

INFORMATION TECHNOLOGY ENHANCES TASK-BASED ENGLISH EDUCATION: AN EXPLORATION OF THE INTEGRATION OF COGNITION AND SEMIOTICS

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Abstract: Within the context of interdisciplinary synthesis and a new generation's cognitive paradigm in contemporary linguistics, this study explores how IT integrates with task-oriented English pedagogy, cognitive linguistics and cultural semiotics at present. Based on Jane Willis' task-based instruction model, develop a three-phase educational Implementation: pre-task phase, during-task phase and after-task phase; examine the role of IT in transforming instructional Environment, providing cognitive tools for symbolization and analysing changes in teachers and students. It also offers theoretical support and real-life references for the transformation of English education to simultaneously improve students' linguistic proficiency and thinking ability.

Keywords: Digital technology, Activity-based English pedagogy, Conceptual Linguistics, Cross-cultural Semiotics, Language Development

At present, in the field of linguistic study today, focusing on cognition and combining it with various disciplines across the board provide theoretical support for pedagogical innovations[Hiver, Wu 2025]. With an emphasis on multimedia and network-based Systems, IT permeates deeply with task-Oriented English teaching to integrate linguistic cognition, Semiotics and Instructional Technology for vitality in the development of English education.[Oripova 2025]

As the foundation for current English pedagogical reform, IT promotes changes in teaching ideas and builds new systems of education in literature. Electronic learning materials break through the textbook-boundness and construct an all-around resource system. The educator's control degree decreases. As a result, educators may generate new linguistic meanings more freely by focusing on students as cognitive semantically orientated educators. Technology also helps develop students' autonomy in learning and practical abilities to promote task-focused teaching[Sim, Ismail 2023].

Task-based English teaching focuses on processes, cooperation and application of language functions through refined setting in the learning environment by using new technologies. Digital tools can help enhance educational effects, analysis capabilities, etc., improve vocabulary learning through these technologies; It follows the Path of Linguistic Research that Theory Guiding Practice in Practice. Moreover, providing teachers with premium resources that match the learners' cognitive structure symbols for reading instruction and exercises are also within its scope[Lo 2025].

According to Jane Willis's methodological basis, based on the concept of cultural semiotics and intercultural cognition, in combination with a case of teaching "Happy Holidays", three-stage instruction is implemented. Pre-task, learners collect information about Eastern and Western Festivals via digital means and receive personalised guidance from teachers using mobile messaging tools. Tasks during play, presenting, acting out culturally; strengthen intercultural communication ability in activities. Through the peer evaluations from digital peers on grammatical accuracy and cultural comprehension.

Within this system, students can utilise multiple pathways for acquiring information and constructing meanings based on what they have understood; Teachers serve as challenges that promote interpersonal Connections in learning. They provide typical examples of the research methods in language teaching that can guide related studies.

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