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THE EFFECTIVENESS OF APP-BASED APPROACH TO LANGUAGE LEARNING

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Abstract. *During the last few years Artificial Intelligence (AI) technologies have transformed traditional language teaching by offering new methods and solutions. Some popular language learning apps, such as Duolingo, Babbel, Rosetta Stone and others now offer personalized interactive lessons, grammar exercises, vocabulary drills, and pronunciation practice to further improve the process of language learning. Learners have the possibility to advance at their own pace and according to their requirements. These platforms employ machine learning algorithms to evaluate user progress and provide personalized feedback and suggestions, thus enhancing the efficiency of the learning process. Although these language learning apps may use similar teaching methods, each of them has its own unique features .*

There are certain differences in how they assess learners' skills, choose adaptive learning plans, provide feedback, and track progress.

Key words*: Artificial Intelligence (AI) technology, language learning apps, AI-generated content, personalized learning*

Introduction.

Over the past few years, advancements in language education have been very notable due to the integration of Artificial Intelligence (AI) technologies. AI has significantly changed the learning and teaching environment for both students and educators. This study explores how recent advancements in AI technologies influence different aspects of language teaching and learning. AI is reshaping the educational model, providing new opportunities for those engaged in the educational process.

AI-based approach in language learning.

One of the most significant innovations provided by this cutting-edge technology is personalized learning, which considers the individual needs and preferences of each learner. Today such a method of language instruction is achieved through the use of a great number of language learning apps. AI-generated language learning content uses algorithms and machine learning to assess learner data, adjust to individual learning preferences, and provide real-time feedback and support.

Another distinction between AI-generated content and conventional language learning materials lies in the capability of this new technology to integrate real-life examples into the learning process. AI algorithms have the capacity to process huge datasets to identify and select relevant examples, thus helping learners comprehend how language is used in practical contexts.

Language learning tools powered by AI can integrate interactive features like speech recognition and pronunciation feedback, assisting learners to practice and improve their speaking skills. Additionally, these tools may use gamification

techniques to enrich the learning experiences.

Although these language learning apps may use similar teaching methods, each of them has its own unique approach and specific features. Most language learning apps commonly use the following AI-based approaches, which include:

1. **Personalized Learning:** AI analyzes individual students' learning patterns and adjusts lessons accordingly.

2. **Interactive Learning:** AI-powered language apps offer their learners various interactive activities such as quizzes, games, and interactive lessons, allowing them to actively participate in the learning process.

3. **Immediate Feedback:** AI provides immediate feedback on students' activity, helping them identify and correct mistakes in real-time,

4. **Accessibility:** AI-based language learning platforms provide learners with flexible access to learning materials at any time convenient for them.

At the same time, to enhance the efficiency of language acquisition various language learning apps use their specific approaches that adapt the learning process to each user's individual needs, preferences, and learning styles. Here are some examples:

Skill Assessment

Duolingo	New users are usually offered to take **a placement test** to evaluate their proficiency level in the target language. Based on their results, Duolingo recommends a starting point within the course that matches their skill level. For example, if a user demonstrates proficiency in basic vocabulary but has difficulty with verb tenses, Duolingo may suggest a starting point at an intermediate level with a focus on grammar according to the user's specific needs.
Babbel	Babbel assesses the users' language proficiency level through a **placement test.** This test helps Babbel understand their strengths and weaknesses on different levels, including vocabulary, grammar, pronunciation, and comprehension. Based on the results of the placement test, Babbel offers a personalized approach for each user, focusing on areas where improvement is needed. Additionally, Babbel may continuously assess users' progress within lessons providing feedback and recommendations to enhance their language skills.
Rosetta Stone	Rosetta Stone usually evaluates users' language proficiency using a **placement test,** which examines their capabilities in reading, writing, listening, and speaking. Moreover, the platform uses interactive exercises and simulations to measure users' understanding and practical use of language in real-life contexts. Additionally, speech recognition technology may be employed to assess users' pronunciation and speaking abilities. Based on these results, Rosetta Stone then recommends a starting point within its curriculum according to the learner's skill level.

Adaptive Learning Path

Duolingo	As users progress through the lessons, Duolingo's algorithm adapts the learning path based on their performance. It regularly evaluates users' proficiency levels including such areas as vocabulary, grammar, reading, writing, listening and speaking skills. Depending on users' strengths and weaknesses identified through these assessments, Duolingo adjusts the difficulty and content of lessons offering a personalized learning approach. In such cases, lessons and exercises are adjusted so as to target the areas that need improvement.
Babbel	Babbel determines the learning path for its users based on the results of a placement test. This test evaluates users' proficiency in various language skills, including vocabulary, grammar, pronunciation, and comprehension. Based on the results of the placement test, Babbel customizes the learning path for each user with a special emphasis on areas where improvement is needed and also focusing on the existing skill level of each user. During the course, Babbel continuously monitors users' performance and adjusts the difficulty and content of lessons accordingly. This adaptive approach ensures that users receive personalized instruction suited to their individual needs and abilities thus improving their ultimate results.
Rosetta Stone	Rosetta Stone offers a personalized learning path customized to each learner's individual needs and preferences. It adjusts the content and difficulty of lessons based on the learner's performance and progress. During the course, Rosetta Stone continuously evaluates learners' strengths and areas for improvement It also provides a curriculum designed to maximize their language learning results. It also adapts the difficulty of the exercises based on users' progress. So, if they are doing well, it will give them more challenging tasks. Rosetta Stone also lets you choose topics that interest you, so you can learn vocabulary and phrases that are relevant for you. Rosetta Stone personalizes the learning experience by assessing your language skills at the beginning and then adjusting the lessons accordingly. Rosetta Stone also lets its users choose topics that interest them, so they can learn vocabulary and phrases according to their needs and requirements.

Feedback and Progress Tracking

Duolingo	Duolingo provides immediate feedback on exercises, continuously tracking learners' progress and displaying results in the form of visual progress bars.
Babbel	Babbel offers instant feedback on exercises and assessments and learners can see their results in the form of visual indicators, such as graphs or charts. Babbel uses a personalized dashboard to display learners' progress results.
Rosetta Stone	Rosetta Stone provides feedback and progress tracking using various methods. For example, it uses speech recognition for assessing learners' pronunciation. Also, Rosetta Stone widely uses interactive exercises and activities with immediate feedback to its learners. Visual indicators, such as progress bars or charts, may be used to show learners' progress during the course.

Summary and conclusions.

Overall, while all three platforms offer personalized learning experiences, they have some differences in their approaches to placement, adaptation, content customization, and feedback mechanisms. Each has its strengths and may appeal to different groups of learners based on individual needs and learning styles.

The future role of language learning apps in language learning will continue to grow. As technology advances and AI becomes more sophisticated, these apps will continue to evolve and innovate and are likely to become even more personalized, adaptive, and effective to meet the needs of individual language learners.

References:

1. Fei V.L. (2024). Apps For English Language Learning [A Systematic ReviewTeaching English With Technology] volume 24, issue 1, pp.79-98.DOI:10.56297/FSYB3031/GAQR3589

2. Font de la Vall R.R., Araya F.G. (2023). Exploring the Benefits and Challenges of AI-Language Learning Tools [International Journal of Social Sciences and Humanities Invention] volume 10, №1, pp. 7569-7576. DOI:10.18535/ijsshi/v10i01.02

3. Kessler M., Gonulal T. (2023). Mobile-assisted language learning with Babbel and Duolingo: Comparing L2 learning gains and user experience [Computer Assisted Language Learning], published online May 25, 2023. DOI:10.1080/09588221.2023.2215294

4. Nuralisah A., Kareviati E. (2020). The Effectiveness of Using Memrise Application In Teaching Vocabulary [Professional Journal of English Education] issue 3, №4, pp.494-500. DOI:10.22460/project.v3i4.p494-500

5. Pangkuh A. (2020). The Use of Duolingo Apps to Improve English Vocabulary Learning [International Journal of Emerging Technologies in Learning] volume15, №7, pp. 149-155. DOI:10.3991/ijet.v15i07.13229

6. Savanni S. (2019). State-of-the-Art Duolingo Features and Applications [International Conference on Interactive Collaborative Learning (ICL 2018): The Challenges of the Digital Transformation in Education] pp.139-148. DOI:10.1007/978-3-030-11935-5_14

7. Vijayakumar M., Chellapandiyan G. (2024). Language Learning Through AI Technology - LLA (Language Learning Apps) [International Research Journal on Advanced Engineering and Management] issue 4, volume 2, pp.957-962. DOI:10.47392/IRJAEM.2024.0127