USING AN ARTIFICIAL INTELLIGENCE-BASED PROGRAM TO DEVELOP SPEAKING SKILLS AMONG MIDDLE SCHOOL STUDENTS IN RURAL AREAS OF IRAQ

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USING AN ARTIFICIAL INTELLIGENCE-BASED PROGRAM TO DEVELOP SPEAKING SKILLS AMONG MIDDLE SCHOOL STUDENTS IN RURAL AREAS OF IRAQ

BY
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Abstrak

Kajian ini meneliti kesan aplikasi Learna AI terhadap pembangunan kemahiran bertutur dalam bahasa Inggeris dalam kalangan pelajar sekolah menengah di kawasan luar bandar Iraq. Dengan menggunakan reka bentuk kuasi-eksperimen bercampur kaedah, enam puluh pelajar dibahagikan sama rata kepada kumpulan eksperimen yang menggunakan Learna AI dan kumpulan kawalan yang menerima pengajaran tradisional. Dapatan menunjukkan bahawa pelajar yang menggunakan Learna AI mencatat peningkatan yang signifikan dalam prestasi pertuturan mereka, terutamanya dalam kefasihan, sebutan, dan kecekapan komunikasi, berbanding dengan mereka yang diajar melalui kaedah tradisional. Data kualitatif turut mengesahkan persepsi positif pelajar terhadap pengalaman pembelajaran berasaskan AI, yang menonjolkan keberkesanannya dalam menyokong pelajar luar bandar. Dapatan ini sejajar dengan penyelidikan terdahulu yang menyokong peranan AI dalam mengurangkan keresahan ketika bertutur dan meningkatkan kecekapan lisan. Walaupun terdapat keterbatasan berkaitan dengan saiz sampel, tempoh kajian, dan infrastruktur, kajian ini membuktikan potensi alat berasaskan AI dalam meningkatkan prestasi pertuturan di konteks yang kurang mendapat layanan. Beberapa cadangan turut dikemukakan bagi mengintegrasikan teknologi ini ke dalam pendidikan bahasa, khususnya di kawasan luar bandar.

Kata kunci: Kecerdasan Buatan (AI), Kemahiran Bertutur, Pelajar Sekolah Menengah, Luar Bandar Iraq, Kefasihan, Ketepatan, Sebutan.

Abstract

This study investigates the impact of the Learna AI application on developing English speaking skills among middle school students in a rural Iraqi setting. Using a mixed methods quasi experimental design, sixty students were divided equally into an experimental group using Learna AI and a control group receiving traditional instruction. The findings revealed that students who used Learna AI demonstrated significant improvement in their speaking performance, particularly in fluency, pronunciation, and communicative competence, compared to those taught through traditional methods. The qualitative data further confirmed students' positive perceptions of the AI-based learning experience, highlighting its effectiveness in supporting rural learners The findings align with previous research supporting AI's role in reducing speaking anxiety and enhancing oral proficiency. Despite limitations related to sample size, duration, and infrastructure, the study demonstrates the potential of AI based tools in improving speaking performance in underserved contexts. Recommendations are made for integrating such technologies into language education, especially in rural areas.

Keywords: Artificial Intelligence (AI), Speaking Skills, Middle School Students, Rural Iraq,Fluency, Accuracy, Pronunciation.

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With all my heart, Hassan Maitham Mahmood

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

In the twenty first century, English has become the dominant global language in academia, business, science, and technology, and progressing in these fields has naturally become tied to mastering it. This global dominance also challenges students in rural Iraqi areas, where access to resources and exposure to international communication is limited, making mastery of English even more crucial for participating in global academic and cultural discourse. English serves as the primary medium of communication between countries and individuals, and it plays a central role in meaningful participation in global discourse. Success in both academics and one's career now frequently requires having strong English language skills (Shenbagam, 2024). English serves as the primary medium of communication internationally and in academia, providing access to global literature, scholarly resources, and opportunities for cultural exchange (Shenbagam, 2024). For students in rural areas of Babil province, mastery of English is especially critical, as it enables them to connect their local heritage and experiences with global discourse, despite limited access to formal educational resources (Haryadi & Aminuddin, 2023). English, the primary language in global academia and research, gives individuals access to global literature and scholarly resources while also enabling international communication, cross cultural exchange and inclusion in international gatherings and academic publishing.

Of the four, speaking is the most critical to daily communication. Speaking allows students to communicate their ideas, negotiate meaning, and respond usefully in a range

REFERENCES

Abernathy, P. C. (2024). AI Tools as Supplementary Support in Language Acquisition. https://doi.org/10.20944/preprints202407.2213.v1

Abrar, M., Mukminin, A., Habibi, A., Asyrafi, F., Makmur, M., & Marzulina, L. (2018). "If our English isn't a language, what is it?" Indonesian EFL Student Teachers' Challenges Speaking English. *The Qualitative Report*. https://doi.org/10.46743/2160-3715/2018.3013

Alakabawy, B. A. (2024). Artificial intelligence in the educational stages from kindergarten to university: A systematic review of Arab studies from 2010 to 2023. *E-Learning and Digital Media*. https://doi.org/10.1177/20427530241276140

Altae, M. (2020). An overview of the stages of development of the Iraqi English language curriculum. *Social Sciences & Humanities Open*, *2*(1), 100047. https://doi.org/10.1016/j.ssaho.2020.100047

Al-Zeebaree, N. S. I. T., & Ameen, N. S. T. (2024). Transformative Impacts of Technological Advancements in English Language Teaching: A Comprehensive Analysis within the TESOL Context in Duhok City, Iraq. *Evolutionary Studies in Imaginative Culture*, 1272–1289. https://doi.org/10.70082/esiculture.vi.1435

American Psychological Association. (2017). Ethical Principles of Psychologists and Code of Conduct. Washington, DC: APA.

Anggraini, A., & Faisal, F. (2024). The use of artificial intelligence based technology in English language teaching. *Golden Ratio of Data in Summary*, *4*(2), 950–957. https://doi.org/10.52970/grdis.v4i2.749

Ariwibowo, N. I. (2010). STUDENT'S ABILITY IN ENGLISH SPEAKING SKILL BY USING PICTURE (A COMPARATIVE STUDY BETWEEN MUHAMMADIYAH ISLAMIC SCHOOL AND SMAN 1 SIMEULUE TIMUR). *Visipena Journal*, *1*(2), 65–74. https://doi.org/10.46244/visipena.v1i2.31

Artha, B., Bahri, N., Sari, N. N. P., Sari, N. U. T., Hadi, N. a. S., Asri, N. C. P., & Seta, N. E. P. M. (2024). Artificial Intelligence and English Learning: A Narrative review. *EDUJ English Education Journal*, *2*(2), 44–49. https://doi.org/10.59966/eduj.v2i2.1406

Askari, G., Vajdi, M., Jafari-Nasab, S., & Golpour-Hamedani, S. (2024). Ethical guidelines for human research on children and adolescents: A narrative review study. *Journal of Research in Medical Sciences*, *29*(1). https://doi.org/10.4103/jrms.jrms_610_23

Asrifan, A., & Dewi, A. C. (2024). AI-Driven Classroom Conversations: Revolutionizing Education 5.0 for enhanced student engagement in speaking skills. *JETAL Journal of English Teaching & Applied Linguistic*, *5*(2), 117–131. https://doi.org/10.36655/jetal.v5i2.1482

Audil, A. F., & Mustafa, H. R. (2024). From Theory to Classroom: Examining communicative language teaching practices in Iraq. *International Journal of Academic Research in Progressive Education and Development, 13(4).* https://doi.org/10.6007/ijarped/v13-i4/23809

Awadi, I. H. F. A. (2025). The effectiveness of English Grammar Teaching in Iraqi Intermediate Schools. *International Journal of Multidisciplinary Research and Growth Evaluation*, *6*(1), 929–933. https://doi.org/10.54660/.ijmrge.2025.6.1.929-933

Ba'tout, N. H. (2024). Tatbiqat al-thaka'a al-sina'i wa dawruha fi ta'lim al-lughat li ghayr al-natiqin biha [Applications of artificial intelligence and its role in language teaching for non-native speakers]. Al-Majalla Al-'Arabiyya lil-'Ulum Al-Tarbawiyya wal-Nafsiyya [Arab Journal of Educational and Psychological Sciences], 12(1), 45–60. https://asjp.cerist.dz/en/article/256284

Bekmurodov, E. J. (2024). Review of modern technologies in education. *The American Journal of Social Science and Education Innovations.* https://doi.org/10.37547/tajssei/volume06issue03-06

Bouras, S. (2024). AI and the Bad Teacher Dilemma. *Science and Knowledge Horizons Journal, 4(01), 39–57.* https://doi.org/10.34118/jskp.v4i01.3850

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

British Educational Research Association (BERA). (2018). Ethical Guidelines for Educational Research (4th ed.). London: BERA.

Bushnaq, T. (2017). EXPLORING THE ISSUE OF FLUENCY IN FOREIGN LANGUAGE. *مجلة الجامعة الهجرية 30*, 331–353. https://doi.org/10.59743/jau.v30i.1072

Codeway. (2024). Learna AI – English speaking app. Google Play Store. https://play.google.com/store/apps/details?id=com.codeway.speak

Deshmukh, S. P. (2024). Factors Influencing English Speaking Fluency Among Second Language Learners. *Educational Administration: Theory and Practice*, 6410–6414. https://doi.org/10.53555/kuey.v30i5.3951

Garcia, F. V., Jr, Pascual, N. F., Sybingco, M. E., & Ong, E. (2024). Addressing Public Speaking Anxiety with an AI Speech Coach. *International Conference on Computers in Education*. https://doi.org/10.58459/icce.2024.4955

Gašević, D., Siemens, G., & Sadiq, S. (2023). Empowering learners for the age of artificial intelligence. *Computers and Education Artificial Intelligence*, *4*, 100130. https://doi.org/10.1016/j.caeai.2023.100130

Ghafar, Z. N., & Amin, M. Y. M. (2022). Difficulties in Speaking English among the EFL students in Iraqi Kurdistan Region. *World Journal of English Language*, *12*(6), 286. https://doi.org/10.5430/wjel.v12n6p286

Ghafar, Z. N., & Raheem, B. R. (2023). Factors Affecting Speaking Proficiency in English Language Learning: A general overview of the speaking skill. *Journal of Social Science (JoSS)*, *2*(6), 507–518. https://doi.org/10.57185/joss.v2i6.107

Guo, H., Yi, W., & Liu, K. (2024). The role of generative AI in personalised learning experiences. *Proceedings of the 26th International Conference on Enterprise Information Systems, 767–770.* https://doi.org/10.5220/0012688700003690

Halid, N. L. I. (2024). Constructivist approach to Language learning: Linking Piaget's theory to modern educational practice. *INTERACTION Jurnal Pendidikan Bahasa*, *11*(2), 306–327. https://doi.org/10.36232/interactionjournal.v11i2.33

Hamid, H. K. S. (2020). Supplement 2.docx. https://doi.org/10.7910/dvn/yhtwvu/pwgska

Haryadi, R. N., & Aminuddin, M. (2023). The role of English in preparing students to face global challenges. *JIIP - Jurnal Ilmiah Ilmu Pendidikan*, *6*(11), 9615–9621. https://doi.org/10.54371/jiip.v6i11.3167

Hashim, M. R. (2023). Teaching grammar in Iraqi secondary schools by using the communicative approach. *Scientific Bulletin of the Politehnica University of Timişoara Transactions on Modern Languages*, *21*, 124–137. https://doi.org/10.59168/judw7912

He, B., & Munoz, F. S. (2024). Enhancing interventional studies through Mixed-Methods research in language education. In *Advances in library and information science (ALIS) book series* (pp. 349–370). https://doi.org/10.4018/979-8-3693-1135-6.ch016

Hjelmeland, H., & Knizek, B. L. (2016). Qualitative Evidence in Suicide: *Findings from Qualitative Psychological Autopsy Studies (pp. 355–371).* Springer, New York, NY. https://doi.org/10.1007/978-1-4939-2920-7_21

Ismoilovna, A. D. (2025). Harnessing ai tools to enhance foreign language acquisition: innovations and impacts. *American Journal of Social Sciences and Humanity Research, 5(1), 22–25.* https://doi.org/10.37547/ajsshr/volume05issue01-07

Jaleniauskienė, E., Lisaitė, D., & Daniusevičiūtė-Brazaitė, L. (2023). Artificial Intelligence in Language Education: A Bibliometric analysis. *Sustainable Multilingualism*, *23*(1), 159–194. https://doi.org/10.2478/sm-2023-0017

Jamoom, O. A., & Bahron, N. O. (2024). From Hesitation to Fluency: Unraveling Speaking Barriers in EFL context. *International Journal of English Literature and Social Sciences*, *9*(5), 102–110. https://doi.org/10.22161/ijels.95.15

Kadel, P. B. (2024). Challenges in teaching English speaking and listening skills in rural Nepal. *Voice a Biannual & Bilingual Journal*, *16*(2), 128–142. https://doi.org/10.3126/voice.v16i2.72782

Kavya, C. (2023). EVALUATING STUDENTS ENGLISH LANGUAGE-ACQUIRING SKILLS AT DEGREE LEVEL: A LANGUAGE PERSPECTIVE. *Journal of English Language and Literature*, *10*(01), 89–91. https://doi.org/10.54513/joell.2023.10110

Kristiawan, D., Bashar, K., & Pradana, D. A. (2024). Artificial intelligence in English Language learning: A Systematic review of AI tools, applications, and

pedagogical outcomes. *The Art of Teaching English as a Foreign Language*, *5*(2), 207–218. https://doi.org/10.36663/tatefl.v5i2.912

Kuvera, Natthiko, N., Nyanesi, Phumsit, K., Sakulchinwattanachai, P., & Wiputchatiyakoon, W. (2022, September 23). *The scoring Rubric Development of Speaking Assessment for Secondary school students*. https://so02.tci-thaijo.org/index.php/ajrcr/article/view/258583

Marzuki, A. G. (2024). The Use of Technology in Language Learning: A Review of Current Methods and Trends. *OSF PREPRINTS*. https://doi.org/10.31219/osf.io/r97ku

Mohammed, A. A. (2024). The Interplay of Intrinsic and Extrinsic Motivations with Challenges and Learning Preferences among Iraqi EFL University Students Enrolling in English Departments. *Randwick International of Education and Linguistics Science Journal, 5(4), 1235–1247.* https://doi.org/10.47175/rielsj.v5i4.1069

Nazarova, Y. (2024). The Use of Traditional and Non-Traditional Methods in EFL classroom. *Innovative Technologica Methodical Research Journal*, *3*(4), 6. https://doi.org/10.47134/innovative.v3i4.129

Nguyen, N. H. V., & Pham, V. P. H. (2024). AI Chatbots for Language Practices *International Journal of AI in Language Education.*, *1*(1), 56–67. https://doi.org/10.54855/ijaile.24115

Nurteteng, N., Sunra, L., & Dollah, S. (2024). Adapting the English language teaching curriculum to overcome resource limitations in rural areas. *Jambura Journal of English Teaching and Literature*, *5*(2), 71–82. https://doi.org/10.37905/jetl.v5i2.27988

Patiño, A. E. C., Montaño, V. M. V., Buri, P. E. C., Rojas, M. E. A., & Del Rocío Cabrera González, A. (2024). The improvement of oral communicative

competence in english through the artificial intelligence. *LATAM Revista Latinoamericana De Ciencias Sociales Y Humanidades*, *5*(1). https://doi.org/10.56712/latam.v5i1.1850

Pertiwi, P. C., Segoh, D., & Rohmadhani, A. (2025). Artificial intelligence in academic environments: reducing or increasing foreign language anxiety? *Inspiring English Education Journal*, *8*(1), 100–131. https://doi.org/10.35905/inspiring.v8i1.13009

Pertiwi, P. C., Segoh, D., & Rohmadhani, A. (2025). Artificial intelligence in academic environments: reducing or increasing foreign language anxiety? *Inspiring English Education Journal, 8(1), 100–131.* https://doi.org/10.35905/inspiring.v8i1.13009

Pham, C., & White, C. (2018). Rural students' motivation for learning English. In *Routledge eBooks* (pp. 132–144). https://doi.org/10.4324/9781315212098-10

Piaget, J. (1972). *The principles of genetic epistemology. Basic Books.*

Qin, N. L. (2024). Adaptive System of English-Speaking Learning based on Artificial Intelligence. *Deleted Journal*, *20*(6s), 267–275. https://doi.org/10.52783/jes.2637

Rana, M. S., & Shaikh, R. (2024). The Role of English Speaking- Skills in Career Progression: A Case Study among Sudanese Undergraduate EFL Students. *World Journal of English Language*, *14*(2), 349. https://doi.org/10.5430/wjel.v14n2p349

Richards, J. C. (2019). Concepts for teaching speaking in the English language classroom. *LEARN Journal: Language Education and Acquisition Research Network.* https://files.eric.ed.gov/fulltext/EJ1225673.pdf

Rosita, A. (2024). STUDENTS' PSYCHOLOGICAL PROBLEMS IN ENGLISH SPEAKING PERFORMANCE. *ELP (Journal of English Language Pedagogy)*, *9*(2), 132–140. https://doi.org/10.36665/elp.v9i2.918

Saro'i, M., Sain, Z. H., Afriani, G., Azizah, S. M., & Pratiwi, E. Y. R. (2024). Transformation Early childhood education in Iraq: challenges, innovations, and future prospects. *Absorbent Mind*, *4*(1), 47–56. https://doi.org/10.37680/absorbent_mind.v4i1.4844

Schunk, D. H. (2020). Learning theories: An educational perspective (8th ed.). Pearson.

Seyedi, A., Yeganeh, M. a. A., Noorzad, D., Firouzi, S., Qurbani, M., Shakeri, E., & Osati, K. (2024). How artificial intelligence helps students to learn English in depth. *Advances in Social Sciences Research Journal*, *11*(10), 414–440. https://doi.org/10.14738/assrj.1110.17803

Shan, L. W., & Aziz, A. A. (2022). A Systematic Review of Teaching English in Rural settings: Challenges and solutions. *International Journal of Academic Research in Business and Social Sciences*, *12*(6). https://doi.org/10.6007/ijarbss/v12-i6/13869

Shaniga, R. C. (2021, September 18). *SIGNIFICANCE OF SPEAKING SKILLS IN EFFECTIVE LANGUAGE LEARNING*. https://spast.org/techrep/article/view/1004

Sharma, L. R. (2024). Exploring the landscape of challenges and opportunities in teaching speaking skills. *Deleted Journal*, *4*(3), 74–78. https://doi.org/10.62225/2583049x.2024.4.3.2745

Shenbagam, K. (2024). Mastering the global tongue: communication in a connected world. *GRT Journal of Education, Science and Technology.*, *2*(2), 82–85. https://doi.org/10.26452/grtjest.v2i2.48

Shin, J., & Christianson, K. (2011). Structural priming and second language learning. *Language Learning*, *62*(3), 931–964. https://doi.org/10.1111/j.1467-9922.2011.00657.x

Spezzini, S., Barratt, L., & Carter, D. (2018). Pronunciation assessment. *The TESOL Encyclopedia of English Language Teaching*, 1–7. https://doi.org/10.1002/9781118784235.eelt0694

Thyab, N. R. A. (2023). Requirements needed for the improvement of English Listening-Speaking courses in Iraq. *مجلة آداب الفراهيدي 15*(53), 580–588. https://doi.org/10.51990/jaa.15.53.3.26

Vygotsky, L. S. (1978). Mind in society: The development of higher psychological processes. Harvard University Press.

Waham, J. J. (2024, December 1). *Enhancing English communication teaching skill in Iraqi schools*. Waham | PEDAGOGIA. https://ejournal.upi.edu/index.php/pedagogia/article/view/67400/pdf

Wei, L. (2023). Artificial intelligence in language instruction: impact on English learning achievement, L2 motivation, and self-regulated learning. *Frontiers in Psychology*, *14*. https://doi.org/10.3389/fpsyg.2023.1261955

Wei, L. (2023). Artificial intelligence in language instruction: impact on English learning achievement, L2 motivation, and self-regulated learning. *Frontiers in Psychology*, *14*. https://doi.org/10.3389/fpsyg.2023.1261955

Xu, Z. (2024). AI in education: Enhancing learning experiences and student outcomes. *Applied and Computational Engineering*, *51*(1), 104–111. https://doi.org/10.54254/2755-2721/51/20241187

Yasmin Shaila, M., & Trudell, B. (2010). From passive Learners to critical Thinkers: Preparing EFL Students for University success. In *English Teaching Forum: Vol. Number 3*. https://americanenglish.state.gov/files/ae/resource_files/48_3_2_shaila_trudell.pdf

Yuliana, R., & Haryanti, A. P. (2024). Psychological factors influencing students' anxiety in speaking English. *Globish an English-Indonesian Journal for English Education and Culture*, *13*(2), 178. https://doi.org/10.31000/globish.v13i2.11481

Zainuddin, M. (2024). Teachers' perceptions of AI tools in enhancing student engagement for English language learning. *Deleted Journal*, *2*(6), 367–380. https://doi.org/10.62583/rseltl.v2i6.64

Appendix

Appendix A

Expert Review Packet for Instrument Validation

Purpose & Scope. This appendix documents the expert validation conducted prior to data collection to establish content and face validity for the study instruments: the Speaking Test (three tasks), the Analytic Speaking Rubric (fluency, accuracy, pronunciation), and the Post-Test Survey (Arabic, open-ended). It records reviewers' profiles, review criteria, item-level decisions, and final approval, aligning with the methodology described in Chapter 3

Table 0.1 Appendix 1. Expert Verification Committee

Reviewer	Position	Years (EFL)	Areas of Expertise	Date (DD/MM/YYYY)	Mode
Hamza Hussein	Secondary EFL Teacher (Rural District)	**15**	Speaking & Assessment	**12/06/2025**	**In-person (Institute office)**
Ahmed Karoon	Secondary EFL Teacher (Rural District)	**13**	Speaking & Curriculum	**15/06/2025**	**In-person (Institute office)**

Appendix B

Table 0.2Appendix B Pilot Study Summary

Component	n (participants)	Administration setting	Duration	Key observation	Action taken
Speaking Test (T1: Self-Intro; T2: Picture; T3: Q&A)	10	Quiet room(s); single assessor; no audio recording	5–7 min per full test	T2 needed clearer sequencing cues	Added cue words to T2 instructions ("First… then… finally…"); kept 3–4 min cap
Analytic Speaking Rubric (Fluency, Accuracy, Pronunciation)	5	Assessor practice on sample responses	—	Level-2 descriptors were ambiguous	Clarified level-2 wording to increase observability and rater consistency
Post-Test Survey (Arabic, open-ended)	5	Paper-based; two calm rooms	—	Q1 lacked explicit AI context	Revised Q1 to "How did you feel **while using** the AI application ?"

Appendix C

This appendix presents the final speaking-test tasks administered in the main study, with concise student-facing instructions, time limits, and administration notes

consistent with the study setting (individual administration in quiet rooms; no audio recording; single trained assessor(

Table 0.3 C1. Final speaking-test tasks

Task	Objective / Focus	Student-facing instructions (read verbatim)	Time limit	Administration notes
T1 – Self-Introduction	Warm-up; elicit baseline **fluency**	"Please introduce yourself. Tell us your name, age, school grade, and two or three facts about your daily life or interests."	**1–2 min**	Keep prompts neutral; do not model language; move on gently at 2 min.
T2 – Picture Description	Organised monologue; **fluency & accuracy**	"Look at the pictures. Describe what is happening in order. Use sequence words: **First**, **then**, **finally**."	**3–4 min**	Provide one clear A4 picture strip; allow brief planning (≤30s); remind about sequencing only once.
T3 – Q&A	Short responses; **pronunciation & accuracy** in interaction	"I will ask you a few simple questions about everyday topics (school, hobbies, family). Answer in full sentences."	**1–3 min**	Use a fixed bank of easy, familiar questions; avoid follow-ups that introduce new vocabulary.

Appendix D

This appendix provides the analytic rubric used to score students' speaking performance across the three tasks. The rubric targets Fluency, Accuracy, and Pronunciation, each on a 3-level scale.

Table 0.4 Table D1. Analytic speaking rubric

Dimension	3 – High	2 – Moderate	1 – Low
Fluency	Speech is generally continuous with natural pacing; pauses are brief and mostly at clause boundaries; ideas connect coherently.	Noticeable hesitations and restarts but message remains mostly coherent; pacing uneven at times; some fragmentation.	Frequent long pauses (>2s), false starts, and broken phrases; delivery is halting and often prevents message flow.
Accuracy	Grammar and word choice are largely correct; errors are minor and do not impede meaning; appropriate simple/compound structures.	Recurring errors in tense/agreement/word choice; some reformulations needed; occasional strain on comprehension.	Pervasive grammatical/lexical errors; limited control over forms; meaning frequently unclear or requires prompting.
Pronunciation	Segmental sounds and stress/intonation are clear; minimal L1 interference; intelligibility consistently high.	Generally intelligible with occasional segmental/suprasegmental issues that do not seriously hinder understanding.	Intelligibility often compromised by segmental errors and/or non-target stress/intonation; listener effort is high.

Appendix E

This appendix presents the Arabic open-ended survey administered after the post-test to capture learners' feelings, perceived usefulness of the AI application, and self-reported speaking gains. Responses were used to triangulate quantitative findings and classroom observations.Administration (brief). Paper-based; completed after the post-

test in quiet rooms; anonymity assured; no time limit; responses written in Arabic. The researcher collected forms immediately and stored them securely.

Table 0.5 **E1. Post-test survey items (Arabic)**

Item (Arabic)	**Targeted construct**
Q1. كيف كانت مشاعرك أثناء استخدام تطبيق الذكاء الاصطناعي في حصص التحدث؟ صف شعورك بإيجاز.	Affect / motivation (comfort, anxiety, confidence)
Q2. ما الجوانب التي أفادتك في التطبيق؟ ولماذا تراها مفيدة لك في التحدث؟	Perceived usefulness / engagement
Q3. هل تحسنت في الطلاقة أو الدقة أو النطق لديك؟ أعطِ أمثلة قصيرة إن أمكن	Perceived learning gains (fluency, accuracy, pronunciation)

Appendix F

Table 0.6 **Table F1. Classroom observation protocol (checklist)**

Dimension	**Indicator (what to look for)**	**Rating (tick one)**	**Evidence / brief examples**
Student engagement	On-task behaviour, attention to instructions, persistence	☐ Low ☐ Moderate ☐ High	e.g., S03 maintained eye contact; S07 distracted twice
Speaking attempts	Frequency & approximate duration of speaking turns	☐ Low ☐ Moderate ☐ High	e.g., S12 produced 4 turns (~40–60s each)
Use of Learna AI	Adherence to task flow; responsiveness to prompts	☐ Low ☐ Moderate ☐ High	e.g., followed T2 sequence without extra prompts
Anxiety / confidence	Visible signs (hesitation, avoidance) vs. willingness to try	☐ Low ☐ Moderate ☐ High	e.g., S05 initial shyness → improved by T3
Peer support	Encouragement, turn-taking etiquette, collaborative cues	☐ Low ☐ Moderate ☐ High	e.g., peers waited silently, positive nods
Teacher facilitation	Clarity of instructions; neutrality; time management	☐ Low ☐ Moderate ☐ High	e.g., reminder of "First/then/finally" once
Technical conditions	Headsets, power/Internet stability, room noise	☐ Low ☐ Moderate ☐ High	e.g., brief power dip; resumed in 2 minutes

Table 0.7 **F2. Field-notes template (session log)**

Field	Entry
Date / Time	[DD/MM/YYYY — HH:MM–HH:MM]
Group / Session no.	[Experimental or Control] — [Session]
Task focus	[T1 Self-Intro / T2 Picture / T3 Q&A / Mixed]
Setting conditions	[Room, noise level, seating, equipment check]
Participants present	[e.g., 30/30]
Key linguistic behaviours	**Fluency:** … / **Accuracy:** … / **Pronunciation:** …
Affective/behavioural notes	[Confidence/anxiety changes, engagement patterns]
Notable anonymised quotes	[e.g., S09: "I can say more now about my day."]
Technical/logistics issues	[Power/Internet, headset fit, timing]
Reflections / next steps	[What to keep/adjust in next session]

Appendix G

Table 0.8 **G1. Participant information sheet**

Section	Summary
Study title	AI-assisted speaking practice for rural Iraqi adolescents (ages 13–16)
Purpose	Evaluate whether short, structured AI-supported speaking sessions improve fluency, accuracy, and pronunciation compared to traditional practice.
Procedures	6 weeks; short individual sessions in quiet rooms; speaking test (T1–T3); post-test survey (Arabic); classroom observations; **no audio/video recording**.
Risks/Discomforts	Minimal (possible mild anxiety from speaking in English); sessions designed to be supportive and brief.
Benefits	Opportunity to practice speaking in a low-stakes environment; potential skill improvement and increased confidence.
Voluntary participation	Participation is **voluntary**. Students may decline or withdraw at any time **without penalty**.
Confidentiality	No identifying data collected; codes used (e.g., S01); data stored securely by the researcher.
Withdrawal	You can stop at any time; already collected non-identifying data may be retained in aggregated analyses.
Contacts	Researcher: [Your Name], [Institute/Dept], [Phone/Email]. Supervisor: [Name], [Email].

Table 0.9 **G2. Parental consent form**

Item	Tick
I have read the information sheet and understand the study's purpose and procedures.	☐ Yes ☐ No
I understand participation is voluntary and my child may withdraw at any time without penalty.	☐ Yes ☐ No
I understand there will be **no audio/video recording**; only anonymised notes/scores will be collected.	☐ Yes ☐ No
I consent to my child's participation in the study activities (speaking tasks, AI-supported practice, survey).	☐ Yes ☐ No

Participant details & signatures

- Student code (e.g., S__): _____
- Parent/Guardian name: _____
- Signature: _____ Date: //2025
- Researcher name: _____ Signature: _____ Date: //2025