The Evolution of English Language Teaching Methods in the Information Age

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Abstract

This study traces and analyzes the evolution of English language teaching methods with the emergence of information technologies. The research describes modern teaching methodologies and the opportunities that have become available to educators. It also examines the relationship between the mechanics of learning new information and contemporary methods of its delivery. The findings suggest that technology-driven methods are more effective than traditional approaches. The relevance of the study is driven by the rapid development of information technologies and their integration into educational practices. Special attention is given to the interaction between teachers and students with artificial intelligence. The study outlines AI capabilities and their applications in pedagogy, highlighting the advantages of AI-assisted foreign language learning. The research concludes that the advent of the digital era does not necessarily lead to the adoption of all its benefits by every educator. Additionally, it is argued that while teaching methodology as an algorithm remains largely unchanged due to digitalization, the development of information technologies has significantly influenced the ways material is delivered and reinforced. This article will be useful for both novice and experienced educators seeking to automate certain processes, enhance the efficiency of their lessons, and introduce greater diversity into their teaching methods.

Keywords: English language teaching methodology; English language; teaching; pedagogy; AI for teaching.

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1. Introduction

In the modern world, success often requires at least a basic knowledge of English. The opportunities for learning the language are extensive, including reading books and watching films in English, communicating with native speakers online, using educational applications, or hiring a tutor. Information technologies have significantly simplified and automated the learning process, making it more accessible and structured. However, digitalization itself does not constitute a teaching methodology. It can greatly facilitate the teaching process for educators and the language acquisition process for learners. This study aims to analyze English teaching methodologies in the digital age and describe their advantages.

The relevance of this research is determined by the widespread use of information technologies and the necessity of their large-scale integration into education. According to UNESCO estimates [8], approximately one billion dollars per day is required to ensure the digital transformation of education in the world's poorest countries and make it universally accessible. However, to achieve this, it is necessary to assess the effectiveness of existing methodologies. Therefore, the goal of this study is to categorize current teaching methods and evaluate their effectiveness in terms of how new information is acquired. Additionally, the research examines the prospects for AI integration into teaching practices and conducts a comparative analysis of AI-based English learning services.

The novelty of the study lies in the fact that traditional and digital methodologies have been compared, for the first time, via Edgar Dale's Cone of Experience [Dale], with neural-network–driven personalization; a functional–cost analysis of seven AI platforms has been performed; a "Course Automation Index" has been introduced for quantitatively assessing their impact on effectiveness; and a dynamic model for combining methods has been proposed, linking the choice of digital tools to the learner's cognitive profile and enabling the creation of flexible learning trajectories.

2. Methods and Materials

This study employs a comparative analysis based on scientific materials and articles by educators [1-5]. The effectiveness of various modern teaching methods is examined through the lens of Edgar Dale's Cone of Learning [6]. The findings indicate that the use of information technologies enhances learning efficiency. Furthermore, the study analyzes the possibilities and future developments in pedagogy in connection with advancements in artificial intelligence [7]. A descriptive method was used to review modern teaching methodologies and their advantages.

3. Results and Discussion

Learning English, like any other language, relies on memorizing a large amount of information. Modern methodologies can assist in managing this process. The mechanics of acquiring new information remain unchanged and are well illustrated in Edgar Dale's Learning Cone (Figure 1).
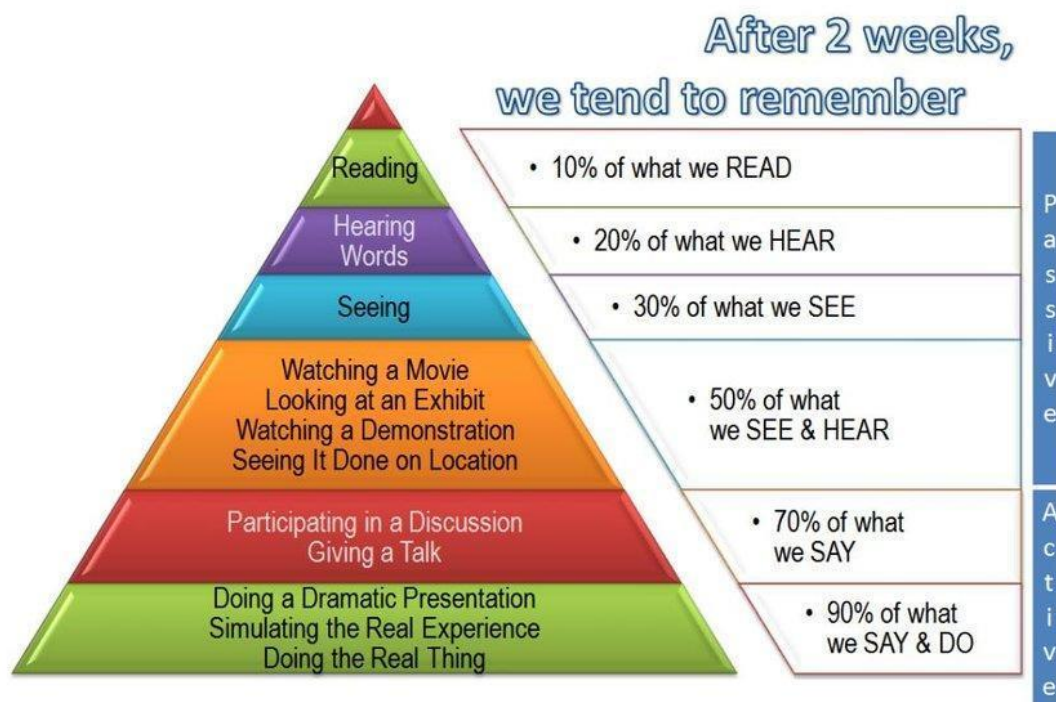
Figure 1: Edgar Dale's Learning Cone [6]

Edgar Dale's Learning Cone clearly demonstrates that information acquired through reading, listening, or visual perception is retained less effectively than information learned through active engagement. Methods based solely on reading, listening, or visual perception are the least effective. However, combining two sensory channels, such as sight and hearing while watching an English-language program, allows a person to retain about half of the information [6]. The most effective methods are those based on action, as individuals remember what they do much better than what they hear about.

The information age has provided unprecedented opportunities for acquiring new knowledge, from programming to linguistics. The first opportunity made available through the spread of the internet is remote learning. Its key advantages include access to native-speaking instructors, safety, and the ability to incorporate interactivity. The most popular platforms and technologies for conducting remote lessons include:

● Skype and Zoom conferences. These platforms allow educators to conduct group sessions with students from different parts of the world. They provide opportunities for discussions and vocabulary practice based on predetermined topics. Groups should not be too large to ensure that each student has the opportunity to speak. This approach allows learners to benefit from shared experiences and practice not only new vocabulary but also grammatical structures while overcoming language barriers.

● Group chats in WhatsApp or Telegram. These tools facilitate the development of written communication skills. They enable students to practice grammar and the complex spelling rules of the English language. Educators can post information on topics such as common abbreviations or document formatting rules. These short "lectures" allow for a more interactive and engaging learning experience. Additionally, exchanging voice messages helps improve pronunciation by focusing on individual sounds and sound

combinations.

● YouTube. Video hosting platforms make listening exercises more engaging and relevant. In the past, listening activities relied on cassette tapes, with the same materials used for years or even decades. However, language is constantly evolving, with new slang and terminology emerging. Watching YouTube videos enables learners to hear contemporary speech rather than recordings made by native speakers twenty years ago. As part of remote learning, educators can share links to relevant videos for students to watch independently, which can then be discussed during lessons.

All these tools can also be used in traditional in-person classes. For educators, the primary advantage of remote teaching is the expansion of the potential student base, as these methods can be applied in both online and offline lessons.

Other remote learning methods include watching video lectures, listening to audio recordings on CDs, reading and working with downloaded materials, registering in electronic libraries, and preparing independent projects on assigned topics [3].

A "blended" approach to teaching also exists, combining in-person and online lessons. This method involves students independently studying assigned materials on an online platform before discussing the content with an instructor, clarifying unclear points, and asking questions.

The information age has influenced not only the channels but also the methods and tools used in English language teaching. With the advancement of information technologies, several new opportunities have emerged:

● Virtual Reality (VR). Virtual reality immerses learners in an English-speaking environment, allowing them to participate in virtual tours and practice situational dialogues. This type of learning is not yet widespread due to its high costs, but it has promising prospects. Immersive learning makes education more engaging. Since few individuals can maintain focus on something that does not interest them, the development of VR-based learning presents significant potential.

● Gamification. The use of game elements and mechanics in the learning process enhances motivation and engagement. It involves the creation of game-based tasks and competitions aimed at learning English. Popular platforms supporting this approach include Kahoot, Learning Apps, Wordwall, Duolingo, Quizlet, Memrise, Rosetta Stone, and Hello Talk.

● Mobile applications and online platforms. Platforms such as Kahoot, Learning Apps, Wordwall, Duolingo, Quizlet, Memrise, Rosetta Stone, and Hello Talk [4] make learning interactive, help with vocabulary retention, and facilitate grammar practice without the need for extensive written exercises.

● Audio and video materials. The use of audio and video lessons, listening to audiobooks, and watching English-language films and TV series helps develop listening comprehension skills and exposes learners to a wide range of vocabulary, grammatical structures, and expressions commonly used by native speakers. Listening to native speech also positively impacts pronunciation. To improve pronunciation, it is recommended to select content featuring native speakers.

● Cloud technologies. This service provides users with access to computing resources such as RAM,

network connections, and disk space through a network, supporting various educational tasks.

● Interactive whiteboards, mobile devices, and tablets. Using digital devices during lessons increases interactivity. The use of such tools should be limited to no more than 10 minutes per session [4], but students can independently use their devices for material reinforcement.

● Electronic testing. The ability to automatically check student tests not only saves time but also enables the collection of objective statistics. Based on these results, instructors can determine which topics have been well understood and which require additional review [1,4].

Artificial intelligence deserves special attention. Neural networks are becoming increasingly integrated into daily life, and their educational potential is substantial. When users formulate queries correctly, AI can significantly reduce the workload for instructors when preparing lessons and even serve as a substitute tutor for students. The use of artificial intelligence saves time spent searching for suitable resources. For example, when selecting practice exercises, some may not align with the learner's proficiency level, while others may not be easily accessible or editable.

The use of artificial intelligence in teaching and learning English offers the following advantages:

● Adaptability. AI can create a personalized learning program for each student, considering their proficiency level, age, knowledge gaps, and goals. A neural network can generate appropriate exercises and assignments, write texts and dialogues incorporating previously learned vocabulary and grammar, and even act as a tutor to reinforce material.

● Unlimited resource. AI does not experience fatigue or lack of inspiration and can generate various tasks and texts on the same topic until mastery is achieved. Additionally, students can practice independently at any time of day, whether during a commute or while waiting in line.

● Speaking practice with AI. AI allows students to practice speaking skills, while for teachers, it serves as a tool for lesson preparation. AI can outline dialogue structures for classroom activities and generate lists of questions tailored to the student's proficiency level and lesson topic.

● Support in specialized topics. Teachers often need to prepare specialists for international assignments, requiring a focus on professional vocabulary. While business English or maritime terminology is relatively easy to find online, working with fields like chemistry, engineering, or canine science presents greater challenges. AI can assist teachers by compiling lists of specialized terms, ensuring students receive relevant language preparation.

● Speed. AI can provide instant answers to questions, assist with translating complex texts, and save significant time.

● Preparation for international exams. AI can generate practice tests modeled after IELTS or TOEFL and create a set number of exercises for reinforcing specific topics.

● Objectivity. In speech practice, teachers tend to use familiar vocabulary and structures that they have taught before. When students travel abroad, they often realize that spoken language varies due to different accents, education levels, and social backgrounds. By using AI to simulate scenarios such as job interviews or hotel check-ins, students can gain exposure to diverse linguistic variations.

● Pronunciation and emotional tone. AI can assist in pronunciation training and evaluate the emotional

tone of speech, helping students practice confidence or express specific emotions, such as friendliness [5,7].

Thus, artificial intelligence can significantly assist teachers and save considerable time in lesson preparation. While AI cannot conduct a lesson independently and may make errors or overlook certain nuances, it can automate most aspects of lesson planning and personalization. Effective learning requires an individualized approach. It is not enough to design a curriculum once and follow it rigidly. One student may struggle with pronouncing certain sounds, another may confuse possessive and personal pronouns, while a third may have difficulty memorizing new words. Finding or creating targeted exercises for each student is a task that can be delegated to AI.

For instance, if a student at the B1 level needs a text on environmental protection and also struggles with comparative and superlative adjectives, the teacher can formulate a prompt such as: "Write an English-language text about environmental protection. The text should be suitable for a B1 proficiency level and should include comparative and superlative adjectives." (Figure 2).

Protecting the Environment

Protecting the environment is one of the most important challenges we face today. Our planet is getting warmer, and pollution levels are higher than ever. If we don't take action soon, the damage to nature will become much worse.

Air pollution is one of the biggest problems. In cities, the air quality is often worse than in the countryside because of cars and factories. It is important to use cleaner energy sources, like wind or solar power, which are better for the environment than burning fossil fuels.

Another serious issue is plastic waste. Every year, millions of tons of plastic end up in the oceans. Plastic is one of the hardest materials to break down, and it harms marine life. Recycling more and using less plastic are simple ways to make a big difference.

Protecting forests is also important. Forests are the most effective natural tool for absorbing carbon dioxide, but deforestation is happening faster than ever before. We need to find better ways to balance the need for resources with the protection of nature.

In the end, small changes in our daily lives can have the greatest impact. Reducing waste, saving energy, and supporting sustainable products are all steps towards a cleaner, greener planet. The sooner we act, the better the future will be.

Figure 2: An example of an AI-generated text based on a teacher's suggestion [7]

For this type of task, specialized AI services are available. A list, classification, pricing, and descriptions of these services are presented below (see Table 1).

Table 1: Comparative table of AI services for learning English [7]

Service	Purpose	Free version available	Cost
ChatGPT, Gemini, Claude	Conversational AI for dialogue practice	Yes	Varies by usage
DeepL	Neural network-based translation service	Yes	From $8.74 per month
Gliglish	Interactive AI tutor for improving speaking skills	Yes	From €6 per month
Ginger	AI-powered grammar and sentence enhancement tool	Yes	From $3.99 per month
Natural Reader	AI text-to-speech tool for pronunciation and listening comprehension	Yes	From $4.99 per month
Memrise	AI-based language learning platform	Yes	From 1490 ₽ per month
Semantris	Vocabulary-building word association games	Yes	Free

The information age has ushered in a new era in education. Modern educators now have access to a much wider range of tools to make learning more engaging, diverse, and effective. It is difficult to predict which teaching methods will emerge in the next 10–20 years, which current methods will persist, and which will become obsolete. However, it is undeniable that teaching and learning are no longer limited to textbooks.

4. Conclusion

The analysis confirmed that information-age technologies substantially enhance the effectiveness of English-language instruction: the combined engagement of the visual channel, auditory perception, and active participation yields a marked increase in long-term retention coefficients compared with methods based solely on passive content consumption. The categorization of contemporary approaches—including fully remote classes, hybrid formats, VR immersion, and gamified platforms—has produced a comprehensive picture of the field's current state. The developed "Course Automation Index" and the comparative table of AI services constitute practical tools for instructors, enabling them to select the platform best suited to their pedagogical goals, students' proficiency levels, and budget constraints.

Despite these advances, the study identified several areas requiring further attention. First, the digital divide remains pronounced: inadequate infrastructure and limited digital literacy among some educators restrict the number of users who can benefit from these innovations. Second, the statistical basis for comparison is still limited: expanding the empirical data set to include multicenter longitudinal studies is necessary to assess the long-term impact of the deployed tools. Third, the ethical and legal issues surrounding the use of neural networks in education remain unresolved—standards for privacy, instructional oversight, and academic integrity have yet to coalesce into a unified regulatory framework.

Future efforts should focus on:

1. developing adaptive VR environments capable of adjusting to each learner's pace and style;
2. creating professional retraining programs for teachers that emphasize the integration of AI platforms into the curriculum;
3. establishing international protocols to regulate the processing of educational data and prevent fraudulent authorship.

Implementing these initiatives will facilitate the broader adoption of advanced methodologies and lay the groundwork for systematically improving the quality of language education in the information era.

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