



INCREASING STUDENTS' SPEAKING PERFORMANCE AND CRITICAL THINKING SKILLS THROUGH TECHNOLOGY-AIDED READING MATERIALS

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ABSTRACT

This study investigated the enhancement of students' speaking performance and critical thinking skills through the integration of technology-assisted reading materials in English language learning. It focused on how the use of digital reading resources could foster students' confidence in expressing ideas while simultaneously strengthening their ability to analyze, evaluate, and respond critically during classroom interactions. A Classroom Action Research design based on the Kemmis and McTaggart model was employed, involving planning, action, observation, and reflection stages. The participants were eleventh-grade students. Data were obtained through speaking performance assessments, critical thinking tests, classroom observations, and field notes across two iterative cycles to monitor students' progress. The results demonstrated a marked improvement in both speaking performance and critical thinking from Cycle I to Cycle II. Initially, students exhibited low confidence and limited participation in speaking activities. However, after the systematic implementation of technology-based reading materials, students became more active, expressed ideas more fluently, and showed enhanced analytical abilities. These findings indicate that technology-aided reading materials are effective in promoting interactive and meaningful English learning. Their integration into classroom practice can support discussion-based learning, encourage reflective thinking, and enhance students' oral communication skills. This study contributes to English language teaching by highlighting the synergy between digital reading resources and the development of speaking and critical thinking skills within a classroom action research framework.

Keywords: *Speaking Performance, Critical Thinking, Technology-Aided Reading Materials, Digital Reading Resources, Classroom Action Research, English Language Learning*

1. INTRODUCTION

English learning that emphasizes active speaking practice helps students become more confident, competent, and prepared to face challenges in the future, both in professional contexts and in everyday communication. In many educational systems, foreign language learning has become an essential component of curriculum development because it equips students with the linguistic competence necessary to interact in global academic and professional environments. Speaking, as one of the productive language skills, plays a

particularly important role in language mastery because it allows learners to express ideas, negotiate meaning, and participate actively in communication (Richards, 2022; Nation & Newton, 2021). Effective speaking instruction also requires the development of communicative competence and strategic language use so that learners can participate successfully in real-life communication (Larsen-Freeman & Anderson, 2021; Oxford, 2021). Therefore, English instruction in schools should focus not only on grammatical knowledge but also on

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developing students' communicative competence and critical thinking abilities.

In the era of rapid technological advancement, the integration of digital resources into teaching and learning activities has become increasingly important. Technology provides opportunities for more interactive, flexible, and student-centered learning environments. Digital learning resources such as online articles, multimedia texts, and interactive reading platforms can support language learning by providing authentic materials and encouraging active participation (Hockly, 2022; Kessler, 2021). In addition, online learning environments enable teachers to design more dynamic learning experiences that combine various media formats and encourage collaboration among students (Anderson, 2021). The use of technology in language classrooms can also increase students' motivation and engagement because learners are already familiar with digital tools in their daily lives. Research has shown that technology-supported learning environments can facilitate language practice, improve communication skills, and encourage collaborative learning among students (Li & Lan, 2022; Zhang & Zou, 2022). Emerging educational technologies also provide innovative opportunities for interaction and communication in language learning contexts (Godwin-Jones, 2022; Hampel & Stickler, 2022).

English, as an international language, plays a significant role in preparing students for global communication, academic success, and career development. However, many students still face difficulties in developing productive language skills, especially speaking. Speaking requires not only vocabulary and grammar knowledge but also confidence, fluency, and the ability to organize ideas effectively. In many classrooms, students tend to be passive learners because they have limited opportunities to practice speaking or express their ideas in meaningful contexts (Rahman et al., 2023; Wahyuni & Pratiwi, 2022). In addition, the effectiveness of language learning often depends on learners' awareness of linguistic input and their ability to notice important language features during interaction (Schmidt, 2021). As a result, students may feel hesitant or anxious when

asked to speak in English during classroom activities.

Preliminary observations conducted in an eleventh-grade class revealed several challenges related to students' speaking performance and learning engagement. The class consisted of 35 students, including 18 boys and 17 girls. Based on the results of initial assessments and classroom observations, only around 20% of the students achieved the minimum mastery criteria, while approximately 30% were able to pass the standard level. The remaining students showed limited participation in speaking activities, often demonstrating low motivation and limited understanding of the learning materials. These difficulties may be associated with several factors, including insufficient opportunities for speaking practice, limited exposure to authentic English materials, and teaching strategies that do not fully encourage active participation.

Another important issue identified during the preliminary observation was the relatively low level of students' critical thinking skills. Critical thinking is an essential competence in modern education because it enables students to analyze information, evaluate arguments, and formulate logical responses. In language learning contexts, critical thinking supports effective communication because students must organize their ideas and respond appropriately to different topics or situations (Facione & Gittens, 2022; Halpern, 2021). Developing critical thinking in language education also requires carefully designed instructional strategies that encourage learners to reflect, analyze, and discuss ideas collaboratively (Chapelle, 2021; Hiver & Al-Hoorie, 2023). Without sufficient opportunities to practice analytical thinking, students may struggle to express their opinions clearly or participate in meaningful discussions.

To address these challenges, integrating technology into language learning activities can provide a promising alternative. One possible approach is the use of technology-aided reading materials. These materials include digital texts, online articles, and multimedia resources that can stimulate students' curiosity and encourage deeper engagement with learning content. Technology-assisted reading activities can

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support language development by expanding students' vocabulary, improving comprehension, and providing contextual information that can be used as a basis for speaking activities (Kohnke & Moorhouse, 2023; Parmaxi, 2022). In addition, digital learning environments often encourage students to interact with information more actively, which can enhance both communication skills and higher-order thinking abilities. Well-designed language learning materials can also play an important role in supporting learner engagement and facilitating meaningful communication in classroom activities (Tomlinson, 2023).

Previous studies have demonstrated that the integration of technology in language education can positively influence students' speaking performance and critical thinking development. For example, research has shown that digital learning tools can improve students' motivation and engagement in language learning activities (Li & Lan, 2022; Rahman et al., 2023). Other studies have reported that technology-supported reading tasks encourage students to analyze information more carefully and express their ideas more confidently during discussions (Zhang & Zou, 2022; Parmaxi, 2022). Furthermore, Tabasi et al. (2024) emphasized that technology integration in language classrooms can create more interactive learning environments, although teachers must carefully design learning activities to ensure effective implementation. Recent studies also indicate that digital learning platforms can significantly support collaborative learning and knowledge construction in language education (Zou et al., 2023).

Although many studies have explored the integration of technology in language learning, there is still a need for classroom-based research that examines how digital reading materials can simultaneously improve students' speaking performance and critical thinking skills. Most previous studies have focused on either speaking skills or reading comprehension, while fewer studies have investigated the combination of reading-based digital materials with speaking activities in classroom practice. Therefore, this study attempts to address this gap by implementing technology-aided reading

materials within a Classroom Action Research framework.

Based on the background described above, the research problem of this study focuses on how technology-aided reading materials can improve students' speaking performance and critical thinking skills in English learning. Accordingly, the objective of this research is to investigate the effectiveness of technology-supported reading materials in enhancing students' speaking ability and critical thinking through classroom action research cycles.

The significance of this research lies in its potential contribution to English language teaching practices. The findings are expected to provide practical insights for teachers in integrating digital learning resources into classroom activities. By implementing technology-aided reading materials, teachers may create more interactive and meaningful learning experiences that encourage students to participate actively in discussions and develop higher-order thinking skills. In addition, this study may contribute to the broader field of language education by highlighting the role of technology in supporting communicative competence and critical thinking development in English learning contexts.

2. LITERATURE REVIEW

Technology-aided reading materials refer to digital resources used to support language learning, including electronic textbooks, online articles, interactive platforms, multimedia texts, and digital storytelling applications. These resources provide engaging and accessible learning experiences, allowing learners to interact with authentic materials in dynamic ways (Kohnke & Moorhouse, 2023; Parmaxi, 2022). Digital texts may include images, audio, hyperlinks, and interactive tasks, which can enhance comprehension and encourage deeper engagement. Such materials also help develop multiple language skills simultaneously, including vocabulary, pronunciation, and grammar, by providing contextual explanations and visual illustrations. Technology-based reading environments promote active interaction with language input, contributing to improved

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acquisition and motivation, while allowing learners autonomy to access materials at their own pace (Li & Lan, 2022; Zhang & Zou, 2022). Furthermore, authentic digital texts expose students to real-world language use, facilitating vocabulary and pronunciation development and offering insights into cultural contexts (Kessler, 2021; Hockly, 2022; Thornbury).

Speaking performance is a key aspect of second language acquisition, enabling learners to express ideas, negotiate meaning, and participate in real-life communication. It involves fluency, accuracy, vocabulary, pronunciation, and interactional competence (Nation & Newton, 2021; Richards, 2022), which are dependent on communicative competence integrating linguistic knowledge, discourse organization, and strategic communication skills (Larsen-Freeman & Anderson, 2021; Oxford, 2021). Speaking requires both linguistic knowledge and psychological readiness, including the ability to produce language spontaneously, manage anxiety, and monitor speech (Goh & Burns, 2021; Schmidt, 2021). Emotional and motivational factors also influence willingness to communicate, while motivation, confidence, and classroom interaction patterns affect participation (Rahman et al., 2023; Wahyuni & Pratiwi, 2022; Hiver & Al-Hoorie, 2023). Speaking performance can be categorized into imitative, intensive, responsive, interactive, and extensive types, ranging from simple repetition to longer presentations or storytelling (Brown & Lee, 2021). Effective speaking development requires varied instructional activities, including communicative and collaborative tasks, as well as integrating reading activities to provide meaningful input for spoken output (Mackey & Gass, 2022; Nation & Newton, 2021; Tomlinson, 2023).

Reading materials are essential in language learning because they expose learners to vocabulary, grammatical structures, discourse patterns, and cultural information. They enhance comprehension, stimulate curiosity, and support language development (Nation, 2022; Grabe & Stoller, 2022). High school reading texts are often organized by genres such as narrative, descriptive, recount, discussion, and explanation texts, each with specific

communicative purposes. Explanation texts, in particular, foster analytical thinking by requiring learners to understand causal relationships, identify key information, and organize ideas logically (Goodsett, 2024; Halpern, 2021).

Integrating reading and speaking skills is an effective instructional strategy, as reading provides input that learners transform into spoken output (Brown, 2001). Pedagogical principles for this integration include authentic communication, meaningful contexts, and task-based learning such as summarizing, retelling, and discussing texts (Richards, 2022). This approach also promotes deeper cognitive processing, as learners must reorganize information in their own words, enhancing comprehension, vocabulary use, and grammatical accuracy.

Critical thinking is a reflective and analytical process that enables learners to evaluate information, identify relationships, and draw logical conclusions, playing an essential role in language learning (Facione & Gittens, 2022; Halpern, 2021). Reading activities encourage critical thinking by requiring learners to interpret information, identify key points, and connect ideas to prior knowledge. Analytical skills developed through reading can then be expressed in speaking activities such as discussions, debates, or presentations (Goodsett, 2024; Paul & Elder, 2008).

Although previous studies highlight the benefits of technology integration and reading activities for engagement, motivation, speaking skills, and critical thinking, most have examined these factors separately (Kessler, 2021; Li & Lan, 2022; Nation & Newton, 2021; Richards, 2022). Few studies have explored how technology-aided reading materials simultaneously enhance speaking performance and critical thinking within a classroom action research framework. This study addresses this gap by combining digital reading resources with speaking activities to provide practical insights for more effective English language teaching.

3. METHODS

Research Design

This study employed a descriptive qualitative approach within the framework of Classroom Action Research (CAR). Classroom Action Research is widely used in educational settings to improve teaching practices through systematic reflection and iterative intervention. According to Burns (2021), CAR allows teachers and researchers to identify classroom problems, implement appropriate strategies, and evaluate the effectiveness of those strategies through repeated cycles. In this study, the CAR model proposed by Kemmis and McTaggart was applied, which consists of four stages: planning, acting, observing, and reflecting. These stages were conducted in two cycles in order to observe gradual improvement in students' speaking performance and critical thinking skills.

The use of CAR in this research is appropriate because the study aimed to solve practical problems found in the classroom, particularly students' limited speaking ability and low engagement in English learning activities. Through the implementation of technology-aided reading materials, the researcher attempted to enhance students' participation and encourage them to express ideas more confidently during classroom discussions. Previous research has shown that classroom-based action research is effective for improving language teaching practices because it allows continuous evaluation and adjustment of instructional strategies (Burns, 2021; Richards, 2022).

Participants and Research Setting

The research was conducted at SMA Negeri 2 Mesuji, located in Makarti Mulya Village, Mesuji District, Ogan Komering Ilir Regency, South Sumatra Province, Indonesia. The study took place between August 27th and September 30th, 2025. The participants consisted of 35 students from class XI, including 18 male students and 17 female students. The English teacher and students were involved as participants during the implementation of the learning activities.

Students served as the primary participants whose speaking performance and critical thinking skills were assessed throughout the research cycles. The English teacher also played an important role as a collaborator who assisted in implementing learning activities and observing classroom interactions. According to Creswell and Creswell (2021), collaboration between teachers and researchers is a key element of action research because it helps ensure that interventions are practical and relevant to classroom contexts.

Data Sources

The study utilized several data sources to obtain comprehensive information about the learning process and students' development. These data sources included:

1. Teacher, who provided information regarding teaching strategies and classroom interaction patterns.
2. Students, who served as the primary subjects of the study and participated in speaking activities and discussions.
3. Documents, including lesson plans, worksheets, digital reading materials, and other instructional resources used during the research.

Multiple data sources were used to strengthen the credibility and validity of the research findings. Triangulation of data sources is commonly recommended in qualitative research to ensure that the results accurately represent classroom realities (Creswell & Creswell, 2021; Mackey & Gass, 2022).

Research Instruments

Several instruments were used to collect both qualitative and quantitative data during the research process. These instruments included:

1. Observation Sheets

Observation sheets were used to record students' participation, engagement, and interaction during learning activities. Observation is a common technique in

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qualitative research because it allows researchers to directly examine classroom behaviors and learning processes (Mackey & Gass, 2022).

2. Speaking Performance Rubric

A speaking rubric was used to assess students' speaking performance based on several criteria, including fluency, pronunciation, grammar, vocabulary, and interaction. Interactive speaking was evaluated through group discussions and question-and-answer sessions, while extensive speaking was assessed through oral presentations.

3. Critical Thinking Rubric

The critical thinking rubric was designed to evaluate students' ability to analyze information, identify cause-and-effect relationships, compare ideas, and express logical opinions. According to Halpern (2021), these aspects represent essential components of critical thinking in educational contexts.

4. Field Notes

Field notes were written by the teacher and researcher to document classroom events, student responses, and reflections during the learning process.

5. Student Questionnaires and Interviews

Questionnaires and short interviews were conducted to gather students' perceptions about the use of technology-aided reading materials in English learning activities.

Data Collection Procedures

Data collection was conducted during two cycles of classroom action research. Each cycle followed the stages of planning, acting, observing, and reflecting.

During the planning stage, the researcher prepared lesson plans, digital reading materials, and assessment instruments. The acting stage involved

implementing technology-aided reading materials in English learning activities. Students read digital explanation texts and participated in group discussions, question-and-answer sessions, and oral presentations. The observing stage focused on recording students' participation, speaking performance, and critical thinking development using observation sheets and rubrics. Finally, during the reflecting stage, the researcher and teacher analyzed the results of the cycle and identified improvements for the next cycle.

Technology-supported learning tools such as digital reading texts, presentation slides, and online educational resources were used to facilitate the learning process. Digital learning tools can enhance student engagement and provide more interactive learning experiences (Kohnke & Moorhouse, 2023; Li & Lan, 2022).

Example Table

Table 1. Speaking Performance Assessment Criteria

Criteria	Description	Score Range
Fluency	Ability to speak smoothly with minimal hesitation	1-5
Pronunciation	Clarity and accuracy of pronunciation	1-5
Vocabulary	Appropriate use of vocabulary in communication	1-5
Grammar	Accuracy of grammatical structures	1-5
Interaction	Ability to respond and maintain conversation	1-5

Planning → Acting → Observing → Reflecting → (Cycle Repeated)

Figure 1. Classroom Action Research Cycle (Kemmis & McTaggart Model)

This cyclical process allows continuous evaluation and improvement of teaching strategies during the research.

Vol 9, No 1 (2026): ESTEEM**Data Analysis Techniques**

The data collected in this study were analyzed using both quantitative and qualitative analysis techniques.

Quantitative data were obtained from speaking performance scores and critical thinking assessments. These scores were analyzed by calculating the percentage of students who achieved the minimum mastery criterion (KKM), which was set at 80%. The results from Cycle 1 and Cycle 2 were compared to determine the improvement in students' performance.

Qualitative data were obtained from observation notes, field notes, interviews, and student questionnaires. These data were analyzed descriptively to identify patterns of student engagement, classroom interaction, and attitudes toward the use of technology-aided reading materials. According to Mackey and Gass (2022), combining quantitative and qualitative analysis helps provide a more comprehensive understanding of language learning processes.

Through these procedures, the research aimed to evaluate the effectiveness of technology-aided reading materials in

improving students' speaking performance and critical thinking skills within the classroom context.

4. RESULTS AND DISCUSSION**Results**

The findings of this study indicate that the integration of technology-aided reading materials significantly improved students' speaking performance and critical thinking skills. The classroom action research was conducted in two cycles, and each cycle demonstrated progressive improvement in students' participation, confidence, and analytical ability. The use of digital reading materials encouraged students to interact more actively with the learning content and provided opportunities to practice communication in meaningful contexts.

The improvement in students' performance can be observed from the percentage of students who achieved the Minimum Mastery Criterion (KKM). The comparison between Cycle 1 and Cycle 2 is presented in Table 2.

Table 2. Students' Progress in Cycle 1 and Cycle 2

Aspect	Cycle 1 (% Students \geq KKM)	Cycle 2 (% Students \geq KKM)	Improvement
Speaking Performance	40%	77%	+37%
Critical Thinking	46%	80%	+34%

As shown in Table 2, the number of students achieving the KKM increased significantly from Cycle 1 to Cycle 2. Speaking performance improved from 40% to 77%, representing an increase of 37%, while critical thinking improved from 46% to 80%, showing an increase of 34%. These results demonstrate that the integration of technology-supported reading activities positively influenced both linguistic and cognitive development among students.

The improvement was also reflected in the average scores obtained by the students. The average score for speaking performance increased from 66.57 in Cycle 1 to 77.86 in Cycle 2, with an improvement of 11.29 points. Similarly, the average score for critical thinking increased from 68.26 to 78.89, representing an improvement of 10.63

points. These results suggest that the learning intervention was effective in improving students' overall academic performance.

Observation results also indicated that students became more confident and actively involved during classroom discussions. During Cycle 1, many students were hesitant to express their ideas and often produced short or incomplete responses. However, after the implementation of improved teaching strategies in Cycle 2, students demonstrated greater participation and were able to provide longer and more meaningful explanations.

*Discussion***Interpretation of Results**

The results of this study suggest that technology-aided reading materials can serve as an effective tool for improving both speaking skills and critical thinking abilities. One important factor contributing to this improvement was the increased level of student engagement during learning activities. The use of digital reading texts, multimedia content, and discussion-based tasks created a more interactive and enjoyable learning environment. Research has shown that technology-enhanced learning environments can increase student motivation and encourage active participation in language learning activities (Kohnke & Moorhouse, 2023; Zhang & Zou, 2022).

The integration of reading and speaking activities also played a crucial role in enhancing students' communication skills. Reading provided meaningful input that students could later transform into spoken output during discussions and presentations. According to Richards (2022), effective language learning occurs when students are given opportunities to practice communication using authentic and contextual materials. In this study, digital reading texts provided relevant topics that stimulated students to analyze information and express their opinions.

Another important finding relates to the development of students' critical thinking skills. In Cycle 1, students' responses were mostly descriptive and limited to repeating information from the texts. However, during Cycle 2, the teacher incorporated more analytical questions and problem-based discussion activities. As a result, students began to analyze information more carefully, compare ideas, and provide logical reasoning when expressing their opinions.

This improvement supports the argument that reading activities can promote higher-order thinking when learners are encouraged to interpret and evaluate information critically (Halpern, 2021; Facione & Gittens, 2022). When students read texts discussing social or environmental issues, they are more likely to engage in reflective thinking and develop reasoned arguments.

Comparison with Previous Studies

The findings of this study are consistent with previous research that highlights the benefits of technology integration in language learning. Several studies have reported that digital learning tools can enhance students' engagement, motivation, and language performance (Li & Lan, 2022; Parmaxi, 2022). Technology-supported learning environments allow students to access authentic materials and interact with content more dynamically, which contributes to improved communication skills.

Similarly, Arifani and Suryani (2023) found that reading activities combined with discussion-based tasks significantly improved students' critical thinking abilities in English learning contexts. Their research indicated that students who engaged in analytical reading tasks demonstrated stronger reasoning skills and were more capable of presenting arguments during classroom discussions.

Another study conducted by Darus and Azis (2024) also revealed that technology-supported reading activities can enhance students' ability to analyze information and express ideas clearly. Digital texts often present real-world issues that require students to evaluate different perspectives and justify their opinions. These processes encourage deeper cognitive engagement and promote critical thinking development.

Furthermore, research by Zhang and Zou (2022) indicates that technology-enhanced learning environments can improve students' speaking confidence and communicative competence. In this study, the combination of digital texts, multimedia resources, and group discussions created a multimodal learning environment that supported both linguistic development and cognitive engagement.

Explanation Using Relevant Theories

The results of this study can also be explained using several relevant learning theories. From the perspective of communicative language teaching, effective language learning occurs when students actively use language for meaningful communication. According to Richards

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(2022), communicative practice allows learners to develop fluency and confidence because they use language in authentic contexts rather than memorizing isolated forms.

The improvement in students' speaking performance also aligns with interactionist theory, which emphasizes the importance of interaction in language learning. When learners participate in discussions, question-and-answer sessions, and presentations, they have opportunities to negotiate meaning and refine their language use. These interactive activities contribute to the development of both fluency and accuracy.

From a cognitive perspective, the development of critical thinking skills can be explained through constructivist learning theory, which suggests that learners construct knowledge through active engagement with information and interaction with others. When students analyze digital reading materials and discuss them with peers, they actively construct understanding rather than passively receiving information (Halpern, 2021).

The improvement in pronunciation, vocabulary, and grammatical accuracy observed in this study is also consistent with Thornbury's perspective that exposure to authentic language input allows learners to internalize language patterns more effectively. Digital reading materials provided repeated examples of correct word usage, sentence structures, and contextual language use, which helped students improve their linguistic competence.

Overall, the findings indicate that technology-aided reading materials provide a rich learning environment where students can develop both language skills and higher-order thinking abilities. The combination of reading input, interactive discussions, and digital learning tools encourages students to engage more deeply with the learning process and improves their confidence in using English.

5. CONCLUSION

Based on the findings of this classroom action research, it can be concluded that the implementation of technology-aided reading materials

successfully improved the speaking performance and critical thinking skills of eleventh-grade students. The results showed significant progress from Cycle 1 to Cycle 2, where the percentage of students achieving the Minimum Mastery Criterion increased from 40% to 77% in speaking performance and from 46% to 80% in critical thinking.

The improvement occurred because technology-supported reading materials provided meaningful learning experiences that encouraged students to participate actively in discussions, analyze information critically, and express their ideas more confidently. The integration of digital reading texts with speaking activities created a more interactive and student-centered learning environment.

Therefore, the research objectives were successfully achieved. The findings suggest that integrating technology into reading and speaking activities can enhance both language proficiency and higher-order thinking skills. This approach can be considered an effective strategy for improving English language learning in modern classrooms.

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7. REFERENCES

- Anderson, T. (2021). *The theory and practice of online learning* (3rd ed.). AU Press.
- Arifani, Y., & Suryani, S. (2023). Integrating discussion-based reading tasks to enhance critical thinking skills in EFL classrooms. *Journal of Language Teaching and Research*, 14(2), 512–520. <https://doi.org/10.17507/jltr.1402.20>
- Brown, H. D. (2001). *Teaching by principles: An interactive approach to language pedagogy* (2nd ed.). Longman.

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- Brown, H. D., & Lee, H. (2021). *Teaching by principles: An interactive approach to language pedagogy* (4th ed.). Pearson Education.
- Burns, A. (2021). *Action research in language teaching: A guide for practitioners* (2nd ed.). Routledge.
- Chapelle, C. A. (2021). *Argument-based validation in testing and assessment*. SAGE Publications.
- Creswell, J. W., & Creswell, J. D. (2021). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.
- Darus, S., & Azis, N. H. (2024). Technology-enhanced reading activities and their impact on critical thinking and language development in ESL classrooms. *International Journal of Instruction*, 17(1), 445–460. <https://doi.org/10.29333/iji.2024.17124a>
- Facione, P. A., & Gittens, C. A. (2022). *Think critically* (4th ed.). Pearson Education.
- Godwin-Jones, R. (2022). Emerging technologies for language learning. *Language Learning & Technology*, 26(1), 1–16.
- Goh, C. C. M., & Burns, A. (2021). *Teaching speaking: A holistic approach*. Cambridge University Press.
- Goodsett, M. (2024). Best practices for teaching and assessing critical thinking in information literacy instruction. *The Journal of Academic Librarianship*, 50(1), 102742. <https://doi.org/10.1016/j.acalib.2023.102742>
- Grabe, W., & Stoller, F. L. (2022). *Teaching and researching reading* (3rd ed.). Routledge.
- Halpern, D. F. (2021). *Thought and knowledge: An introduction to critical thinking* (6th ed.). Psychology Press.
- Hampel, R., & Stickler, U. (2022). Developing online language teaching: Research-based pedagogy and practice. *Language Learning & Technology*, 26(2), 45–60.
- Hiver, P., & Al-Hoorie, A. H. (2023). *Research methods for complexity theory in applied linguistics*. Multilingual Matters.
- Hockly, N. (2022). Digital technologies in language teaching and learning. *ELT Journal*, 76(3), 358–366. <https://doi.org/10.1093/elt/ccac018>
- Kessler, G. (2021). Technology and the future of language teaching. *Foreign Language Annals*, 54(1), 205–218. <https://doi.org/10.1111/flan.12541>
- Kohnke, L., & Moorhouse, B. L. (2023). Facilitating engagement through digital reading platforms in language education. *Computer Assisted Language Learning Electronic Journal*, 24(1), 56–74.
- Li, R., & Lan, Y. J. (2022). Digital technology and language learning motivation: A systematic review. *Educational Technology & Society*, 25(2), 114–128.
- Mackey, A., & Gass, S. M. (2022). *Second language research: Methodology and design* (3rd ed.). Routledge.
- Nation, I. S. P. (2022). *Learning vocabulary in another language* (2nd ed.). Cambridge University Press.
- Nation, I. S. P., & Newton, J. (2021). *Teaching ESL/EFL listening and speaking* (2nd ed.). Routledge.
- Oxford, R. L. (2021). *Teaching and researching language learning strategies* (2nd ed.). Routledge.
- Parmaxi, A. (2022). Virtual reality in language learning: A systematic review. *Educational Technology Research and Development*, 70(3), 1075–1102. <https://doi.org/10.1007/s11423-022-10098-5>
- Paul, R., & Elder, L. (2008). *The miniature guide to critical thinking concepts and tools*. Foundation for Critical Thinking Press.
- Rahman, M. M., Singh, M. K. M., & Pandian, A. (2023). Students' willingness to communicate in English classrooms: The role of motivation and technology. *Asian-Pacific Journal of Second and Foreign Language Education*, 8(1), 1–17. <https://doi.org/10.1186/s40862-023-00180-4>

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- Richards, J. C. (2022). *Teaching listening and speaking: From theory to practice* (2nd ed.). Cambridge University Press.
- Schmidt, R. (2021). Attention and awareness in second language learning. *Language Teaching*, 54(1), 1–23. <https://doi.org/10.1017/S0261444820000261>
- Tabasi, S., Ebrahimi, M., & Karimi, L. (2024). Technology integration in EFL classrooms: Opportunities and challenges for teachers and learners. *Journal of Educational Technology Systems*, 52(2), 221–238.
- Tomlinson, B. (2023). *Developing materials for language teaching* (3rd ed.). Bloomsbury.
- Wahyuni, S., & Pratiwi, D. (2022). Students' speaking anxiety and classroom participation in EFL learning. *Journal of English Language Teaching and Linguistics*, 7(2), 347–360.
- Zhang, R., & Zou, D. (2022). Types, features, and effectiveness of technology-enhanced language learning: A systematic review. *Computer Assisted Language Learning*, 35(5–6), 1059–1089. <https://doi.org/10.1080/09588221.2020.1744660>
- Zou, D., Huang, Y., & Xie, H. (2023). Digital technology for language learning: A meta-analysis. *Educational Research Review*, 38, 100491. <https://doi.org/10.1016/j.edurev.2022.100491>