

Repurposing Telegram as a lightweight LMS for inclusive formative feedback in low-resource ESL contexts

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Background

Formative assessment and feedback are widely recognised as central to effective learning in English as a Second Language (ESL) contexts (Black and Wiliam, 1998; Nicol and Macfarlane-Dick, 2006). However, sustaining formative feedback practices remains challenging in low-resource ESL settings with limited infrastructure, time, professional development and institutional support (Bailey and Christian, 2021; Kayzouri et al, 2020).

In many low-resource ESL contexts, teachers rely on common communication platforms rather than purpose-built LMSs, which present both limitations and opportunities (Bailey and Christian, 2021). Although these platforms lack formal assessment structures, their accessibility, low technical threshold and familiarity to learners make them attractive for ongoing interaction and feedback. Telegram is one such platform that has gained attention in language education research due to its lightweight design and support for features such as channels, polls and automated bots (Kayzouri et al, 2020; Çakmak et al, 2023).

This case study is situated in a low-resource ESL teaching context where access to institutional LMS infrastructure was limited and where both teachers and learners relied primarily on mobile devices for learning-related communication. At this stage, the work represents the design and developmental phase of an ongoing project; implementation, data collection and analysis will follow in subsequent cycles. Learners were adult ESL students at intermediate to upper-intermediate levels from diverse backgrounds. Teaching and assessment activities took place largely outside formal classroom hours, increasing the need for flexible, sustainable feedback mechanisms integrated into routine teaching (Bailey and Christian, 2021).

Within this context, the central challenge was not simply how to deliver feedback digitally, but how to design formative feedback practices that were inclusive, manageable and responsive to learner diversity under constrained conditions. Rather than introducing a new platform or assessment system, the focus of the work was on repurposing Telegram as a lightweight LMS to support formative feedback processes. This involved adapting existing platform features such as polls, channels and messaging functions to serve assessment purposes typically associated with more complex educational systems, while remaining sensitive to access, participation and learner confidence (Kayzouri et al, 2020; Zhao et al, 2022). The work was framed by a combination of formative assessment principles, sociocultural theory and teacher-focused models of pedagogical readiness. Formative assessment principles emphasised feedback as an iterative and dialogic process that supports learner self-regulation (Black and Wiliam, 1998; Nicol and Macfarlane-Dick, 2006).

Sociocultural theory informed attention to mediated interaction and scaffolding in feedback exchanges (Vygotsky, 1978; Lantolf and Thorne, 2006), while metacognitive perspectives foregrounded teachers' planning, monitoring and regulation of assessment design over time (Flavell, 1979; Teng, 2021). These perspectives were complemented by considerations of technological pedagogical content knowledge, which shaped how Telegram's features were repurposed in pedagogically meaningful ways (Mishra and Koehler, 2006).

The specific aims of the case study were to:

- + examine how Telegram can be repurposed as a lightweight LMS to support formative feedback in low-resource ESL contexts
- + illustrate how teacher planning, monitoring and regulation shape the sustainability and inclusivity of digital feedback practices
- + identify design principles that may be transferable to other constrained teaching contexts.

The focus on inclusivity provides learners with multiple engagement options, recognising variation in access, confidence and participation, while maintaining feasible practices for teachers.

Approach

Project rationale and design orientation

The project adopts a practice-based, iterative approach to formative feedback design, shaped by the constraints of a low-resource ESL teaching context. Rather than introducing a new assessment platform or externally designed intervention, the work focuses on repurposing Telegram features already familiar to teachers and learners. This orientation is informed by the need to minimise technical barriers, reduce cognitive and administrative load, and ensure that feedback practices remain sustainable within existing teaching routines (Bailey and Christian, 2021; Kayzouri et al, 2020).

Telegram is approached not as a substitute for a full institutional learning management system, but as a lightweight infrastructure capable of supporting core formative functions. These functions include clarifying learning goals, eliciting learner responses, providing timely feedback and supporting follow-up action. Design decisions prioritise simplicity, optionality and accessibility, allowing learners to engage with feedback through multiple modes without requiring constant synchronous participation.

Participants and timeframe

The approach is situated in an ESL teaching context involving one teacher only (with no additional staff required) and approximately 20–30 adult learners studying at intermediate to upper-intermediate levels. Learners represent diverse backgrounds and they access materials primarily via mobile devices. Telegram-based formative activities are integrated alongside existing teaching arrangements.

Participation in Telegram-based activities is voluntary but encouraged, **allowing learners to choose when and how they engage with feedback while maintaining formative interaction opportunities**. The current implementation cycle is scheduled to run over 12 weeks, with ongoing refinement informed by reflective practice.

Repurposing Telegram as a lightweight LMS

Telegram's features are selectively repurposed to support formative feedback processes typically associated with LMS environments. Channels are used to organise learning content and feedback prompts, providing a stable reference point for learners over time. Pinned messages are employed to clarify task expectations and assessment focus, supporting feed-up by making learning goals visible and persistent (Black and Wiliam, 1998).

Polls function as low-stakes formative checks, enabling the teacher to monitor understanding and engagement without requiring extended written responses. These polls serve as rapid diagnostic tools, informing subsequent feedback and adjustments. Messaging and threaded replies support asynchronous learner responses, reducing pressure associated with real-time participation and enabling more reflective engagement.

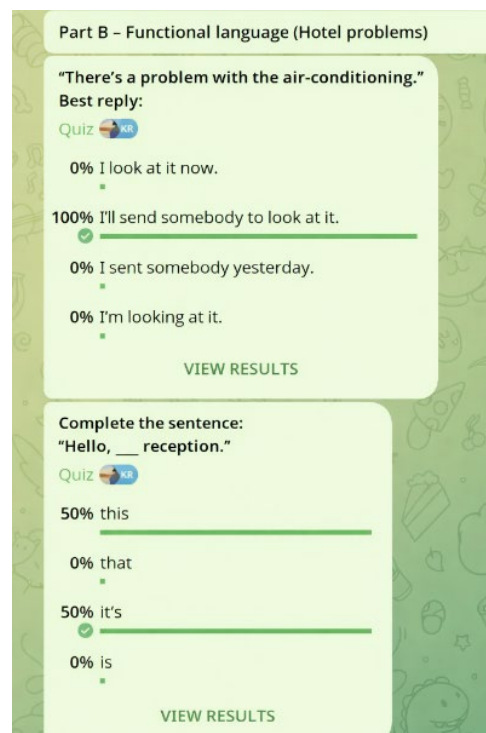


Figure 1. an example of a repurposed Telegram poll for low-stakes formative checks in an ESL context.

Where appropriate, automated bots are incorporated to provide immediate feedback on selected tasks, such as short quizzes or comprehension checks. These bots are positioned as supplementary supports rather than replacements for teacher feedback, offering rapid, standardised responses while preserving teacher agency and pedagogical judgement. Their use remains deliberately limited and optional to avoid over-automation (Andújar, 2020).

Teacher planning, monitoring and regulation

Central to the approach is an explicit focus on teacher decision-making across three interrelated processes: planning, monitoring and regulation. During planning, the teacher designs formative tasks that align with course objectives while remaining feasible within Telegram's affordances. Tasks are intentionally short, repeatable and adaptable, allowing for adjustment in response to learner participation patterns.

Monitoring occurs through observation of learner engagement patterns within Telegram, including response timing, participation spread and non-response, rather than through formal analytics.

Regulation involves modifying the use of Telegram features in response to emerging constraints and opportunities. Low-participation tasks are redesigned or simplified, while effective features are retained. This adaptive use of the platform reflects a metacognitive approach to assessment design, in which the teacher continually evaluates the effectiveness of feedback practices and adjusts them accordingly (Teng, 2021).

Reflective teaching notes and Telegram artefacts (for example, poll summaries, response patterns and threaded feedback exchanges) inform ongoing monitoring and provide a basis for post-cycle evaluation.

Ethical and practical considerations

Ethical considerations inform the approach throughout. Learner identities are protected through the use of pseudonyms. Telegram data is used for formative and reflective purposes only, in line with ethical guidelines.

Practical constraints, including varying levels of digital confidence and intermittent internet access, are addressed through low-threshold design choices and the provision of alternative means of engagement. This ensures that the use of Telegram supports inclusive participation rather than exacerbating existing inequalities.

Outcomes

Nature and scope of outcomes

At the current stage of the project, outcomes are understood in terms of design articulation, pedagogical readiness and the clarification of sustainable formative feedback practices, rather than measured impact on learner outcomes. The primary outcome of this work is the development and refinement of a coherent framework, grounded in an integrative review of existing literature and practitioner insights, which makes explicit how Telegram can be repurposed to support inclusive formative feedback in low-resource ESL contexts. Rather than positioning readiness as technical adoption, the framework conceptualises teacher readiness as a dynamic capability involving planning, monitoring and regulation, offering a structured account of enacting formative principles through accessible tools under constraints.

Design insights and pedagogical implications

Several design insights emerge from the framework. First, the repurposing of Telegram features such as polls, bots, voice notes and threaded chats illustrates how low-bandwidth tools can be adapted to perform formative functions typically associated with more complex LMS environments. For example, polls and bot-assisted quizzes support rapid formative checks, while voice notes and threaded exchanges offer alternative pathways for participation and feedback. Second, the framework highlights the importance of optionality and asynchronous engagement in supporting inclusive participation. Features such as private voice notes and delayed responses are particularly relevant for learners who experience anxiety or access constraints, aligning with affective and participation patterns reported in prior research on mobile-mediated feedback (Zhao et al, 2022). Third, the framework reinforces the central role of teacher judgement in sustaining formative feedback cycles. Automation is positioned as a supplementary support rather than a driver of assessment practice, underscoring the importance of pedagogical oversight in preventing over-automation and maintaining meaningful feedback interactions. While full empirical data collection is forthcoming, reflective synthesis during framework development and feedback from professional dissemination contexts (including colleague responses at the Advance HE Assessment and Feedback Symposium, November 2025) have informed the refinement of design principles related to inclusivity and sustainability. These processes provide a foundation for systematic evaluation in subsequent phases of the project without prematurely asserting impact.

Transferability and applicability

Although the case study is situated within an ESL context, the design principles articulated through the framework are transferable across disciplines, platforms and educational levels where formative feedback must be sustained under constrained conditions. The framework does not depend on Telegram-specific affordances alone, but on broader strategies of educational repurposing and teacher-led regulation of assessment design. For instance, similar principles could guide the use of WhatsApp polls for formative checks in STEM modules, or the adaptation of threaded discussions in Microsoft Teams to support feedback cycles in professional development programmes. This emphasis on design logic enhances applicability across institutional, disciplinary and geographical contexts.

Future development and next steps

The next phase of the project will involve systematic data collection and analysis to examine how the framework operates in practice over time. This will include closer investigation of teacher decision-making processes, learner engagement patterns and the sustainability of formative feedback practices under varying contextual constraints. Further development will also explore refinements to AI-assisted formative feedback, with particular attention to ethical considerations such as data privacy, informed consent and transparency in automated feedback processes. Findings from the implementation will inform potential rollout across additional ESL modules or disciplines at the institution, pending evaluation.

The case study establishes a foundation for both practical application and future research-based evaluation.

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