CHAPTER IV
RESEARCH FINDINGS AND DISCUSSION

A. Research Findings
1. Data Exclusion and Inclusion

The researcher found 41 kinds of literature through the data screening process based on titles and abstracts, with the results of 29 studies from searching using Publish or Perish software and 12 studies from manual searches. A total of 3 studies could not be accessed, so the initial data was reduced to 39 remaining studies. Furthermore, the data were filtered based on the type of literature with the condition that only journal articles were allowed to enter the entries. The researcher obtained a total of 6 non-journal article literature that fell under the exclusion criteria of this study, such as books, book chapters, conference proceedings, thesis, and dissertations in this filtering process so that the eligible data remained 33 studies out of a total of 41 studies in total.

The results of the remaining studies were then reduced again because some did not meet the inclusion criteria in this study. Studies that did not meet included studies published by foreign journals (3), studies published before 2019 and after 2023 (1), non-English studies (1), and studies with literature review, meta-analysis, and systematic review methods (1). In addition, nine studies were off-topic and did not focus on using Mobile Assisted Language Learning on Indonesian L2 learners' skills, so they were excluded from the data entry. Ultimately, the author came up with 17 studies that fit the inclusion criteria and were relevant to this study, leaving 23 studies that fell under the exclusion criteria. The excluded studies in this study are outlined in table 4.1 below:

Table 4. 1 The Organized Table of Excluded Studies

No	Exclusion Criteria	Authors and Year	Code and Title
1	Inaccessible (3)	Amira D. Ali (2022)	J11 Effects of a Gamified MALL Application on Developing EFL Preparatory School Students' Speaking and Enjoyment and Reducing Speaking Anxiety[1]
		Putu Agus Widiana, Made Hery Santosa, and I Putu Ngurah age Myartawan (2018)	J27 Tenth Grade Students' Perception toward Mobile Assisted Language Learning (Mall) in Learning English in Buleleng Regency in Academic Year 2017/2018[2]
		Hanum Kurnia Riska and Revy Wahyu Rakhmadiah (2021)	J30 Mobile Assisted Language Learning: BBC Learning English Website in Use[3]
2	Published by non-Indonesian contexts (3)	Mohammad Abu El-Maghd (2021)	J2 Web Project Based Language Learning for Developing the Academic English Speaking Skills among Student Teachers of English[4]
		Hasan Seitan Khashan and Ali Farhan AbuSeileek (2023)	J5 The Effect of Using British Council BBC Learning English Application on the Tenth Grade EFL Students'

---

[1] "EKB" January 21, 2024. https://opde.journals.ekb.eg/article_249943.html

[2] "download.garuda.kemdikbud.go.id" January 21, 2024. https://scholar.google.com/scholar?cites=4311344865688841818&as_sdt=200 5& sciodt=2007&hl=en

[3] "digilib.uinkhas.ac.id" January 21, 2024. http://digilib.uinkhas.ac.id/4987/1/A%20VAST%20PARADIGM%20OF%20ELT-VIRTUAL%20LEARNING%20TO%20LANGUAGE%20TESTING.pdf#page=86

[4] Mohammad Abu El-Magd, "Web Project Based Language Learning for Developing the Academic English Speaking Skills among Student Teachers of English," *CDELT Occasional Papers in the Development of English Education* 73, no. 1 (2021): 131–77, https://doi.org/10.21608/opde.2021.176343.

No	Exclusion Criteria	Authors and Year	Code and Title
			Listening and Speaking Skills and their Attitudes toward it[5]
		Jintavee Khlaisang and Pornpimol Sukavatee (2023)	J36 Mobile-Assisted Language Learning to Support English Language Communication among Higher Education Learners in Thailand[6]
3	Literature Type; Non Journal Article (6)	Ahmed Amine Nour and Yazid Hamdini (2020)	J1 Students' Perceptions towards the use of Digital Video Games to develop the Speaking Skill outside Classroom[7]
		Endang Sulistianingsih, Januarius Mujiyanto, Abdurrachman Faridi, and Sri Wuli Fitriati (2022)	J9 Pre-Service Teachers' Opinion about Using Digital Storytelling as a Tool to Learn Speaking Skills[8]
		Rahmi Rahayu (2016)	J12 The Effectiveness of Using Video-Recorded

---

[5] Hasan Seitan Khashan and Ali Farhan AbuSeileek Professor of TEFL at Al al-, "The Effect of Using British Council BBC Learning English Application on the Tenth Grade EFL Students' Listening and Speaking Skills and Their Attitudes toward It," *Journal of Applied Linguistics and Language Research* 10, no. 2 (2023): 39–62, www.jallr.com.

[6] Jintavee Khlaisang and Pornpimol Sukavatee, "Mobile-Assisted Language Learning to Support English Language Communication among Higher Education Learners in Thailand," *Electronic Journal of E-Learning* 21, no. 3 (2023): 234–47, https://doi.org/10.34190/ejel.21.3.2974.

[7] Ahmed Amine Nour and Yazid Hamdini, "Students' Perceptions towards The Use of Digital Video Games to Develop the Speaking Skill Outside Classroom," 2020.

[8] Endang Sulistianingsih et al., "Pre-Service Teachers' Opinion about Using Digital Storytelling as a Tool to Learn Speaking Skills," *International Conference on Science, Education and Technology*, 2022, 625–31, https://proceeding.unnes.ac.id/index.php/iset.

No	Exclusion Criteria	Authors and Year	Code and Title
			Speaking Task on Students' Speaking Skill[9]
		Gofran Ahmed Alsaid (2020)	J17 Investigating students' Attitudes towards Using Mobile Learning Applications to Develop Speaking Skill[10]
		I Komang Dedik Susila (2023)	J20 The Effectiveness of Mobile Assisted Language Learning (MALL) Through Quizlet Application to Improve Vocabulary in English for Waiter/ss[11]
		Nodistya Septian Indrastana and Renata Kenanga Rinda (2020)	J22 The Implementation of Mobile-Assisted Language Learning Through YouTube Vlogging to Boost Students' Speaking Performance[12]
4	Publication: Before 2019, after 2023 (1)	Sasti Kartika, Aswadi Jaya, Hermansyah, Etty Pratiwi, and	J35 The Use of Mobile-Assisted Language Learning (MALL) Technology in English Class[13]

[9] Rahmi Rahayu, "The Effectiveness of Using Video-Recorded Speaking Task on Students' Speaking Skill," *UIN Syarif Hidayatullah Repository* (Syarif Hidayatullah Jakarta, 2016), https://www.infodesign.org.br/infodesign/article/view/355%0Ahttp://www.abergo.org.br/revista/index.php/ae/article/view/731%0Ahttp://www.abergo.org.br/revista/index.php/ae/article/view/269%0Ahttp://www.abergo.org.br/revista/index.php/ae/article/view/106.

[10] Gofran Ahmed Alsaid, "Investigating Students' Attitudes towards Using Mobile Learning Applications to Develop Speaking Skill," *SUST Repository*, 2020, http://repository.sustech.edu/handle/123456789/25935.

[11] I K D Susila, "The Effectiveness of Mobile Assisted Language Learning (Mall) Through Quizlet Application To Improve Vocabulary in English for …," *… of The International Conference on Multi …*, 2023, 102–8, https://eproceeding.undwi.ac.id/index.php/mdasd/article/view/264%0Ahttps://eproceeding.undwi.ac.id/index.php/mdasd/article/download/264/239.

[12] Nodistya Septian Indrastana and Renata Kenanga Rinda, "The Implementation of Mobile-Assisted Language Learning Through YouTube Vlogging to Boost Students' Speaking Performance" 514, no. Icoship 2020 (2021): 50–54, https://doi.org/10.2991/assehr.k.210101.012.

No	Exclusion Criteria	Authors and Year	Code and Title
		Dewi Kartikasari (2024)	
5	Language; Non-English (1)	Darmawati (2018)	J32 Improving Speaking Skill Through Mobile-Assisted Language Learning (MALL)[14]
6	Methods: Meta-analysis, systematic review, literature review (1)	Miratu Fitria Solekhah and Ria Fakhrurriana (2023)	J41 The Use of ELSA Speak as a Mobile-Assisted Language Learning (MALL) towards EFL Students' Pronunciation[15]
7	Not related to the focus research (8)	Nurianti Sitorus and Ince Dian Aprilyani Azir (2021)	J4 Enhancing Students' Reading and Listening Skills by Using Social Media Language Learning (SMLL) Approach through Features on Instagram Verified Accounts[16]

---

[13] Sasti Kartika et al., "The Use of Mobile-Assisted Language Learning (Mall) Technology in English Class," *Esteem Journal of English Education Study Programme* 7, no. 1 (2024): 109–18, https://doi.org/10.31851/esteem.v7i1.12678.

[14] Darmawati Darmawati, "Improving Speaking Skill Through Mobile-Assisted Language Learning (MALL)," *Jurnal Teknologi Sistem Informasi Dan Aplikasi* 1, no. 1 (2018): 24, https://doi.org/10.32493/jtsi.v1i1.1949.

[15] Miratu Fitria Sholekhah and Ria Fakhrurriana, "The Use of ELSA Speak as a Mobile-Assisted Language Learning (MALL) towards EFL Students Pronunciation," *JELITA: Journal of Education, Language Innovation, and Applied Linguistics* 2, no. 2 (2023): 93–100, https://doi.org/10.37058/jelita.v2i2.7596.

[16] Nurianti Sitorus and Ince Dian Aprilyani Azir, "Enhancing Students' Reading and Listening Skills by Using Social Media Language Learning (SMLL) Approach through Features on Instagram Verified Accounts," *Ethical Lingua: Journal of Language Teaching and Literature*, no. Vol. 8 No. 2 (2021) (2021): 346–56, https://doi.org/10.30605/25409190.310.

No	Exclusion Criteria	Authors and Year	Code and Title
		Edi Sunjayanto Masykuri and Basuki (2022)	J7 Students' Perception of Digital Media for English Teaching Learning[17]
		Sri Damayanti and Irwan (2022)	J8 Senior High School Students' Perceptions about the Use of Smartphones as English Learning Media[18]
		Tubagus ZamZam Al Arif (2019)	J14 Indonesian University Students' Perception and Expectation towards ICT Use in Learning English as a Foreign Language[19]
		Agus Husein As Sabiq and Muhammad Ikhsanul Fahmi (2020)	J16 Mediating Quizzes as Assessment Tool through WhatsApp Auto-response in ELT Online Class[20]
		Dodi Mulyadi, Testiana Deni Wijayatiningsih, Charanjit Kaur Swaran Singh, and Entika	J23 Effects of Technology Enhanced Task-Based Language Teaching on Learners' Listening Comprehension and Speaking Performance[21]

[17] Edi Sunjayanto Masykuri and Basuki Basuki, "Students' Perception of Digital Media for English Teaching Learning," *Teaching English as a Foreign Language Journal* 1, no. 1 (2022): 64–73, https://doi.org/10.12928/tefl.v1i1.171.

[18] Sri Damayanti and Irwan Irwan, "Senior High School Students' Perceptions about the Use of Smartphones as English Learning Media," *IDEAS: Journal on English Language Teaching and Learning, Linguistics and Literature* 10, no. 2 (2023): 2268–76, https://doi.org/10.24256/ideas.v10i2.3564.

[19] Tubagus Zam Zam Al Arif, "Indonesian_University_Students_Perception_and_Exp," *Ijetal* 4, no. 1 (2019): 133–45.

[20] Agus Husein As Sabiq and Muhammad Ikhsanul Fahmi, "Mediating Quizzes as Assessment Tool through WhatsApp Auto-Response in ELT Online Class," *Langkawi: Journal of The Association for Arabic and English* 6, no. 2 (2020): 186, https://doi.org/10.31332/lkw.v6i2.2216.

[21] Dodi Mulyadi et al., "Effects of Technology Enhanced Task-Based Language Teaching on Learners' Listening Comprehension and Speaking Performance," *International Journal of Instruction* 14, no. 3 (2021): 717–36, https://doi.org/10.29333/iji.2021.14342a.

No	Exclusion Criteria	Authors and Year	Code and Title
		Fani Prastikawati (2021)	
		Ramli, Faisal Adi Putra, And Andi Hamzah Fansury (2022)	J26 Technology-Based Collaborative Learning (TBCL) to Enhance Students' Speaking Performance during the Covid-19 Pandemic[22]
		Sebastianus Menggo, Yosefina Helenora Jem, Stanislaus Guna, and Raimundus Beda (2023)	J29 Watch and Practice: Effectiveness of Using WhatsApp as a Multimedia Tool in Boosting Speaking Competence during the COVID-19 Pandemic in Indonesia[23]

[22] Faisal Adi Putra, and Andi Hamzah Fansury, "230-Article Text-621-1-10-20220913" 4, no. 2 (2022): 283–95.

[23] Sebastianus Menggo et al., "Watch and Practice: Effectiveness of Using WhatsApp as a Multimedia Tool in Boosting Speaking Competence during the COVID-19 Pandemic in Indonesia," *International Journal of Information and Education Technology* 13, no. 1 (2023): 143–50, https://doi.org/10.18178/ijiet.2023.13.1.1789.

2. The Results of the Included Studies

A total of 17 studies were obtained after several screening processes and study quality assessments to identify journals considered suitable for this research's criteria. After that, the researcher extracted the data, which was then grouped intotables with their respective study codes. In this section, the author provides an in-depth discussion of the methods and findings obtained in previous studies that became the primary data source in this research. These eligible studies focus on using Mobile Assisted Language Learning (MALL) in English language learning.

Of the seventeen studied, the methods used in obtaining data collection varied, such as quantitative (four studies), qualitative (six studies), and mixed method (seven studies). In addition, most of the studies explored students' perceptions of MALL usage. The findings of these studies reveal that learners have implemented different types of MALLs to hone their language skills. The language skill focused on in this study is speaking skill. However, the results found that using MALL on L2 learners' English learning affects several other skills, such as listening, reading, writing, vocabulary, and learning motivation.

To facilitate the systematic review, the researcher has included a comprehensive table of data extraction of the selected studies in Table 4.2. This table presents a comprehensive summary and classification of the seventeen selected articles into an organized table format, including codes, titles, authors, objectives, methods, collection data, MALL tools and findings. The coding of each study aims to facilitate its classification. The below is table 4.2 is an extraction of data in this systematic review:

Table 4. 2 Data Extracting of the Articles Included

Code	Title	Authors	Aim	Method Used	Data Collection	MALL Tools	Findings
J3	Comparative Efficacy of ELSA and English Speaking Practice: A Quasi-Experimental Study on EFL Learning Outcomes[24]	Arbain, Widi Syahtia Pane, and Raodah Mifdtahul Jannah (2023)	To investigate the effects of the ELSA and English Speaking Practice applications on English pronunciation proficiency.	Quantitative	Quasi-Experimental Pre-Test Post-Test	ELSA Speech App and English Speaking Practice Apps	A significant difference exists in students' pronunciation skills between using ELSA and the English Speaking Practice application. The features of these two applications help students perfect their pronunciation to improve English teaching outcomes significantly and effectively in English language learning.
J6	MALL	Haerazi	To ascertain if	Quantitativ	Pre-	Email,	Implementing MALL

---

[24] Arbain, Widi Syahtia Pane, and Raodah Mifdtahul Jannah, "Comparative Efficacy of Elsa and English Speaking Practice: A Quasi-Experimental Study on EFL Learning Outcomes," *Eduvelop: Journal of English Education and Development* 7, no. 1 (October 27, 2023): 22–31, https://doi.org/10.31605/eduvelop.v7i1.2974.

54

Cod e	Title	Authors	Aim	Method Used	Data Collection	MALL Tools	Findings
	Integrated with Metacognitive Skills to Promote Preservice English Teachers' Intercultural Communicative Competence[25]	(2023)	MALL combined with metacognitive abilities effectively fosters preservice English teachers' intercultural communicative competence (ICC).	e	Experimental Pre-Test Post-Test Questionnair e	Google Meet, WhatsApp devices, YouTube, and Zoom meeting	proved to be effective in improving the English language skills of preservice English teachers, especially in their ICC metacognitive skills.
J10	Exploring Teacher's Perception and Experience of Teaching English Speaking Skills	Insani Nurchintya wati, Nurul Ilmi, Pujalinda Mandarsari, and	To explore educators' attitudes and the elements of virtual meeting tools that support and	Qualitative	Interview	Zoom and Google Meeting	Teachers have a positive response to the use of virtual meetings in English language learning. Some available features, such as breakout rooms,

[25] Haerazi Haerazi, "MALL Integrated with Metacognitive Skills to Promote Preservice English Teachers' Intercultural Communicative Competence," *Journal on English as a Foreign Language* 13, no. 2 (September 19, 2023): 581–609, https://doi.org/10.23971/jefl.v13i2.6536.

Code	Title	Authors	Aim	Method Used	Data Collection	MALL Tools	Findings
	through Virtual Meetings in Higher Education[26]	Syauqiyah Awaliyah Alfini Nur (2023)	undermine the development of speaking abilities.				recording, and screen sharing, are helpful in English learning, especially in practicing students' speaking skills.
J13	Elsa Speak App: Automatic Speech Recognition (ASR) for Supplementing English Pronunciation Skills[27]	Adhan Kholis (2021)	To examine how students' pronunciation skills are improved by utilizing the English Language Speech Assistant (ELSA) Speak App.	Mixed method	Test Pronunciation Interview	ELSA Speech App	The ELSA Speech App can help students pronounce various words more quickly and comprehensively. In addition, this application can motivate students to learn English to effectively improve their pronunciation.

---

[26] Insani Nurchintyawati et al., "Exploring Teachers' Perception and Experience of Teaching English Speaking Skill through Virtual Meeting in Higher Education," *International Journal of Research on English Teaching and Applied Linguistics* 4, no. 1 (July 6, 2023): 12–23, https://doi.org/10.30863/ijretal.v4i1.5007.

[27] Adhan Kholis, "Elsa Speak App: Automatic Speech Recognition (ASR) for Supplementing English Pronunciation Skills," *Pedagogy : Journal of English Language Teaching* 9, no. 1 (May 2, 2021): 01, https://doi.org/10.32332/joelt.v9i1.2723.

Code	Title	Authors	Aim	Method Used	Data Collection	MALL Tools	Findings
J15	Junior High School Students' Lived Experiences of Learning English Using Busuu[28]	Viniandita Citrayasa (2019)	To explain and analyze the real-world English language learning experience that the students had with Busuu.	Qualitative	Interview Observation	Busuu	The experiences students have when using Busuu in English learning include fun learning, being able to use it at any time, being an assistant in learning English, and using it for independent learning.
J18	Autonomous Mobile-Assisted Language Learning for Young Learners	Nurul Annisa Saraswati, Syafi'ul Anam, and Oikurema	To ascertain the influence of Duolingo on young learners' capacity for self-regulated	Qualitative	Observation Interview	Duolingo	The impact of using Duolingo is to increase young learners' motivation in self-learning so that they are more interested in

Code	Title	Authors	Aim	Method Used	Data Collection	MALL Tools	Findings
	Using Duolingo[29]	Purwati (2021)	learning and parents' attitude toward their education.				learning English. In addition, parents also have a positive perception of the use of Duolingo as a means of supporting language learning.
J19	Infusing A Gamification Mechanism Through Duolingo for English Speaking Proficiency: Perceptions of the Indonesian	Moh. Arif Mahbub, Abdur Romsi, Suhaimah Bulqiyah, and Ifan Andri Firdaus (2020)	To investigate EFL teachers' and students' perceptions about using Duolingo as a language-learning digital game to improve English speaking	Mixed method	Questionnaire Interview	Duolingo	Both learners and teachers positively perceiveusing Duolingo in English language learning. The study results revealed that Duolingo motivates and facilitates students in doing assessments.

[29] Nurul Annisa Saraswati, Syafi'ul Anam, and Oikurema Purwati, "Autonomous Mobile-Assisted Language Learning for Young Learners Using Duolin," *JoLLA: Journal of Language, Literature, and Arts* 1, no. 12 (December 29, 2021): 1765–74, https://doi.org/10.17977/um064v1i122021p1765-1774.

Code	Title	Authors	Aim	Method Used	Data Collection	MALL Tools	Findings
	EFL Instructor and Students[30]		abilities.				
J21	Students Perceptions on Mobile-Assisted Language Learning (MALL) in EFL Class: An Overview of Altissia Usage[31]	Rizky Vita Losi (2022)	To determine the students' perception of Altissia as a mobile-assisted language learning tool in EFL classes.	Quantitative	Questionnaire	Altissia	The study's results stated that students had a positive attitude towards using Altissia as Mobile Assisted Language Learning in EFL classes. In addition, Altissia had a positive impact on students' listening skills, vocabulary, and communication skills.
J24	Using Mobile-Assisted Language to	Ranta Butarbutar, Burhanuddi	To investigate how MALL affects	Mixed method	Pre-Test and Post-Test Questionnair	Open Library	MALL significantly affects cognitive skills, especially students'

---

[30] Mahbub et al., "Infusing A Gamification Mechanism through Duolingo for English Speaking Proficiency"; Losi, "Students' Perceptions on Mobile-Assisted Language Learning (MALL) in EFL Class"

[31] Rizky Vita Losi, "Students' Perceptions on Mobile-Assisted Language Learning (MALL) in EFL Class: An Overview of Altissia Usage," *Jurnal Pamator : Jurnal Ilmiah Universitas Trunojoyo* 15, no. 1 (April 6, 2022): 25–36, https://doi.org/10.21107/pamator.v15i1.14103

Code	Title	Authors	Aim	Method Used	Data Collection	MALL Tools	Findings
	Encourage EFL Learning among Indonesian Learners of English[32]	n Arafah, Seli Marlina Raja Leba, Kaharuddin, Angla F Sauhenda, and Santy Monika (2021)	Indonesian learners' English and cognitive skill development.		e Interview		reading skills, which also include their fluency, accuracy, pronunciation and intonation. The students also feel more comfortable learning because MALL is flexible and allows them to study any topic freely.
J28	Students' Perception of the Use of TalkEnglish.com in Teaching Speaking for ESP Class[33]	Tiara Nova Ria, Sri Leatari, Ira Mutiaraningrum, and Nurfisi Arriyani	To find out the students' perception of the affectivity of TalkEnglish.com in improving their speaking	Qualitative	Interview Documentation	TalkEnglish.com	The students have a positive perception of using TalkEnglish.com to learn English. They also find this website useful, flexible, and effective for practicing

---

[32] Butarbutar et al., "Linguistica Antverpiensia"; Ria et al., "Students' Perception of the Use of TalkEnglish.Com in Teaching Speaking for ESP Class"

[33] Tiara Nove Ria et al., "Students' Perception of the Use of TalkEnglish.Com in Teaching Speaking for ESP Class," *ENGLISH FRANCA : Academic Journal of English Language and Education* 7, no. 1 (May 23, 2023): 69, https://doi.org/10.29240/ef.v7i1.6550

Cod e	Title	Authors	Aim	Method Used	Data Collection	MALL Tools	Findings
		(2023)	abilities.				students' speaking skills and customizing their learning needs.
J31	Mobile-Assisted Language Learning (MALL) Innovation for Vocational Education[34]	Made Aryawan Adijaya, I Ketut Armawan, and Maria Goreti Rini Kristiantari (2023)	To explore the efficacy of MALL andits development for vocational education.	Mixed method	Observation Interview Questionnair e	MALL tools are not specified	The implementation of MALL in learning is said to be well-qualified due to several factors. These factors include the suitability of the material provided and the fact that it is cheaper, effective, flexible, and convenient when used. In addition, MALL can also increase motivation, vocabulary, and some other language skills.
J33	The Effect of	Ani	To examine how	Quantitativ	Questionnair	Cake	The use of Cake has a

[34] Made Aryawan Adijaya, I Ketut Armawan, and Maria Goreti Rini Kristiantari, "Mobile-Assisted Language Learning (MALL) Innovation for Vocational Education," *International Journal of Language Education* 7, no. 3 (October 6, 2023), https://doi.org/10.26858/ijole.v7i3.52910

Code	Title	Authors	Aim	Method Used	Data Collection	MALL Tools	Findings
	Cake Usage as Mobile-Assisted Language Learning on Students' English Speaking Skill at SMP Hang Tuah 1 Belawan[35]	Deswita Chaniago and Mariana (2022)	students' Cake use affects their English speaking ability at SMP Hang Tuah 1 Bealwan.	e	e		significant and positive effect on students' speaking skills because it is easy to use and has many features that can help students improve their speaking skills. In addition, cake can also be a creative and innovative medium for teaching English.
J34	Mobile Assisted Language Learning: EFL Learners' Perceptions toward the Use of Mobile Applications in	Endang Darsih and Nida Amalia Asikin (2020)	To investigate college students' perceptions of using MALL to learn English.	Mixed method	Questionnaire Interview	Kamusku, Google Translate, Elsa Speak, Youtube, Zoom, and	Students positively perceive the use of MALL in English language learning because of its easy-to-use nature. They stated that MALL can improve their English

Code	Title	Authors	Aim	Method Used	Data Collection	MALL Tools	Findings
	Learning English[36]					Google Meeting	skills, including speaking, listening, writing, reading, pronunciation, vocabulary, grammar, and learning motivation.
J37	Mobile-Assisted English Language Learning for Young Learners during COVID-19 Distance Learning: Teachers'	Misdi, Anisa Andiani Ramadina, Nor Syamimi Iliani Che Hassan, and Kardi Nurhadi	To investigate TEYL instructors' experiences utilizing photovoice to perform MALL during the COVID-19 pandemic during	Qualitative	Photovoice Interview	Youtube	MALL provides convenience and a positive impact for teachers in learning during COVID-19. In addition, there are also obstacles caused by internet disruptions, difficulties in assisting young learners, and

---

[36] Endang Darsih and Nida Amalia Asikin, "Mobile Assisted Language Learning: EFL Learners' Perceptions toward the Use of Mobile Applications in Learning English," *English Review: Journal of English Education* 8, no. 2 (July 2, 2020): 19, https://doi.org/10.25134/erjee.v8i2.2999

Cod e	Title	Authors	Aim	Method Used	Data Collection	MALL Tools	Findings
	Experiences and Voices[37]	(2023)	the remote learning period.				more effort to prepare interesting learning materials.
J38	Students' Perception toward Mobile-Assisted Language Learning (MALL) in English Speaking Class during the Pandemic[38]	Lisa Rakhmanin a, Melati, and Siti Masitah (2023)	To explore how students perceive the various technologies used in English-speaking classrooms to assist with English-speaking learning activities and the good and bad values that could	Qualitative	Questionnair e Observation Interview	Video blogging, Instagram, Youtube, and Zoom	The findings show that students' perceptions of using MALL in English-speaking classes are positive. In addition, positive and negative values are obtained from students when using MALL. The positive values include open-mindedness, simplicity, and modernity. In contrast, the negative

[37]M isdi et al., "Mobile-Assisted English Language Learning for Young Learners during COVID-19 Distance Learning: Teachers' Experiences and Voices," *Register Journal* 16, no. 1 (May 24, 2023): 168–85, https://doi.org/10.18326/register.v16i1.168-185.

[38] Lisa Rakhmanina, Melati, and Siti Masitah, "Students' Perception toward Mobile-Assisted Language Learning (MALL) in English Sepaking Class during the Pandemic," *Edu-Ling: Journal of English Education and Linguistic 7*, no. 1 (December, 2023): 80, https://journals.unihaz.ac.id/index.php/edu-ling

Cod e	Title	Authors	Aim	Method Used	Data Collection	MALL Tools	Findings
			encourage students to learn English during a pandemic.				values are the possibility of addiction, difficulty sorting out hoax news, and difficulty in communication between individuals.
J39	Mobile Assisted Language Learning: Practices and Readiness in EFL Speaking Class[39]	Ibda Rosdiana and Anin Eka Sulistyaati (2019)	To explore the students' preparedness for using MALL in the EFL speaking lesson.	Mixed method	Questionnair e	MALL tools are not specified	The students have a positive attitude towards implementing MALL in English class. In addition, the results mentioned that students are ready for MALL-based learning with the support of smartphones and mobile data for educational purposes.
J40	Enhancing	Anis	To investigate	Mixed	Questionnair	Duolingo	A significant difference

[39] Ihda Rosdiana and Anin Eka Sulistyawati, "Mobile Assisted Language Learning: Practices and Readiness in EFL Speaking Class," *E-Structural* 2, no. 01 (July 5, 2019): 51–67, https://doi.org/10.33633/es.v2i1.2430.

| Code	Title	Authors	Aim	Method Used	Data Collection	MALL Tools	Findings
	Undergraduate Students; Speaking Performance through Mobile-Assisted Language Learning[40]	Setiyani, Mohammad Syarif Sumantri, Ratna Deanti, and Ninuk Lustyantie (2022)	the effect and how the University of Muhammadiyah Jakarta's EFL speaking course uses mobile-aided language learning (MALL) for instruction and learning.	method	e Interview Pre-Test and Post-Test	and MALL	exists between before and after using MALL on students' speaking skills. Their speaking aspects, such as pronunciation, vocabulary, grammar, fluency, and English speaking style, improved after being given the MALL method.

[40] Setiyanti et al., "Enhancing Undergraduate Students' Speaking Performance through Mobile-Assisted Learning Language."

a. MALL Used for Indonesian L2 Learners

From all the studies included in this research, the researcher found various types of MALLs used by L2 learners and teachers in learning and teaching English in Indonesia. In the last five years, MALL has been used in education to help students in the learning process, especially L2 learners. The percentage jumped even more during the COVID-19 pandemic, which led to the implementation of online learning, which certainly involved MALL in distance learning activities.

Most MALL tools used are YouTube and Zoom, with a percentage of 17% each, followed by Google Meeting and Duolingo, with 13%. In addition, several other MALL tools serve as tools to improve learners' language skills, especially their speaking skills, such as ELSA, Cake, Busuu, Altissia, and many more. The percentage of MALL tools used in the learning process of Indonesian L2 learners in the selected study is depicted in diagram 4.3 below.

MALL Platforms
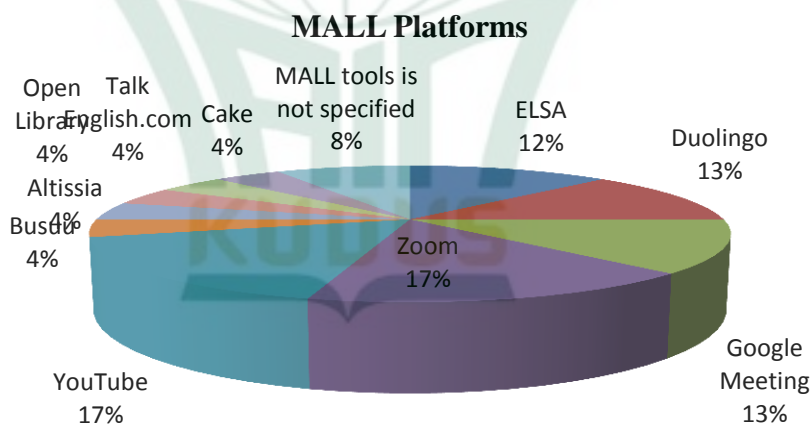
Figure 4. 1 MALL Tools Used in Included Studies

Based on the data in diagram 4.3 above, various forms of MALL have been implemented in English language learning by Indonesian L2 learners. Of all the MALLs, Zoom, Google Meet and YouTube are the most widely used tools for English language learning needs. Out of seventeen studies, five highlighted the impact of using the three MALL tools. Study J6 by Haerazi revealed that the implementation of YouTube, Zoom, Google Meet, WhatsApp, and Email positively impacted the metacognitive abilities and intercultural communicative competence of English education students, commonly referred to as pre-service English teachers. In addition, students' speaking skills also develop because of the features in Zoom and Google Meet that provide opportunities for students to interact with each other and explore their verbal speaking skills following the findings in J10's study.

In perception, learners showed a positive attitude towards utilizing MALL, especially the Zoom, Google Meet and YouTube tools. Study J38 revealed that the three tools are very helpful for learning English, especially in online classes, because they are portable, practical, and modern. Study J34 conducted by Darsih and Asikin also added that YouTube, Zoom, Google Meet, Kamusku, Google Translate and ELSA Speak are easy tools to use both inside and outside of learning hours so that they are very useful in helping them to master English anytime and anywhere. In addition, J37's study highlighted the positive perceptions of TEYL teachers who implemented MALL during the COVID-19 pandemic. The young learners' mastery of English vocabulary and motivation improved during the learning process.

The next most common platform learners useto hone their English skills is Duolingo, with a total percentage of 13%. This is motivated by the many benefits of using Duolingo during the English learning. Following the findings in J40's study, Duolingo provides a positive perception of improving students' speaking skills, especially in pronunciation, grammar, fluency, and

speaking style. Students find the learning experience enjoyable as the platform can customize their learning needs and comfort in studying J19. In addition, Duolingo also facilitates them with a points feature that arouses students' motivation and competitive spirit in learning English. The positive perception towards using Duolingo was also mentioned in study J20. Young learners are more interested in learning with Duolingo because its features are more like a game than a learning application. It was mentioned that it can increase learning motivation and enrich young learners' English vocabulary.

The platform widely used by learners in the English language learning process is the ELSA Speak App, which has a usage presentation of 13%. ELSA is a language learning platform with innovative features integrated with automatic speech recognition (ASR), and in J3's study, it proved effective in learning pronunciation. Another ELSA feature is the various levels of learning experience, from beginner to advanced, with various content on various themes, learning videos, and certification opportunities. In addition to improving pronunciation, ELSA is also said to increase students' enthusiasm or motivation to learn and reduce their boredom in learning English.

Furthermore, further study by Kholis (J13) highlighted that students can more easily correct their pronunciation and vocabulary and adjust to native speakers after using ELSA. In addition, ELSA features such as vowels, consonant sounds, diphthongs, syllabic, and word stress also facilitate the mastery of their speaking skills. Overall, ELSA can help them improve their language skills, especially speaking skills, and motivate them to learn English both in and outside of class. It can be concluded that the use of ELSA has a significant effect on learners' speaking skills, especially their pronunciation.

The MALL tools used in the next study were Cake, Busuu, and Altissia, with 4% each. Study A33 highlights the effect of Cake as a MALL on students' speaking skills. The results of this study explained that using Cake

had a significant positive effect on learners' English speaking skills. Cake provides materials that students can choose according to their learning needs and can be used to practice learning to speak English independently anytime and anywhere. In addition, Cake features points and user rating rewards to motivate them to be more active in learning English and to hone their speaking skills regularly.

A15 study by Citrayasa emphasized students' experiences and perceptions when using Busuu as an English learning medium. His findings reveal that learning English using the Busuu platform is more enjoyable than conventional learning. In addition, students can learn outside of school hours when they have free time, accompanied by various materials, tasks, learning activities, and rewards. These rewards can directly motivate them to learn English.

In addition to Busuu, another Altissia platform was explored in J21's study. The study's findings stated that students had positive perceptions of using Altissia in the EFL classroom. Learners' vocabulary mastery, listening skills, accent, and vocabulary improved after using Altissia as learning media. In addition, students felt more interested and motivated to practice communication in English more often. Overall, from these three studies, Cake, Busuu, and Altissia tools can positively affect students' speaking, listening, writing, reading, vocabulary, pronunciation, grammar, fluency, and learning motivation.

The Open Library platform was recommended for English language learning in the J24 study. It significantly affects the development of learners' cognitive abilities, including reading and listening skills. In addition, learners recognized that they felt more comfortable, flexible, and free in choosing learning topics. The next study, J28, explored the use of TalkEnglish.com in teaching speaking in ESP classes. The findings of this study revealed that TalkEnglish.com has great benefits, especially for ESP learners, because it presents real-world scenario materials with features that

70

allow self-learning for language skills improvement, especially listening and speaking skills, without face-to-face interaction.

The two source studies, study J39 and J3, did not specify the MALL tools discussed. Study J39 highlighted the benefits of MALL on learners' language skills and their readiness towards MALL-based learning in EFL speaking classes. The findings stated that learners had positive perceptions and were willing to use MALL in learning. In addition, learners also think that MALL can help them enrich vocabulary, pronunciation, and confidence in practicing English. In J31's study, MALL also provides an interesting and interactive experience that motivates students and makes it easier for them to master English.

b. Distribution of The Studies by Years

In this systematic review, the researcher limited the search to studies within the last five years. Seventeen studies that met the eligibility standards were published between 2019-2023. Most studies were published in 2023, with seven studies (n=0 or 41%). Two studies (n=2 or 12%) were published in 2019, and two (n=2 or 12%) were published in 2020. After that, publications increased in 2021 and 2022, with three studies (n=3 or 17%) found in 2021 and another three studies (n=3 or 18%) in 2022.

Publication Year

Legend:
- 2019
- 2020
- 2021
- 2022
- 2023

Values shown: 12%, 12%, 17%, 18%, 41%
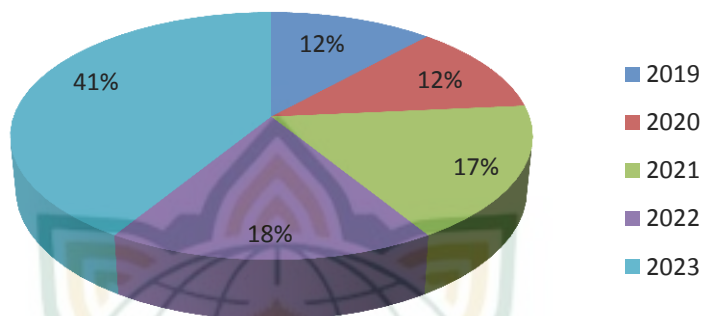
Figure 4. 2 Distribution of the Year of Studies

Based on diagram 4.4 above, the application of MALL in English language learning has increased significantly every year. The increasingly diverse and popular MALL tools used for learning over time are one of the factors in the massive use of MALL today. Using the keywords mobile-assisted language learning, MALL, speaking skills, ELT, L2 learners, and Indonesia, researchers found 17 articles that fit the criteria of this study within the last five years. In 2019 and 2020, a total of 4 studies were found, with two each year. After that, a total of 6 studies were found in 2021 and 2022, with three studies each year.

In the following years, MALL devices have become widely recognized and popular for language learning, especially English. Learners who are getting used to using smartphones for learning after the Covid-19 pandemic is one of the reasons why MALL has become popular in the last five years. Almost all schools in Indonesia implement MALL in their teaching and learning process when distance learning is implemented. In addition, MALL has been rapidly developed and

equipped with advanced features that greatly support learners in honing their language skills, especially their speaking skills. In 2023, studies on the use of MALL increased rapidly with the discovery of 7 studies focusing on various MALL tools such as Duolingo, Cake, Altissia, ELSA, Zoom, Google Meet, and many more.

Of all the studies obtained in this research, the data collection methods used varied from qualitative quantitative to mixed methods. From 2019 to 2023, most of the methods used were mixed methods, with a percentage reaching 41% and a total of 7 studies. Another method, namely qualitative, differs between one study and studies that use mixed methods, which is a total of 6 studies and a percentage of 35%. In addition, studies using quantitative methods amounted to 4 with the lowest percentage of 24%. The collection data used also varies in eligible studies in this research, but the most widely used collection data is interviews.

3. The Main Findings of The Use of Mobile-Assisted Language Learning for Enhancing Indonesian L2 Learners' Speaking Skills
a. Learning Basic Language Skills

The researcher found that several learners' language skills can be enhanced after implementing MALL in English learning. Although this study focused on improving learners' speaking skills, there were findings that other language skills, such as listening, reading, writing, vocabulary, pronunciation, grammar, fluency, and learning motivation were also improved. Of the seventeen studies the researcher analyzed, some focused on several language skills. Only three studies focused on learners' speaking skills. For more details, bar chart 4.3 below show several students' language skills distribution in the studies.

Basic Language Skills

■ Basic Language Skills
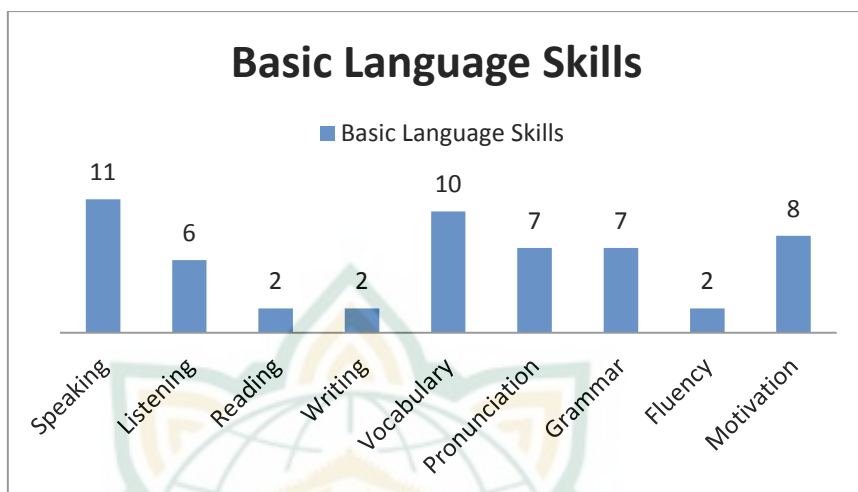
Figure 4. 3 Basic Language Skills

The language skill that is most prevalent in the eligible studies of this research is speaking skill, with a total of eleven studies (J3, J6, J10, J15, J19, J21, J28, J31, J33, J34, and J9) highlighting this skill. Given that speaking skills were the focus of this study, the researcher found that learners' speaking skills experienced a significant improvement after actively using the MALL in their English language learning. Furthermore, vocabulary acquisition became the second most prevalent basic language skill revealed in the studies after speaking skills. A total of ten studies coded J6, J13, J15, J18, J21, J24, J28, J31, J34, and J40 highlighted the development of learners' vocabulary acquisition in the implementation of MALL.

Moreover, using MALL also affects basic language skills such as listening, reading and writing. Of the three skills, listening skills are highlighted the most in the eligible studies of this research, with a total of six studies (J6, J15, J21, J24, J31, and J34). These studies revealed that L2 learners' listening skills improved when introduced to the MALL platform. However, reading and writing skills were rarely highlighted and only touched upon by a few of seventeen research studies. L2 learners'

reading skills were addressed by two studies (J24 and J34). In addition, writing skills were highlighted in studies coded J15 and J34.

The next skill, a branch of speaking skill, is pronunciation acquisition. Seven studies (J3, J13, J15, J21, J28, J34, and J40) highlight the effect of MALLs on learners' pronunciation mastery. The result is that L2 learners' pronunciation can be honed gradually after using MALLs such as Cake and ELSA Speak tools that feature automatic speech recognition (ASR) and are integrated with artificial intelligence (AI) that can correct their pronunciation. In addition, grammar comprehension was also highlighted in seven selected studies in this research; namely studies coded J6, J13, J21, J24, J28, J34, and J40. These studies suggest that the learning experience using the MALL platform can improve the ability to understand the intricacies of English grammar in L2 learners.

Furthermore, fluency is also included in one of the branches of speaking skills. However, only two studies (J13 and J40) mentioned students' fluency in English, so fluency is the least discussed skill in the eligible studies in this research besides reading and writing skills. The two studies revealed that the task features of MALL tools, such as ELSA Speak App and Duolingo, can train learners' fluency. With creative and diverse MALL features, learners can be motivated to open MALL-integrated learning apps more often for their English language learning. Eight studies highlighted the impact of MALL on students' learning motivation, namely, studies coded J13, J15, J18, J19, J21, J24, J28, and J31.

b. Advantages of the MALL Used for Indonesian L2 Learners

Table 4.3 summarizes the advantages of using MALL for English language learning for L2 learners. This table lists the advantages and examples of related studies supporting each implementation advantage of MALL.

Table 4. 3 Advantages of Using MALL for L2 Learners

No	Advantages	Sample Studies
1	Enhancing learners' speaking skills	J3 by Arbain et al. (2023), J6 by Haerazi (2023), J10 by Nurchintyawati et al. (2023), J15 by Citrayasa (2019), J19 by Mahbub et al. (2020), J21 by Losi (2022), J28 by Ria et al. (2023), J31 by Adijaya et al. (2023), J33 by Chaniago and Mariana (2022), J34 by Darsih and Asikin (2020), and J39 by Rosdiana and Sulistyawati (2019)
2	Enriching learners' vocabulary exploration	J6 by Haerazi (2023), J13 by Kholis (2021), J15 by Citrayasa (2019), J18 by Saraswati et al. (2021), J21 by Losi (2022), J24 by Butarbutar et al. (2021), J28 by Ria et al. (2023), J31 by Adijaya et al. (2023), J34 by Darsih and Asikin (2020), and J40 by Setiyani et al. (2022)
3	Improving learners' pronunciation	J1 by Arbain et al. (2023), J13 by Kholis (2021), J15 by Citrayasa (2019), J21 by Losi (2022), J28 by Ria et al. (2023), J34 by Darsih and Asikin (2020), and J40 by Setiyani et al.

76

		(2022)
4	Expanding learners' grammar understanding	J6 by Haerazi (2023), J13 by Kholis (2021), J21 by Losi (2022), J24 by Butarbutar et al. (2021), J28 by Ria et al. (2023), J34 by Darsih and Asikin (2020), and J40 by Setiyani et al. (2022)
5	Develop learners' metacognitive skills	J6 by Haerazi (2023)
6	Enhancing learners' listening skills	J6 by Haerazi (2023), J15 by Citrayasa (2019), J21 by Losi (2022), J24 by Butarbutar et al. (2021), J31 by Adijaya et al. (2023), and J34 by Darsih and Asikin (2020)
7	Improving learners' English fluency	J13 by Kholis (2021) and J40 by Setiyani et al. (2022)
8	Enhancing learners' writing skills	J15 by Citrayasa (2019) and J34 by Darsih and Asikin (2020)
9	Enhancing learners' reading skills	J24 by Butarbutar et al. (2021) and J34 by Darsih and Asikin (2020)
10	Increasing learners' motivation	J13 by Kholis (2021), J15 by Citrayasa (2019), J18 by Saraswati et al. (2021), J19 by Mahbub et al. (2020), J21 by Losi (2022), J24 by Butarbutar et al. (2021),

		J28 by Ria et al. (2023), and J31 by Adijaya et al. (2023)
11	Facilitating learners' learning engagement	J18 by Saraswati et al. (2021), J19 by Mahbub et al. (2020), and J39 by Rosdiana and Sulistyawati (2019)
12	Developing learners' sense of competitiveness	J15 by Citrayasa (2019) and J19 by Mahbub et al. (2020)
13	Increasing learners' confidence in speaking English	J21 by Losi (2022) and J28 by Ria et al. (2023)
14	Correcting learners' accents	J21 by Losi (2022) and J40 by Setiyani et al. (2022)
15	Improving learners' cognitive skills	J24 by Butarbutar et al. (2021)
16	Facilitating learners' independent and self-directed learning	J15 by Citrayasa (2019), J28 by Ria et al. (2023), and J40 by Setiyani et al. (2022)
17	Improving learners' sensitivity to intercultural knowledge	J6 by Haerazi (2023)

c. Challenge of Implementing the MALL Used for Indonesian L2 Learners

MALL integration for language learning, especially English, is used extensively today in Indonesia. The popularity of MALL has increased over the past five years or so, especially after the implementation of online learning, which forced learners

to do independent learning at home during the COVID-19 pandemic. In addition, the myriad advantages and benefits obtained in using MALL support the many implementations of MALL in language learning today. However, aside from the many advantages that MALL provides, several challenges arise in implementing MALL in English language learning. Therefore, the findings of these challenges are presented by the author briefly in table 4.4 below:

Table 4. 4 Challenges of Using MALL for L2 Learners

No	Challenges	Sample Studies
1	Internet connection issues	J10 by Nurchintyawati et al. (2023), J19 by Mahbub et al. (2020), J28 by Ria et al. (2023), J34 by Darsih and Asikin (2020), J37 by Misdi et al. (2023), and J38 by Rakhmanina et al. (2023)
2	Equipment and software problems	J28 by Ria et al. (2023)
3	The less conducive learning atmosphere	J10 by Nurchintyawati et al. (2023) and J37 by Misdi et al. (2023)
4	Limited student engagement	J10 by Nurchintyawati et al. (2023), J15 by Citrayasa (2019), and J38 by Rakhmanina et al. (2023)
5	Lack of motivation	J10 by Nurchintyawati et al. (2023) and J38 by Rakhmanina et al. (2023)
6	Lack of confidence and speaking anxiety	J34 by Darsih and Asikin (2020), J38 by Rakhmanina et al. (2023), and Setiyani et al. (2022)

| 7 | Difficult to operate | J34 by Darsih and Asikin (2020) |

d. The Effectiveness of MALL Used for Indonesian L2 Learners

Based on the findings of various eligible studies in this research, implementing MALL in English language learning effectively improves learners' language skills. The majority of the studies suggest that MALL has significant effectiveness on learners' L2 speaking skills. For example, the J3 study conducted by Arbain et al. confirmed that the ELSA Speak App, one of the MALL tools,improved learners' pronunciation skills.[41] Besides the ELSA Speak APP, the Cake platform was also mentioned in study J33 by Chaniago and Mariana (2022) as having a great influence on improving students' speaking skills and being one of the creative and innovative media in online learning. This was confirmed by Nurchintyawati et al. in study J10, who said that the application of MALL-based learning with virtual meeting tools such as Google Meetings and Zoom is an effective method of teaching English speaking.[42]

Study J6 by Haerazi also explained that MALLs proved effective in developing learners' intercultural communicative competence (ICC) and metacognitive skills.[43] MALL features that provide diverse intercultural materials and interactive learning experiences can

---

[41] Arbain, Widi Syahtia Pane, and Raodah Mifdtahul Jannah, "Comparative Efficacy of Elsa and English Speaking Practice: A Quasi-Experimental Study on EFL Learning Outcomes," *Eduvelop: Journal of English Education and Development* 7, no. 1 (October 27, 2023): 22–31, https://doi.org/10.31605/eduvelop.v7i1.2974.

[42] Insani Nurchintyawati et al., "Exploring Teachers' Perception and Experience of Teaching English Speaking Skill through Virtual Meeting in Higher Education," *International Journal of Research on English Teaching and Applied Linguistics* 4, no. 1 (July 6, 2023): 12–23, https://doi.org/10.30863/ijretal.v4i1.5007.

[43] Haerazi Haerazi, "MALL Integrated with Metacognitive Skills to Promote Preservice English Teachers' Intercultural Communicative Competence," *Journal on English as a Foreign Language* 13, no. 2 (September 19, 2023): 581–609, https://doi.org/10.23971/jefl.v13i2.6536.

improve their communication skills, cultural insights, and intercultural sensitivity. It can effectively promote meaningful cross-cultural communication. Apart from speaking skills, MALLs are also effective in acquiring other language skills. One study, J18, by Saraswati et al. revealed that integrating MALL into English language learning can improve learners' learning engagement through autonomous learning.[44] Their learning motivation increased significantly and resulted in positive input to their linguistic ability.

Although most studies have found the effectiveness of MALL on English language learning for L2 learners, study J34 by Darsih and Asikin found that most students did not find MALL effective in English language learning.[45] Different learning styles make some students understand better the explanation given directly by the teacher than through MALL. The uneven stability of the internet network and the high cost of internet quotas are also factors that add to the obstacles faced when implementing MALL in education. Not all regions in Indonesia have stable internet access, and the economic class of students varies. In addition, distractions on smartphones, such as the appearance of notifications or advertisements that are not following learning when operating the MALL, are an obstacle to integrating the MALL, causing a less effective learning atmosphere for learners. These constraints were highlighted in the J10 study conducted by Nurchintyawati et al.[46]

---

[44]Nurul Annisa Saraswati, Syafi'ul Anam, and Oikurema Purwati, "Autonomous Mobile-Assisted Language Learning for Young Learners Using Duolin," *JoLLA: Journal of Language, Literature, and Arts* 1, no. 12 (December 29, 2021): 1765–74, https://doi.org/10.17977/um064v1i122021p1765-1774.

[45]Endang Darsih and Nida Amalia Asikin, "Mobile Assisted Language Learning: EFL Learners' Perceptions toward the Use of Mobile Applications in Learning English," *English Review: Journal of English Education* 8, no. 2 (July 2, 2020): 19, https://doi.org/10.25134/erjee.v8i2.2999.

[46]Insani Nurchintyawati et al., "Exploring Teachers' Perception and Experience of Teaching English Speaking Skill through Virtual Meeting in Higher Education".

B. Discussion

1. The type of MALL tools commonly used in studies that discuss the use of Mobile Assisted Language Learning (MALL) towards L2 speaking skills in Indonesian ELT

The findings from eligible studies published in the last five years (2019-2023) show that L2 learners have used various MALL tools to learn and teach English. MALL-integrated foreign language learning has been popular among second language learners, especially in 2020, when the COVID-19 pandemic led to limited in-person interactions, so learning was enforced online. Indonesia, being one of the countries that require distance learning, makes MALL increasingly widely used by teachers and students to carry out the process of mastering languages, especially English, as in line with the systematic review revealed by Rajendran and Yunus that the English mobile application or commonly known as MALL is a potential tool that is useful for improving language skills, especially speaking skills.[47]

From the data extraction and synthesis process, the researcher found that several MALL tools/tools are most widely used to improve Indonesian L2 learners' speaking skills by studies published in 2019-2023. These MALL tools are YouTube 17%, Zoom 17%, Google Meeting 13%, Duolingo 13%, and ELSA Speak App 12%. These MALL tools can only be operated on highly compatible mobile devices such as smartphones or tablets. This is in line with the previous study by Irudayasamy et al., which found that smartphones and tablets are the most widely used technologies for MALL-based English language teaching.[48] However, Duman et al. found that most technologies/media to support English language learning are cell phones, with a

---

[47]Rajendran and Md Yunus, "A Systematic Literature Review on the Use of Mobile-Assisted Language Learning (MALL) for Enhancing Speaking Skills among ESL and EFL Learners."

[48]Julius Irudayasamy, SaniYantanduUba, and Carmel Antonette Hankins, "Exploration and Exploitation of Mobile Apps for English Language Teaching: A Critical Review," *English Language Teaching* 14, no. 4 (March 24, 2021): 43, https://doi.org/10.5539/elt.v14n4p43.

percentage of 41%, and PDAs, with a percentage of 24%.[49] This statement contradicts this study, which did not find a single eligible study that used cell phones or PDAs as devices for MALL operations in the last five years.

According to four out of seventeen eligible studies in this research, YouTube is one of the most widely used MALL tools for English learners to improve their speaking skills. YouTube is an application where users can access, upload, or share various videos, especially educational videos, with features like commenting and subscribing to channels. Teachers can use learning videos from educational creators already available on YouTube or upload educational recordings containing materials made independently for learners' learning needs. The involvement of educational videos on YouTube channels can directly stimulate learners' audio and visual abilities to maximize learning achievement. This is in accordance with the study by Misdi et al., which states that learners are more enthusiastic about receiving lessons in the form of YouTube videos, making the learning atmosphere more fun and interesting.[50] The features offered by the YouTube platform can help learners develop their language skills, one is the subtitle feature, which can enrich learners' vocabulary mastery. In addition, the comment feature can also be used to interact with learners and teachers.

Video conferencing MALL tools such as Zoom and Google Meet are also widely used by L2 learners for language learning, especially English. Zoom is the first MALL platform used by L2 learners in line with YouTube, with 17% in the published studies from 2019 to 2023. Zoom is a video conferencing application with various features such as screen sharing, room chat, and document collaboration. It can also be used for large-scale meetings.

---

[49]Guler Duman, Gunseli Orhon, and Nuray Gedik, "Research Trends in Mobile Assisted Language Learning from 2000 to 2012," *ReCALL* 27, no. 2 (May 2015): 197–216, https://doi.org/10.1017/S0958344014000287.

[50]Misdi et al., "Mobile-Assisted English Language Learning for Young Learners during COVID-19 Distance Learning: Teachers' Experiences and Voices," *Register Journal* 16, no. 1 (May 24, 2023): 168–85, https://doi.org/10.18326/register.v16i1.168-185.

Google Meeting was the second most used MALL platform with 13% and three studies. Similar to Zoom, Google Meeting is a video conferencing platform that allows users to connect in real-time and online via voice, video, or chat in one platform.

According to the study by Nurchintyawati et al., L2 learners' speaking skills significantly improved after using Zoom and Google Meetings due to the many benefits and features that facilitate learners in teaching their English speaking skills.[51]Using video conferencing, learners and teachers can communicate and interact face-to-face even though they are not in the same place. In addition, the recording, breakout rooms, and screen-sharing features can facilitate learners to conduct learning activities that involve group work, such as group discussions and presentations. Overall, MALL tools such as Zoom and Google Meetings are in high demand by L2 learners for language learning due to the ease of operation and the many benefits of mastering their speaking skills.

Next is Duolingo, the most used MALL platform in English language learning after YouTube, Zoom, and Google Meetings, with a usage percentage reaching 13% on par with the Google Meet platform. Three studies highlighted using Duolingo as a learning tool for English classes. Duolingo is a gamification-based language learning app that includes engaging features such as challenging tasks, rewards, and user achievement rankings that allow them to hone their target language skills. Tasks and activities on Duolingo, such as reciting a long sentence, directly involve learners' speaking skills so that their mastery of pronunciation, vocabulary, grammar, and fluency can be honed.[52] Not only that, after completing the speaking task, there is a pronunciation correction feature so that learners can correct any pronunciation errors. Other features, such as interactive flashcards and the provision of rewards, which

---

[51]Insani Nurchintyawati et al., "Exploring Teachers' Perception and Experience of Teaching English Speaking Skill through Virtual Meeting in Higher Education".

[52]Anis Setiyanti et al., "Enhancing Undergraduate Students' Speaking Performance through Mobile-Assisted Learning Language," n.d.

are then accumulated into each user's ranking, can instill a spirit of competition, increase learning engagement and increase their learning motivation so that they are encouraged to communicate using English.

The last MALL platform often used to enhance learners' L2 skills in studies published in 2019-2023 is the ELSA Speak App, with a percentage of 12% and three discussion studies. The study by Kholis revealed that ELSA Speak is widely used in speaking classes because this platform greatly benefits learners' speaking skills, especially in the accuracy of pronunciation, vocabulary, grammar, and fluency.[53] ELSA Speak is an English learning application integrated with Artificial Intelligence (AI) and speech recognition that can detect student pronunciation errors. Students can choose stages and levels that suit their abilities during its use, thus creating a healthy and more comfortable learning atmosphere. In addition, the error correction mechanism/response apps feature integrated with advanced AI and feedback that can detect learners' pronunciation errors can make it easier to find out and evaluate the improvement of their pronunciation errors.

Of the five MALL tools most used for L2 learners' speaking skill acquisition in the last five years of eligible studies, all are high-bandwidth type applications. This is due to the large data transfer used in operating the MALL, especially providing high-quality image, sound and video features. Furthermore, the five MALL tools that L2 learners most widely use are differentiated by researchers based on synchronous and asynchronous types. The synchronous type allows users to communicate directly and synchronize virtually in one application. In contrast, the asynchronous type cannot bring users together to communicate and synchronize directly, but it can be done in a flexible time

---

[53]Adhan Kholis, "Elsa Speak App: Automatic Speech Recognition (ASR) for Supplementing English Pronunciation Skills," *Pedagogy : Journal of English Language Teaching* 9, no. 1 (May 2, 2021): 01, https://doi.org/10.32332/joelt.v9i1.2723.

and place.[54] The results state that MALLs with asynchronous types, namely YouTube, Duolingo, and ELSA Speak App, are more popular for learners to master speaking skills, with a percentage of 59% and 10 platform uses. In addition, 41% of the study, with 7 uses, chose MALL tools with synchronous types, namely Zoom and Google Meetings.

From the overall findings in this systematic review, gaps and new findings emerged, namely five MALL tools that are the most used tools by Indonesian L2 learners in learning English, especially to improve speaking skills. The MALL tools that have become learners' favorite in learning English include YouTube, Zoom, Google Meeting, Duolingo, and the ELSA Speak App. Most MALLs used are asynchronous type applications, and all have high bandwidth in operation. The many benefits that can be obtained in learners' English language acquisition and speaking skills make the five MALL tools widely used in English language learning. Therefore, the result of this systematic review is a new finding and a gap to previous studies that only discuss the trend of research topics related to MALL, its effects, and commonly used tools in MALL-integrated learning.

2. **The Effect of Using Mobile Assisted Language Learning (MALL) towards L2 speaking skills in Indonesian ELT**

The implementation of MALL in English language learning has been widely done in Indonesia, especially since the implementation of online learning during the COVID-19 pandemic. In the last five years, MALL has remained popular, with the percentage of usage increasing every year. Not only that, studies related to the use of MALL for English language learning have begun to be conducted, especially focusing on improving the speaking skills of L2 learners. Some of the selected studies in this research revealed that some learners felt the negative effects of using MALL, especially when honing their speaking skills. Some learners who have reached the advanced level feel bored

---

[54]Isnaini Eddy Saputro et al., "Pemanfaatan Aplikasi Synchronous dan Asynchronous Pada Pembelajaran Bahasa Inggris: Perspektif dan Urgensi Mahasiswa Pada Fenomena Pendidikan Abad 2," n.d.

86

with the materials or quizzes given by the MALL, which are not following their abilities. In addition, some of the learners who are still not fluent in English often feel speaking anxiety when doing activities or tasks in MALL in speaking materials or are not confident when communicating virtually using English (Darsih and Asikin, 2020; Rakhmanina, 2023, and Setiyani et al., 2022).[55]

Despite the negative effects of MALL, many benefits can be taken from its use for Indonesian L2 learners' language skills, especially their speaking skills. The results of eligible studies in this research state that MALL positively affects language skills, especially English speaking skills (Arbain et al., 2023; Haerazi. 2023; Nurchintyawati et al., 2023; Citrayasa, 2019; Mahbub et al., 2020; Losi, 2022; Ria et al., 2023; Adijaya et al., 2023; Chaniago and Mariana, 2022; Darsih and Asikin, 2020; and Rosdiana and Sulistyawati, 2019).[56] This is in line with the

---

[55]Endang Darsih and Nida Amalia Asikin, "Mobile Assisted Language Learning: EFL Learners' Perceptions toward the Use of Mobile Applications in Learning English," *English Review: Journal of English Education* 8, no. 2 (July 2, 2020): 19, https://doi.org/10.25134/erjee.v8i2.2999; Lisa Rakhmanina, Melati, and Siti Masitah, "Studentes' Perception toward Mobile-Assisted Language Learning (MALL) in English Sepaking Class during the Pandemic," *Edu-Ling: Journal of English Education and Linguistic* 7, no. 1 (December, 2023): 80, https://journals.unihaz.ac.id/index.php/edu-ling; Setiyanti et al., "Enhancing Undergraduate Students' Speaking Performance through Mobile-Assisted Learning Language."

[56]Arbain, Widi Syahtia Pane, and Raodah Mifdtahul Jannah, "Comparative Efficacy of Elsa and English Speaking Practice: A Quasi-Experimental Study on EFL Learning Outcomes," *Eduvelop: Journal of English Education and Development* 7, no. 1 (October 27, 2023): 22–31, https://doi.org/10.31605/eduvelop.v7i1.2974; Haerazi Haerazi, "MALL Integrated with Metacognitive Skills to Promote Preservice English Teachers' Intercultural Communicative Competence," *Journal on English as a Foreign Language* 13, no. 2 (September 19, 2023): 581–609, https://doi.org/10.23971/jefl.v13i2.6536; Nurchintyawati et al., "Exploring Teachers' Perception and Experience of Teaching English Speaking Skill through Virtual Meeting in Higher Education"; Vinindita Citrayasa, "Junior High School Students' Lived Experiences of Learning English Using Busuu," *Indonesian EFL Journal* 5, no. 2 (July 23, 2019): 85, https://doi.org/10.25134/ieflj.v5i2.1900; Moh. Arif Mahbub et al., "Infusing A Gamification Mechanism through Duolingo for English Speaking Proficiency: Perceptions of the Indonesian EFL Instructor and Students," *Konstruktivisme : JurnalPendidikan Dan Pembelajaran* 12, no. 1 (January 31, 2020): 69–80, https://doi.org/10.35457/konstruk.v12i1.894; Rizky Vita Losi, "Students'

previous study by Zhou, which states that using MALL in language learning can hone English speaking skills in Chinese EFL learners and other language skills.[57]

Most of the studies included in this research revealed that the pronunciation of L2 learners improved significantly after applying MALL in their language learning process (Arbain et al., 2023; Kholis, 2021; Citrayasa, 2019; Losi, 2022; Ria et al., 2023; Darsih and Asikin, 2020; and Setiyani et al., 2022).[58] This is in accordance with previous studies by Arvanitis and Krystally, which revealed that pronunciation

---

Perceptions on Mobile-Assisted Language Learning (MALL) in EFL Class: An Overview of Altissia Usage," *Jurnal Pamator : Jurnal Ilmiah Universitas Trunojoyo* 15, no. 1 (April 6, 2022): 25–36, https://doi.org/10.21107/pamator.v15i1.14103; Tiara Nove Ria et al., "Students' Perception of the Use of TalkEnglish.Com in Teaching Speaking for ESP Class," *ENGLISH FRANCA : Academic Journal of English Language and Education* 7, no. 1 (May 23, 2023): 69, https://doi.org/10.29240/ef.v7i1.6550; Made Aryawan Adijaya, I Ketut Armawan, and Maria Goreti Rini Kristiantari, "Mobile-Assisted Language Learning (MALL) Innovation for Vocational Education," *International Journal of Language Education* 7, no. 3 (October 6, 2023), https://doi.org/10.26858/ijole.v7i3.52910; Ani Deswita Chaniago, "The Effect of Cake Usage as Mobile Assisted Language Learning on Students' English Speaking Skill in Smp Hang Tuah 1 Belawan," *ETERNAL (English, Teaching, Learning, and Research Journal)* 8, no. 1 (June 30, 2022): 131–44, https://doi.org/10.24252/Eternal.V81.2022.A9; Endang Darsih and Nida Amalia Asikin, "Mobile Assisted Language Learning: EFL Learners' Perceptions toward the Use of Mobile Applications in Learning English," *English Review: Journal of English Education* 8, no. 2 (July 2, 2020): 19, https://doi.org/10.25134/erjee.v8i2.2999; Ihda Rosdiana and Anin Eka Sulistyawati, "Mobile Assisted Language Learning: Practices and Readiness in EFL Speaking Class," *E-Structural* 2, no. 01 (July 5, 2019): 51–67, https://doi.org/10.33633/es.v2i1.2430.

[57]Ziyi Zhou, "A Systematic Literature Review on the Use of Mobile-Assisted Language Learning (MALL) for Enhancing Speaking Skills in Chinese EFL Context," *International Journal of Frontiers in Sociology* 3, no. 15 (2021), https://doi.org/10.25236/IJFS.2021.031502.

[58]Arbain, Widi Syahtia Pane, and Raodah Mifdtahul Jannah, "Comparative Efficacy of Elsa and English Speaking Practice"; Kholis, "Elsa Speak App"; Citrayasa, "Junior High School Students' Lived Experiences of Learning English Using Busuu"; Losi, "Students' Perceptions on Mobile-Assisted Language Learning (MALL) in EFL Class"; Ria et al., "Students' Perception of the Use of TalkEnglish.Com in Teaching Speaking for ESP Class"; Darsih and Asikin, "MObile Assisted Language Learning"; Setiyanti et al., "Enhancing Undergraduate Students' Speaking Performance through Mobile-Assisted Learning Language."

skills is of great interest to researchers researching MALL.[59] In addition to pronunciation, MALL is also useful for learners in beautifying their English accent so that it can be easily understood and sound more natural (Losi, 2022; Setiyani et al., 2022).[60] The audio, voice recording, correction, and feedback features available in MALL can help learners mimic the pronunciation of each word correctly and correct any errors in their pronunciation. Learners who regularly practice pronunciations and are often exposed to native speakers' accents will automatically improve their pronunciation and accent.

In addition, the effect of MALL that can enrich the vocabulary of L2 learners is also widely discussed in the studies included in this research (Haerazi, 2023; Kholis, 2021; Citrayasa, 2019; Saraswati et al., 2021; Losi, 2022; Butarbutar et al., 2021; Ria et al., 2023; Adijaya et al., 2023; Darsih and Asikin, 2020; and Setiyani et al., 2022).[61] MALL can be useful in learning English and improving language skills, especially in expanding English vocabulary knowledge from beginner to proficient levels. This study is

---

[59]Panagiotis Arvanitis and Penelope Krystalli, "Mobile Assisted Language Learning (MALL): Trends from 2010 to 2020 Using Text Analysis Techniques," *European Journal of Education* 4, no. 1 (April 1, 2021): 13–22, https://doi.org/10.26417/ejls-2019.v5i1-191.

[60]Losi, "Students' Perceptions on Mobile-Assisted Language Learning (MALL) in EFL Class"; Setiyanti et al., "Enhancing Undergraduate Students' Speaking Performance through Mobile-Assisted Learning Language."

[61]Haerazi, "MALL Integrated with Metacognitive Skills to Promote Preservice English Teachers' Intercultural Communicative Competence"; Kholis, "Elsa Speak App"; Citrayasa, "Junior High School Students' Lived Experiences of Learning English Using Busuu"; Saraswati Saraswati, Rahmati Putri Yaniafari, and Niamika El Khoiri, "Students Perception' toward The Role of YouTube Video in Improving Their Speaking Skills," *JoLLA: Journal of Language, Literature, and Arts* 1, no. 12 (December 29, 2021): 1765–74, https://doi.org/10.17977/um064v1i122021p1765-1774; Losi, "Students' Perceptions on Mobile-Assisted Language Learning (MALL) in EFL Class"; Ranta Butarbutar et al., "Linguistica Antverpiensia," no. 2 (2021); Ria et al., "Students' Perception of the Use of TalkEnglish.Com in Teaching Speaking for ESP Class"; Adijaya, Armawan, and Kristiantari, "Mobile-Assisted Language Learning (MALL) Innovation for Vocational Education"; Darsih and Asikin, "Mobile Assisted Language Learning"; Setiyanti et al., "Enhancing Undergraduate Students' Speaking Performance through Mobile-Assisted Learning Language."

coherent with the findings of previous studies conducted by Lin and Lin, which established that MALL's interactive and authentic nature can improve L2 learners' vocabulary acquisition.[62] Not only that, but the integration of MALL in language learning also has a positive effect on improving the understanding of grammar accuracy (Haerazi, 2023; Kholis, 2021; Losi, 2022; Butarbutar et al., 2021; Ria et al., 2023; Darsih and Asikin, 2020; and Setiyani et al., 2022).[63]

Increased fluency and confidence in speaking English is one of the main benefits of using MALL in improving Indonesian L2 learners' speaking skills. Since English differs greatly from Indonesian from syntax, vocabulary, to grammar, many learners feel intimidated and have difficulties speaking English. However, after using MALL, many learners became more confident in speaking English (Losi, 2022; Ria et al., 2023; and Chaniago and Mariana, 2022).[64] Moreover, their fluency in pronouncing vocabulary and long sentences in English has increased significantly (Kholis, 2021; Setiyani et al., 2022).[65] This aligns with the previous study by Arsari et al., who found that MALL

---

[62]Jen-Jiun Lin and Huifen Lin, "Mobile-Assisted ESL/EFL Vocabulary Learning: A Systematic Review and Meta-Analysis," *Computer Assisted Language Learning* 32, no. 8 (November 2, 2019): 878–919, https://doi.org/10.1080/09588221.2018.1541359.

[63]Haerazi, "MALL Integrated with Metacognitive Skills to Promote Preservice English Teachers' Intercultural Communicative Competence"; Kholis, "Elsa Speak App"; Losi, "Students' Perceptions on Mobile-Assisted Language Learning (MALL) in EFL Class"; Butarbutar et al., "Linguistica Antverpiensia"; Ria et al., "Students' Perception of the Use of TalkEnglish.Com in Teaching Speaking for ESP Class"; Darsih and Asikin, "Mobile Assisted Language Learning"; Setiyanti et al., "Enhancing Undergraduate Students' Speaking Performance through Mobile-Assisted Learning Language."

[64]Losi, "Students' Perceptions on Mobile-Assisted Language Learning (MALL) in EFL Class"; Ria et al., "Students' Perception of the Use of TalkEnglish.Com in Teaching Speaking for ESP Class"; Chaniago, "The Effect of Cake Usage as Mobile Assisted Language Learning on Students' English Speaking Skill in SMP Hang Tuah 1 Belawan."

[65]Kholis, "Elsa Speak App"; Setiyanti et al., "Enhancing Undergraduate Students' Speaking Performance through Mobile-Assisted Learning Language."

effectively improves pronunciation and reduces L2 learners' anxiety in speaking English.[66]

Another effect of using MALL in speaking classes is the increased motivation of learners to develop their speaking skills (Kholis, 2021; Citrayasa, 2019; Saraswati et al., 2021; Mahbub et al., 2020; Losi, 2022; Butarbutar et al., 2021; Ria et al., 2023; Adijaya et al., 2023; and Chaniago and Mariana, 2022).[67] The features in MALL, such as mini-stories, interactive flashcards, missions, and rewards, can increase learners' enthusiasm so that they are encouraged to communicate using English. From the myriad benefits of these features, MALL, especially the gamified one, can be a creative and innovative tool to improve learners' L2 speaking skills. In addition, the flexible nature of MALL, as it can be used anytime and anywhere, supports learners in learning independently without having to attend classes as usual. Therefore, some selected studies in this research revealed that using MALL can train autonomous learning of L2 learners (Citrayasa, 2019; Ria et al., 2023; Setiyani et al., 2022).[68] However, in contrast to this study, previous studies presented by Shortt et al. found that advanced learners

---

[66]Made HeningAyu' Arsari, Sri Sumarni, and Darmahusni, "Mobile Assisted Language Learning (MALL) in English Language Education," *English Language* 6, no. 1 (n.d.).

[67]Kholis, "Elsa Speak App"; Citrayasa, "Junior High School Students' Lived Experiences of Learning English Using Busuu"; Saraswati, Yaniafari, and El Khoiri, "Students Perception' toward The Role of YouTube Video in Improving Their Speaking Skills"; Mahbub et al., "Infusing A Gamification Mechanism through Duolingo for English Speaking Proficiency"; Losi, "Students' Perceptions on Mobile-Assisted Language Learning (MALL) in EFL Class"; Butarbutar et al., "Linguistica Antverpiensia"; Ria et al., "Students' Perception of the Use of TalkEnglish.Com in Teaching Speaking for ESP Class"; Adijaya, Armawan, and Kristiantari, "Mobile-Assisted Language Learning (MALL) Innovation for Vocational Education"; Chaniago, "The Effect of Cake Usage As Mobile Assisted Language Learning on Students' English Speaking Skill in SMP Hang Tuah 1 Belawan."

[68]Citrayasa, "Junior High School Students' Lived Experiences of Learning English Using Busuu"; Ria et al., "Students' Perception of the Use of TalkEnglish.Com in Teaching Speaking for ESP Class"; Setiyani et al., "Enhancing Undergraduate Students' Speaking Performance through Mobile-Assisted Learning Language."

experienced a decrease in motivation because they were bored by the repetitive and uninteresting MALL task.[69]

---

[69]Mitchell Shortt et al., "Gamification in Mobile-Assisted Language Learning: A Systematic Review of Duolingo Literature from Public Release of 2012 to Early 2020," *Computer Assisted Language Learning* 36, no. 3 (March 4, 2023): 517–54, https://doi.org/10.1080/09588221.2021.1933540.