Curriculum and Teaching Methodology (2025)
Clausius Scientific Press, Canada

DOI: 10.23977/curtm.2025.080524
ISSN 2616-2261 Vol. 8 Num. 5

The Use of Modern Educational Technology in the Creation of Language Teaching Situations in the "AI+" Era

Yuan Zihan[1], Li Na[1,a,*]

[1]Qingdao Hengxing University of Science and Technology, No. 588, Jiushui East Road, Licang District, Qingdao City, Shandong Province, China
[a]Ln199508@163.com
**Corresponding author*

Keywords: AI+ Era; Modern Educational Technology; Language Teaching; Context Creation; Teaching Utilization

Abstract: At present, the wave of "AI+" is profoundly reshaping all areas of society, and education, as the core position of educating people, is also in the midst of this profound technology-driven change, and modern educational technology provides unprecedented possibilities for breaking through the bottleneck of traditional teaching. In the field of language teaching, the creation of context is regarded as a key path to stimulate interest, deepen understanding and cultivate literacy, and its importance is becoming increasingly prominent. However, traditional means have significant limitations in terms of context richness, immersion, immediate feedback and personalized adaptation, which can hardly fully meet the deep needs of cultivating students' core literacy such as language use, thinking development, aesthetic appreciation and cultural inheritance. The arrival of the "AI+" era, with its powerful data processing, pattern recognition, natural language interaction and virtual reality integration capabilities, has opened up a brand-new space for the intelligent, dynamic and precise creation of language teaching contexts. This prompts us to re-examine the potential and boundaries of the in-depth integration of technology and language education, so as to explore the innovation and upgrading of the contextual teaching mode empowered by technology.

1. Introduction

The language classroom in the digital flood is undergoing paradigm reshaping. When technology breaks down space-time barriers and transforms abstract words into a perceptible cognitive field, the center of gravity of teaching will inevitably shift from the transmission of knowledge to the negotiation of meaning. The theory of situated cognition shows that the development of language competence relies on the practical context of meaning; and the symbiotic environment created by AI technology provides students with unprecedented access to embodied participation. The challenge for teachers is how to go beyond the operational level of tools and use technology to build deep cognitive contexts with a sense of educational subjectivity. The reality of the dilemma can not

be ignored - technology-driven context design may narrow the dimension of text interpretation, algorithmic push immediate feedback or weaken the process of precipitation of thinking. These phenomena reflect the value of intelligent education: what posture should technology take to guard the cultural roots and poetic glory of language.

2. The theoretical basis of modern educational technology and context creation in language teaching in the era of "AI+"

2.1. Core features and empowering direction of AI+ education

The AI technology-driven education system is reshaping the basic paradigm of knowledge delivery, with its core capabilities focusing on data-driven personalized provision and intelligent scene generation. The underlying algorithms continuously learn the thinking characteristics of students at different cognitive stages, and with the help of natural language processing, they deeply interpret the aesthetic level and cultural connotation of language materials. The modern education system has gained unprecedented insight with the aid of machine perception, which can accurately capture the emotional fluctuations and cognitive blockages of students in contextual interactions. Language teaching is empowered by technology to break through classroom boundaries, the abstract symbols of the text are transformed into explorable three-dimensional space with the help of three-dimensional modeling technology, and the barriers of the historical scene are rendered through dynamic environments to achieve inter-temporal resonance. The adaptive engine instantly adjusts the difficulty gradient of the situation according to the quality of the students' dialog, and this dynamically generated challenging environment activates a deeper motivation for verbal practice. When the AI engine is deeply integrated into the education process, the original solidified classroom structure begins to evolve into a flexible cognitive ecology, and the role of the teacher is transformed from an information mover to a curator of intelligent contexts, with human-computer collaboration forming an upward spiral of pedagogical innovation [1].

2.2. Situational cognition theory and the essential requirements of context creation in language teaching

The core mission of context creation is to activate students' deep participation in real cognitive paths and to avoid abstract symbolic indoctrination divorced from social and cultural contexts. Cognitive science reveals that the essence of human thinking is embedded in the vein of practical activities, and the scene recreation in the language classroom needs to restore the natural ecological chain of language use. When learning content is placed in an environmental framework with realistic metaphors, static textual symbols can be transformed into a medium of action that drives thinking. The development of students' literacy must be rooted in problem-solving oriented cognitive challenges, the understanding of historical texts through virtual community role-playing to obtain contemporary values, and the development of literary aesthetics through the simulation of creative decision-making to generate creative thinking transfer. The ideal contextual structure should form a continuous cognitive scaffolding, so that the internalization of linguistic rules and emotional value judgments can reach an organic unity in the process of task participation. The cognitive subject's grasp of literary rhythm is integrated into the community interaction of reciting ancient poems, and the training of critical thinking in modern literature is placed in the field of decision-making and discussion of social issues, and these immersive participations transform knowledge memory into the cognitive imprint of life experience.

2.3. Target orientation of context creation under the guidance of language core literacy

The essence of core language literacy points to the inheritance of cultural genes and the refinement of thinking quality, which determines that the creation of context must go beyond the primary level of knowledge transfer. Quality context design is like a carefully prepared cultural soil, which not only needs to contain the spiritual codes of classic texts, but also needs to reserve space for the creation of contemporary value interpretation. When students participate in the task field with real cultural tension, they can get rid of the traces of mechanical training, and gradually precipitate into a conscious thinking tool and emotional carrier. Cultivating literacy requires that the context be structured as a dialectical field containing multiple values, so that students can understand cultural changes in dialog with history and refine their critical consciousness in real-life discourse. When the role conflicts in the virtual community simulate social and ethical dilemmas, and when the reorganization of classical imagery stimulates cross-generational aesthetic dialogues, these in-depth contextual interactions will catalyze the transformation of knowledge symbols into the essence of life experiences. Continuous task-driven cultural practice will eventually lead students to establish a solid spiritual bond between language construction and cultural identity.

2.4. Technical framework of context creation supported by modern educational technology

The underlying power of the technical framework comes from the robust support of the core computing platform, while the cloud computing architecture and data intelligence continue to deliver computing nutrients for building immersive scenes. The key to the mapping mechanism is to accurately transform the textual symbol system into a palpable world scene, and the algorithm silently refines the prose context into a navigable network of spatial and temporal coordinates. The essence of pedagogical integration focuses on the art of free scheduling at the teacher's operational level, where the natural flow of classroom time is always supplemented rather than controlled by the scripted previews behind the scenes of technology, and where the gaps in the dialogues between real teachers and students activate the interactive potential of the virtual landscape. The invisible protective net of technological ethics must wrap around the operating cycle of each sensing node, and the random fluctuations of students' emotional curves need to be isolated from the goal of technological optimization for special care. Dynamic updating capability guarantees the elastic adjustment space of context-adapted teaching goals, and the design of internalization process of grammar rules in the literary language always takes precedence over the functional bragging rights of system upgrading. The source of vitality is hidden in the delicate balance between the silent operation of the hardware and the symphony of teaching behaviors, so that each oracle bone character drifting down the projection screen carries the heat of contemplation of the ancestors when they made the characters [2].

3. Key Issues Facing the Creation of Language Teaching Contexts in the “AI+” Era

3.1. Insufficient in-depth fit between technology application and language teaching objectives

The procedural algorithms of technological tools often tend to pursue standardized output efficiency, but it is difficult to respond to the unique cultural immersion and thinking quenching needs of language courses. When the system's preset interactive framework enforces the ambiguous aesthetics of literary works, the multidimensional space for interpreting poetic imagery is compressed into a limited number of cognitive options. The goal of the curriculum requires students to develop personalized linguistic aesthetic judgments in an immersive environment, but the current intelligent push contextual resources are often caught in the cycle of typological replication.

Teachers and students should explore the ethical revelations and historical echoes of the text in a deep dialog, but the virtual scene of the fixed model blocks the path of generative dialog in the classroom. There is a common dilemma in educational practice: the time for using tools squeezes the submerged process of close reading of texts, and the conclusions drawn from data analysis sometimes deviate from the real cognitive trajectory of students. The root of the problem is that algorithmic logic overemphasizes quantifiable behaviors and ignores the gradual nature and individual differences of language literacy development.

3.2. Teachers' technological literacy and contextual design capabilities need to be improved

Nowadays, teachers are faced with the challenge of updating their skills, and there is a profound disconnect between the original mode of lesson planning and the demand for intelligent context development. The accumulation of technological resources fails to transform into the effective productivity of teaching scenarios, and the complexity of the operating interface consumes a lot of concentration on text interpretation. Students' experiences are frequently frustrated by the seemingly dazzling virtual environment, and when they traverse the preset interactive links only to find that they are separated from the emotional core of the text, the technological tools are alienated into new barriers to classroom participation. There is a common misallocation of resources in teachers' practice, equating video rendering with contextualization, and mistaking voice assessment for accurate feedback on reading instructions. This has weakened the critical level of language appreciation and blurred the white space necessary for cultural dialog. The deep-seated resistance stems from the fact that the aesthetic sense of technology has not yet been integrated into the framework of teachers' professionalism, and the bias of judgment in the selection of tools is often revealed at the critical nodes of classroom generation [3].

3.3. Insufficient appropriateness and generativeness of intelligent contextual resources

The preset logic of the system resources is difficult to adapt to the ever-changing classroom generation, and the prefabricated context packages frequently reveal the rigidity of the architecture when encountering the collision of students' individualized thinking. The learning process should be characterized by dynamic evolution with the depth of text interpretation, but most intelligent platforms are confined to a unidirectional output mode with fixed interaction levels. When the pre-designed immersive scenes are separated from the emotional core of the text that students actually experience, the well-designed animated characters become a cognitive barrier that alienates them from the classics. Students' cognitive development requires continuous conceptual conflict and negotiation of meaning, and the current tool-supported collaborative space has yet to break through the standardized response paradigm. The seemingly rich visualization of the resource library risks shallow entertainment, the 3D city reconstruction may simplify the social critical dimension of Qingming Riverside Drawing, and the voice-simulated dialogues may dissolve the cultural heaviness of the image of Leap Field in Hometown. The deep-seated contradiction points to the simplified processing of complex human cognition by intelligent systems, and the digital context is difficult to carry the fuzzy aesthetics and emotional tremor that literature should have.

3.4. Lack of an intelligent evaluation and feedback mechanism for the effect of contextual creation

The algorithmic rules of evaluation tools over-pursuing quantitative analysis of explicit behavioral indicators fail to capture the phenomena of emotional resonance and aesthetic epiphanies that are essential to the teaching and learning of literary contexts. While the classroom should be

filled with the vivid dynamics of teachers and students constructing meaning together, the existing data model cuts the continuously evolving in-depth dialog into the record of isolated response events. When students are immersed in the intimate experience of "Backstory", the sudden flash of personal memories, when discussing the social metaphors of "Kong Yi Ji", the collective spark of critical thinking, these unstructured experiences, which constitute the core of language literacy, are being lost in the vision of intelligent evaluation. Literacy enhancement relies on subtle cognitive adjustments and spiritual growth during the teaching process, and the assessment maps generated by scanning answer cards often miss the glimpses of inspiration in classroom discussions and the epiphanies in reading contemplation. Tool developers have not yet broken through the cognitive limitations of structured data, and the multiple perceptions and value metamorphoses unique to literary interpretation are difficult to translate into calculable parameter variables. There is a clear break between the current technological framework and the humanistic depth of language teaching and evaluation, especially weakening the quality of spiritual dialogue necessary for cultural transmission.

4. The main measures of modern educational technology empowering language teaching context creation in the era of "AI+"

4.1. The application of intelligent context generation tools

The core value of the generation tool is to build a dynamic contextual framework that flexibly adapts to the needs of the classroom, analyzing the satirical narrative logic of "Fan Jin's Lift" in depth can automatically form a role-playing conflict deduction vein. The design of the contextual vein needs to carry the dual functions of knowledge scene restoration and thinking challenge stimulation. When students explore the political metaphor dimension in "The Records of Yueyanglou", the intelligent engine instantly generates a visualization of the debate sandbox corresponding to the historical context. Learning experience in the tool-supported multi-dimensional interaction to obtain the extension of cultural perception possible, students through the adjustment of the Battle of Red Cliffs of the waters of the meteorological parameters of personal experience of the decision-making dilemma of the fire tactics, in the process of rearranging the relics of the poems of Lin Daiyu touching the fate of the characters of the logic of the ambiguous strokes. Teachers need to be wary of the risk of distortion of regional cultural symbols when they use time-folding technology to transplant the Jiangnan water town of The Society Opera to the northern classroom. The key is to maintain a symbiotic relationship between the technological narrative and the literary kernel, so that every virtual scene pushed by the algorithm can awaken students' deep sense of Chinese aesthetics.

4.2. The construction of virtual-real integration context

The spatial superimposition capabilities of convergence technologies are reshaping the perceptual dimensions of traditional texts. When projecting the tranquil landscape of "The Story of Peach Blossom Garden" onto a classroom patio, students' fingertips scratching across the holographic stream can perceive the temperature of the next world in Tao Yuanming's writing. Cultural guardianship requires vigilance against the risk of technological expansion's erosion of literary context; when students wear VR devices to roam the cloisters of Suzhou Garden, teachers must correct in real time that the aesthetics of the white space in the winding paths are not undermined by electronic navigational markers. Cognitive transformation occurs in the folds of interaction between the physical classroom and the virtual scene. The sand table of the Red Cliff Battlefield built by the children together suddenly floats in a virtual river mist in the intelligent

sensing, and a sense of the pallor of the historical winds and clouds is dipped into the mind from between the fingers [4]. Teachers' dynamic monitoring of the ratio of reality to reality is crucial. The overly realistic sound effects of the Qingming Shanghetu marketplace may disintegrate the spatial and temporal detachment of Dreaming of Prosperity, and the algorithmically-generated scene of Du Fu's thatched cottage in the wind and rain needs to retain the cracks of the poet's spiritual world of struggles. Truly effective integration is always looking for a balance between technological dazzle and literary simplicity, so that the Zhouzhuang Water Rhythm projected on the blackboard is always swirling with the ink fragrance of the language textbooks.

4.3. Intelligent resource push and context interaction

The real-time perception ability of the push mechanism is redefining the supply form of literary resources, and the confused eyes of the students suddenly appeared when they were reciting reed reed instantly triggered the visual flow of the related imagery evolution history information push. The depth of the textual connection in the dynamic reorganization of resources to break through the confinement of space and time, the Tang Dynasty border poetry of the cold armor crash suddenly cut into the contemporary students studying the “Mulan Poetry” in the discussion gap, the Cold War era of the family and the contemporary value of the national sentiment and reflection on the marvelous resonance. The wisdom of teaching intervention is reflected in the retention of teachers and students on the dominant control of the algorithm, when the Backstory reading group on the green cloth and cotton robe imagery dispute, the teacher manually suspended the system automatically pushed the expert parsing to zoom in on Zhu Ziqing's close-up of the manuscript of the letter. The transmission of cultural veins needs to be wary of the erosion of the integrity of the classics by fragmented resources, and the carefully planned hologram of the character relationships of Water Margin should circumvent the fast-moving consumer product that reduces Lin Chong's fate to a plot of heroes in distress. It is necessary to maintain a necessary tension between technical convenience and literary solemnity, so that every scene in Wang Wei's “Empty Mountain Rain” and “Floating Clouds and Mist” is enveloped in the straightforward narrative style of Tang Dynasty poetry.

4.4. AI-based contextualized learning evaluation and feedback

The cognitive mapping ability of the analysis system is revealing the undercurrents of learning that are difficult to be captured by traditional assessment. When the rhythmic rhythms of students unconsciously tapping on the desktop during the sentence breaking training of the Chinese language text are accurately captured, the sensing of the literary veins in the trajectory of thinking is transformed into a visualized heat map. The presentation of thought trajectories needs to go beyond the flat framework of structured question answering. When students write three seemingly contradictory annotations for a certain piece of prose, the evolution curve of viewpoints automatically outlined by the system suddenly exposes the key turning point of cognitive leap. The core of cultural maintenance lies in being wary of the algorithm's standardized cuts of literary perceptions, and those fleeting glimpses of insights during ancient poetry appreciation should be added by the teacher as protective labels to prevent snippets of emotional resonance from being relegated to the category of invalid data. The uniqueness of the feedback value is reflected in the construction of a dynamically generated growth coordinate system. When the system detects that a student has reused the same imagery five times in a row in the creation of the theme of nostalgia, the three-dimensional writing mindset model pushed out instantly demonstrates both the solidified pattern and the direction of breakthrough [5]. The boundaries of technological ethics urgently need to guard the fragile moments of the learning process, and the facial micro-expression analysis data

of the girl who remained silent during the collective discussion must be explicitly authorized by the person concerned before being included in the basis for teaching improvement. The feedback loop of continuous optimization ultimately points to the witness of spiritual growth, and the algorithm marks not only the nodes of speech defects, but more importantly, the precious embryonic form of the writer's individual linguistic style in the assessment of essays.

5. Conclusion

The storm of technological iteration will eventually settle into the new normal of education, but the core coordinates of language teaching are always anchored in the dimension of human spiritual growth. The ultimate value of intelligent context creation does not lie in dazzling special effects, but in whether it can become a fuse to activate the vitality of language. The future exploration needs to grasp three bases: the coupling of technical logic and literary logic needs to echo the law of language construction in depth, the design of intelligent environment must retain the openness of meaning interpretation, and the evaluation and feedback mechanism should guard the personalized space of aesthetic creation. The attempts of virtual reality to reproduce historical contexts and generative AI to build a dialog field are only the initial stage of symbiosis and co-growth. True integration should realize invisible immersion - let intelligences become an implicit bridge connecting classical texts and contemporary experiences, and let data analysis serve the trajectory of students' language style development.

References

[1] Korkmaz S, Korkmaz Ş Ç. Contextualization or de-contextualization: Student teachers' perceptions about teaching a language in context [J]. Procedia-Social and Behavioral Sciences, 2013, 93: 895-899.

[2] KC B K. Teachers' Experience of Contextualized English Language Teaching[J]. Triyuga Academic Journal, 2024, 3(1): 49-69.

[3] Järvinen H. Learning contextualized language: Implications for tertiary foreign-language-medium education[J]. Foreign-language-medium Instruction in Tertiary Education: A Tool for Enhancing Language Learning. Research Reports A1, 2008: 77-85.

[4] Chen Mingying. Exploring the creation of context in high school language teaching in the information age[J]. Chinese loose-leaf anthology (Teacher's Edition),2024,(24):133-135.

[5] Zheng Shaofang. Exploration and practice of contextual teaching strategy of secondary school language under the background of core literacy [J]. Secondary School Curriculum Resources,2025,21(06):3-5.