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IMPROVING THE TECHNOLOGY FOR USING VISUAL AIDS TO INCREASE ENGLISH VOCABULARY AMONG PRIMARY SCHOOL STUDENTS

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ABSTRACT
This article examines how a technology-enhanced approach to visual aids can accelerate English vocabulary development in primary school learners. Framed by dual coding theory and multimedia learning principles, the study proposes a classroom design in which images, icons, and short animations are integrated deliberately with oral input and text to strengthen semantic encoding, retrieval, and transfer to use. A practice model was piloted in beginner classes and organized around advance activation, meaning construction, guided practice, independent use, and formative assessment. Results indicate improved accuracy in recognition, pronunciation, and contextual use when visuals are optimized for cognitive load, aligned to lesson stages, and recycled through spaced retrieval. The discussion highlights design choices such as minimal text per slide, high-contrast imagery, explicit signaling, and teacher-mediated transitions from picture-supported recognition to picture-faded production. Implications include curating age-appropriate visual modules, combining print and digital media, and embedding micro-assessments to stabilize learning.

KEYWORDS
Visual aids, vocabulary acquisition, primary education, dual coding, multimedia learning, spaced retrieval, formative assessment.

INTRODUCTION
Early foreign language learning is especially sensitive to perceptual salience and emotional engagement. Primary school pupils acquire new words more reliably when auditory and textual forms are reinforced by compelling visuals that cue meaning, context, and use. However, the presence of pictures alone rarely guarantees progress. The decisive factor is the pedagogical technology that structures when, how, and how much visual support is provided, how it is withdrawn, and how it is recycled to consolidate memory. Building on dual coding theory, which posits interconnected verbal and nonverbal systems, and multimedia learning principles concerning coherence, signaling, and redundancy, the present work offers a systematic way to design, deploy, and evaluate visual materials for vocabulary lessons.

The study aims to improve the technology of using visual aids so that vocabulary is encoded multimodally, practiced communicatively, and assessed formatively with minimal cognitive overload. Specifically, it seeks to align visual design with the microstructure of the lesson, optimize load by reducing decorative elements, and reinforce retention through distributed practice that gradually removes visual scaffolds.

The intervention was implemented across beginner-level lessons focusing on concrete nouns, basic adjectives, and common classroom verbs. Materials included curated image cards with

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clear backgrounds, large-format slides with one visual focus per screen, semantic maps for category building, and short, silent video loops demonstrating actions or articulatory gestures for challenging phonemes. Each lesson followed a stable arc. Prior knowledge was activated with a brief visual warm-up to reconnect new items to familiar categories. Meanings were established by pairing images with teacher input and minimal on-screen text while signaling form and stress orally. Guided practice then linked visuals to controlled phrases and short exchanges so that pictures served as cues for immediate production rather than as ends in themselves. Independent use required learners to generate utterances with reduced or faded visual prompts, which was followed by formative checks such as picture–word matching, oral micro-descriptions of scenes, and brief peer dialogues recorded on classroom tablets for playback.

Data were collected through quick-recognition timings, teacher rubrics for pronunciation and contextual accuracy, and short delayed tests administered forty-eight hours after instruction. Classroom observations documented attention shifts and off-task behavior to estimate cognitive load indirectly. The same lexical targets were taught previously without optimized visuals, producing a baseline for comparison.

Learners exposed to the optimized visual technology showed stronger immediate recognition and more stable delayed recall. When pictures and words were presented together but with minimal accompanying text, the dual coding effect appeared to facilitate more rapid binding of sound, spelling, and meaning. Semantic maps helped pupils integrate new items into existing categories, which, in turn, made subsequent items easier to learn because they were processed as variations within a familiar network. Short, silent action loops supported verbs by removing extraneous narration and focusing attention on movement, and simple mouth-shape cues improved the articulation of difficult phonemes by providing a visual model without competing auditory clutter.

Equally important was the management of visual support across lesson phases. High salience during initial exposure improved comprehension, but strategic fading during practice compelled retrieval without external props, which strengthened memory traces. Slides employing clear signaling—such as highlighting the target word or isolating the critical part of an image—were associated with fewer off-task glances and faster response times, suggesting reduced extraneous load. The forty-eight-hour delayed tests showed fewer confusions between near-synonyms when picture sets had been curated to contrast features relevant to meaning, indicating that visual contrast sharpened lexical boundaries.

Formative assessment embedded in the sequence yielded immediate data for adjustment. If picture–word matching accuracy remained high while production lagged, teachers temporarily reinstated partial visual cues and then removed them again after success, thereby calibrating support to the zone of proximal development. Compared with the baseline, classes using the improved technology demonstrated higher rates of accurate independent production and a noticeable increase in spontaneous use during pair tasks, indicating transfer beyond recognition. Teacher reflections emphasized that the discipline of constraining each slide to a single visual focus, avoiding decorative backgrounds, and keeping transitions smooth contributed as much to learning as the choice of pictures themselves.

An improved technology for visual aids in primary vocabulary instruction must treat images as dynamic scaffolds that are carefully introduced, signaled, and withdrawn rather than as

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permanent decorations. Aligning visuals to lesson stages, applying dual coding and multimedia principles, and engineering spaced retrieval within and across lessons produce measurable gains in recognition, pronunciation, and contextual use. Practical priorities include curating high-contrast, age-appropriate images; limiting on-screen text; using short silent loops for actions and articulation; and embedding micro-assessments that inform the pacing of visual fading. Future work should quantify optimal image density per minute for different age groups, test automated spacing schedules linked to digital picture banks, and examine how culturally relevant imagery affects motivation and retention in diverse classrooms.

REFERENCES

1. Mayer R.E. Multimedia Learning. 2nd ed. — Cambridge: Cambridge University Press, 2009. — 320 p.
2. Paivio A. Mental Representations: A Dual Coding Approach. — Oxford: Oxford University Press, 1986. — 322 p.
3. Nation I.S.P. Learning Vocabulary in Another Language. — Cambridge: Cambridge University Press, 2001. — 477 p.
4. Cameron L. Teaching Languages to Young Learners. — Cambridge: Cambridge University Press, 2001. — 238 p.
5. Pinter A. Teaching Young Language Learners. — Oxford: Oxford University Press, 2006. — 168 p.
6. Thornbury S. How to Teach Vocabulary. — Harlow: Pearson Education, 2002. — 191 p.
7. Gairns R., Redman S. Working with Words: A Guide to Teaching and Learning Vocabulary. — Cambridge: Cambridge University Press, 1986. — 210 p.
8. Clark J.M., Paivio A. Dual coding theory and education // Educational Psychology Review. — 1991. — Vol. 3, № 3. — P. 149–210.