

The Role of OpenAI Voice Technologies on AMJO for Physical Education Supervision

Sunarno Basuki^{1*}, Perdinanto¹, Akhmad Amirudin¹

¹Physical Education Study Program, Faculty of Teacher Training and Education,
Lambung Mangkurat University, Jl. Brig Jend. Hasan Basri No.87,
Pangeran, Banjarmasin Utara, Banjarmasin City,
South Kalimantan 70123, Indonesia

*Corresponding Author

Abstract: This research aims to explore the influence of integrating OpenAI's Text To Speech and Speech Recognition technologies into the AMJO application, a mobile-based educational platform designed to facilitate the supervision of physical education and sports training. In the realm of physical education, the use of voice recognition and speech synthesis technologies represents a noteworthy innovation, as it enhances the supervision process, streamlines communication, and enables real-time feedback for teachers. These technological features are anticipated to enrich user engagement and increase the efficiency of both teaching and supervision activities. The study was conducted in collaboration with the Physical Education, Sports, and Health (PJOK) Teacher Working Group (KKG) in Banjarbaru City and involved 60 participating teachers. The research was carried out through several stages: (1) research design, (2) user needs assessment, (3) design of technology integration, (4) application development, (5) testing and evaluation, (6) refinement and adjustment, and (7) implementation and dissemination. The development approach used in this study follows the Mobile Development Life Cycle (MDLC) model. The findings indicate that the incorporation of OpenAI's Text To Speech and Speech Recognition technologies within the AMJO application significantly enhances its functionality, particularly in improving the effectiveness and efficiency of physical education supervision.

Keywords: OpenAI, speech recognition, mobile applications, supervision of physical education, sports training

1. Introduction

Physical education and sports training play a fundamental role in the academic curriculum, contributing substantially to students' physical development, motor coordination, and psychological well-being (Dzakwan et al., 2023)(Raihani, 2024). Beyond enhancing physical capabilities and athletic proficiency, these activities cultivate essential character traits such as discipline, cooperation, and a sense of responsibility. Within the school environment, effective supervision by educators and coaches is vital to ensure that teaching and training processes are conducted in an organized, efficient, and pedagogically sound manner.

The supervision of physical education and sports requires consistent observation, prompt and constructive feedback, and meticulous documentation of student progress. Nevertheless, implementing effective supervision is often hindered by limited time, large class sizes, and the multifaceted nature of physical education itself. Educators and trainers are expected to continuously evaluate students' physical capabilities and motor development in order to provide tailored instruction and to address any ineffective techniques or learning strategies.

In response to these challenges, the advancement of digital technologies—particularly mobile applications—has opened up new possibilities for innovation in educational and athletic contexts (Prasetyo et al., 2018). Emerging information and communication technologies offer practical solutions to enhance the supervision process in physical education. Through the adoption of widely accessible mobile platforms, teachers and coaches are now able to monitor student activity in real time, deliver immediate feedback, and streamline the management of data and records, thereby improving the overall effectiveness and responsiveness of physical education supervision.

Mobile-based applications developed for the supervision of physical education and sports training are capable of performing diverse and complex functions, such as monitoring performance, recording physical data, managing training schedules, and analyzing student progress (Pratama et al., 2022). These capabilities empower teachers and coaches to deliver faster, more personalized feedback, identify areas requiring improvement, and adapt learning and training programs to meet the specific needs of each learner. Furthermore, such applications enhance communication among educators, trainers, and students, while offering advanced tools for data reporting and analysis.

Despite the significant promise that mobile technology holds in the realm of physical education supervision, several challenges continue to impede its widespread implementation (Sang & Chen, 2022). One

major challenge lies in the design and development of instructional media tailored to the unique characteristics and requirements of users within the sports education context (Namba, 2021). A large proportion of existing mobile apps are developed for general use, and therefore lack features that are specifically suited to physical education and training environments (Tavares et al., 2020). To address this gap, there is a critical need for the creation of specialized learning media that effectively support supervisory functions in this domain.

This research responds to that need by investigating the effects of integrating OpenAI's Text To Speech and Speech Recognition technologies into the AMJO application, a mobile-based tool designed to support the supervision of physical education. These technologies have been incorporated into the application to enable more accurate real-time monitoring, deliver auditory feedback, and facilitate efficient management of supervision-related data. By embedding these voice technologies, the AMJO application is expected to significantly enhance the quality and efficiency of the supervisory process in physical education. The ultimate goal of this study is to contribute meaningfully to the development of more innovative, responsive, and effective digital tools in the field of sports education.

Although various mobile applications have been developed for educational supervision, there is limited research that specifically explores the integration of AI-based voice technologies—such as speech recognition and text-to-speech—within the context of physical education. Prior studies have focused mainly on general educational contexts, with little emphasis on real-time voice-assisted supervision tailored to the unique demands of physical training environments. This study addresses this gap by designing and evaluating AMJO, a mobile application enhanced with OpenAI voice features to support effective and responsive supervision in physical education settings. **This novel approach positions AMJO as a pioneering tool in the application of AI-driven voice technologies for physical education supervision.**

2. Method

This study adopts a structured **Research and Development (R&D)** methodology based on a modified **Mobile Development Life Cycle (MDLC)** framework to design, develop, and evaluate the AMJO application—an AI-integrated mobile platform for physical education supervision. The research process was carried out in **seven sequential stages**, namely: (1) research framework design, (2) user needs assessment, (3) technology integration design, (4) application development, (5) trials and evaluation, (6) refinement and adjustment, and (7) implementation and dissemination (Suharsih et al., 2021).

In the **needs assessment** stage, qualitative and quantitative data were collected through structured **interviews, surveys, and focus group discussions** with members of the Physical Education, Sports, and Health (PJOK) Teacher Working Group (KKG) in Banjarbaru City. This phase aimed to identify key challenges and expectations faced by educators in supervising physical education activities. The insights gathered served as the foundation for determining system requirements and informing the integration of voice technologies in subsequent design phases.

During the **design and development** stages, the application's architecture, user interface, and core functionalities were modeled using wireframes and prototypes. Particular emphasis was placed on embedding **OpenAI's Text-to-Speech (TTS) and Speech Recognition (STT)** technologies into the application to enable interactive, voice-based supervision features. The development phase included programming, system integration, and internal testing to ensure technical reliability.

Following development, the application underwent a **formative evaluation** by two media and usability experts to assess its practicality and readiness for broader deployment. This evaluation applied the **System Usability Scale (SUS)**—a widely used instrument for measuring perceived usability—alongside a structured questionnaire based on a 5-point Likert scale. The findings informed subsequent **revisions and refinements**, including bug fixes, interface adjustments, and feature enhancements based on expert feedback.

In the **implementation phase**, the finalized application was deployed among **60 PJOK teachers** from the KKG in Banjarbaru. A **quasi-experimental approach** using **pre-test and post-test design** was employed to evaluate the application's effectiveness. The pre-test measured teachers' baseline knowledge and familiarity with voice-enabled supervision tools. After a defined period of using the AMJO application, a post-test was administered to assess improvements in instructional competence and user experience.

In addition to the pre-test and post-test assessments, participants were also asked to complete a **follow-up questionnaire** aimed at evaluating various aspects of the AMJO application, including its **usability, functional efficiency, and overall perceived impact** on their supervisory practices. The questionnaire incorporated both subjective user feedback and structured rating scales to capture a holistic view of the application's effectiveness in real-world educational settings.

To systematically interpret the results, the study employed the **System Usability Scale (SUS)**—a standardized instrument widely recognized for its reliability in assessing system usability across digital platforms. The SUS consists of ten items rated on a 5-point Likert scale, producing a composite score ranging

from 0 to 100. These scores were analyzed using **benchmarking criteria** developed by Thomas and Tullis (2004), which classify usability performance into five distinct grade levels:

Table 1: Sus Score Percentile	
Grade	Description
A	Excellent (score ≥ 80.3)
B	Good ($74 \leq \text{score} < 80.3$)
C	Acceptable ($68 \leq \text{score} < 74$)
D	Marginal ($51 \leq \text{score} < 68$)
E	Poor (score < 51)

This classification scheme offers a clear and interpretable framework for understanding how users perceive the usability of the application. By referencing these percentiles, the study was able to quantify user satisfaction and system performance in an objective manner, supporting data-driven conclusions about the application's readiness for broader implementation.

The use of the SUS, combined with iterative development and direct user feedback, allowed for continuous refinement of the application to better align with the operational needs of physical education teachers. This methodological approach ensured that the AMJO application was not only technically sound, but also educationally relevant and user-friendly, particularly in the dynamic and movement-based learning environments typical of physical education settings.

Therefore, the integration of usability testing using validated measurement tools such as the SUS, alongside pedagogical evaluation, demonstrates that the developed application is well-positioned to meet users' expectations, enhance the supervisory process, and make a meaningful contribution to the digital transformation of physical education supervision and training.

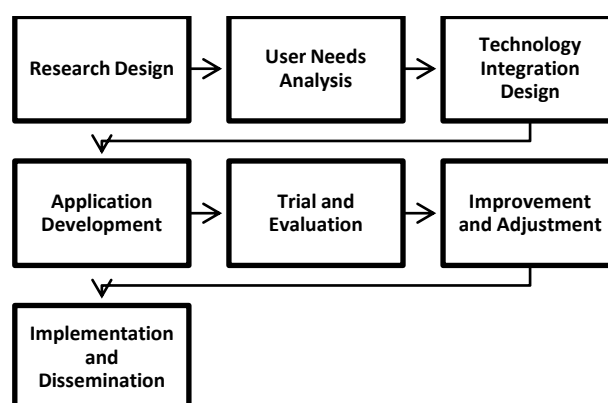


Fig. 1: Research procedures

2.1 Research Design

During the research design phase, the methodological approach is chosen based on the study's goals and its specific contextual characteristics. In this case, a research and development (R&D) framework is adopted as the primary methodology (Mu'arifin & Kurniawan, 2021). At this stage, detailed planning of the entire research process is conducted, which includes setting the project timeline, assigning responsibilities among team members, and preparing the necessary research instruments such as questionnaires and interview protocols. Additionally, the target population and sample for the study are defined, focusing on physical education, sports, and health (PJOK) teachers who are members of the Teacher Working Group (KKG) in Banjarbaru City.

2.2 User Needs Analysis

The purpose of the user needs analysis phase is to explore and identify the specific needs, challenges, and expectations of educators who will be utilizing the AMJO application integrated with OpenAI's Text To Speech and Speech Recognition technologies (Iqbal & Bhatti, 2020). To gather comprehensive insights, data collection was conducted through surveys, in-depth interviews, and focus group discussions (FGDs) involving PJOK teachers from the Teacher Working Group (KKG) in Banjarbaru. The findings from this phase serve as a foundational reference for the development of the application's features and functionalities, ensuring that the final product is tailored to effectively address user requirements and operational contexts.

2.3 Technology Integration Design

The design stage of the application follows the ADDIE instructional design model, which consists of five sequential phases: Analysis, Design, Development, Implementation, and Evaluation (Samsudin et al., 2021). Within the design phase, the application's structural framework and visual layout are formulated based on the insights gathered from the user needs analysis. Particular attention is given to creating a user interface (UI) that is intuitive and accessible, ensuring ease of navigation and usability. Core functionalities—including the integration of Text To Speech and Speech Recognition technologies—are incorporated into the system to support user interaction through voice. To support development and refinement, mockups are developed to visualize the application's interface and workflow, ensuring that all previously identified user requirements and challenges are thoroughly addressed in the design.

2.4 Application Development

The application development phase also adopts the ADDIE model, with a primary focus on the development component. This stage involves translating the previously designed framework into a functional system through technical implementation, which includes writing the application code, integrating Text To Speech and Speech Recognition functionalities, and setting up the supporting database. Developers employ suitable programming languages and tools to construct the mobile platform. Throughout this process, internal testing is conducted to verify that all features and modules operate according to the design specifications. Additionally, debugging procedures are implemented to detect and resolve any issues or system errors encountered during development.

2.5 Trial and Evaluation

Following the development phase, the application undergoes a trial and evaluation process to determine its functionality and overall effectiveness within a real-world setting. This evaluation engages two media experts who assess the appropriateness and readiness of the application prior to its broader implementation. Data collection is carried out through questionnaires that examine various aspects, including usability, system performance, and user satisfaction. To evaluate the application's usability level, the System Usability Scale (SUS) is employed as a standardized measurement tool (Aisy et al., 2024). The feedback obtained from this assessment is then analyzed to identify existing shortcomings and inform necessary improvements.

2.6 Repairs and Adjustments

Based on the results obtained during the trial phase, several refinements and modifications are implemented to resolve identified shortcomings. This refinement process involves reprogramming or modifying specific features to enhance overall functionality and ensure the application aligns with user expectations, particularly in relation to the Text To Speech and Speech Recognition components (Weichbroth, 2024). Once these enhancements have been completed, a secondary round of testing is conducted to verify the effectiveness of the adjustments and to confirm that the application is ready for deployment in practical settings.

2.7 Implementation and Dissemination

The final phase of this research involves the implementation and dissemination of the developed application. Implementation is conducted by deploying the application in an actual physical education setting to evaluate its practical effectiveness. Educators using the AMJO application will undergo both a pre-test and a post-test to assess the impact of the integrated Text To Speech and Speech Recognition features on their supervisory performance (Rosiva et al., 2022). In addition to these assessments, teachers will complete a questionnaire aimed at capturing their perceptions and experiences with the application. To support successful adoption, training sessions are provided to ensure users can operate the system efficiently. The outcomes of this research are shared through academic publications, seminars, workshops, and other dissemination platforms to promote broader usage and gather feedback that may inform future improvements.

3. Results and Discussion

3.1 User Needs Analysis

Findings from the user needs analysis highlight a substantial demand for a mobile-based platform that not only supports the supervision of physical education and sports instruction but also incorporates OpenAI's Text To Speech and Speech Recognition technologies (Yang et al., 2020). Users expressed the necessity for functionalities such as performance tracking, real-time feedback delivery, and seamless access to instructional materials. Moreover, they emphasized the importance of the application's ability to accurately recognize spoken input and convert it into text. Insights gathered from surveys and in-depth interviews further reveal that the ideal application must feature an intuitive and user-friendly interface, while effectively facilitating supervision

through integrated voice-based technologies.

3.2 Technology Intergartion Design

During the application design stage, detailed planning documents such as blueprints, wireframes, and mockups were developed to visualize the system structure. The user interface (UI) was specifically crafted to prioritize user accessibility and straightforward navigation, incorporating OpenAI's Text To Speech and Speech Recognition technologies as determined through the user needs assessment. Core functionalities—including performance tracking, voice-driven feedback, and speech-to-text processing—were embedded into the design. Additionally, the interface was enhanced using a visually appealing color scheme, intuitive icons, and a layout structured to improve user engagement and support effective voice-based supervision (Muhamat et al., 2021).

3.3 Application Development

At the initial stage of developing the AMJO application, which integrates OpenAI's Text To Speech and Speech Recognition technologies, the primary emphasis was placed on conceptual planning and prototyping. The development team established a foundational framework comprising the user interface layout, navigation flow, and essential functionalities aimed at enhancing the supervision of physical education and sports training. The resulting prototype serves as an interactive platform, enabling educators to access instructional content, deliver voice-based commands, and monitor student performance more efficiently.

During this phase, the foundational components of the application were successfully constructed, including instructional modules that address diverse aspects of sports supervision. The development process concentrated on incorporating key features such as training schedule management, video tutorials, and evaluation tools grounded in specific performance criteria. Furthermore, the integration of speech recognition allows teachers to offer immediate feedback by converting spoken input into text. These functionalities are designed to streamline the supervision process and support real-time tracking and organization of student activities.

The structure of the AMJO application has been developed with a strong emphasis on addressing user needs, featuring an interface that is both user-friendly and responsive (Artanayasa et al., 2023). The navigation design has been carefully crafted to ensure seamless access to various learning modules, task monitoring, and assessments that utilize voice-based performance metrics. In addition to the technical aspects of development, the team has also created educational content to be embedded within the application, which is fully compatible with speech recognition and speech-to-text capabilities.

The integration of OpenAI technology into the AMJO application demonstrates steady progress toward fulfilling the project's core objective: to develop a powerful and efficient digital tool that enhances supervision in physical education and sports training, particularly through the application of voice-based technologies. Built on a solid conceptual framework, the application is anticipated to significantly enhance both the quality and effectiveness of supervisory and instructional processes in the physical education domain moving forward.

Figure 2 displays the **Start Page**, which serves as the user's entry point into the application. This page provides access to core features through a clean and minimalist layout, allowing users to navigate easily to various modules such as materials, supervision tasks, voice input, and quizzes. The design prioritizes clarity and simplicity to support efficient use in real-time, active educational environments.



Fig. 2: Start page

Figure 3 shows the Materials List Page, where users can browse structured learning resources. Materials are categorized based on topics and training modules relevant to physical education. Each item in the list is clickable, enabling direct access to instructional content, demonstration videos, or text-based materials. This page supports independent study and facilitates lesson planning for teachers.



Fig. 3: Materials list page

Figure 4 presents the Material Page, which provides detailed instructional content aligned with the selected topic. This interface supports multimedia integration and includes text descriptions, visual aids, and audio explanations powered by the application's text-to-speech functionality. Teachers can use this page as a reference during supervision or in-class instruction, enhancing engagement through voice interaction and accessibility.

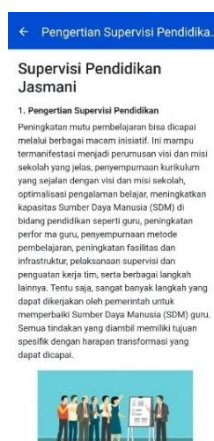


Fig. 4: Material page

Figure 5 illustrates the **Quiz Page**, which allows educators to conduct formative assessments directly within the application. The quiz interface is designed to be user-friendly and interactive, featuring multiple-choice and short-answer question formats. Voice recognition technology is also integrated, allowing users to respond verbally when appropriate. This feature supports the evaluation of student learning outcomes and provides immediate feedback to teachers.

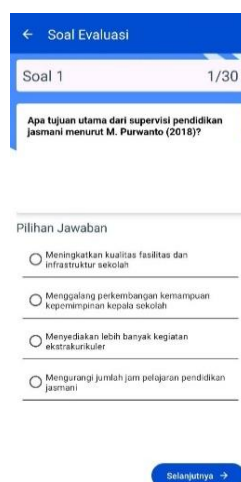


Fig. 5: Quiz page

Together, these interface components reflect the application's goal of merging pedagogical functionality with AI-driven innovation, thereby supporting effective and adaptive supervision in physical education.

3.4 Trial and Evaluation

The application underwent a trial evaluation involving two media experts. Based on the questionnaire results, the application was considered to be well-constructed and effectively designed (Liu et al., 2020). The experts highlighted the application's ease of use and its functional integration of Text To Speech and Speech Recognition technologies as major strengths. In addition to the positive feedback, they also offered constructive recommendations for improvement—such as enhancing the system's responsiveness and refining the accuracy of its voice-to-text conversion capabilities. These insights were gathered through a post-trial questionnaire completed by the experts. Overall, the evaluation data indicated a high degree of feasibility and suggested that the application holds significant potential for broader implementation.

Table 2: The Results of Material Feasibility Test by Material Experts

No	1	2	3	4	5	6	7	8	9	10	Total	Total*2.5
1	4	4	3	4	3	4	4	4	3	4	37	93
2	3	4	3	4	3	4	4	4	3	3	35	88
Average score												90

3.5 Repairs and Adjustment

Following the evaluation phase, necessary revisions and refinements were made to the application in response to the issues that had been identified (Griffith et al., 2024). A thorough problem analysis was conducted to pinpoint specific areas requiring enhancement, particularly concerning the integration of the Text To Speech and Speech Recognition features. The improvement process included modifying the application's code and adjusting certain functionalities in accordance with user feedback. Once these modifications were completed, the application underwent another round of testing to verify the effectiveness of the changes, with particular attention given to the precision of the speech recognition feature and the overall usability of the voice-based interface.

3.6 Implementation and Dissemination

The final phase of this study involved the implementation and dissemination of the AMJO application. Implementation was carried out among members of the Teacher Working Group (KKG) for Physical Education, Sports, and Health (PJOK) in Banjarbaru City, who had been engaged throughout the earlier development stages. To ensure smooth adoption, training sessions were conducted to familiarize users with the application's interface and core features, with emphasis on the Text-to-Speech (TTS) and Speech Recognition (STT) components powered by OpenAI.

The effectiveness of the application was evaluated through a pre-test and post-test design administered to 60 physical education teachers. The pre-test, illustrated in Figure 6, captured participants' baseline competence in using technology-based supervisory tools. After using AMJO over a defined period, participants completed a post-test (Figure 7), which revealed substantial improvement in their knowledge and confidence in conducting supervision using voice-enabled mobile technology.

In addition to performance testing, participants completed a System Usability Scale (SUS) questionnaire, designed to assess their experience with the application's interface, usability, and feature relevance. Table 3 presents the detailed scoring results for all 60 respondents. Each participant rated ten standardized usability items on a 5-point Likert scale, which were converted into SUS scores by multiplying the total score by 2.5.

According to the SUS results, the application achieved an average score of 77, which places it in Grade B, corresponding to the 74–80.3 percentile range (Sauro, 2018). This indicates that the AMJO application offers above-average usability and is generally well-received by users. Most teachers reported feeling comfortable with the interface and appreciated the ease of use, particularly the integration of voice features that support real-time supervision and feedback.

While the SUS results were largely positive, minor areas for improvement were also identified, such as enhancing system responsiveness and refining voice accuracy for users with regional accents. These findings informed ongoing refinements to improve the application's accessibility and performance.

Fig. 6: Results of the teachers' pre-test prior to using the AMJO application

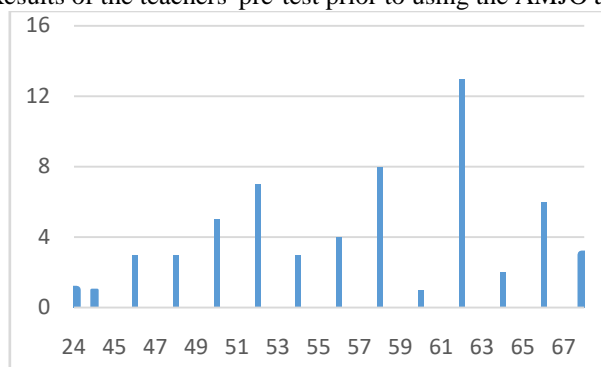
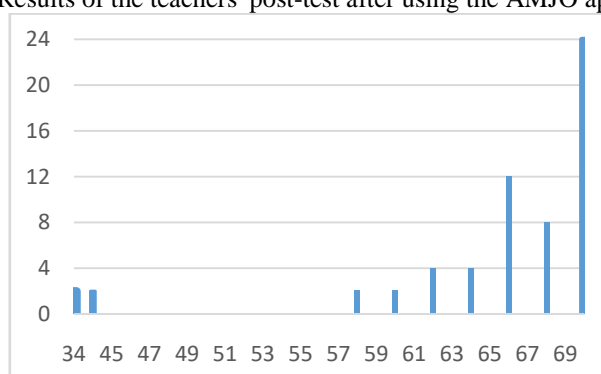


Fig. 7: Results of the teachers' post-test after using the AMJO application



Furthermore, the teachers were asked to complete a post-implementation questionnaire designed to evaluate their experiences and perceptions of the AMJO application. The primary objective of this questionnaire was to assess the system's usability, functionality, and user satisfaction—particularly in relation to the integration of voice technologies such as Text-to-Speech and Speech Recognition. The results below summarize both the individual SUS scores and the distribution of user evaluations across standardized usability grades.

Table 3: Summary of SUS Scores per Respondent

Respondent	SUS Score
1	100
2	85
3	58
...	...
60	88
Average	77

Table 4: SUS Score Distribution by Grade

SUS Grade	Score Range	Number of Respondents	Percentage (%)
A	≥ 80.3	15	25%
B	74–80.2	20	33%
C	68–73	10	17%
D	51–67	10	17%
E	< 51	5	8%
Total	–	60	100%

According to the results of the SUS questionnaire completed by 60 respondents, the application achieved an average usability score of **77**, placing it within the **Grade B classification** (74–80.2 range), as defined by Sauro (2018). This score reflects **good overall usability** and suggests that most users found the system functional, user-friendly, and beneficial for supervisory tasks in physical education. In particular, many teachers appreciated the seamless integration of the voice-based features, which contributed to more efficient and

interactive supervision.

Despite the generally positive reception, a small percentage of users (8%) rated the application below acceptable usability standards (Grade E), citing minor challenges such as voice recognition inaccuracies and initial learning curve difficulties. These findings indicate that while the AMJO application is nearing the **Grade A usability tier**, further refinements—particularly in speech responsiveness and interface optimization—could elevate the system to the highest benchmark of usability.

4. Conclusion

This study successfully developed and evaluated a mobile-based learning media—**AMJO**—integrated with OpenAI's **Text-to-Speech** and **Speech Recognition** technologies to support supervision in physical education. Initial feasibility testing confirmed the application's usability and readiness for deployment.

During the implementation phase, a **pre-test and post-test** design was conducted involving physical education teachers to assess the effectiveness of the application. The results showed a marked improvement in post-test scores compared to pre-test results, indicating enhanced understanding and supervisory competence. Furthermore, teacher feedback collected through usability questionnaires reflected high satisfaction levels, particularly regarding the ease of use and the functionality of the voice-based features.

Overall, the findings demonstrate that the AMJO application is both **technically viable** and **pedagogically effective**, meeting user needs while contributing to the advancement of digital supervision tools in physical education and sports training.

References

- [1]. Aisy, R., Mursityo, Y. T., & Wijoyo, S. H. (2024). Evaluasi *Usability* Aplikasi *Mobile* Sampingan Menggunakan *Metode Usability Testing* dan *System Usability Scale* (SUS). *Jurnal Teknologi Informasi Dan Ilmu Komputer*, 11(1), 19–26. <https://doi.org/10.25126/jtiik.20241116613>
- [2]. Alfaresy, R. A., & Ratnasari, C. I. (2023). Website Evaluation of The Faculty of Industrial Technology Universitas Islam Indonesia Using the System Usability Scale Method. *Jurnal Riset Informatika*, 5(3), 285–294. <https://doi.org/10.34288/jri.v5i3.220>
- [3]. Artanayasa, I. W., Kusuma, K. C. A., Satyawan, I. M., & Mashuri, H. (2023). The android-based instrument for performance assessment of football. *Cakrawala Pendidikan*, 42(1), 110–119. <https://doi.org/10.21831/cp.v42i1.52483>
- [4]. Dzakwan, M. N., Athar, A., & Basuki, S. (2023). Peran Guru Pendidikan Jasmani Olahraga Dan Kesehatan Dalam Kegiatan Usaha Kesehatan Sekolah Di Sekolah Menengah Pertama Negeri Se-Kecamatan Liang Anggang Kota Banjarbaru Tahun 2023. *STABILITAS: Jurnal Pendidikan Jasmani Dan Olahraga*, 4(3), 204–211. <https://doi.org/10.20527/mpj.v4i3.2305>
- [5]. Griffith, J., Monkman, H., Penner, S., Karoli, K., & Stockdale, C. (2024). An Iterative Approach to Usability Evaluation: A Workplace Wellness Mobile Application Example. *Studies in Health Technology and Informatics*, 316, 449–453. <https://doi.org/10.3233/SHTI240445>
- [6]. Hyzy, M., Bond, R., Mulvenna, M., Bai, L., Dix, A., Leigh, S., & Hunt, S. (2022). System Usability Scale Benchmarking for Digital Health Apps: Meta-analysis. *JMIR MHealth and UHealth*, 10(8), 1–11. <https://doi.org/10.2196/37290>
- [7]. Iqbal, S., & Bhatti, Z. A. (2020). A qualitative exploration of teachers' perspective on smartphones usage in higher education in developing countries. *International Journal of Educational Technology in Higher Education*, 17(1). <https://doi.org/10.1186/s41239-020-00203-4>
- [8]. Liu, Y. C., Chen, C. H., Lin, Y. S., Chen, H. Y., Irianti, D., Jen, T. N., Yeh, J. Y., & Chiu, S. Y. H. (2020). Design and usability evaluation of mobile voice-added food reporting for elderly people: Randomized controlled trial. *JMIR MHealth and UHealth*, 8(9). <https://doi.org/10.2196/20317>
- [9]. Mu'arifin, M., & Kurniawan, A. W. (2021). Konsep penelitian pengembangan dalam praktik pembelajaran pendidikan jasmani. *Multilateral : Jurnal Pendidikan Jasmani Dan Olahraga*, 20(2), 102. <https://doi.org/10.20527/multilateral.v20i2.10587>
- [10]. Muhamat, N. A., Hasan, R., Saddki, N., Arshad, M. R. M., & Ahmad, M. (2021). Development and usability testing of mobile application on diet and oral health. *PLoS ONE*, 16(9 September), 1–21. <https://doi.org/10.1371/journal.pone.0257035>
- [11]. Namba, H. (2021). Physical Activity Evaluation Using a Voice Recognition App: Development and Validation Study. *JMIR Biomedical Engineering*, 6(1), e19088. <https://doi.org/10.2196/19088>
- [12]. Prasetyo, H., Kristiyanto, A., & Doewes, M. (2018). Penerapan Mobile Learning dalam Pembelajaran Pendidikan Jasmani Kesehatan Olahraga dan Kesehatan (PJOK). *Prosiding Seminar Nasional IPTEK Olahraga*, 11–14.
- [13]. Pratama, B. A., Sucipto, S., & Nanda Hanief, Y. (2022). Improving learning in physical education:

- Augmented reality mobile app-based for fundamental motor skill. *Jurnal SPORTIF : Jurnal Penelitian Pembelajaran*, 8(2), 314–326. https://doi.org/10.29407/js_unpgri.v8i2.18508
- [14]. Raihani, A. (2024). *Pengembangan Kurikulum Pendidikan Jasmani Berbasis Pendekatan Desain untuk Menguatkan Profil Pelajar Pancasila (P5)*. 2(2), 69–78.
- [15]. Rosiva, S. S., Kuswandi, D., & Soepriyanto, Y. (2022). Readiness toward M-Learning Implementation During Pandemic COVID-19: Secondary High School Teachers and Students Perception in Indonesia. *Jurnal Penelitian Ilmu Pendidikan*, 15(2), 128–136. <https://doi.org/10.21831/jpipfip.v15i2.47594>
- [16]. Samsudin, R., Sulaiman, R., Guan, T. T., Yusof, A. M., Firdaus, M., & Yaacob, C. (2021). Mobile Application Development Trough ADDIE Model. *International Journal of Academic Research in Progressive Education and Development*, 10(2), 1017–1027. <https://doi.org/10.6007/IJARPED/v10-i2/10328>
- [17]. Sang, Y., & Chen, X. (2022). Human-computer interactive physical education teaching method based on speech recognition engine technology. *Frontiers in Public Health*, 10, 941083. <https://doi.org/10.3389/fpubh.2022.941083>
- [18]. Sauro, J. (2018). *5 Ways to Interpret a SUS Score*. <https://measuringu.com/interpret-sus-score/>
- [19]. Suharsih, R., Febriani, R., & Triputra, S. (2021). Usability of Jawara Sains Mobile Learning Application Using System Usability Scale (SUS). *Jurnal Online Informatika*, 6(1), 41. <https://doi.org/10.15575/join.v6i1.700>
- [20]. Tavares, B. F., Pires, I. M., Marques, G., Garcia, N. M., Zdravevski, E., Lameski, P., Trajkovik, V., & Jevremovic, A. (2020). Mobile applications for training plan using android devices: A systematic review and a taxonomy proposal. *Information (Switzerland)*, 11(7). <https://doi.org/10.3390/INFO11070343>
- [21]. Thomas, S., & Tullis, S. (2004). A Comparison of Questionnaires for Assessing Website Usability. *Usability Professional Association Conference 2004*.
- [22]. Weichbroth, P. (2024). *Usability Testing of Mobile Applications: A Methodological Framework*.
- [23]. Yang, D., Oh, E. S., & Wang, Y. (2020). Hybrid physical education teaching and curriculum design based on a voice interactive artificial intelligence educational robot. *Sustainability (Switzerland)*, 12(19), 1–14. <https://doi.org/10.3390/su12198000>

Author Profile



Prof. Sunarno Basuki is a professor and lecturer at the **Department of Physical Education, Faculty of Teacher Training and Education, Lambung Mangkurat University (ULM), Indonesia**. His primary area of expertise is in **educational supervision**, particularly within the context of physical education. He is actively involved in mentoring students, curriculum development, and teacher professional development programs. As the corresponding author, Prof. Sunarno plays a key role in coordinating research and academic publications.



Perdinanto is a lecturer at the **Department of Physical Education, Faculty of Teacher Training and Education, Lambung Mangkurat University (ULM), Indonesia**. His academic interests include **sports coaching, motor skill development, and health education**. He is actively engaged in research and community service initiatives related to physical education and wellness.



Akhmad Amirudin is a lecturer at the **Department of Physical Education, Faculty of Teacher Training and Education, Lambung Mangkurat University (ULM), Indonesia**. His research focus is in **athletics coaching**, especially in **track events** such as running. He is involved in athlete training, performance enhancement, and studies that aim to improve achievements in athletic sports.