate attention, reflecting patterns of fragmented attention in digitally dense environments (Bendo, 2026; Metzger & Flanagin, 2015).

Despite this evidence, limited research has examined invitation message tone within authentic educational communication contexts, particularly in ODL environments where informal messaging platforms are commonly used. Prior studies have primarily focused on response rates or incentives rather than observable participation behavior in real-world learning settings. This creates a gap in understanding how message structure relates to actual engagement outcomes during task initiation.

This study addresses this gap by examining whether invitation message tone is associated with participation outcomes in a digitally delivered academic task. Specifically, it compares a formal, context-rich message with a brief, low-context informal message delivered through personal messaging platforms.

By employing a field-based quasi-experimental design, the study provides applied evidence on how communication structure is associated with participation behavior in ODL environments. The findings offer practical implications for educators and researchers who rely on digital communication to support engagement. Given the widespread use of messaging platforms in the Philippines and across Southeast Asian learning contexts, the results contribute contextually grounded insights into communication practices in digitally mediated education.

Literature

Student Engagement in Open and Distance Learning

Student participation in educational contexts is commonly reflected through observable behaviors such as task initiation, persistence, and completion (Fredricks et al., 2004). Recent work also highlights that engagement in online environments is shaped by communication, interaction, and instructional design (Bağrıaçık Yılmaz & Ak, 2025). In digitally mediated environments, these behavioral indicators provide direct evidence of how learners respond to academic requests delivered through communication technologies. Recent work in online learning analytics further emphasizes behavioral engagement as a key indicator of participation in asynchronous environments, where interaction is often initiated through system notifications and messaging tools (Martin et al., 2020; Bond et al., 2020).

Open and distance learning (ODL) operates under conditions of physical and transactional separation between instructors and learners. Transactional Distance Theory highlights that, in such contexts, clarity of structure and communication plays a central role in guiding learner behavior (Moore, 1993; Huang et al., 2020). Similarly, the Community of Inquiry framework positions teaching presence as partly enacted

through the design and organization of instructional communication (Garrison et al., 2000; Martin et al., 2020). In asynchronous environments where brief written messages often substitute for direct interaction, message design may therefore influence whether learners interpret a task as relevant and act upon it.

As ODL systems increasingly rely on messaging platforms such as learning management systems, mobile applications, and social messaging tools, invitation messages have become a primary mechanism for initiating participation. However, empirical research examining how variations in message tone and structure influence actual behavioral outcomes in authentic educational settings remains limited.

Digital Communication, Heuristic Processing and Credibility

In digitally dense environments, learners are exposed to a high volume of competing messages, requiring rapid evaluation of relevance and urgency. Under these conditions, individuals often rely on heuristic processing to make quick decisions about whether to engage with a message (Metzger & Flanagin, 2015; Kim & Sundar, 2016). More recent studies on mobile and platform-based communication suggest that message clarity, structure, and perceived credibility significantly influence response behavior in notification-driven environments (Niemi & Knopp, 2020; Lukyanenko et al., 2022).

Structured messages containing clear purpose statements, contextual information, and explicit expectations are more likely to be interpreted as credible and actionable. In contrast, low-context or ambiguous messages may be deprioritized or ignored, particularly in environments characterized by high notification volume and attention fragmentation (Bendo, 2026). Research on mobile learning and messaging platforms (e.g., WhatsApp and LMS notifications) further indicates that message design influences engagement by shaping perceptions of importance and instructional legitimacy (Tang et al., 2021; Al-Samarraie et al., 2023).

Message Framing and Participation Behavior

Survey methodology and communication research consistently demonstrate that message framing is associated with response likelihood. Structured invitations that clearly communicate purpose, expectations, and relevance are associated with higher response rates compared to minimal or ambiguous requests (Dillman et al., 2014; Bosnjak et al., 2020; Couper et al., 2017). More recent studies confirm that digital message design—including tone, personalization, and contextual richness—affects participation across online platforms and mobile-based surveys (Keusch, 2021; Antoun et al., 2022).

Behavioral research also shows that unclear or low-context prompts are more likely to be delayed or ignored in digitally mediated environments (Rosen et al., 2014). In contrast, messages that provide clear instructional cues are more likely to trigger immediate task initiation. Within ODL systems, where messaging platforms frequently replace formal instructional channels, these differences in message design may translate into observable differences in participation behavior.

Despite this body of work, most prior studies focus on response rates or methodological efficiency rather than examining behavioral outcomes such as task initiation timing and completion in authentic educational contexts. Limited research has directly examined whether invitation message tone is associated with participation behavior within real-world ODL communication environments.

Synthesis and Hypothesis Development

Taken together, prior research indicates that communication structure, clarity, and contextual detail are associated with response behavior in digital environments. Theoretical perspectives from transactional distance and teaching presence suggest that structured communication reduces ambiguity and supports

learner action in mediated settings. At the same time, communication and survey research demonstrate that message framing influences whether individuals respond to requests.

However, a gap remains in understanding whether these principles extend to invitation message tone within authentic ODL communication contexts, particularly when messages are delivered through informal digital platforms.

Based on this synthesis, the present study examines whether differences in invitation message tone—operationalized as structured, context-rich versus brief, low-context messages—are associated with observable differences in participation behavior.

Accordingly, the study tests the following hypotheses:
H1: Participants receiving a formal, context-rich invitation will show higher task completion rates than those receiving an informal invitation.
H2: Participants receiving a formal, context-rich invitation will demonstrate faster response timing and higher task initiation than those receiving an informal invitation.

Objectives

This study examines whether invitation message tone is associated with participation outcomes in a digitally delivered educational task. Specifically, the study compares a formal, context-rich message with a brief, low-context informal message delivered through personal digital messaging platforms.

Research Questions

RQ1: Does invitation message tone affect students' task completion in a digitally mediated educational context?
RQ2: Does invitation message tone affect students' response timing and task initiation behavior?

Theoretical Background

This study draws on Transactional Distance Theory and the Community of Inquiry (CoI) framework to interpret how message structure is associated with participation behavior in digitally mediated environments. The study applies these frameworks at the level of instructional message design rather than extending them.

From a transactional distance perspective, communication structure reduces ambiguity in mediated contexts. In this study, a formal, context-rich invitation operationalizes higher structure by explicitly stating purpose, expected action, and task relevance, whereas a brief informal message provides minimal contextual cues. Differences in participation behavior are therefore examined in relation to variation in message clarity and structure (Moore, 1993; Moore & Kearsley, 2012; Huang et al., 2020).

Within the CoI framework, teaching presence is partly enacted through the design and organization of communication. In messaging-based environments, the invitation message functions as a minimal unit of instructional design. A structured message may signal instructional intent and task legitimacy, whereas a low-context message may not sufficiently establish instructional presence. The study examines whether such differences in message design are associated with observable response patterns (Garrison et al., 2000; Garrison, 2017; Martin et al., 2020).

The study is positioned as exploratory and applied. It does not propose a new theoretical model but provides empirical evidence on how established principles of structure and instructional communication are reflected in everyday messaging practices in open and distance learning contexts.

Methodology

Research Design

This study employed an exploratory field-based quasi-experimental design to examine the association between invitation message tone and participation outcomes within a digitally mediated educational context. The study was conducted under natural communication conditions to capture authentic participation responses while avoiding laboratory-induced behavior.

The design aligns with methodological approaches used in applied open and distance learning (ODL) research that examine participation patterns within institutional communication environments (Moore, 1993; Garrison et al., 2000). Participation outcomes were operationalized through observable indicators—task initiation, task completion, and response timing.

A two-group between-subjects structure was implemented. The independent variable was invitation message tone (formal vs. informal), while the dependent variables included task initiation (link activation), task completion (survey submission), and response timing. Both groups received the identical survey link; only message framing differed.

Population and samples

The participants consisted of 40 students in the Philippines who were actively engaged in digitally mediated academic communication, including messaging platforms used for coursework coordination, announcements, and academic requests. The sample comprised 15 college students, 15 senior high school students, and 10 secondary (high school) students, reflecting heterogeneous communication conditions typical of open and distance learning (ODL) environments. Participants were recruited through existing academic networks, including class groups, peer referrals, and institutional communication channels, to approximate authentic digitally mediated communication contexts.

Participant demographic characteristics were recorded to contextualize the sample. Participants ranged from approximately 12 to 24 years old and included both male (n = 25) and female (n = 15) students. The sample consisted of secondary, senior high school, and college students. All participants had prior experience with digitally mediated learning environments and were familiar with messaging-based academic communication.

Table 1. Demographic Profile of Participants (N = 40)

Variable	Category	n
Gender	Male	25
	Female	15
Age Group	12–16 (Secondary)	10
	17–20 (Senior High)	15
	21+ (College)	15
Education Level	Secondary	10
	Senior High	15
	College	15
Prior Online Learning Experience	Yes	40

Note. Demographic variables were not included in inferential analysis, as the study focused on message tone as the primary factor associated with participation outcomes.

Participants were assigned to experimental conditions using a structured alternating allocation procedure to ensure balanced group sizes (n = 20 per condition). Specifically, participants were assigned sequentially to each condition (e.g., every other participant) at the point of message

distribution. This approach was implemented to maintain procedural consistency and group balance under natural field conditions where full randomization was not feasible. While this method reduces allocation imbalance, it does not constitute true random assignment; therefore, the study is appropriately classified as quasi-experimental, and findings are interpreted as associational rather than causal (Shadish et al., 2002; Steiner et al., 2019). While this procedure ensured balanced group sizes, it does not eliminate potential allocation bias, and baseline equivalence cannot be fully assumed.

To support baseline comparability, participants were drawn from similar digitally engaged student populations across educational levels and shared comparable exposure to messaging-based academic communication. All participants received the same task, platform, and delivery conditions, with invitation message tone constituting the only manipulated variable. Participants were not drawn from a single class or course but from multiple academic contexts, thereby enhancing ecological validity while still reflecting realistic communication environments. However, because recruitment relied on existing academic networks, the possibility of selection bias cannot be fully excluded, and this should be considered when interpreting the findings.

The sample size (N = 40) was determined based on the study's exploratory field-based design and its focus on detecting large behavioral effects. An a priori power analysis was conducted for a 2×2 chi-square test of independence assuming a large effect size ($w = .50$), a significance level of $\alpha = .05$, and 1 degree of freedom. Under these assumptions, a total sample size of 40 yields an estimated statistical power of approximately .80, which meets commonly accepted thresholds for statistical adequacy in detecting large effects in behavioral research (Lakens, 2022). This approach is consistent with applied communication and survey methodology research that employs modest sample sizes to identify substantial behavioral differences in naturalistic field settings (Conrad et al., 2017).

Given the small sample size, statistical estimates derived from categorical analyses should be interpreted with caution. In particular, chi-square statistics in 2×2 designs are sensitive to variations in observed cell frequencies, and small changes in individual cases may influence test outcomes (McHugh, 2013). Accordingly, the study is positioned as exploratory, and findings should be interpreted as indicative rather than population-level estimates.

Research instrument

The study utilized digitally mediated tracking and survey instruments to measure participation outcomes. Data were collected using an online questionnaire administered through Google Forms, which automatically recorded submission status and timestamp data for objective measurement of task completion and response timing.

Two invitation messages were developed for the experimental manipulation: a formal, context-rich invitation containing a clear purpose, assurance of anonymity, and estimated completion time, and a brief informal message with minimal contextual detail. Both groups received the same survey link; only message tone differed.

The survey task consisted of a brief, standardized academic questionnaire containing neutral, non-sensitive items designed to require minimal completion time. The content was kept consistent across all participants to ensure that task characteristics did not differentially influence response behavior. Participation was entirely voluntary and not associated with any academic requirement, grading component, or course obligation, allowing observed responses to reflect natural engagement patterns rather than compliance-driven behavior (Dillman et al., 2014).

Participation outcomes were operationalized using three indicators: task initiation (link activation), task completion (survey submission), and response timing categorized as immediate, within 24 hours, after

reminder, or non-response. Link activation was recorded through a shortened URL tracking system, while task completion and timing were captured through automated system logs and timestamps. Cases of link activation without completion were retained and categorized accordingly.

Message distribution logs documented the timing and delivery of invitation messages to ensure procedural consistency across conditions. All indicators were recorded through automated systems, minimizing manual error.

Ethical safeguards were embedded within the survey interface. Informed consent was presented at the beginning of the questionnaire, and participation required active agreement prior to proceeding. No personally identifiable information was collected, and responses were anonymized in accordance with ethical standards for minimal-risk online research (Buchanan & Zimmer, 2021). The study was conducted under natural communication conditions to capture authentic participation responses while maintaining experimental control (Moore & Kearsley, 2012).

Collection of data

Data collection followed a structured digital procedure consistent with established practices in open and distance learning (ODL) research (Dillman et al., 2014). Invitation messages were distributed individually through a widely used social messaging platform to reflect typical communication practices in digitally mediated learning environments.

Participants were assigned to either the formal or informal message condition using an alternating allocation procedure to ensure balanced group distribution. Each participant received a single invitation directing them to the same online survey. Message delivery timing and sequencing were controlled through distribution logs to maintain consistency across conditions.

Upon receiving the invitation, participants independently decided whether to initiate the task. Link activation, survey completion, and response timing were automatically recorded through the integrated tracking systems. No follow-up prompts were issued prior to the reminder phase, allowing natural variation in response behavior to be observed.

All other conditions, including survey content, platform, and delivery timing, were held constant. Invitation message tone and contextual richness constituted the sole manipulated variable, thereby supporting internal validity and enabling interpretation of observed differences in participation outcomes.

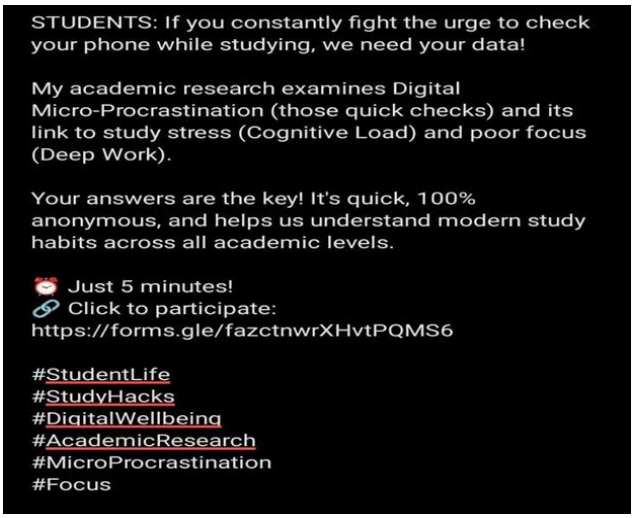

Figure 1 Formal invitation message used during recruitment

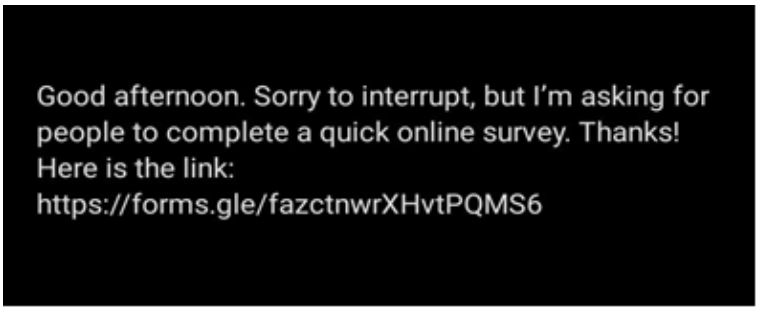

Figure 2 Informal invitation message used during recruitment.

Data analysis

Descriptive and inferential statistical analyses were conducted to examine differences in engagement behavior across invitation message conditions. Frequencies and percentages were computed for task initiation, task completion, and response timing within each experimental group.

To test the hypothesized association between invitation message tone and task completion, a Chi-Square (χ^2) Test of Independence was performed. The use of chi-square analysis was appropriate given the categorical nature of both the independent variable (message condition: formal vs. informal) and the dependent variable (completion: completed vs. not completed) (Field, 2018). Statistical significance was evaluated at $\alpha = .05$.

Expected cell frequencies were examined to verify assumptions for the chi-square test, and all counts met recommended thresholds (McHugh, 2013). Given the small sample size, Fisher's Exact Test was additionally conducted as a robustness check, yielding consistent results ($p < .001$).

Effect size was calculated using Cramér's V to determine the magnitude of association between invitation tone and behavioral engagement. Reporting both significance and effect size strengthened interpretation by allowing assessment of practical significance in addition to statistical significance (Cohen, 1988; Lakens, 2013).

Measurement reliability was supported by automated digital tracking of link activation and questionnaire submission. Internal validity was maintained by keeping survey content, distribution platform, survey link, and delivery timing identical across conditions. Because participants were allocated using an alternating assignment procedure rather than full randomization, causal inference should be interpreted cautiously. Confidence intervals for key estimates (risk difference and relative risk) were computed to support interpretation of effect magnitude and precision.

Limitations

Although the observed association between invitation tone and completion behavior was large, the modest sample size limits generalizability, and findings should be interpreted as indicative rather than population-representative. The study was conducted within a single national context (Philippines), and findings should be confirmed across larger samples, diverse institutional settings, and varied cultural contexts to establish robustness and external validity.

Participants were recruited through academic and professional networks consistent with common recruitment practices in small-scale educational field studies. While this approach reflects realistic research conditions, future research should examine anonymous institutional contexts to better isolate framing effects from interpersonal influences.

The study manipulated only tone and contextual richness. Other design features—such as personalization, visual structure, message length, emoji use, multimedia inclusion, and communication platform—were not systematically examined. Experimental factorial designs would allow researchers to test interaction effects and determine whether formality operates independently or synergistically with other communicative cues.

The study assessed observable behavioral outcomes but did not directly measure perceptual or motivational processes. Understanding how participants interpret requests may require cognitive interviewing approaches (Willis, 2015). Incorporating validated psychometric instruments would enable mediation modeling and strengthen interpretation of the observed behavioral patterns. Finally, the study was conducted via a social messaging platform; effects may differ in institutional email systems, learning management systems, or SMS-based communication. Cross-platform comparison and replication across multiple institutions and diverse ASEAN educational contexts to strengthen regional generalizability.

Findings

Descriptive statistics revealed substantial differences in task completion between the two invitation message conditions. In the formal, context-rich condition, all participants completed the survey (20/20; 100%). In contrast, in the informal, low-context condition, only 10 of 20 participants completed the survey (50%). To examine whether this difference was statistically significant, a Chi-Square Test of Independence was conducted.

Table 2. Task Completion by Message Condition (N = 40)

Outcome	Formal (n = 20)	Informal (n = 20)
Completed	20 (100%)	10 (50%)
Not Completed	0 (0%)	10 (50%)
Total	20 (100%)	20 (100%)

A Chi-Square Test of Independence indicated a statistically significant association between invitation tone and task completion, $\chi^2(1, N = 40) = 13.33$, $p < .001$, Cramér's $V = .58$. The absolute risk difference indicated a 50-percentage-point higher completion probability in the formal condition. Participants receiving the formal invitation were twice as likely to complete the task (RR = 2.00, 95% CI [1.27, 3.15]), with an estimated risk difference of 50 percentage points (95% CI [28%, 72%]).

The effect size ($V = .58$) represents a large association according to conventional benchmarks (Cohen, 1988), indicating a substantial association between invitation message tone and completion behavior. These findings support RQ1 and align with prior research demonstrating that communication structure is associated with response rates (Dillman et al., 2014; Kaplowitz et al., 2004).

From an ODL perspective, the pattern aligns with prior distance education research indicating that clearer instructional communication is associated with higher response rates in mediated environments (Moore, 1993; Garrison et al., 2000).

Table 3. Response Timing by Message Condition (N = 40)

Response Category	Formal (n=20)	Informal (n=20)
Immediate (≤1 hour)	14 (70%)	2 (10%)
Within 24 hours	6 (30%)	3 (15%)
After Reminder	0 (0%)	5 (25%)
Non-response	0 (0%)	10 (50%)

Link activation patterns were consistent with completion outcomes. All participants in the formal condition activated the survey link and completed the task. In the informal condition, non-completion

included both non-activation and activation without submission. These cases were retained and categorized within response timing patterns, allowing differentiation between initial engagement and full task completion.

Response timing further differentiated the two conditions. In the formal condition, 70% of participants responded within one hour and the remaining 30% responded within 24 hours, with no reminders required. In contrast, in the informal condition, only 10% responded within one hour, while 50% did not respond.

These differences indicate that invitation tone was associated not only with completion outcomes but also with response timing, supporting RQ2 and aligning with prior communication research (Petty & Briñol, 2012). In digitally dense contexts characterized by high notification volume (Metzger & Flanagin, 2015), structured invitations provide clearer contextual cues and are associated with more immediate responses, whereas brief informal messages are more likely to be delayed or ignored (Rosen et al., 2014).

Discussion

Interpretation of Findings

This study examined whether invitation message tone is associated with participation behavior in digitally mediated tasks within open and distance learning contexts. Formal, context-rich invitations were associated with higher completion rates and faster response timing compared with brief informal messages, despite identical task content and delivery conditions.

Taken together, the findings indicate that subtle variations in message structure were associated with substantial differences in participation behavior. The large observed association (Cramér's V = .58) suggests that message structure functioned as a meaningful communication feature rather than a superficial stylistic variation.

Because both groups received identical task content, timing, and platform conditions, the observed differences are associated with the form of the invitation message. In open and distance learning environments where written communication frequently substitutes for direct instructor interaction, message design is related to how quickly learners respond and whether they complete a requested activity.

Beyond this behavioral pattern, the findings may be explained by how individuals process information in digitally dense environments. Structured, context-rich messages likely reduced ambiguity by clearly signaling purpose, expected action, and task relevance. This may have enabled faster decision-making under conditions of fragmented attention, where individuals rely on readily interpretable cues to determine message importance (Metzger & Flanagin, 2015). In contrast, brief informal messages may have required additional interpretation, increasing the likelihood of delay or non-response.
The results therefore demonstrate a behavioral difference linked to message format, while the underlying psychological processes remain open to interpretation. Rather than identifying a single cognitive mechanism, the study provides applied evidence that communication structure is associated with participation behavior during digitally mediated task initiation.

Relation to Distance Education Theory

The findings provide applied evidence consistent with established distance education theory and prior work in Asian open and distance learning contexts (Boz, 2025). Within mediated learning environments, clearly structured written communication may function as part of instructional organization, influencing

whether learners initiate and complete activities when direct instructor interaction is absent. The results illustrate how small variations in message design are associated with observable participation differences at the point of task invitation.

These findings align with survey methodology and digital communication research, which shows that structured and context-rich requests are associated with higher response behavior (Dillman et al., 2014; Antoun et al., 2022). Unlike prior studies that primarily examine response rates, the present study demonstrates observable behavioral differences in both completion and response timing within an authentic educational context.

Rather than proposing a new engagement model, the study demonstrates how existing concepts such as instructional structure and teaching presence may be reflected in everyday communication practices in distributed learning systems. Minor refinements in message clarity and contextual framing may serve as practical participation supports without requiring additional technological or instructional resources.

Contextual and Structural Considerations

The Philippine context may also influence the observed patterns. In educational settings where formal and respectful communication is commonly associated with institutional authority, context-rich messages may be more readily interpreted as legitimate academic requests. This may increase responsiveness, particularly when messages resemble instructor-initiated or institutionally framed communication.

At the same time, participation behavior in digitally mediated environments may be influenced by structural factors such as device access, connectivity conditions, and notification overload. While all participants had prior experience with digital learning platforms, differences in attention availability and access conditions may still shape how messages are interpreted and acted upon. These contextual factors should be considered when interpreting the findings and may warrant further investigation in future studies.

Alternative Explanations

Although the observed differences in participation behavior are consistent with the interpretation that structured invitation framing conveyed academic clarity within a mediated learning environment, alternative explanations should also be considered. Behavioral responses to digital invitations may arise from multiple overlapping influences rather than a single psychological process.

Participants may have responded to authority-related cues rather than instructional clarity alone. Formal language and explicit academic context can signal institutional origin, which may encourage compliance independent of perceived task value (Cialdini, 2007). The use of personal messaging channels may also introduce relational expectations, leading recipients to respond based on social norms such as reciprocity or avoidance of social discomfort rather than evaluation of the activity itself. In addition, politeness conventions in written communication may influence cooperation, as context-rich and respectful requests increase response behavior in computer-mediated settings (Niemi & Knopp, 2020). Curiosity effects may also contribute, since messages containing additional contextual detail can attract attention and prompt exploratory interaction rather than deliberate academic participation.

Taken together, these possibilities indicate that invitation framing is associated with observable participation differences, while the underlying psychological pathway remains uncertain. Future research incorporating perceptual or motivational measures across larger and more diverse samples would help clarify these processes and determine their generalizability across open and distance learning environments.

Practical Implications for Open and Distance Learning

In distributed learning environments, written communication frequently substitutes for direct interaction. The findings indicate that relatively small changes in invitation framing are associated with substantial variation in participation behavior in digitally mediated contexts. Low-context invitations may be overlooked more frequently than messages that clearly communicate purpose, expected action, and contextual grounding.

Refining invitation framing represents a low-cost, scalable strategy to improve participation. Enhancing contextual clarity, articulating purpose, and maintaining professional tone require no additional technological infrastructure yet may improve initiation and completion rates. Instructors may improve response rates to announcements or activity reminders by briefly clarifying task relevance and expected time commitment within the initial message.

Beyond individual communication practices, the findings also carry system-level implications. As ODL institutions increasingly rely on decentralized and multi-platform communication channels, variability in invitation tone may unintentionally produce uneven participation patterns. Establishing communication guidelines that emphasize clarity and contextual grounding may help reduce avoidable non-response in distributed educational environments.

From a technological perspective, learning management systems and mobile messaging platforms may benefit from notification formats that specify origin, intent, and expected action. Such adjustments require minimal resources yet may support more consistent participation behavior in asynchronous learning settings.

Recommendations

i. Educators using digitally mediated communication in open and distance learning environments may consider structuring invitation messages to clearly communicate purpose, expected action, and contextual relevance. Briefly identifying the academic origin of the request and estimated completion time may support task initiation and completion.
ii. Institutions may develop communication guidelines that emphasize clarity and contextual grounding in student notifications across learning management systems and messaging platforms. Standardized notification formats indicating intent and expected response may help reduce avoidable non-response.
iii. Future research may examine invitation framing across larger and more diverse samples, including institutional communication channels such as email and learning management systems. Studies incorporating perceptual and motivational measures may further clarify the mechanisms underlying participation behavior.
iv. Experimental designs testing additional message features—such as personalization, visual structure, and multimedia elements—may help determine how communication characteristics interact to influence participation in digitally mediated learning environments.

Conclusion

This study examined whether invitation message tone is associated with participation behavior in a digitally mediated educational context. Structured, context-rich messages were linked to higher completion rates and faster response timing than brief, low-context messages. These findings indicate that message design functions as a low-cost, scalable intervention for supporting participation in open and distance learning. Small improvements in clarity, structure, and contextual framing can influence how learners interpret and act on academic requests without requiring additional technology or complex instructional changes. This provides applied evidence that communication structure is a meaningful

factor in participation outcomes, consistent with principles of transactional distance and teaching presence. The study is limited by its modest sample size and context-specific implementation. Future research may extend these findings across platforms, populations, and message variations, and examine longer-term engagement patterns.

References

Antoun, C., Couper, M. P., & Conrad, F. G. (2022). Effects of mobile survey design on survey participation. Social Science Computer Review, 40(2), 368–386. https://doi.org/10.1177/0894439320944139

Al-Samarraie, H., Teng, B. K., Alzahrani, A. I., & Alalwan, N. (2023). Mobile learning adoption and engagement: A systematic review. Education and Information Technologies, 28, 12345–12370. https://doi.org/10.1007/s10639-022-11273-5

Bağrıaçık Yılmaz, A., & Ak, Ş. (2025). Factors affecting online synchronous course engagement: The students' perspective. Asian Journal of Distance Education, 20(2),91-106. https://doi.org/10.5281/zenodo.17519297

Bendo, M. C. D. (2026). Attention Fragmentation in Digital Learning Environments: Micro-Procrastination, Cognitive Load, and Deep Work Across Educational Levels. Journal of Research, Innovation, and Strategies for Education (RISE), 3(6), 1-16. https://doi.org/10.70148/rise.v3i4.1

Bond, M., Bedenlier, S., Marín, V. I., & Händel, M. (2020). Emergency remote teaching in higher education: Mapping the first global online semester. International Journal of Educational Technology in Higher Education, 17(1), 44. https://doi.org/10.1186/s41239-020-00282-x

Bosnjak, M., Neubarth, W., Couper, M. P., Bandilla, W., & Kaczmirek, L. (2020). Effects of prepaid and promised monetary incentives on participation in online panels. Field Methods, 32(1), 39–54. https://doi.org/10.1177/1525822X19886062

Boz, D. & Uçar, H. (2025). Humanizing online teaching: Bringing the distant near. Asian Journal of Distance Education, 20(1),36-48. https://doi.org/10.5281/zenodo.14554012

Buchanan, E., & Zimmer, M. (2021). Internet research ethics. In E. N. Zalta (Ed.), The Stanford Encyclopedia of Philosophy. Stanford University Press. https://plato.stanford.edu/archives/sum2021/entries/ethics-internet-research/

Cialdini, R. B. (2007). Influence: The psychology of persuasion. Harper Business.

Conrad, F. G., Kreuter, F., & Vannette, D. L. (2017). Responsive survey design and adaptive survey design. In C. Wolf, D. Joye, T. W. Smith, & Y. Fu (Eds.), The SAGE handbook of survey methodology (pp. 581–600). SAGE.

Couper, M. P., Antoun, C., & Mavletova, A. (2017). Mobile web surveys: A total survey error perspective. In P. P. Biemer et al. (Eds.), Total survey error in practice (pp. 133–154). Wiley. https://doi.org/10.1002/9781119041702.ch7

Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). Internet, phone, mail, and mixed-mode surveys: The tailored design method (4th ed.). Wiley.

Edwards, P. J., Roberts, I., Clarke, M. J., DiGuiseppi, C., Pratap, S., Wentz, R., & Kwan, I. (2002). Increasing response rates to postal questionnaires: Systematic review. BMJ, 324, 1183–1187. https://doi.org/10.1136/bmj.324.7347.1183

Garrison, D. R. (2017). E-learning in the 21st century: A community of inquiry framework for research and practice (3rd ed.). Routledge. https://doi.org/10.4324/9781315667263

Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education. The Internet and Higher Education, 2(2–3), 87–105. https://doi.org/10.1016/S1096-7516(00)00016-6

Groves, R. M., Fowler, F. J., Couper, M. P., Lepkowski, J. M., Singer, E., & Tourangeau, R. (2009). Survey methodology (2nd ed.). Wiley.

Huang, R., Spector, J. M., & Yang, J. (2020). Educational technology: A primer for the 21st century. Springer. https://doi.org/10.1007/978-981-15-0618-5

Kaplowitz, M. D., Hadlock, T. D., & Levine, R. (2004). A comparison of web and mail survey response rates. Public Opinion Quarterly, 68(1), 94–101. https://doi.org/10.1093/poq/nfh006

Kaptein, M., & Eckles, D. (2012). Heterogeneity in the effects of online persuasion. Journal of Interactive Marketing, 26(3), 176–188. https://doi.org/10.1016/j.intmar.2012.03.001

Kim, Y., & Sundar, S. S. (2016). Mobile persuasion: Can screen size and presentation mode make a difference to trust? Human Communication Research, 42(1), 45–70. https://doi.org/10.1111/hcre.12065

Keusch, F. (2021). Why do people participate in web surveys? Applying survey participation theories. International Journal of Market Research, 63(2), 224–238. https://doi.org/10.1177/1470785320909988

Lakens, D. (2022). Sample size justification. Collabra: Psychology, 8(1), 33267. https://doi.org/10.1525/collabra.33267

Lukyanenko, R., Parsons, J., & Wiersma, Y. (2022). Emerging perspectives on digital communication and user behavior. Information Systems Journal, 32(1), 1–18. https://doi.org/10.1111/isj.12345

Martin, F., Wang, C., & Sadaf, A. (2020). Student perception of helpfulness of facilitation strategies that enhance instructor presence. The Internet and Higher Education, 44, 100709. https://doi.org/10.1016/j.iheduc.2019.100709

McHugh, M. L. (2013). The chi-square test of independence. Biochemia Medica, 23(2), 143–149. https://doi.org/10.11613/BM.2013.018

Moore, M. G., & Kearsley, G. (2012). Distance education: A systems view of online learning (3rd ed.). Wadsworth.

Moore, M. G. (1993).Theory of transactional distance. In D. Keegan (Ed.), Theoretical principles of distance education (pp. 22–38). Routledge.

Metzger, M. J., & Flanagin, A. J. (2015). Psychological approaches to credibility assessment online. In S. Sundar (Ed.), The handbook of the psychology of communication technology (pp. 445–466). Wiley. https://doi.org/10.1002/9781118426456.ch20

Nguyen, D. T., & Fussell, S. R. (2015). Effects of message content and style on communication outcomes in mobile text-based messages. Proceedings of the ACM Conference on Human Factors in Computing Systems, 2015, 747–756. https://doi.org/10.1145/2702123.2702496

Niemi, M. K., & Knopp, K. (2020). Politeness and trustworthiness in digital communication. Journal of Language and Social Psychology, 39(5–6), 710–731. https://doi.org/10.1177/0261927X20946412

Petty, R. E., & Briñol, P. (2012). The elaboration likelihood model. In P. A. M. Van Lange, A. W. Kruglanski, & E. T. Higgins (Eds.), Handbook of theories of social psychology (Vol. 1, pp. 224–245). SAGE.

Rosen, L. D., Lim, A., Carrier, L. M., & Cheever, N. A. (2014). An empirical examination of the educational impact of text message interruptions during college lectures. Educational Psychology, 34(5), 627–637. https://doi.org/10.1080/01443410.2014.891160

Sundar, S. S., & Nass, C. (2001). Conceptualizing sources in online news. Journal of Communication, 51(1), 52–72. https://doi.org/10.1093/joc/51.1.52

Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. Review of Educational Research, 74(1), 59–109. https://doi.org/10.3102/00346543074001059

Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). Experimental and quasi-experimental designs for generalized causal inference. Houghton Mifflin.

Steiner, P. M., Cook, T. D., Shadish, W. R., & Clark, M. H. (2019). The importance of covariate selection in controlling for selection bias in observational studies. Psychological Methods, 24(6), 770–783. https://doi.org/10.1037/met0000219

Tang, Y., Hew, K. F., & Xie, Y. (2021). Effects of messaging tools on student engagement. Computers & Education, 171, 104223. https://doi.org/10.1016/j.compedu.2021.104223

Tourangeau, R., Brick, J. M., Lohr, S., & Li, J. (2017). Adaptive and responsive survey designs: A review of experiences and applications. Journal of the Royal Statistical Society: Series A, 180(1), 203–227. https://doi.org/10.1111/rssa.12257

Willis, G. B. (2015). Analysis of the cognitive interview in questionnaire design. Oxford University Press.

About the Author(s):

Mhel Cedric D. Bendo; Polytechnic University of the Philippines–Maragondon Campus, Philippines, cedricbends@gmail.com, https://orcid.org/0009-0004-6873-3910

Author's Contributions (CRediT)

Mhel Cedric D. Bendo: Conceptualization, methodology, formal analysis, software, investigation, data curation, validation, visualization, writing—original draft, writing—review and editing. The author has read and agreed to the published version of the manuscript.

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This study is linked to the following SDG(s): Quality education (SDG 4).

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The author declares no competing interests.

Data Accessibility Statement

The data used in this study are not publicly available due to ethical and privacy restrictions related to student coursework.

Ethics and Consent

Informed consent was obtained from all participants prior to data collection. Participation was voluntary, and no personally identifiable information was collected. The study adhered to ethical standards for minimal-risk online research.

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