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Visual Lessons: How AI Is Revolutionizing English Learning

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Abstract

The use of AI media has become extremely popular in recent years due to its versatility and ability to create images and videos from written prompts. This versatility has opened the door for AI in teaching and learning, boosting its use as a tool to enhance students' motivation. The use of AI-generated media for teaching English draws on its playful nature, transforming learning into a form of interactive play. With AI, teachers can now produce compelling visuals, engaging stories, and interactive resources that help learners improve their language skills. Rather than relying solely on textbooks and traditional exercises, which may feel outdated to students, AI enables learners to acquire new vocabulary and develop listening, speaking, and writing skills in a dynamic way.

This paper explores the potential of materials generated by AI in teaching English, with a focus on their applicability in current classroom activities. It begins with a brief history of AI-generated images and an overview of current platforms for creating AI images and videos that teachers can incorporate into their lessons. The examples discussed include the use of images and videos for introducing vocabulary and practicing pronunciation, as well as writing exercises that use AI-generated media to foster students' creativity and confidence. The paper is based on teaching experience and practical observations, emphasizing the playful nature of AI and its ability to increase learners' engagement.

Keywords:

Artificial Intelligence; Education 4.0; Language Learning; AI-generated images; AI-generated videos.

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The development of artificial intelligence has deeper roots than is often believed, with early ideas of automation inspired as far back as mechanisms like the Jacquard loom (1804) and the mathematical projects of Charles Babbage and Ada Lovelace in the 19th century (Grzybowski, Pawlikowska–Łagód and Lambert 2024). However, modern AI saw a decisive advancement with the introduction of generative adversarial networks (GANs), proposed by Goodfellow and his collaborators (Goodfellow, et al. 2014), which paved the way for generating realistic images. Subsequent models, such as those proposed by Denton (Denton, et al. 2015), Li and Wand (Li and Wand 2016), and StyleGAN developed by Karras and colleagues (Karras, Laine and Aila 2018), further refined the quality and visual realism of AI-generated images.

A turning point came with the launch of DALL·E by OpenAI in 2021, which introduced image generation based on textual instructions (OpenAi 2025). This approach expanded AI accessibility beyond specialist circles, allowing the general public, including teachers and students, to use creative tools such as DALL·E 2 and 3, Midjourney, Stable Diffusion, or Adobe Firefly.

These developments did not remain solely in the technological sphere but quickly found applications in education. In particular, foreign language teaching benefits from visual and interactive resources generated by AI, which can support the learning process through playful, motivational, and personalized elements. This paper examines how these tools can be used in teaching English, with a focus on the advantages observed in classroom practice.

1. The Evolution of Video/Image Generation with Artificial Intelligence and Current Models

Before discussing the practical applications of AI in teaching, it is useful to contextualize its evolution through a brief history of AI-generated video and image creation, along with an overview of some currently used models.

Al's ability to generate images was first to develop, and it moved forward quite rapidly, so, for some time, AI-generated video seemed to lag behind, being able to generate only simple animations or static images with motion. This situation did not last long, and soon, with the progress in algorithms and with more powerful computing resources, things began to improve. One of the organizations involved in building tools for AI video generation was DeepMind, which came in 2017 with First-Person Video Generation, which allowed users to create extremely realistic videos using only simple input. However, as highlighted by Tulyakov (Tulyakov, et al. 2017), problems still remained when it came to obtaining coherent video sequences or complex scenarios with smooth transitions. Despite these limitations, the progress was significant and laid the foundation for further developments in AI video generation, in terms of quality, realism, and length.

2019 marked the turning point for video generation with the release of RunwayML, a platform that offered AI-friendly tools for users (Nanda 2019). RunwayML introduced easy-to-use interfaces for AI models that allowed creators to generate and edit video content with the help of Gen-2 and later Gen-3 models. DeepMind's Veo offered creators to possibility to generate videos from text, modify existing footage, and even generate synthetic media. These models used powerful machine learning techniques such as recurrent neural networks (RNNs) and temporal GANs to generate coherent motion and enhance video realism (Runwayml 2025).

Another important player is OpenAI's SORA, which has rapidly become one of users' favorite models for generating quality videos based on written prompts. The way SORA works is through a combination of language models and video synthesis techniques to generate videos that encapsulate the textual input. Sora creates short, high-quality videos not only from text, but also from images, or other existing footage, and is built on diffusion and transformer technologies with the purpose of obtaining visual consistency by following the prompts as closely as possible (OpenAi 2025).

By 2025, Hailuo by Minimax and other emerging platforms were pushing the boundaries even further, shaping creators' golden dream: to generate complex videos/images with simple input. These tools, coupled with intuitive user interfaces, became especially popular among non-experts, who had difficulties using previous models due to their complexity and opacity to neophytes.

Today, AI tools for image and video generation are used widely across industries, perhaps too much for the humanities' good, some might say, as DALL·E 3, Midjourney, and Stable Diffusion have become important tools in the design, advertising, or entertainment sectors. Their popularity is rooted in the fact that content creators can now produce visuals that were once time-consuming or expensive to create manually. Platforms like RunwayML, SORA, and DeepMind's Veo 2 are now popular among filmmakers and animators, and Midjourney (Midjourney 2025) has gained traction for its ability to produce a large array of images that often seem to be hand-crafted.

Technology continues to advance, and the natural outcome is that these AI models will intertwine more and more with professional workflows, due to the quality of results and reduced production time. For artists and designers, this may come as good news, as these tools will boost their creativity and offer the possibility to experiment more with ideas and different styles, a process that otherwise would have been more time-consuming. In the marketing, advertising, and film industry, AI also proves to be a winner due to its high-quality results and better time management when it comes to pre-visualization, and even to the production of fully cinematic sequences.

However, despite these innovations, some challenges still remain, especially ethical concerns related to copyright and ethics, but also to fairness, transparency, and

safety (Chaudhry, Cukurova and Luckin 2022). Deepfake technologies, for instance, have raised concerns about identity representation and consent, emphasizing the need for robust ethical frameworks to prevent misuse and misrepresentation (Leben 2024). Now, the very role of human creativity is put into question, and, especially, whether AI will replace humans completely or will only function as an alternative to traditional artistic methods.

Many legal systems have to deal with the implications of AI-generated works. A notable case in the U.S. District Court for the District of Columbia highlighted that while copyright laws are adaptable, human creativity remains central to copyrightability, underscoring the complexities of attributing authorship to AI-generated content (Lim 2023).

Despite these concerns, AI is currently seen as a tool that can improve human creativity rather than replace it. Studies from institutions like the University of Oxford (Ploin, et al. 2019) suggest that AI can serve as a collaborative partner in the creative process, enhancing artistic expression without replacing the unique contributions of human artists. An optimistic conclusion is that, even if AI models become more refined, they will more likely enhance, rather than replace, human creativity.

2. Using AI Video and Images for Learning

Even if AI has not replaced artists so far, it has transformed art into a mass phenomenon. As AI tools are more accessible, more people than ever before have begun to create visual art, music, and stories without having access to advanced technical skills or expensive resources. The barrier between professionals and dilettantes is fading away, and the only real limit is human imagination. This democratization of creativity means that art is no longer confined to trained employees and that anyone with an idea can experiment and share their work with the world. As a result, we are on the verge of a new era in which creativity is not a privilege but a widespread capacity empowered by technology.

Following this trend, educators, too, have begun to adopt AI-generated texts and images in the classroom educational (Wang, et al. 2025). The main advantage of these tools is that they can bring abstract concepts to life, thus supporting better personalized learning experiences and helping students to express ideas in new ways. By integrating AI into teaching, educators can now find ways to engage learners and introduce new dimensions to learning, such as creativity and entertainment, as AI tools used to generate images and videos have become popular not only on social media but also for learning. For example, AI-generated images and videos can provide visual demonstrations, illustrate vocabulary, historical events, but also more abstract scientific concepts, making them easier to understand and remember.

In (<u>Kim</u>, <u>Lee and Cho 2022</u>), teachers identified a three-stage progression for how students are expected to collaborate with AI: first, learning about AI, where students build up knowledge of how AI works, second, learning from AI, in which students use AI tools as an educational resource, and third, learning with AI, where students and AI cooperate to draft creative solutions, this representing a shift from understanding AI to engaging with it in a collaborative way.

Moreover, AI models that generate images and videos encourage creativity and critical thinking as learners can use them to create their own content, such as visual essays or video projects. This approach reinforces language acquisition because students interact with the AI via prompts, having to modify their text if the visual content obtained is not the one desired, and thus refining their understanding of grammar and vocabulary. This ability will make learning more engaging, as students will also produce their own images and videos and will have the satisfaction of obtaining an instant and tangible outcome from their endeavor.

2.1. Visual Context for Vocabulary

AI-generated images can be used to learn English vocabulary or review the previously acquired words when students associate them with their visual representation. Their memory retention improves if, for instance, when learning the word "elephant," an AI-generated image of an elephant will help learners connect the word with a tangible visual, making the word easier to remember. However, AI-generated images are also valuable when it comes to illustrating complex or abstract terms that are more difficult to understand through words alone. Words such as "freedom," "justice," or "ecosystem" may not have clear, straightforward images associated with them, but an AI tool can create visuals that embody the essence of these concepts, thus adding a layer of understanding that textual explanations might lack. AI-generated images will help learners remember certain words and also gain a better understanding of their meanings and usage in different contexts. Therefore, this method can be used especially with language learners who encounter problems with traditional textbook definitions, offering them a more attractive way to acquire new vocabulary.

2.2. Listening and Pronunciation Practice

AI-generated films, especially those with voiceovers, are a powerful way to practice listening and pronunciation. These films expose learners to natural language, helping them improve their comprehension and pronunciation as hearing sentences spoken by AI models familiarizes them with the intonation and flow of native speakers placed in real-world contexts.

Among the examples of AI platforms are RunwayML, Synthesia, and Elevenlabs, which can assist teachers in creating AI-generated films with voiceovers. Synthesia, for example, allows the creation of videos with AI avatars who speak text in natural-sounding voices, making it an ideal tool for practicing listening, as users can adjust

the speed of speech or replay sections to focus on certain fragments. For instance, learners can repeat phrases or pause and replay sections to focus on specific sounds and syllables. Elevenlabs, DeepL, and Google's Text-to-Speech are other tools that can generate accurate voiceovers for language learners, helping them practice pronunciation by listening to clear, natural speech.

With regular practice, exposure to generated videos with voiceover can significantly improve not only comprehension but also the ability to speak, as students will gain confidence regarding their pronunciation and fluency.

2.3. Creative Writing Prompts

AI-generated images are also a good resource for stimulating creativity and improving writing skills. These images came in different styles and can be created with vivid details so that they will inspire learners to create stories or essays based on what they see. For example, an AI-generated image can serve as the foundation for a narrative in which learners will build characters, settings, and plots, but a visual prompt may also serve other purposes, such as overcoming writer's block or giving learners a starting point, making it easier for them to focus on developing their ideas and refining their writing. Research shows that AI-generated visuals can enhance story creativity and originality, making them an effective tool for educational use (Ali and Parikh 2021).

DALL-E 3, Midjourney, and Artbreeder are only some examples of platforms for generating images that can serve as creative prompts for writing or speaking. These platforms function with input text descriptions, resulting in images that match users' ideas and offer a wide range of visual options that can be later tailored to create writing exercises. Educational blogs and platforms have highlighted the benefits of combining writing with AI visuals to support student engagement and idea development (Microsoft Designer 2024). Once learners have an image, they can use it as inspiration to write stories or create character descriptions, but AI can also create a succession of images that differ more or less, so learners can improve not only their writing but also their speaking by comparing or contrasting them. This approach not only strengthens writing skills but also improves learners' critical thinking, as they analyze the images and then translate them into written/spoken form.

2.4. Interactive Learning

Some AI tools prove to be an extremely engaging, and sometimes addictive, form of interactive learning because they allow learners to modify text prompts and observe how the generated images or videos change accordingly. The result is that students experiment with language, thus practicing their vocabulary, grammar, and syntax as they get immediate visual feedback and are motivated to continue their attempts, as learning and creativity go hand in hand. For instance, a learner could modify the description of a scene by changing adjectives or sentence structures, and immediately see the impact on the AI-generated images, this dynamic interaction helping learners understand the relationships between words and their visual counterparts.

DALL-E 3, RunwayML, and Stable Diffusion allow users to adjust their prompts while getting real-time feedback. When modifying prompts, learners experiment with language and see how slight modifications, such as changing tense or using synonyms, affect the final output. The same situation applies to AI-generated videos on platforms like Synthesia or Runway, which allow learners to tweak scenes or dialogues, thus improving their understanding of how context, register, and syntax work together in storytelling. Ultimately, this interactive learning process makes language practice more engaging and effective, resulting in an increase in students' motivation.

2.5. Engagement and Motivation

As seen above, the AI-generated content can have a positive impact on learner engagement by making language practice more fun and interactive. When teachers include interactive elements in lessons, learners are more likely to stay motivated and interested in their studies due to their involvement in the teaching-learning process and freedom to personalize content, generate images or videos that match their learning interests. Learners might generate visual representations of their own stories, characters, or scenarios, which adds an element of creativity and excitement to the learning process as learners get actively involved in their learning, rather than passively absorbing information.

DALL-E 3 and RunwayML, but also other platforms, encourage this type of creativity, which, besides the creative dimensions, adds another layer to learning. On the one hand, students feel a sense of accomplishment and ownership over the learning experience, which boosts motivation; on the other, AI-generated content can be tailored to individual preferences, making lessons more enjoyable. Whether through interactive storytelling, visual challenges, or video creation, AI tools introduce an element of play and exploration into learning English, making it feel less like a traditional classroom exercise and more like an engaging, modern, and enjoyable activity.

3. Using AI-Generated Images for Learning New Vocabulary

Let's consider how AI-generated images can be effectively used in a lesson focused on teaching English vocabulary and creative writing to students. The goal of this lesson is to help them expand their vocabulary, improve descriptive writing skills, and improve their understanding of grammar and sentence structure with the help of AI-generated images.

3.1. Introducing New Vocabulary

The teacher introduces the new vocabulary related to "military operations" or "security," and chooses words like *soldier*, *base*, *mission*, *patrol*, and *convoy*.

Then, the teacher uses a platform like DALL·E 3 or Midjourney and generates images in order to reinforce these words.

For example:

An image of a soldier in full gear standing at attention.

A military base with vehicles lined up.

A convoy moving across rough terrain.

3.2. Exploring Context through Visuals

The teacher shows students the images and asks them to write descriptions while encouraging them to use the given vocabulary. For example:

The soldier is wearing a helmet and body armor. He is ready for the mission.

The base has tall watchtowers and security fences.

The teacher can guide the students to create more descriptive sentences, telling them to use more adjectives and adverbs and use the details in the pictures.

3.3. Grammar and Sentence Structure Practice

Once the students have finished writing their descriptions, the teacher will explain grammar or sentence structures. For example:

Simple sentences: *The soldier is prepared*.

Complex sentences: The convoy moves through the desert while the patrol watches the road.

Use of adjectives: The base is heavily fortified and carefully guarded.

The teacher can ask students to imagine a plot that connects more images, like a picture of a soldier boarding a helicopter, another one of a mission in progress, the same soldier returning to camp, and encourage them to ask questions to find out more information regarding the situation. The students will ask questions using different tenses:

Who is he?

Where is he?

What is he doing?

When did he start the mission?

3.4. Creative Writing Prompts

After everything has been explained and the students have asked and answered questions, the teacher gives them a prompt based on one of the images that were generated with AI. For example:

Write a short story that begins with a soldier entering a base. Describe what he/she sees, hears, and feels. Use at least five words from today's lesson.

or

Imagine you are part of a convoy on patrol and write a diary entry about the mission, describing both the environment and your emotions.

The function of the image is to boost students' imagination and make them practice the newly acquired knowledge in a pleasant way.

3.5. Peer Review and Feedback

After completing their writing, students are asked to choose a classmate and give the description for peer review. The other student can use the AI-generated images to provide feedback and to discuss how well the descriptions and the visual representation match, helping both students reflect on their use of vocabulary and sentence structures. For example, they might point out the things that can be improved:

You did a great job describing the soldier, but I think you could add more detail about his equipment.

The base scene was very good, but you could include more sensory details, for instance, what sounds the convoy makes as it moves.

3.6. Final Review

To conclude the lesson, the teacher can use the AI-generated images once again as an exercise in which the students could be asked to revise their original descriptions or stories based on feedback. This will help reinforce both vocabulary and writing, while students will see how their writing can be improved if details are added.

Benefits of Using AI Images in This Lesson:

Enhanced Vocabulary: Students connect words with images, a fact that will improve retention.

- Contextual Understanding: Students see the vocabulary in action, making it easier to understand how to use the words in different contexts.
- Creative Exploration: AI-generated images boost creativity and encourage students to write better stories.
- Grammar Practice: The images give students a clear context to apply and reinforce grammar rules such as sentence structure, tenses, adjectives, etc.

In the end, educators will provide more interesting lessons if they include AI-generated images into vocabulary and writing exercises, helping students become more aware of their learning and improving their understanding of language in a both creative and enjoyable way.

Conclusion

AI-generated images and videos are not only popular but they are also a powerful tool for enhancing education, especially when it comes to language learning. When educators use AI resources in their lessons, they provide students with a more engaging experience that, in the end, will foster creativity and critical thinking. AI-generated content can be used in many situations, but the present article concentrated only on some aspects regarding the use of AI images to put the new vocabulary in a visual context, support grammar practice, and make students write better descriptions.

AI tools are flexible, and they allow students to modify prompts and obtain instant changes, which results in promoting active learning so that learners will remain motivated. The ability to create personalized content encourages students to explore language in a new way, leading to improved writing, listening, and speaking skills. Regardless of their use: for vocabulary building, creative writing, or interactive grammar exercises, AI images and videos make learning more attractive, and as AI technology continues to evolve, its potential for education is almost unlimited.

References

- Ali, Safinah, and Devi Parikh. 2021. "Telling Creative Stories Using Generative Visual Aids." Edited by ArXiv abs/2110.14810. *Proceedings of the AAAI Conference on Artificial Intelligence*. doi:10.48550/arXiv.2110.14810.
- **Chaudhry, MA, M Cukurova, and R Luckin.** 2022. "A Transparency Index Framework for AI in Education." *Artificial Intelligence in education: posters and late breaking results, workshops and tutorials, industry and innovation tracks, practitioners and doctoral consortium, pt II*, 195-198. doi:10.1007/978-3-031-11647-6_33.
- Chen, Lijia, Pingping Chen, and Zhijian Lin. 2020. "Artificial Intelligence in Education: A Review." *IEEE Access*, 75264-75278. Accessed 06 4, 2024. doi: 10.1109/ACCESS.2020.2988510.
- **Denton, Emily, Soumith Chintala, Arthur Szlam, and Rob Fergus.** 2015. "Deep Generative Image Models using a Laplacian Pyramid of Adversarial Networks." *CoRR* abs/1506.05751: 1-10. http://arxiv.org/abs/1506.05751.
- Goodfellow, Ian J., Jean Pouget-Abadie, Mehdi Mirza, Bing Xu, David Warde-Farley, Sherjil Ozair, Aaron Courville, and Yoshua Bengio. 2014. "Generative Adversarial Nets." Advances in Neural Information cessing Systems 2672-2680. doi:10.48550/arXiv.1406.2661.
- Grzybowski, Andrzej, Katarzyna Pawlikowska–Łagód, and W. Clark Lambert. 2024. "A History of Artificial Intelligence." *Clinics in Dermatology* 42 (3): 221-229. https://doi.org/10.1016/j.clindermatol.2023.12.016.
- **Karras, Tero, Samuli Laine, and Timo Aila.** 2018. "A Style-Based Generator Architecture for Generative Adversarial Networks." *CoRR*. http://arxiv.org/abs/1812.04948.
- Kim, Jinhee, Hyunkyung Lee, and Young Hoan Cho. 2022. "Learning design to support student-AI collaboration: perspectives of leading teachers for AI in education." *Education and Information Technologies*, 6069–6104. https://doi.org/10.1007/s10639-021-10831-6.
- **Li, Chuan, and Michael Wand.** 2016. "Combining Markov Random Fields and Convolutional Neural Networks for Image Synthesis." *CoRR* abs/1601.04589: 1-10. http://arxiv.org/abs/1601.04589.



- Lim, Daryl. 2023. "Generative AI and copyright: principles, priorities and practicalities." *Journal of Intellectual Property Law & Practice*, 12: 841-842. https://doi.org/10.1093/jiplp/jpad081.
- **Microsoft Designer.** 2024. *AI-Powered creativity with Microsoft Designer*. https://microsoft.designer. design/articles/ai-powered-creativity-with-microsoft-designer/.
- **Midjourney.** 2025. *Documentation*. https://docs.midjourney.com/hc/en-us/categories/32013335627533.
- Nanda, Vipul. 2019. "Runway ML Harnessing AI to augment creativity." *Techweek*. 23 09. https://techweek.com/runway-ml-ai-creators-design/.
- **NVIDIA.** 2025. *StyleGAN3 pretrained models*. https://catalog.ngc.nvidia.com/orgs/nvidia/teams/research/models/stylegan3.
- OpenAi. 2025. Sora System Card. https://openai.com/index/sora-system-card/.
- Ploin, Anne, Rebecca Eynon, Isis Hjorth, and Michael A. Osborne. 2019. "Art for our sake: artists cannot be replaced by machines." Creative Algorithmic Intelligence Research Project, Oxford Internet Institute, Oxford. https://eng.ox.ac.uk/news/new-report-into-the-intersection-of-ai-and-the-arts/.
- **Runwayml.** 2025. Building general-purpose multimodal simulators of the world. https://runwayml.com/research.
- **Tulyakov, Sergey, Ming-Yu Liu, Xiaodong Yang, and Jan Kautz.** 2017. "MoCoGAN: Decomposing Motion and Content for Video Generation." *CoRR* 1-13. http://arxiv.org/abs/1707.04993.
- Wang, Yi, Ziting Wei, Tommy Tanu Wijaya, Yiming Cao, and Yimin Ning. 2025. "Awareness, acceptance, and adoption of Gen-AI by K-12 mathematics teachers: an empirical study integrating TAM and TPB." *BMC Psychology*, 1-14. https://doi.org/10.1186/s40359-025-02781-2.