



ENHANCING JUNIOR HIGH SCHOOL ENGLISH TEACHERS' COMPETENCE IN BOGOR REGENCY THROUGH TRAINING ON DEVELOPING ANIMAKER-BASED INSTRUCTIONAL VIDEOS

Peningkatan Kompetensi Guru Bahasa Inggris SMP di Kabupaten Bogor melalui Pelatihan Pengembangan Video Pembelajaran Berbasis Animaker

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Kata Kunci :

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Abstrak :

Dalam era transformasi digital, guru dituntut untuk mampu mengintegrasikan teknologi dalam praktik pembelajaran guna meningkatkan keterlibatan peserta didik serta menumbuhkan keterampilan abad ke-21. Dalam kerangka Kurikulum Merdeka Belajar, pembelajaran berbasis teknologi berperan penting dalam menumbuhkan kreativitas, kolaborasi, komunikasi, berpikir kritis, dan karakter peserta didik. Namun demikian, banyak guru Bahasa Inggris masih menghadapi tantangan dalam memanfaatkan teknologi secara efektif karena keterbatasan kompetensi teknologis dan kesiapan pedagogis. Program Pengabdian kepada Masyarakat (PkM) ini dirancang untuk memperkuat kapasitas digital dan pedagogis guru Bahasa Inggris tingkat SMP di Kabupaten Bogor melalui pelatihan pembuatan video pembelajaran berbasis deep learning dengan menggunakan platform Animaker. Kegiatan dilaksanakan pada tanggal 26 September 2025 dan melibatkan 36 guru yang tergabung dalam Musyawarah Guru Mata Pelajaran (MGMP) Bahasa Inggris Kabupaten Bogor. Program ini menggunakan model empat tahap yang terdiri dari observasi, sosialisasi, pelatihan dan pendampingan, serta evaluasi. Data diperoleh melalui observasi, umpan balik peserta, dan diskusi reflektif. Hasil kegiatan menunjukkan bahwa program ini berhasil meningkatkan pemahaman dan keterampilan guru dalam merancang serta memproduksi video pembelajaran berbasis animasi. Para guru menunjukkan peningkatan kreativitas, kepercayaan diri, dan motivasi dalam mengintegrasikan teknologi ke dalam pembelajaran Bahasa Inggris. Selain itu, pelatihan ini juga mendorong kolaborasi, refleksi, dan pengembangan



profesional di antara para peserta. Program ini menegaskan pentingnya pengembangan profesional berkelanjutan dan dukungan kelembagaan dalam membekali guru dengan kompetensi pedagogi digital untuk menjawab tantangan pendidikan modern.

Key word :

Teacher Professional Development, Deep Learning, Educational Video, Animaker, Digital Pedagogy

Abstract :

In the era of digital transformation, teachers are expected to integrate technology into classroom practices to enhance students' engagement and 21st-century skills. Within the framework of the *Merdeka Belajar* curriculum, technology-enhanced learning plays a vital role in fostering creativity, collaboration, communication, critical thinking, and character development. However, many English teachers still face challenges in utilizing digital tools effectively due to limited technological competence and pedagogical readiness. This community service (*Pengabdian kepada Masyarakat* or PkM) program was designed to strengthen the digital and pedagogical capacities of junior high school English teachers in Bogor Regency through training on the development of deep learning-based instructional videos using the Animaker platform. The activity was conducted on September 26, 2025, and involved 36 teachers who are members of the *Musyawarah Guru Mata Pelajaran* (MGMP) English Teachers Association. The program adopted a four-stage model consisting of observation, socialization, training and mentoring, and evaluation. Data were collected through observation, participant feedback, and reflective discussions. The findings indicate that the program significantly improved teachers' understanding and skills in designing and producing animation-based instructional videos. Teachers demonstrated greater creativity, confidence, and motivation in integrating technology into their English lessons. Moreover, the training fostered collaborative learning, reflective practice, and professional growth among participants. This program highlights the importance of ongoing professional development and institutional support in equipping teachers with digital pedagogical competencies to meet the demands of modern education.

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INTRODUCTION

The rapid advancement of digital technology has profoundly transformed the landscape of education, reshaping how teachers design and deliver learning experiences. In Indonesia, this transformation is reflected in the *Merdeka Belajar* policy, which emphasizes creative, student-centered, and technology-integrated pedagogical practices (Fadillah *et al.*, 2025). Within this framework, English language teaching at the junior high school level faces the growing challenge of integrating digital tools that stimulate students' engagement and critical thinking. However, despite policy encouragement, many teachers still encounter difficulties in leveraging technology effectively to support meaningful learning (Lathifah & Muhammad, 2021).



One promising approach to enhancing student engagement and learning outcomes is through video-based instruction. Video learning media, particularly those that integrate animation and narration, have been shown to enhance students' motivation, comprehension, and vocabulary mastery by combining auditory and visual stimuli into cohesive instructional messages (Mayer, 2021; Fadillah *et al.*, 2025). Animated video platforms such as Animaker enable teachers to produce creative and contextually relevant learning materials using accessible technology (Nabila *et al.*, 2025). Nevertheless, many teachers—especially at the junior high school level—lack sufficient technical and pedagogical competence to develop such materials, which results in limited classroom innovation (Kasih *et al.*, 2023).

Preliminary observations and interviews with members of the *Musyawarah Guru Mata Pelajaran* (MGMP) English teachers in Bogor Regency revealed that most teachers still rely heavily on conventional media such as PowerPoint. While functional, these tools often fail to sustain students' attention or facilitate interactive learning experiences aligned with 21st-century learning principles (Komala *et al.*, 2024). Teachers also reported limited understanding of digital platforms and their pedagogical potential in developing engaging and communicative materials. This indicates a persistent gap between curriculum expectations and teachers' readiness to implement digital-based, deep learning-oriented instruction (Ilmi *et al.*, 2023).

Community service initiatives (*Pengabdian kepada Masyarakat* or PkM) offer a strategic avenue to address this challenge by connecting universities' research expertise with teachers' classroom needs. Through training and mentoring programs, universities can empower teachers to acquire both technological and pedagogical literacy essential for integrating multimedia effectively in their classrooms (Kasih *et al.*, 2023; Komala *et al.*, 2024). Collaborative programs between higher education institutions and professional teacher communities such as MGMP can foster sustained professional growth and help bridge the divide between policy and practice (Ilmi *et al.*, 2023).

In response to these challenges, the Universitas Terbuka community service program was designed to enhance the competencies of junior high school English teachers in Bogor Regency through training on the development of animated video learning materials using Animaker. The program aimed to strengthen teachers' understanding of deep learning-oriented instruction, introduce them to accessible animation-based media design, and provide hands-on experience in creating creative and contextually relevant video lessons (Nabila *et al.*, 2025). By equipping teachers with practical design skills and pedagogical frameworks, the program aligns with the national agenda for digital transformation in education and supports the goals of *Merdeka Belajar*.

Ultimately, this community service activity demonstrates how simple, low-cost technologies can be used to promote more engaging and meaningful English learning experiences. By enabling teachers to design animated learning videos independently, the program contributes to closing the gap between innovative pedagogical ideals and real classroom practices (Fadillah *et al.*, 2025; Ilmi *et al.*, 2023). Moreover, this initiative reinforces the role of universities as agents of educational transformation, embodying the spirit of *Merdeka Belajar* in empowering teachers and students to thrive in the digital age.

ACTIVITY METHOD

The community service program was implemented on September 26, 2025, in collaboration with the *Musyawarah Guru Mata Pelajaran* (MGMP) English Teachers Association of Bogor Regency, West Java, Indonesia. The activity involved 36 English teachers representing various junior high schools across the regency. The program was jointly organized by lecturers from the Master of English Language Education, Graduate School of Universitas Terbuka. It was designed to strengthen teachers' competencies in developing technology-enhanced learning media, particularly through the use of the

Animaker platform for creating animated learning videos aligned with Deep Learning principles and the Merdeka Belajar curriculum (Kemendikbudristek, 2022).

To ensure systematic implementation and sustainable outcomes, the program was structured around a four-stage framework: (1) observation, (2) socialization, (3) training and mentoring, and (4) evaluation. This model reflects best practices in professional development that emphasize contextual understanding, participatory engagement, and continuous reflection.

1. Observation Stage.

The initial stage focused on conducting a situational needs analysis among MGMP English teachers in Bogor Regency. Through informal interviews, the PKM organizer identified key challenges faced by teachers, including limited digital literacy, low confidence in using animation-based tools, and a tendency to rely on conventional PowerPoint presentations. These findings highlighted the need for a capacity-building program that integrates pedagogical design with practical digital media skills. The data collected served as the foundation for developing targeted training content and ensuring contextual relevance to teachers' professional realities.

2. Socialization Stage.

The second stage aimed to introduce the program's objectives, expected outcomes, and relevance to national education policies. During a structured workshop seminar session, facilitators presented the rationale for integrating technology and multimedia into English language teaching, particularly the use of animated videos to promote student-centered and deep learning (Mayer, 2021; Nabila *et al.*, 2025). The discussion also emphasized how the 'Deep Learning' approach encourages innovation and autonomy in designing learning experiences that foster creativity, communication, and critical thinking. Collaborative dialogue between facilitators and participants allowed the identification of priority topics, ensuring that subsequent training would address authentic classroom needs.

3. Training and Mentoring Stage.

This stage served as the core of the program and involved a one-day intensive workshop followed by guided mentoring sessions. The workshop combined conceptual input with hands-on practice. Teachers were first introduced to the pedagogical underpinnings of deep learning and multimodal media design, followed by a detailed demonstration of the Animaker platform. Participants learned to develop animated videos by creating storyboards (with the aid of ChatGPT), selecting characters, designing scenes, synchronizing narration and background music, and integrating textual elements effectively.

During the mentoring phase, facilitators provided individualized guidance as teachers created their own instructional videos aligned with their teaching topics. This interactive, practice-based approach encouraged collaboration, reflection, and innovation. The mentoring ensured that teachers could independently apply the acquired skills in their classrooms and adapt them for different instructional contexts within junior high school English curricula.

4. Evaluation Stage.

The final stage was dedicated to evaluating the impact and effectiveness of the program. Evaluation methods included post-activity questionnaires, participant reflections, and open discussions focusing on perceived learning gains, confidence levels, and challenges encountered. Results showed that teachers demonstrated improved understanding of animation-based media production and expressed stronger motivation to innovate their instructional practices. Many

participants reported that the use of animated videos could make English learning more interactive, engaging, and meaningful for students. In addition, the program fostered a sense of professional community among MGMP members, promoting collaborative learning beyond the workshop setting.

This four-stage implementation model effectively bridged the gap between educational policy and classroom practice. It provided teachers with practical digital skills, strengthened their pedagogical confidence, and advanced the goals of *Merdeka Belajar* by enabling technology-integrated, student-centered instruction suitable for the 21st-century learning environment.

RESULTS AND DISCUSSION

Based on the results of observations and interviews conducted with members of the *Musyawarah Guru Mata Pelajaran* (MGMP) English Teachers Association of Bogor Regency, it was found that most teachers still face considerable limitations in technological proficiency, particularly in creating deep learning-based instructional videos using the Animaker platform. This limitation reflects a noticeable gap between the growing demand for 21st-century instructional innovation and the actual level of teachers' technopedagogical competence in the field (Asad *et al.*, 2021). In practice, many teachers remain dependent on conventional instructional media such as PowerPoint presentations, which are often designed in simple and repetitive formats (Chou *et al.*, 2015). While such materials are functional, they fail to fully capture students' attention or foster the interactivity essential to effective English language learning.

Furthermore, interview findings revealed that several teachers lacked a sufficient understanding of how to utilize digital platforms to create meaningful and engaging learning experiences. In fact, the integration of technology, particularly using animation-based and deep learning-oriented video media, holds significant potential for enhancing student engagement, reinforcing linguistic comprehension, and supporting contextual, learner-centered instruction (Syahrial *et al.*, 2024). These findings underscore the urgent need for targeted capacity-building initiatives that equip teachers with both the technical and pedagogical expertise required to implement digital innovation effectively in the classroom.

Within this community service program (PkM) organized by Universitas Terbuka, English teachers affiliated with the MGMP of Bogor Regency participated in an intensive socialization and training program focused on the development of deep learning-based instructional videos using Animaker. The activity was designed to provide participants with a comprehensive understanding of the foundational principles underlying creative and innovative animation-based instructional media. It also aimed to introduce user-friendly strategies that teachers could readily implement within junior high school English learning contexts.

Throughout the training sessions, the PkM facilitation team delivered in-depth explanations of the main features available in the free version of Animaker, guiding teachers through each step of the video development process, from storyboard creation using ChatGPT to character and background selection, scriptwriting, and the integration of audio-visual elements to produce coherent and engaging content. This approach ensured that teachers gained a holistic understanding of the video production process without the need to rely on paid applications or advanced technological infrastructure (Vivian *et al.*, 2014). By combining conceptual understanding with hands-on practice, the training enabled teachers to recognize the pedagogical value of animation as a tool for promoting creativity, interactivity, and deeper learning in English language instruction.



Figure 1. The Universitas Terbuka Community Service (PkM) team is explaining how to create instructional videos using Animaker for deep learning–based English instruction.

Following the introductory explanation, the junior high school English teachers who are members of the *Musyawarah Guru Mata Pelajaran* (MGMP) in Bogor Regency were presented with a concrete example of the video creation process using the Animaker application. The sample video developed during the session featured the topic of ‘Global Warming’, a contextual learning theme that aligns with both global environmental issues and the English language curriculum. This video was intentionally designed as a brainstorming medium, functioning to activate students’ prior knowledge before the main learning activities commenced. As such, it served as an initial learning stimulus that encouraged curiosity, fostered emotional engagement, and enhanced students’ motivation to explore the topic further (Arnone *et al.*, 2011)

The development of this learning video also aimed to bridge students’ existing knowledge with new concepts introduced during the learning process (Ribosa & Duran, 2024). This approach aligns with the principles of deep learning, which emphasize the meaningful connection between prior learning experiences and new knowledge to foster deeper conceptual understanding (Miller & Krajcik, 2019). With a duration of approximately one minute and composed of three slides, the video was designed to be concise, informative, and easily comprehensible for junior high school students (Brame & Perez, 2017).

From a design perspective, the video integrated multiple elements—including 2D animation, illustrative images, background music, and synchronized voice-over narration—to create a harmonious multimodal composition. The combination of these visual and auditory components made the video more dynamic and engaging while simultaneously reinforcing students’ linguistic comprehension through associations between text, imagery, and sound (Zhang & Zou, 2022). Furthermore, the use of communicative language and appropriate pacing helped maintain students’ focus on the core message without causing cognitive overload, ensuring that the learning process remained enjoyable and effective (Kühl *et al.*, 2014).

Beyond its technical and aesthetic dimensions, the demonstration activity also served as a source of inspiration for teachers to innovate in designing interactive and creative learning media tailored to the characteristics of their students (Neo Ken & Neo, 2004). Teachers were encouraged to reflect on the pedagogical potential of similar media for developing students’ language skills, such as listening comprehension, speaking fluency, and vocabulary enrichment (Yi *et al.*, 2024). The example video thus provided a tangible illustration of how accessible technology like Animaker can be leveraged to create meaningful, deep learning–oriented experiences that support contextual and real-life English language instruction.

After receiving the explanation and demonstration of how to develop instructional videos using Animaker, the participating MGMP English teachers proceeded to the hands-on practice stage. At this point, each teacher was given the opportunity to design and produce a short instructional video

on a topic relevant to their respective teaching materials. This stage was intended to provide teachers with an authentic, experiential learning opportunity that allowed them to apply the digital media design skills acquired during the training sessions. It also encouraged teachers to adapt technology use to the contextual needs of their classrooms, promoting innovation, creativity, and learner-centered pedagogy in their instructional practices (Dole *et al.*, 2015).



Figure 2. English teachers who are members of the *Musyawah Guru Mata Pelajaran* (MGMP) of Bogor Regency are practicing the creation of instructional videos using Animaker for deep learning-based instruction.

During the implementation process, the Community Service (PkM) team provided intensive mentoring to ensure that the teachers could independently understand and master each step involved in the video production process. Participants were divided into small groups based on either thematic focus or technological proficiency level, allowing the mentoring process to be more targeted and effective. Each group received detailed guidance on developing storyboards, selecting characters and backgrounds, composing dialogues, adding sound effects, and synchronizing textual, visual, and auditory elements to produce instructional videos that were both communicative and educational.

Throughout the mentoring sessions, the PkM team went beyond providing technical instructions by engaging in two-way interaction with the participants. Teachers were encouraged to ask questions, share their experiences, and discuss the challenges they encountered during the video creation process. This interactive learning environment fostered collaboration, reflection, and problem-solving among participants.

In response to the teachers' feedback, the facilitators offered constructive suggestions, corrective input, and practical solutions to address both technical and conceptual difficulties, such as managing video duration, selecting appropriate visual representations, and ensuring that instructional messages were consistent with deep learning principles. Through this iterative and dialogic process, teachers not only enhanced their digital production skills but also developed a deeper understanding of how to integrate multimedia tools into pedagogically sound English language instruction (Misir, 2018).



Figure 3. The Universitas Terbuka Community Service (PkM) team and the English teachers from the *Musyawarah Guru Mata Pelajaran (MGMP)* of Bogor Regency, after completing the training on developing deep learning–based instructional videos using Animaker.

Through this program, teachers were provided with valuable opportunities to engage in collaborative and reflective learning. They not only enhanced their technical proficiency in using the Animaker application but also deepened their understanding of how digital media can be effectively utilized to foster students' critical thinking, creativity, and communicative competence. The integration of theoretical insights and practical application during the sessions enabled participants to see firsthand how technology can serve as a transformative tool in English language teaching.

Moreover, the interactive and practice-oriented nature of the training created a supportive environment that fostered teachers' confidence and motivation. This atmosphere encouraged participants to experiment with new instructional approaches and to continuously innovate in designing learning media that are relevant to technological advancements and the evolving demands of 21st-century education. The program thus not only strengthened teachers' digital literacy but also cultivated a mindset of lifelong learning and professional growth, key attributes for sustaining pedagogical innovation in the era of digital transformation.

CONCLUSION AND SUGGESTION

The community service program successfully enhanced the technological and pedagogical competencies of junior high school English teachers in Bogor Regency through intensive training on the use of the Animaker platform for creating deep learning–based instructional videos. The program provided teachers with practical skills in multimedia production, integrating visual, auditory, and textual elements to support contextual and engaging English language learning. Teachers demonstrated increased confidence, creativity, and motivation to design innovative learning media relevant to 21st-century education demands. Moreover, the collaborative and reflective learning environment fostered a stronger sense of professional community among teachers, encouraging continuous self-development. Overall, the program effectively bridged the gap between policy aspirations and classroom practice by empowering teachers to implement technology-enhanced, student-centered instruction aligned with the principles of *Merdeka Belajar*.

To sustain and expand the impact of this initiative, future programs should emphasize ongoing mentoring and peer collaboration among MGMP members to ensure continuous improvement in digital pedagogy. Integrating follow-up activities, such as classroom implementation workshops and peer video showcases, could help teachers refine their skills and share best practices. Institutional support from school leaders and local education offices is also essential to provide adequate resources and time for teachers to innovate. Furthermore, future research could explore the long-term effects of such digital media training on students' learning engagement and achievement, providing empirical evidence to strengthen technology integration policies in English language education.

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REFERENCES

- Arnone, M. P., Small, R. V., Chauncey, S. A., & McKenna, H. P. (2011). Curiosity, Interest and Engagement in Technology-Pervasive Learning Environments: A New Research Agenda. *Educational Technology Research and Development*, 59(2), 181–198. <https://doi.org/10.1007/s11423-011-9190-9>
- Asad, M. M., Aftab, K., Sherwani, F., Churri, P., Moreno-Guerro, A. J., & Pourshahian, B. (2021). Techno-Pedagogical Skills for 21st Century Digital Classrooms: An Extensive Literature Review. *Educational Research International*, 2021, 1–12. <https://doi.org/10.1155/2021/8160084>
- Brame, C. J., & Perez, K. E. (2017). Effective Educational Videos: Principles and Guidelines for Maximizing Student Learning From Video Content. *CBE—Life Sciences Education*, 15(4), es6. <https://doi.org/10.1187/cbe.16-03-0125>
- Chou, P. N., Chang, C. C., & Lu, P. F. (2025). Prezi Versus PowerPoint: The Effects of Varied Digital Presentation Tools on Students' Learning Performance. *Computers & Education*, 91, 73–82. <https://doi.org/10.1016/j.compedu.2015.10.020>
- Dole, S., Bloom, L., & Kowalske, K. (2015). Transforming Pedagogy: Changing Perspectives From Teacher-Centered to Learner-Centered. *Interdisciplinary Journal of Problem-Based Learning*, 10(1), 1. <https://doi.org/10.7771/1541-5015.1538>
- Fadillah, R., Susanto, F., & Efrizal, D. (2025). The Effect of Educational Video-Based Multimedia Toward Students' English Vocabulary Mastery (A quasi-experimental study on 7th-grade students at SMPN 52 North Bengkulu academic year 2024–2025). *Jurnal Penelitian Ilmu Pendidikan Indonesia*, 4(3), 1295–1303.
- Ilmi, A. Y., Hanif, M., & Sutarjo, A. (2023). Penggunaan Media Video Berbasis Animaker untuk Meningkatkan Kreativitas Peserta Didik dalam Pembelajaran IPA. *Ibtida'i: Jurnal Kependidikan Dasar*, 10(2), 109–124. <https://doi.org/10.32678/ibtidai.v10i2.9384>
- Kasih, D. C., Aziz, N., & Mulyani, P. S. (2023). Penerapan Media Pembelajaran Animasi Berbasis Animaker untuk Peningkatan Pemahaman Siswa Kelas VIII dalam Pembelajaran PAI di SMP Al-Madina Wonosobo. *Intellektika: Jurnal Ilmiah Mahasiswa*, 2(4), 209–218. <https://doi.org/10.59841/intellektika.v2i4.1366>
- Komala, K., Dewi, S. F., & Rumiati, S. (2024). Development of Animaker Animation Videos Based on the PBL Model in Improving Understanding of the Meaning of State Symbol. *Proceeding of International Conference on Education (ICE)*.
- Kühl, T., Eitel, A., Damnik, G., & Kördle, H. (2014). The Impact of Disfluency, Pacing, and Students' Need for Cognition on Learning With Multimedia. *Computers in Human Behavior*, 35, 189–198. <https://doi.org/10.1016/j.chb.2014.03.004>
- Lathifah, R., & Muhammad, R. N. (2021). Students' Perception on Vocabulary Development Using Video Animation Animaker During Online Learning COVID-19 Pandemic. *Journal of English Teaching, Literature, and Applied Linguistics*, 6(1), 41–46. <https://doi.org/10.30587/jetlal.v6i1.3829>
- Miller, E. C., & Krajcik, J. S. (2019). Promoting Deep Learning Through Project-Based Learning: A Design Problem. *Disciplinary and Interdisciplinary Science Education Research*, 1(1), 1–10. <https://doi.org/10.1186/s43031-019-0009-6>



- Misir, H. (2018). Digital Literacies and Interactive Multimedia-Enhanced Tools for Language Teaching and Learning. *International Online Journal of Education and Teaching*, 5(3), 514–523.
- Nabila, H. I., Kurniawan, R., & Hidayat, W. (2025). The Development of Animated Video Learning Media Using Animaker to Improve Students' Critical Thinking Skills. *Journal of Innovative Mathematics Learning (JIML)*, 8(2), 293–312.
- Ribosa, J., & Duran, D. (2024). Students Creating Videos for Learning by Teaching From Their Scientific Curiosity. *Research in Science & Technological Education*, 42(2), 237–254. <https://doi.org/10.1080/02635143.2022.2116419>
- Syahrial, Asrial, Sabil, H., Azzahra, M. Z., & Nawahdani, A. M. (2024). Optimizing Learning Through Gange's Theory: Teaching Video Analysis for Prospective Teachers. *Jurnal Ilmiah Ilmu Terapan Universitas Jambi*, 8(2), 509–523. <https://doi.org/10.22437/jituj.v8i2.37239>
- Vivian, R., Falkner, K., & Falkner, N. (2014). Addressing the Challenges of a New Digital Technologies Curriculum: MOOCs as a Scalable Solution for Teacher Professional Development. *Research in Learning Technology*, 22. <https://doi.org/10.3402/rlt.v22.24691>
- Yi, Q., Dong, Z., & Qiao, H. (2024). Enhancing EFL Listening and Speaking Skills: Strategies and Practice for Implementing Multimedia and Multimodal Approaches. *Journal of Humanities, Arts and Social Science*, 8(9), 2211–2217. <https://doi.org/10.26855/jhass.2024.09.032>
- Zhang, R., & Zou, D. (2022). A State-of-the-Art Review of the Modes and Effectiveness of Multimedia Input for Second and Foreign Language Learning. *Computer Assisted Language Learning*, 35(9), 2790–2816. <https://doi.org/10.1080/09588221.2021.1896555>