

Digital Literacy, Online Reading Strategies, and Reading Comprehension of Efl Junior High School Students in Google Classroom: A Qualitative Study

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Abstract

Prior research has largely assumed that exposure to digital environments naturally promotes critical literacy, yet empirical evidence from junior high school students in low-exposure, policy-constrained contexts remains scarce. This study therefore aims to explore the digital literacy practices and online reading strategies of EFL eighth-grade students when reading English texts through Google Classroom at SMP Negeri 2 Enrekang, a school enforcing a strict no-smartphone policy, in order to understand how institutional constraints shape students' digital reading engagement. Employing a descriptive qualitative design grounded in the interpretivist paradigm, eight students were selected through purposive sampling. Data were collected via semi-structured interviews, open-ended questionnaires, classroom observation, a reading comprehension task, and documentation, then analyzed using Miles, Huberman, and Saldaña's (2014) interactive model. Findings reveal that students' digital literacy remained operational rather than critical, dominated by smartphone-based access, navigation difficulties, and heavy reliance on Google Translate. Online reading strategies were surface-level (skimming, scanning, translation-assisted rereading), while higher-order strategies particularly evaluating were rarely or never observed across any data source. Three reader profiles emerged: the Assisted Decoder, the Task-Oriented Navigator, and the Emerging Strategist. The study concludes that three converging constraints linguistic limitation, institutional device restriction, and instructional absence collectively explain students' critically underdeveloped digital reading, calling for explicit strategy-focused pedagogy embedded in everyday instruction.

Keywords: *digital literacy; online reading strategies; reading comprehension; Google Classroom; EFL*

Introduction

The integration of digital technology into education has fundamentally transformed how students access, process, and comprehend information. In English as a Foreign Language (EFL) contexts, reading in digital environments requires cognitive and strategic competencies that extend well beyond traditional print-based literacy, encompassing the ability to navigate non-linear texts and evaluate online sources (Leu et al., 2017), as well as integrate multimodal information (Habók, Oo, & Magyar, 2024). Digital literacy has accordingly become an essential competency in contemporary schooling, as digital texts increasingly dominate academic and informational resources (UNESCO, 2018)

In Indonesia, despite various national initiatives such as the National Digital Literacy Movement (GNLD Siberkreasi) and the Merdeka Curriculum, challenges in students' digital literacy and online reading practices persist, particularly in schools outside urban areas with limited digital exposure. Preliminary findings at SMP Negeri 2 Enrekang reveal a contrasting condition: while students use smartphones informally for social media and messaging, the school enforces a strict no-smartphone policy that restricts digital tool integration in classroom learning. As a result, English instruction relies mainly on printed textbooks, and students have minimal exposure to digital reading environments in academic settings. This condition represents a structurally distinct context from those examined in existing studies on EFL digital literacy, which have predominantly been conducted in university-level or relatively technology-enabled environments (Asia et al., 2024; Pardede, 2022; Rinantanti et al., 2024).

Prior studies on EFL digital literacy and online reading strategies have documented a range of findings relevant to the present context. (Rinantanti et al., 2024) found that EFL learners employed varied online reading strategies but that effectiveness depended largely on individual reading preferences, without examining the structural conditions that shape those preferences. (Asia et al., 2024) reported that digital tools such as WhatsApp and Facebook discussions motivated EFL learners and supported comprehension development in a university context with relatively unrestricted access. (Pardede, 2022) identified scanning as the most frequently reported yet least analytically developed online reading strategy among EFL learners, pointing to a persistent gap between strategy frequency and strategic depth. (Chen & Xiao, 2024) further demonstrated, through multilevel analysis across 31 economies, that access conditions significantly moderate students' digital reading literacy outcomes. Collectively, these studies confirm that digital tools can support reading strategy development, but they stop short of explaining what happens when institutional conditions systematically restrict the very access that is assumed to enable such development. Empirical evidence from junior high school students in policy-constrained, low-exposure settings therefore remains absent in the literature.

A more substantive conceptual gap, however, underlies this demographic one. Prevailing digital literacy frameworks including those of (Leu et al., 2017) and (Coiro, 2011) broadly assume that structured exposure to digital environments naturally promotes higher-order, critical engagement with information. This assumption has been built primarily on evidence from learners who have sustained, unrestricted access to digital tools. The present study challenges that assumption by investigating a context in which institutional policy systematically forecloses such access: if exposure-dependent frameworks predict critical digital literacy, what happens when the opportunity for exposure is structurally denied? Moreover, existing research has predominantly employed quantitative instruments that measure strategy frequency rather than illuminate the situated conditions that shape or constrain strategic behavior. Qualitative evidence from junior high school students navigating a policy-restricted, low-exposure digital environment is therefore both empirically and theoretically absent in the literature. This study addresses that conceptual gap by introducing Google Classroom as a structured observational medium not as a regular classroom tool to make students' existing digital behaviors and reading strategies visible and analyzable under controlled and supervised conditions. To date, no study has specifically examined how institutional device restriction policies co-produce students' digital literacy and online reading strategy profiles in EFL junior high school contexts. The present study addresses this empirical and theoretical gap directly.

Guided by this conceptual gap, the present study addresses two research questions: (1) How do EFL junior high school students at SMP Negeri 2 Enrekang engage in digital literacy practices when reading English texts through Google Classroom? (2) What online reading strategies do these students employ, and how is their reading comprehension reflected in those strategic engagements? The findings are expected to contribute both empirical evidence from a regency-area junior high school context underrepresented in EFL digital literacy research, and a theoretical challenge to frameworks that treat digital exposure as a sufficient condition for critical literacy development. The novelty of this study lies in three specific contributions: (1) it introduces institutional device restriction policy as an independent and undertheorized variable in EFL digital literacy research; (2) it provides qualitative evidence that structured digital exposure, even under supervised conditions, does not automatically generate critical or evaluative reading behavior; and (3) it proposes a preliminary typology of EFL digital readers in low-exposure, policy-constrained contexts the Assisted Decoder, the Task-Oriented Navigator, and the Emerging Strategist which offers a more differentiated and practically actionable analytical lens than existing frameworks provide.

Three interrelated constructs inform the analytical framework of this study. Digital literacy is defined as the ability to access, evaluate, use, and create information safely and responsibly through digital technologies, encompassing not merely the operation of tools but the critical engagement with digital information (Eshet-Alkalai, 2004; UNESCO, 2018). Online reading, as an active and strategic literacy practice, demands that readers navigate non-linear texts, evaluate sources, and apply strategies ranging from surface-level skimming and scanning to higher-order inferring and evaluating (Ghimire & Mokhtari, 2025; Leu et al., 2017). Reading comprehension in this study is conceptualized not as a measurable outcome but as an interpretative lens through which students' meaning-making processes are understood, grounded in (Kintsch, 1998) distinction between textbase-level recall and situation-model-level integration. These three constructs are interdependent: digital literacy shapes the conditions under which strategies are enacted; strategies mediate the depth of meaning construction; and comprehension reflects the interplay between the learner, the tool, and the instructional context. This integrated perspective is particularly generative for the present study, as it raises the question of whether the absence of higher-order strategies reflects a literacy deficit, a vocabulary constraint, or a structural consequence of institutional conditions that have systematically foreclosed critical digital engagement (Coiro, 2021; Delgado et al., 2018).

Method

Research Design and Setting

This research employed a descriptive qualitative design grounded in the interpretivist paradigm, which views reality as socially constructed (Lincoln & Guba, 1985) and context-dependent (Creswell & Poth, 2018). The study was conducted at SMP Negeri 2 Enrekang, South Sulawesi Province, a public junior high school accredited A that implements a strict No-smartphone policy in daily learning activities. Data collection was carried out over two weeks across three structured sessions: an orientation session in which students were introduced to Google Classroom, a digital reading session during which students accessed and read English texts through the platform, and a data collection session involving interviews and questionnaires. The

researcher served as a non-participant observer throughout all data collection sessions, maintaining an observational rather than instructional role to minimize interference with students' natural reading behavior.

Participants

The participants consisted of 26 students of Class VIII A, with eight selected as key informants through purposive sampling. Selection criteria included participation in Google Classroom-based reading activities, varying levels of reading ability and classroom engagement, and willingness to participate in interviews. The eight informants comprised four male and four female students, selected to ensure gender balance and maximum variation across three dimensions: (1) reading ability, as indicated by prior English assessment scores (ranging from low to high achievers within the class); (2) degree of observed digital tool reliance during the reading session (ranging from frequent Google Translate users to those who attempted independent inference); and (3) level of verbal elaboration during informal classroom interaction (ranging from students who articulated their reading process clearly to those who responded minimally). This multi-dimensional variation ensured that the data captured a representative range of strategic profiles rather than a homogenous sample. Data saturation was confirmed after the sixth informant, as no substantially new themes emerged from the seventh and eighth interviews, a pattern consistent with established standards for qualitative sample adequacy (Saunders et al., 2018).

Data Collection and Analysis

Five complementary instruments were employed to ensure methodological triangulation. Semi-structured interviews served as the primary instrument for exploring digital literacy practices, while open-ended questionnaires functioned as the primary instrument for identifying online reading strategies. A reading comprehension task provided interpretative evidence of meaning construction, classroom observation captured real-time reading behavior through field notes, and documentation in the form of Google Classroom screenshots offered evidence-based triangulation. All instruments underwent two-stage expert validation: first, by a thesis supervisor holding a doctoral degree in English language education who assessed construct validity and theoretical alignment; and second, by a senior practicing English teacher with more than ten years of junior high school classroom experience who assessed contextual appropriateness and linguistic clarity. Feedback from both validators was systematically incorporated before piloting to ensure content validity and readiness for deployment in the research context.

Data were analyzed using (Miles et al., 2014) interactive model, consisting of data condensation through systematic open and axial coding, data display through descriptive narratives, and conclusion drawing verified through iterative cross-source comparison. Trustworthiness was ensured through data triangulation, detailed contextual description supporting transferability, systematic documentation for dependability, and multiple-source verification for confirmability, following established quality criteria for rigorous qualitative inquiry (Johnson et al., 2020; Stahl & King, 2020).

Results

Students' Digital Literacy Practices in Google Classroom

The analysis of interview and observation data revealed five consistent patterns characterizing students' digital literacy practices. These patterns collectively position students at a transitional stage of digital literacy development, moving from operational to functional competence, yet remaining significantly below the critical and evaluative level that digital literacy frameworks envision (Eshet-Alkalai, 2004; UNESCO, 2018). Overall, findings reveal that students' digital engagement was dominated by smartphone-based access, navigation difficulties on first exposure to Google Classroom, and heavy reliance on Google Translate as the primary comprehension mechanism. Higher-order digital literacy behaviors such as source evaluation, critical questioning of digital content, and self-directed strategic adjustment were absent across all data sources. Online reading strategies were similarly surface-level, with translation, task-oriented scanning, and reactive rereading constituting the dominant patterns. Three distinct reader profiles emerged from an integrated analysis of all data sources: the Assisted Decoder, the Task-Oriented Navigator, and the Emerging Strategist.

Table 1. Summary of Students' Digital Literacy Practice Themes

Theme	Description	Data Source
Smartphone-Centered Learning	All reading activities were conducted via smartphones as the sole learning device, reflecting mobile-dependent digital engagement.	Observation, Interview
Emerging Navigation Skills	Students experienced initial confusion in locating assignments, opening files, and managing platform notifications.	Interview, Observation
Functional Use of Digital Tools	Google Translate dominated tool use, employed for word-by-word and sentence-level translation rather than strategic comprehension support.	Field Notes, Interview
Technical and Environmental Constraints	Unstable internet, notification distractions, and eye strain disrupted sustained digital reading engagement.	Field Notes, Interview
Task-Oriented Engagement	Digital reading was primarily motivated by assignment completion rather than meaningful knowledge construction.	Interview, Observation, Documentation

Smartphones were identified as the primary and, in most cases, the only learning device used by students for all Google Classroom activities. Students articulated the convenience this afforded, as illustrated by S4's statement:

"Saya menggunakan HP karena lebih mudah dipakai. (I use a smartphone because it is easier to use.)"

Similarly, S2 noted that digital access felt more efficient than waiting for printed materials:

"Saat pertama kali membaca teks Bahasa Inggris online, saya merasakan lebih cepat karena tinggal klik dari HP saja. (It felt faster because I only needed to click from my phone.)"

However, this smartphone-centered engagement co-existed with significant navigation difficulties during initial exposure to the platform. Students reported

confusion in locating assignments and technical incompatibilities when opening digital files. S1 described this challenge directly:

"Saya bingung tugasnya di mana, file-nya juga tidak mau terbuka karena saya belum ada aplikasi untuk membaca file tersebut. (I was confused about where the assignment was, and the file could not be opened because I did not have an application to read the file.)"

S6 further expressed uncertainty about navigating platform features:

"Kadang saya tidak tahu harus mengklik yang mana. (Sometimes I do not know which one I should click.)"

These navigation difficulties highlight a critical gap between students' informal digital familiarity accumulated through everyday use of social media and messaging applications and the structured academic digital literacy required by a learning management system such as Google Classroom. While (Albashtawi & Al Bataineh, 2020) documented generally positive engagement with Google Classroom among EFL students in Jordan who had prior exposure to the platform, the present study reveals the inverse: students encountering Google Classroom for the first time, without prior scaffolding, experienced significant navigational confusion. This distinction aligns with Eshet-Alkalai's (2004) foundational differentiation between technical operation and critical information use: students could access and click, but struggled to navigate, evaluate, and manage structured digital content. Furthermore, (Leu et al., 2017) New Literacies framework emphasizes that digital reading skills are not automatically transferred from informal contexts to academic ones; they must be explicitly taught and practiced within structured learning environments. The navigation difficulties observed in this study are therefore not a reflection of students' general technological incompetence, but rather a predictable consequence of the systematic absence of scaffolded exposure to academic digital tools.

The most dominant digital tool used by students was Google Translate, employed not as a supplementary resource but as the primary mechanism of meaning construction. S1 described this reliance explicitly:

"Saya selalu pakai, terutama Google Translate. Saya salin kata yang tidak saya paham lalu lihat artinya (I always use it, especially Google Translate. I copy the words I do not understand and then check the meaning.)"

S5 went further, reporting whole-sentence translation as a routine practice:

"Saya menggunakan Google Translate dengan menerjemahkan setiap kalimat. (I use Google Translate by translating every sentence.)"

S6 adopted a screenshot-based translation strategy:

"Saya ambil screenshot lalu masukkan gambarnya ke Google Translate. (I take a screenshot and then upload the image to Google Translate.)"

This pattern is theoretically significant. While (Coiro, 2021) envisions digital tools as extensions of strategic cognition, the present findings demonstrate that without pedagogical scaffolding, these tools can equally function as replacements for internal reasoning. The cognitive work of comprehension was effectively outsourced to the translation tool, bypassing the inferencing and contextual guessing processes that develop independent reading competence.

A structurally important explanation for these patterns is the school's no-smartphone policy. By systematically excluding digital tools from everyday classroom practice, the policy inadvertently prevented students from developing the digital navigation skills, online reading strategies, and technological self-regulation that digital

learning contexts demand. Students entering the Google Classroom sessions in this study therefore lacked the prior scaffolding that would normally support more strategic and critical engagement. This finding extends the work of (Rinekso et al., 2021), who argue that digital literacy is a social and situated practice developing through repeated, purposeful engagement engagement that the policy structurally foreclosed. Consistent with (Coiro, 2011) argument that online reading requires prior knowledge of both content and digital navigation conventions, students in this study lacked precisely the navigational prior knowledge that sustained exposure would have built. The policy therefore created a developmental vacuum: students arrived at the digital reading task without the foundational competencies that would have enabled more strategic engagement, regardless of their individual motivation or general reading ability.

Students' Online Reading Strategies and Reading Comprehension

The analysis of questionnaire data, triangulated with observation, field notes, and reading comprehension task documentation, revealed that students' online reading strategies were predominantly surface-level, with higher-order strategies rarely or never observed.

Table 2. Summary of Students' Online Reading Strategy Themes

Strategy Theme	Analytical Description	Data Source
Translation-Based Comprehension	Translation via Google Translate served as the primary rather than supplementary comprehension mechanism, bypassing inferential processing.	Questionnaire, Observation
Emerging Skimming	Students read titles and initial segments to gain a general overview, though this behavior was largely incidental rather than deliberately strategic.	Questionnaire
Task-Oriented Scanning	Keyword searching to locate answers to comprehension questions was frequent, reflecting efficiency-driven rather than meaning-oriented reading.	Observation, Questionnaire
Reactive Monitoring	Rereading was employed after comprehension failure but without deliberate strategic adjustment, reflecting only the first stage of metacognitive regulation.	Questionnaire
Limited Predicting and Inferring	Only S1 and S8 demonstrated predicting behavior; spontaneous inferencing was observed in S7 as an isolated instance.	Observation, Questionnaire
Absent Evaluating Strategy	No observable instances of evaluating critically judging source credibility or text reliability were documented across any data source.	Observation, Questionnaire, Documentation
Scaffolded Comprehension	Task performance was generally adequate but strongly mediated by translation tools, scanning, and rereading rather than autonomous higher-order	Documentation, Questionnaire

processing.

Translation-based comprehension was the most dominant pattern across all eight participants. S3's responses were particularly illustrative, revealing that translation functioned as the entry point into reading rather than a supplementary support:

"Menterjemahkan isi teks dan soal lalu dibaca dan dicarilah jawabannya. (I translate the text and the questions, then read them and find the answers.)"

This pattern reflects what (Reiber-Kuijpers et al., 2021) identify as a consequence of limited second-language vocabulary: when lexical gaps exceed a learner's capacity for contextual inference, compensatory strategies dominate. In the present digital context, the immediate availability of Google Translate dramatically lowered the threshold at which students chose to compensate rather than infer, effectively outsourcing the cognitive work of reading comprehension. This aligns with (Chinpakdee & Gu, 2022) finding that without explicit strategy instruction, learners default to surface-level mechanisms rather than developing autonomous inferential processing a pattern evident in the present study's heavy reliance on wholesale translation, which supported immediate understanding but constrained the development of higher-order strategies such as inferencing and contextual guessing.

In contrast to this dominant pattern, an important counter-finding emerged in S7's response. When asked how she dealt with unfamiliar vocabulary, she reported:

"Jarang, biasanya saya hanya menebak-nebak maksud kalimatnya. (Rarely, I usually just guess the meaning of the sentence.)"

This spontaneous inferencing behavior, though isolated and unsystematic, is theoretically significant. It demonstrates that higher-order strategy use can emerge organically in learners placed in meaning-demanding situations, even without explicit instruction (Coiro, 2021; Habók et al., 2024). From the perspective of (Oxford, 2011) strategic self-regulation framework, S7's behavior reflects an emerging metacognitive awareness the ability to select a strategy in response to comprehension difficulty that has not yet been systematically developed through formal instruction. The capacity for inferential reading therefore exists within this student population but has not been systematically activated or supported, confirming what (Mekuria et al., 2024) identify as the distinction between latent strategic potential and actualized strategic use.

Evidence of skimming appeared across questionnaire responses, with most students reporting that they read the title before engaging with the body text. S1 described this initial approach:

"Saya biasanya membaca judul terlebih dahulu, lalu membaca isi teks secara keseluruhan. Setelah itu saya mencoba memahami isi teks dengan membaca ulang bagian yang penting (I usually read the title first, then read the whole text. Afterward, I try to understand the content by rereading important parts.)"

However, an important analytical distinction must be made: the skimming observed was largely incidental rather than deliberately strategic. Students read titles because they appeared first on the page, not as a conscious act of activating prior knowledge or analyzing text structure. This is evidenced by the absence of prediction or schema activation behaviors that would signal genuinely metacognitive skimming.

Scanning was frequently employed as a question-oriented strategy. S1 described this behavior:

"Saya membaca kembali bagian teks yang berhubungan dengan pertanyaan dan mencari kata kunci yang sesuai. (I reread the part of the text related to the question and search for the appropriate keywords.)"

Field notes confirmed that students scrolled through texts to locate answers rather than reading comprehensively. While this strategy is efficient, its isolated use as an answer-retrieval mechanism rather than part of a holistic comprehension process reduces reading to a matching exercise, consistent with (Coiro, 2011) warning that efficiency-oriented digital platforms structurally reward quick retrieval over sustained engagement, and with (Pardede, 2022) finding that scanning remains the most frequently reported yet least analytically developed online reading strategy among EFL learners. Theoretically, this pattern aligns with (Grabe, 2009) distinction between local and global reading comprehension processes: scanning supports only local, word-to-question matching, while global comprehension requiring the construction of a coherent text model demands strategies that these students did not employ. The exclusive reliance on scanning therefore reflects not merely a preference for efficiency, but a structural gap in metacognitive strategy repertoire that explicit instruction has not yet filled.

Monitoring through rereading was observed across most participants, with students returning to unclear passages after experiencing comprehension failure. S7 described this practice:

"Saya biasanya membaca berulang-ulang isi teks tersebut (I usually read the text repeatedly.)"

S1 demonstrated a more advanced form of monitoring:

"Saya memeriksa dengan cara mengulang isi teks dengan kata-kata sendiri atau mencocokkannya dengan pertanyaan yang ada. (I check by restating the text in my own words or matching it with the questions.)"

However, for most participants, rereading remained reactive rather than proactive applied after confusion without strategic adjustment. This reflects only the first stage of metacognitive self-regulation as described by (Azevedo & Gašević, 2019), in which students detect comprehension failure but do not deliberately select a corrective strategy a pattern also documented among EFL university readers by (Deliany & Cahyono, 2020), who found that awareness of metacognitive strategies does not automatically translate into their strategic deployment.

The most theoretically significant finding concerns the evaluating strategy. No observable instances of evaluating were documented across any data source throughout the study. Unlike skimming, scanning, and monitoring which were at least partially observed evaluating was absent across all data sources. It must be acknowledged, however, that the single pre-selected text design structurally reduced the occasion for source comparison, which is the primary trigger for evaluative behavior. The absence of evaluating should therefore be interpreted as evidence of an underdeveloped evaluative disposition rather than a definitive measure of students' evaluating capacity, since the design itself did not systematically elicit it. With this interpretive caveat in mind, this finding nonetheless constitutes a substantive counter-finding to prevailing digital literacy frameworks that assume exposure to digital environments naturally promotes critical engagement with information (Coiro, 2021; Leu et al., 2017). The present study suggests that within a structured, teacher-supervised digital setting using a single pre-selected text, critical evaluation was not observed. Whether this reflects a genuine absence of evaluative capacity or a design-induced ceiling effect remains an open

empirical question one that future research employing multiple sources and open-ended search tasks would be better positioned to answer. Three intersecting explanations nonetheless account for this absence. The research design provided a single pre-selected text, eliminating the need for source comparison that typically activates evaluative behavior. The closed task-completion design of Google Classroom rendered evaluating structurally unnecessary. And students' prior academic experience with pre-approved printed textbooks left no evaluative disposition, they had never been invited to question the authority of a text, consistent with (Wineburg & McGrew, 2019) findings on source evaluation even among older learners.

Three Reader Profile Typology

An integrated analysis of all data sources yielded three distinct reader profiles that offer a more granular diagnostic lens than aggregate descriptions of "surface-level strategies" can provide. Table 3 presents a comparative overview of the three profiles across five dimensions: representative participants, primary comprehension mechanism, dominant strategies observed, digital literacy level, and instructional implication. Each profile is then elaborated below. It should be noted that S7 exhibits characteristics that span both the Task-Oriented Navigator and the Emerging Strategist profiles. While her dominant behavior during the reading task aligned with task-oriented scanning and reactive rereading, she also demonstrated isolated instances of spontaneous inferencing a behavior absent in other Task-Oriented Navigators. This cross-profile positioning is not an analytical inconsistency but rather reflects the fluid and developmental nature of reading strategy use: the profiles represent tendencies along a continuum rather than discrete, mutually exclusive categories.

Table 3. Comparative Overview of Three EFL Digital Reader Profiles

Dimension	Assisted Decoder	Task-Oriented Navigator	Emerging Strategist
Representative participants	S3, S5, S6	S2, S4, S7, S8	S1, partially S7
Primary comprehension mechanism	Full translation via Google Translate (word-by-word and sentence-level)	Scanning for keywords and rereading for answer retrieval	Contextual inferencing and self-monitoring with selective translation
Dominant strategies observed	Translation only; no evidence of predicting, inferring, or evaluating	Scanning, reactive monitoring (rereading); translation as backup	Skimming, inferencing, proactive monitoring, limited predicting
Digital literacy level	Operational (access and basic tool use only)	Functional (task-directed navigation and tool deployment)	Transitional (moving toward strategic and selective tool use)
Priority instructional intervention	Vocabulary building; scaffolded inferencing tasks; guided reduction of translation dependence	Think-aloud modeling; tasks requiring meaning construction beyond answer retrieval	Source evaluation tasks; critical questioning activities; peer discussion of text interpretation

The Assisted Decoder profile represented by S3, S5, and S6 is characterized by full reliance on translation as the primary comprehension mechanism. These students entered the digital reading task by immediately opening Google Translate, either typing individual words or uploading screenshots of entire text segments before attempting to read. There was minimal evidence of any independent strategy use: comprehension was entirely outsourced to the tool, and written responses to comprehension questions closely mirrored the translated output without reformulation. For this profile, priority intervention should target vocabulary development alongside scaffolded inferencing tasks that gradually reduce the necessity of wholesale translation, enabling students to develop contextual guessing as a complementary rather than absent strategy.

The Task-Oriented Navigator profile represented by S2, S4, S7, and S8 combines scanning and rereading in an efficiency-driven manner aimed at task completion rather than meaning construction. These students demonstrated functional digital literacy: they navigated the platform more independently, located assignments with less difficulty, and deployed translation tools selectively rather than wholesale. Their reading behavior was strongly goal-directed, organized around answering comprehension questions rather than constructing a holistic understanding of the text. This profile represents the most prevalent configuration in the data and suggests that task design plays a central role in shaping strategy use: open-ended, meaning-construction tasks (rather than closed answer-retrieval tasks) may activate more strategic engagement in this group. Instructional intervention for these students should prioritize think-aloud modeling that makes the distinction between answer retrieval and genuine comprehension explicit.

The Emerging Strategist profile represented by S1 and partially S7 demonstrates early signs of metacognitive regulation, including contextual inferencing, self-monitoring, and reflective rereading. These students used translation tools selectively, attempted to guess the meaning of unfamiliar words from contextual cues, and could partially articulate their reading process when asked. S1 in particular exhibited behavior consistent with what (Li et al., 2022) identify as deliberate strategy use: restating text content in their own words and cross-referencing comprehension questions with specific textual evidence. This profile is theoretically significant because it demonstrates that the capacity for higher-order strategy use exists organically within the student population, even in the absence of formal instruction. Intervention for this group should focus on elevating existing strategic behavior toward evaluative engagement: tasks requiring source comparison, credibility assessment, and text-level critical questioning would activate and consolidate the metacognitive dispositions already present. The typology as a whole suggests that the potential for more strategic and critical digital reading exists across all three profiles but at different developmental thresholds, and that profile-differentiated instruction rather than a single pedagogical approach is needed to move each group toward greater strategic autonomy.

Students' comprehension task performance was generally adequate, with most participants achieving scores above the school's *Kriteria Ketuntasan Minimal* (KKM). However, this outcome must be interpreted cautiously. Qualitative analysis of written responses revealed a consistent differentiation: questions requiring literal information retrieval were answered with relative confidence, while items requiring students to draw conclusions or infer implied meaning produced shorter, more hesitant, and frequently translation-dependent responses. This pattern aligns with (Kintsch, 1998) distinction between a textbase representation surface-level recall of what the text states and a situation model that integrates textual information with prior knowledge and

inferential reasoning. It is further consistent with (Hu et al., 2022) finding that vocabulary knowledge is the dominant predictor of EFL reading comprehension at foundational levels, with limited vocabulary constraining learners' capacity to move beyond literal retrieval toward integrative meaning construction. Students in this study predominantly operated at the textbase level, confirming that comprehension was functionally achieved but not autonomously constructed.

Discussion

The convergence of findings across digital literacy and reading strategy data reveals a pattern that existing frameworks have not adequately theorized: functional digital competence does not translate into strategic reading autonomy when institutional conditions systematically foreclose the development of both. Rather than functioning as separate constructs, digital literacy, reading strategies, and comprehension operate as an interdependent system in which each component both shapes and is shaped by the structural conditions surrounding the learner conditions that, in this study, were defined as much by policy and pedagogy as by individual capacity. This finding converges with (Leu et al., 2017) New Literacies Theory, which positions digital literacy as inherently situated and socially constructed not as an autonomous cognitive capacity but as a practice shaped by the contexts, tools, and communities in which it is enacted. The present study extends this theoretical position by providing empirical evidence that institutional policy constitutes one such context-shaping force.

Students demonstrated operational competence in accessing Google Classroom and utilizing digital tools, reflecting the basic level of digital literacy described by (Eshet-Alkalai, 2004). However, this competence remained largely procedural and task-oriented rather than directed toward meaningful knowledge construction. Students' online reading strategies were strongly shaped by vocabulary limitations: frequent reliance on translation tools, keyword scanning, and rereading reflects an adaptive response to linguistic challenges, consistent with (Reiber-Kuijpers et al., 2021) observation that vocabulary gaps drive the adoption of compensatory strategies. In the present digital context, the immediate availability of Google Translate dramatically lowered the threshold at which students chose to compensate rather than infer, effectively outsourcing the cognitive work of comprehension. This aligns with (Delgado et al., 2018), who demonstrated that digital reading environments tend to encourage surface-level processing and efficiency-oriented strategies, particularly when learners lack sufficient vocabulary resources to engage in deeper meaning construction.

A key interpretation emerging from these findings is that the relationship between digital literacy, reading strategies, and comprehension is not linear but dynamic and reciprocal. Students' level of digital literacy influences the strategies they employ, while the availability of digital tools shapes how those strategies are enacted. In turn, these strategies determine the nature and depth of reading comprehension achieved. Comprehension in this study is therefore best characterized as technologically mediated: co-constructed between the learner and digital tools rather than generated through autonomous cognitive processing. This interpretation extends (Coiro, 2021) perspective by demonstrating that digital tools do not merely assist comprehension but can equally replace internal reasoning when not accompanied by explicit pedagogical guidance.

The present findings resonate with, yet also meaningfully diverge from, prior empirical studies conducted in comparable EFL contexts in Indonesia. Rinantanti et al.

(2024), investigating online reading strategies and comprehension among EFL learners using a qualitative case study design with purposive sampling, found that learners employed varied strategies but that effectiveness depended primarily on individual reading preferences and comprehension levels. While this finding aligns with the present study in documenting strategic variation across learners, it stops short of identifying the structural conditions that produce such variation an explanatory gap that the present study addresses by foregrounding institutional device policy as a co-constitutive constraint. Similarly, (Asia et al., 2024), examining reading strategies and comprehension through a digital literacy environment among university students at Universitas Negeri Makassar, found that digital tools such as Facebook group discussions and WhatsApp motivated learners and supported comprehension development. The contrast with the present study is instructive: where Asia et al. documented motivating and enabling effects of digital tool access in a relatively unrestricted university setting, the present study documents the inverse the demotivating and strategically limiting effects of restricted access in a policy-constrained junior high school context. Taken together, these studies suggest that the relationship between digital tools and reading strategy development is neither uniform nor inherently positive, but is instead shaped by the institutional conditions governing access, a variable that single-context studies have not yet sufficiently theorized.

The central contribution of this integrated interpretation is the identification of three interacting constraints linguistic limitation (restricted English vocabulary), institutional restriction (the no-smartphone policy), and instructional absence (the lack of explicit strategy teaching) that together explain why students' digital literacy and reading strategies remain at a surface level. None of these factors alone is sufficient to explain the observed pattern; it is their convergence that produces the specific profile of functionally capable yet critically underdeveloped readers documented in this study. This convergence resonates theoretically with Bronfenbrenner's ecological systems perspective, which holds that individual learning outcomes are co-produced by the multiple structural layers surrounding the learner in this case, the classroom (instructional absence), the school institution (device restriction), and the learner's own linguistic resources (vocabulary limitation). Collectively, these constraints function as an interlocking system: vocabulary limitation drives compensatory translation use; translation use substitutes for the inferential practice that develops independent reading competence; and the absence of strategy instruction means students have no scaffold to move beyond compensation. Critically, this shifts the locus of intervention from the individual student to the broader system of structural and pedagogical conditions surrounding them.

These interpretive claims must be situated within the boundaries of what this study's design can and cannot support. The two-week data collection period constrains longitudinal depth: the patterns documented here reflect students' existing capacities under controlled conditions, and the possibility that observed behaviors represent novelty effects rather than stable strategic dispositions cannot be excluded. This limitation does not undermine the central argument that institutional and instructional conditions co-produce surface-level digital reading but it does mean that the argument is best understood as a structural diagnosis rather than a developmental trajectory. Longitudinal research is needed to determine whether the profiles identified here represent fixed positions or transient stages responsive to sustained instruction. Similarly, the single-site design and the use of Google Classroom as an observational instrument rather than an organic classroom tool mean that findings reflect a specific,

researcher-constructed encounter with digital reading rather than naturalistic practice. The three reader profiles are therefore offered as transferable analytical lenses for understanding variation within policy-constrained EFL contexts, not as statistically representative categories. Their value lies in the conceptual work they do making visible the differentiated instructional needs that aggregate descriptions of “surface-level strategies” obscure and that value holds regardless of whether the precise profiles replicate across other settings.

Conclusion

This study explored the digital literacy practices and online reading strategies of EFL junior high school students engaging with English texts through Google Classroom at SMP Negeri 2 Enrekang. The findings reveal that students demonstrate functional digital literacy through smartphone-based access and basic platform navigation, yet their engagement remains operational rather than critical or evaluative. Online reading strategies were dominated by translation, scanning, and reactive rereading, while higher-order strategies particularly evaluating were rarely or never observed even within a controlled and supervised digital learning environment.

Reading comprehension, while functionally adequate, constitutes scaffolded comprehension co-constructed with digital tools rather than generated through autonomous cognitive processing. Three interacting constraints explain these patterns collectively: linguistic limitation arising from restricted English vocabulary, institutional restriction produced by the no-smartphone policy, and instructional absence resulting from the lack of explicit strategy teaching. None of these factors alone is sufficient to explain the observed profiles; it is their convergence that produces the specific configuration of functionally capable yet critically underdeveloped readers documented in this study.

This study makes three specific theoretical contributions. First, it introduces institutional device policy as an independent and undertheorized variable in digital literacy research, extending empirical evidence from (Rinekso et al., 2021), who demonstrate that digital literacy develops through repeated, purposeful engagement with situated digital practices engagement that the no-smartphone policy in the present study structurally foreclosed, thereby preventing the development of both navigational competence and critical digital reading. Second, it provides observational evidence that structured digital environments do not automatically generate critical evaluative reading behavior, directly challenging the exposure-determinism assumption embedded in frameworks such as (Leu et al., 2017) and (Coiro, 2021) Third, it introduces a preliminary typology of EFL digital readers in low-exposure contexts the Assisted Decoder, the Task-Oriented Navigator, and the Emerging Strategist which offers a more differentiated and practically actionable theoretical lens than the binary of surface-level versus deep comprehension currently dominant in the literature.

Practically, the findings call for action at three intersecting levels. At the classroom level, teachers should embed explicit, strategy-focused reading instruction into everyday digital learning activities: modeling think-aloud processes, designing tasks that require genuine meaning construction rather than answer retrieval, and scaffolding the transition from translation-dependence toward inferential engagement. At the institutional level, school leaders and curriculum coordinators are encouraged to reconsider the binary logic of the no-smartphone policy and to develop a supervised, scaffolded model of digital tool integration one that treats digital access as a pedagogically managed resource rather than an unregulated risk. At the policy level,

national curriculum and digital literacy frameworks should explicitly address the structural conditions that shape digital literacy development in regency-area and policy-constrained schools, ensuring that capacity-building initiatives extend beyond urban contexts and reach schools with genuinely limited digital exposure.

Two directions emerge as productive sites for future inquiry. First, longitudinal studies tracking the same cohort of students over a full academic semester of integrated digital instruction would provide evidence of whether and how the three reader profiles evolve under conditions of sustained pedagogical support a question the two-week timeframe of the present study could not address. Second, intervention-based research testing the effectiveness of profile-differentiated strategy instruction (as proposed in the typology's pedagogical implications) would transform the descriptive findings of this study into actionable evidence for teachers and curriculum designers. Together, these directions would progressively build a more robust empirical foundation for theory-informed, contextually sensitive digital literacy pedagogy in EFL settings.

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