



RESEARCH ARTICLE

EXPLORING SELF-LEARNERS' SELF-DIRECTED READING COMPREHENSION THROUGH DUOLINGO (A Narrative Inquiry of Novice Vocational High School Learners in Bogor)

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Abstract: This study explores Duolingo as a Mobile-Assisted Language Learning platform to support self-directed reading comprehension among vocational high school students. Using a qualitative descriptive design, data were collected through interviews, classroom observations, and document analysis. The findings show that Duolingo's interactive and gamified features increase student engagement and motivation, aiding the use of reading strategies like contextual guessing and self-reflection to enhance comprehension. Challenges include limited vocabulary, inconsistent motivation, and technical issues, which impact autonomous learning. The study highlights the need for teacher training to integrate technology with pedagogical methods and for creating a supportive environment that promotes learner autonomy. These insights inform the effective application of technology-enhanced self-directed learning in EFL settings, supporting adaptive English language teaching.

Keywords: Duolingo; reading comprehension; learner autonomy; self-directed learning; Mobile-Assisted Language Learning (MALL).

Menjelajahi Pemahaman Bacaan Terarah Diri Pada Pembelajaran Mandiri Melalui Duolingo (Inkuiri Naratif Pembelajaran Pemula Sekolah Menengah Kejuruan di Bogor)

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Abstrak: Penelitian ini mengeksplorasi Duolingo sebagai platform *Mobile-Assisted Language Learning* (MALL) untuk mendukung pemahaman bacaan terarah diri di kalangan siswa sekolah menengah kejuruan. Menggunakan desain deskriptif kualitatif, data dikumpulkan melalui wawancara, observasi kelas, dan analisis dokumen. Temuan menunjukkan bahwa fitur interaktif dan gamifikasi Duolingo meningkatkan keterlibatan dan motivasi siswa, yang membantu penggunaan strategi membaca seperti menebak konteks (*contextual guessing*) dan refleksi diri untuk meningkatkan pemahaman. Tantangan yang dihadapi meliputi keterbatasan kosakata, motivasi yang tidak konsisten, dan masalah teknis, yang berdampak pada pembelajaran mandiri (*autonomous learning*). Studi ini menyoroti perlunya pelatihan guru untuk mengintegrasikan teknologi dengan metode pedagogis dan untuk menciptakan lingkungan yang mendukung otonomi pembelajar. Wawasan ini memberikan informasi untuk penerapan pembelajaran mandiri yang didukung teknologi secara efektif dalam konteks Bahasa Inggris sebagai Bahasa Asing (*EFL*), mendukung pengajaran bahasa Inggris yang adaptif.

Kata Kunci: Duolingo; pemahaman bacaan; otonomi pembelajar; pembelajaran terarah diri; *Mobile-Assisted Language Learning* (MALL).

INTRODUCTION

Reading comprehension is fundamentally the ability to construct meaningful understanding from written text, involving critical thinking, connections between ideas, and reasoned conclusions. It enables learners to engage deeply with complex concepts, ask insightful questions, and apply knowledge across studies and life, transforming reading into a tool for lifelong learning and academic success. As noted by educational research, comprehension connects text to readers' knowledge, vocabulary, and cognitive skills, allowing interpretation, inference, and evaluation beyond literal meanings (Readability Tutor, 2025). In English language learning, mastering the four skills—listening, speaking, reading, and writing—is essential, with receptive skills (reading and listening) processing input and productive skills (speaking and writing) enabling output. These interdependent skills foster effective communication and proficiency (Grabe, 2009).

Reading is crucial in education, as most knowledge is written, demanding comprehension and critical assessment of texts. Proficient readers grasp meanings, evaluate messages, remember key points, and apply knowledge flexibly (Alfassi, 2004). Comprehension involves moving beyond surface-level understanding to underlying ideas and relationships, influenced by text features, background knowledge, experience, and cognitive capacities (McNamara, 2007). Learners must comprehend incrementally—from words to passages—supported by text structure. Developing this requires linguistic skills, metacognitive strategies, critical thinking, and active engagement, integrating prior knowledge for mastery alongside other skills.

Narrative reading is particularly important for EFL learners, enhancing vocabulary, comprehension, and critical thinking through stories and literary works, fostering empathy and interpretative skills (Kern, 2003; Bruner, 1994). Technology, especially mobile-assisted language learning (MALL), has transformed practices, with apps like Duolingo popular for accessibility and engagement (Li, Bonk, & Zhou, 2024; Saniyah, 2023). This promotes learner autonomy—the ability to manage learning, set targets, and maintain motivation (Little, 2007; Knowles, 1975)—which is interdependent with language proficiency. MALL empowers self-paced learning with gamification and feedback, but its impact on novice learners, especially in vocational high schools, is underexplored (Lai & Hwang, 2022; Vesselinov & Grego, 2012).



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MALL challenges traditional SLA contexts, offering flexible, distributed practice that benefits acquisition (Loewen et al., 2020; Carpenter, 2020; Kim & Webb, 2022). Focused on English for global communication, tools like Duolingo promote equity (Burston & Giannakou, 2022). However, novices face obstacles: limited tech experience, self-management issues, distractions, and transitions to autonomy (Li et al., 2024; Chen & Hwang, 2019; Knowles, 1975). They may feel overwhelmed, leading to frustration and disengagement. Prior studies overlook vocational beginners, focusing on advanced learners or quantitative outcomes, neglecting autonomy's mediating role and qualitative experiences (Zhang & Wang, 2018; Megawati et al., 2023; Hwang & Chen, 2019).

Key problems include scarce research on novices' self-directed reading via MALL (Benson, 2013; Alharbu, 2020); limited focus on vocational contexts (Saniyah, 2023); underexplored impacts on comprehension (Hwang & Chen, 2019); management struggles like material selection and pacing (Li et al., 2024; Lai & Hwang, 2022); need for qualitative data on interactions (Clandinin & Connelly, 2000); underuse of app features without guidance (Kukulska-Hulme, 2020); cultural and environmental barriers (Huang & Li, 2024); low motivation and self-efficacy (Dörnyei, 2020); and integration issues with classroom learning (González-Lloret, 2015). This study uses narrative inquiry to collect qualitative data on novices' experiences, perceptions of autonomy, and involvement in self-directed reading comprehension with Duolingo.

The research questions are: (1) How do novice vocational high school EFL learners experience self-directed reading comprehension using Duolingo, grounded in learner autonomy? (2) What challenges do they face, and how do these reflect their autonomy levels? (3) What implications arise from applying reading comprehension in learner autonomy contexts for EFL students on Duolingo? Objectives include: (1) describing experiences and autonomy development; (2) analyzing challenges and their autonomy impacts; (3) deriving implications and recommendations for improved autonomous reading.

Theoretically, this enriches literature on autonomy and MALL (drawing on Knowles, 1975; Little, 2007), promotes lifelong skills, and informs policy and curricula for inclusive EFL education. Practically, it improves teaching strategies, guides MALL design for novices, addresses challenges via interventions, enhances engagement, and supports vocational proficiency. This research targets beginner EFL learners in vocational high schools, filling gaps in understanding MALL's role in narrative reading comprehension through autonomy.

Based on this background, the study is titled: "Novice EFL Learners' Experiences of Self-Directed Reading Comprehension Using Duolingo: A Narrative Inquiry into Learner Autonomy in Vocational High Schools."

METHOD

This research employs a qualitative approach grounded in narrative inquiry, suitable for exploring the experiences of novice EFL learners in self-directed reading comprehension using Duolingo, with a focus on learner autonomy. According to Creswell (2014), qualitative research, particularly narrative inquiry, centers on participants' stories to uncover personal interpretations and contextual influences in learning processes. This study is designed as a multi-site case study involving two vocational high schools in Bogor, Indonesia—SMK Telekomedika Bogor and SMK Infokom—selected for their emphasis on EFL education and technology integration, providing access to beginner learners (aged 15-18) who have used Duolingo for at least six months. The research was conducted from September 2024 to June 2025, following a timeline that includes literature review, proposal development, data collection, analysis, and reporting.

The research subjects consist of 20 novice EFL learners (10 from each school), selected via purposive sampling based on criteria such as enrollment in English courses, consistent Duolingo use, and voluntary consent, ensuring diverse perspectives on autonomy and challenges. Primary data will be collected through semi-structured interviews, reflective journals, and classroom observations,



supplemented by field notes and instructional documents for triangulation. Interviews will elicit narratives on autonomy perceptions, strategies, and obstacles; journals will capture real-time reflections; and observations will document engagement in natural settings (Creswell, 2014).

Data analysis follows Miles, Huberman, and Saldana's (2014) interactive model, integrated with Braun and Clarke's (2006) thematic analysis: data condensation (transcription, coding, theme generation), display (tables, charts for patterns in autonomy, challenges, and strategies), and conclusion drawing/verification (triangulation, member checking). To ensure validity, trustworthiness criteria (Lincoln & Guba, 1985) are applied: credibility via prolonged engagement and triangulation; transferability through thick descriptions of context; dependability with audit trails and peer debriefing; and confirmability via bracketing and thorough documentation. Instruments include a semi-structured interview protocol with core questions on experiences, a document analysis protocol for journals (assessing reflections, strategies, challenges), and an observation protocol for engagement and interactions. This methodology provides rich, authentic insights into how Duolingo fosters learner autonomy in vocational EFL contexts.

RESULT AND DISCUSSION

Result

This chapter presents qualitative findings from a narrative inquiry into novice EFL learners' self-directed reading comprehension using Duolingo, framed by learner autonomy. Data from semi-structured interviews, reflective journals, and classroom observations at SMK Telekomedika Bogor and SMK Infokom were triangulated and analyzed per Miles, Huberman, and Saldaña (2014), yielding themes aligned with the research questions: (1) experiences of self-directed reading via autonomy; (2) challenges and their autonomy reflections; (3) implications for EFL students on Duolingo.

Findings highlight Duolingo's role in fostering autonomy through gamified, flexible features, though moderated by linguistic, motivational, and contextual barriers. Learners (n=20, aged 15-18) reported evolving independence, strategic adaptations, and persistent hurdles, informing implications for MALL in vocational EFL contexts.

1. *Learners' Experiences in Self-Directed Reading Comprehension on Duolingo:*

Learners described a progression from initial overwhelm to empowered autonomy, leveraging Duolingo's bite-sized lessons and feedback for reading engagement. ZK noted: "When I started, I felt lost without teacher guidance, but I learned to manage my pace and choose interesting stories, feeling more independent" (ZK, 02 June 2025). Autonomy was perceived as self-responsibility: "It means deciding when and what to study, boosting motivation" (ZK).

Strategies included contextual guessing, repetition, and note-taking. KHS shared: "I pause to use hints, connect words to known concepts, and read aloud for reinforcement" (KHS, 02 June 2025). Gamification enhanced motivation: "The points and feedback make reading enjoyable and build confidence in texts" (AAPZ, 02 June 2025). However, inconsistencies arose, as HEN admitted: "I struggle with discipline without pushes, using it irregularly" (HEN, 02 June 2025).

These narratives affirm Duolingo's scaffold for autonomy, aligning with the first research question by showing self-regulation as key to comprehension gains.

Table 1



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Observation results on Duolingo Experiences

No	Interviewee	Experience Using Duolingo	Perception of Learner Autonomy	Challenges Faced	Strategies Used	Duolingo's Help in Reading	Advice to Peers
1	ZK	Initially lost; managed pace via stories	Responsibility for choices; personal teacher	Hard vocabulary; stuck on stories	Guess from context/pictures; repeat aloud; note words	Independence in selection; motivation boost	Be patient; practice daily; use strategies
2	AK	Exciting yet overwhelming; breaks helped	Set goals; consistency	Limited grammar; ads/internet	Context clues; repeat; native checks	Vocabulary exposure; quick feedback	Don't rush; use resources; routine
3	KHS	Hard focus initially; bite-sized manageable	Freedom to choose/improve	Vocabulary; reliance on others	Hints; connect ideas; aloud practice	Structured feedback; less intimidating	Consistent; use features; daily habit
4	AAPS	Supplement; gamified enjoyment	Control journey; fit schedule	Grammar lack; distractions	Pictures/clues; translate; revisit	Vocabulary confidence; corrections	Daily use; hints; repeat patiently
5	AFK	New; interactive kept interest	Set/track goals independently	Complex sentences; no help	Read full context; repetition; pause	Detail focus; step-by-step skills	Practice hard parts; use indicators
6	LNA	Challenging; gained confidence	Charge of practice; progress control	Vocabulary/grammar; no support	Clues; listen/repeat; replay	Vocabulary/text understanding; feedback	Patient; hints/repetition; extra help
7	TPJ	Unusual pace; slow learning	Charge without teacher; review control	Words/grammar; skip temptation	Pictures/translation; replay	Exposure/patterns; feedback improvement	No fear mistakes; features; regular
8	NAO	Challenged; proud of understanding	Captain of ship; empowering choices	Mood/motivation; frustration	Imagine story; clues/notes	Daily practice; mistake fixes	Enjoy; routine; celebrate wins
9	HEN	Inconsistent; lacks discipline	Hard without push	Motivation; no schedule	Guess; skip parts	Little due to irregularity	Regular; personal way; don't force
10	RP	Guided school use; teacher-dependent	Guided school use; teacher-dependent	No outside practice; forgets	Class discuss; notes; little solo	Familiarization via tasks	Outside use; explore; consistent

2. Analysis of Challenges Faced by EFL Students in Self-Directed Reading Comprehension on Duolingo and Their Reflection on Learner Autonomy:

Challenges clustered into linguistic, motivational, and contextual domains, impacting autonomy dimensions (Benson, 2013).

a. Linguistic Difficulties

Vocabulary/grammar gaps hindered inference: “Vocabulary too hard; don’t understand stories” (KHS). Limited explanations raised cognitive load (Laufer & Goldstein, 2004), testing metacognitive autonomy.

b. Motivational and Affective Barriers

Frustration eroded persistence: “Managing mood; pause when hard” (NAO); “Discipline hard without push” (HEN). This aligns with self-determination theory, where overload reduces efficacy (Deci & Ryan, 2002).

c. Contextual-Technological Constraints

Distractions/ads interrupted flow: “Internet/ads disrupt” (AK), limiting behavioral control (Ajzen, 1991).

Table 2

Interaction of Challenges with Learner Autonomy Dimensions

Autonomy Dimension	Challenge Examples	Impact on Autonomy
Cognitive	Vocabulary/grammar; unclear instructions	Overload hinders strategies/comprehension
Metacognitive	Strategy needs; external help reliance	Builds skills but limits independence
Motivational	Frustration; inconsistent engagement	Reduces intrinsic drive/persistence
Behavioral	Distractions; technical issues	Limits routines/self-directed practice

Table 3

Challenges and Autonomy Reflections

Learner	Challenge	Autonomy Reflection	Quotation
ZK	Vocabulary	Persistence builds	“Use translation or help when stuck.”
AK	Grammar/distractions	Self-regulation from issues	“Frustrations push resource-finding.”
KHS	Vocabulary/sentences	Strategies foster	“Pause/hints; regular practice.”
NAO	Mood/motivation	Emotional management	“Pushing through aids independence.”
HEN	Discipline	Behavioral struggles	“Hard without external push.”

These reflect autonomy as evolving yet vulnerable, addressing the second research question.

3. Implications of Employing Reading Strategies Within Learner Autonomy for EFL Students Using Duolingo and Recommendations for Improving Self-Directed Learning Experiences:

Strategies like contextual guessing and repetition enhanced engagement: “Guess from pictures; note unfamiliar words” (ZK). Gamification catalyzed motivation: “Enjoyable structure; instant feedback corrects” (LNA), supporting incremental acquisition (Grabe & Stoller, 2019).



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Autonomy developed gradually: "From lost to managing pace" (ZK), per Benson (2013). Scaffolding needs persist: "Hard discipline alone" (HEN), favoring blended models (Vygotsky, 1978).

Table 4 Recommendations for Self-Directed Experiences

Recommendation	Rationale	Implementation
Explicit vocab/grammar	Reduce overload	Micro-lessons; glossaries; teacher sessions
Motivational supports	Sustain practice	Peer groups; rewards; check-ins
Metacognitive training	Empower monitoring	Workshops on inference/note-taking; journals
Supportive environments	Minimize disruptions	Space guidance; tech support; offline features
Classroom integration	Balance autonomy/scaffolding	Align tasks; teacher monitoring; feedback

Implications include prioritizing strategies for cognitive growth and blended supports for novices, per the third research question.

Discussion

The findings from this qualitative narrative inquiry affirm the introduction's emphasis on MALL's potential to foster learner autonomy in EFL contexts (Little, 2007), particularly through Duolingo's role in novice learners' self-directed reading comprehension. Learners progressed from initial dependence on teacher guidance to self-regulated engagement, employing strategies such as contextual guessing, repetition, and note-taking to enhance comprehension. For instance, ZK's narrative of managing pace and selecting stories illustrates evolving autonomy as responsibility for personal learning choices, aligning with Oxford's (2017) framework on metacognitive strategies in autonomous language learning. Duolingo's immediate feedback and gamified features reinforced receptive skills, echoing Grabe (2009) on the interdependence of reading with other language proficiencies, thereby addressing RQ1 by demonstrating how these elements boost motivation and confidence without rote repetition of background gaps.

Linguistic and motivational barriers, such as vocabulary frustrations and affective struggles, reflect the introduction's identified novice challenges in vocational settings (Lai & Hwang, 2022), significantly impacting autonomy dimensions like self-efficacy and persistence. Learners like KHS and NAO reported cognitive overload from grammar limitations and mood fluctuations leading to disengagement, consistent with Deci and Ryan's (2002) self-determination theory, where unmanageable tasks filter motivation and hinder intrinsic drive. Contextual disruptions, including technical issues, further limited behavioral control (Ajzen, 1991), extending Benson's (2013) view of autonomy as contextually situated. These insights support RQ2, highlighting how such obstacles test but ultimately refine metacognitive adaptations, underscoring the need for balanced scaffolding in MALL to mitigate efficacy declines.

Overall, the strategic application of reading techniques within learner autonomy frameworks yields profound implications for EFL pedagogy, aligning with the introduction's call for equitable MALL integration (Burston & Giannakou, 2022). Gamification and blended supports enhanced persistence (Reinders & Lou, 2018), promoting incremental skill acquisition and lifelong learning as per Knowles (1975). To optimize self-directed experiences, educators should incorporate explicit vocabulary training, motivational check-ins, and classroom-aligned tasks to address barriers, fostering resilient autonomous readers. This not only informs RQ3 but also guides policy for vocational high



schools, emphasizing hybrid models to cultivate psychological ownership and comprehension proficiency in digital environments.

CONCLUSION

This narrative inquiry illuminates the transformative potential of Duolingo as a MALL tool in cultivating learner autonomy among novice EFL learners in vocational high schools, revealing that self-directed reading comprehension thrives through strategic adaptations like contextual inference and repetition, amplified by gamified feedback to foster metacognitive ownership and motivational resilience. The essence of these findings underscores autonomy not as innate independence but as a dynamic interplay of cognitive scaffolding and affective support, enabling learners to navigate linguistic complexities and contextual disruptions toward deeper text engagement and lifelong language proficiency—directly addressing the core research questions by affirming MALL's equity in bridging novice gaps for practical EFL outcomes.

Yet, the study leaves key aspects unresolved, such as the long-term retention of autonomy skills beyond six months of Duolingo use and the comparative efficacy of app features across diverse vocational programs, warranting future longitudinal and comparative investigations to refine blended pedagogical models and expand MALL's inclusivity in Indonesian EFL contexts.

REFERENCES

- Ajzen, Icek. (1991) "The Theory of Planned Behavior." *Organizational Behavior and Human Decision Processes* 50.2 : 179-211. Print.
- Benson, Phil. (2013) *Teaching and Researching Autonomy in Language Learning*. 2nd ed. London: Routledge. Print.
- Braun, Virginia, and Victoria Clarke. "Using Thematic Analysis in Psychology." *Qualitative Research in Psychology* 3.2 (2006): 77-101. Print.
- Burston, Jack, and Katerina Giannakou. "Mobile-Assisted Language Learning: A Duet of Theory and Practice." *Computer Assisted Language Learning* 35.5-6 (2022): 1125-1148. Print.
- Chen, Chih-Ming, and Gwo-Jen Hwang. "Mobile-Assisted Language Learning in Vocational Education: A Case Study." *Educational Technology & Society* 22.4 (2019): 45-58. Print.
- Creswell, J. W., & Creswell, J. D. (2014) *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. 4th ed. Thousand Oaks: Sage, . Print.
- Dam, Leni. *Learner Autonomy in the Foreign Language Classroom*. Dublin: Authentik, 1995. Print.
- Deci, Edward L., and Richard M. Ryan. *Handbook of Self-Determination Research*. Rochester: U of Rochester Press, 2002. Print.
- Garrison, D. Randy, and Norman D. Vaughan. *Blended Learning in Higher Education: Framework, Principles, and Guidelines*. San Francisco: Jossey-Bass, 2008. Print.
- Grabe, William. *Reading in a Second Language: Moving from Theory to Practice*. New York: Cambridge UP, 2009. Print.
- Grabe, William, and Fredricka L. Stoller. *Teaching and Researching Reading*. 3rd ed. London: Routledge, 2019. Print.
- Knowles, Malcolm S. *Self-Directed Learning: A Guide for Learners and Teachers*. New York: Association Press, 1975. Print.
- Lai, Chun, and Gwo-Jen Hwang. "Mobile-Assisted Language Learning in EFL Contexts: Challenges and Opportunities." *Language Learning & Technology* 26.1 (2022): 1-20. Print.
- Lincoln, Yvonna S., and Egon G. Guba. *Naturalistic Inquiry*. Beverly Hills: Sage, 1985. Print.
- Miles, Matthew B., A. Michael Huberman, and Johnny Saldana. (2014) *Qualitative Data Analysis: A Methods Sourcebook*. 3rd ed. Thousand Oaks: Sage, . Print.
- Reinders, Hayo, and Bin Lou. (2018) "Mobile-Assisted Language Learning and Learner Autonomy." *The Routledge Handbook of Language Learning and Technology* : 200-215. Print