Translation

The following Chinese Ministry of Education guide offers best practices for generative AI adoption in primary and secondary schools. Rather than emphasizing training students for future careers in AI, or raising children's overall AI literacy, the guide aims to encourage schools to use generative AI in ways that complement existing approaches to teaching and administration, while avoiding potential harms such as plagiarism and cheating.

Title
Guide to Using Generative Artificial Intelligence in Primary and Secondary Schools (2025 Edition)
中小学生成式人工智能使用指南（2025年版）

Author
Chinese Ministry of Education Steering Committee on Basic Education and Instruction (教育部基础教育教学指导委员会)

Source
Educational Informatization Information (教育信息化资讯), May 12, 2025. Educational Informatization Information is an official public WeChat (Weixin; 微信) account under CERNET Co., Ltd. (赛尔网络有限公司), the company authorized by the Chinese Ministry of Education (教育部) to run China Education and Research Network (CERNET; 中国教育和科研计算机网), an online information and digital resource platform for Chinese universities.

The Chinese source text is available online at:
https://mp.weixin.qq.com/s/mm9LeFWYgxLLiLpMY6gviw
An archived version of the Chinese source text is available online at: https://perma.cc/Y48E-AG55

Translation Date	**Translator**	**Editor**
October 14, 2025	Etcetera Language Group, Inc.	Ben Murphy, CSET Translation Manager

Guide to Using Generative Artificial Intelligence in Primary and Secondary Schools

(2025 Edition)

Generative Artificial Intelligence (GenAI) refers to models and related technology that have the ability to generate text, graphics, audio, video, and other content. The rational integration of GenAI into primary and secondary education is an important practice for seizing opportunities in the new round of science and technology (S&T) revolution and responding to the national strategy of self-reliance in S&T. It is a key path for stimulating students' creative potential and improving the quality of education,

and a core support for forging future-oriented innovative capabilities and promoting the integration of education and technological development. This guide is hereby formulated in order to promote the safe and standardized use of GenAI in primary and secondary education, accelerate the construction of an innovation-based education ecosystem led by AI, and help raise the overall efficiency of the national innovation system.

I. Guiding Ideology

Guided by Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, deeply implementing the spirit of the 20th Party Congress and the Third Plenum of the 20th Central Committee, fully carrying out the requirements documents such as the Chinese Communist Party (CCP) Central Committee and State Council's *Outline of the Plan for the Construction of China into an Education Powerhouse (2024–2035)*[1] and the General Office of the Ministry of Education's *Notice on Strengthening AI Education in Primary and Secondary Schools*, and firmly grasping the fundamental task of cultivating moral people (立德树人), we shall adapt to the trends of the intelligence age, take the multimodal creation and intelligent generation capabilities of GenAI as drivers of innovation, take the enhancement of students' core competencies and ethical responsibility as the guiding principle, place equal emphasis on stimulating creative potential and well-regulated application, and promote the deep integration of GenAI with primary and secondary school education and teaching, so as to build a safe, efficient, fair, and inclusive new ecosystem for AI education, and provide strong support for the cultivation of outstanding innovative talent and the enhancement of national competitiveness in the new era, thereby laying a solid foundation for advancing educational modernization and building China into an education powerhouse.[2]

II. Principles of Application

Remain focused on training and strengthen competency-based education. Adhere to the principle of training as the foundation and technology as a tool, and as students use GenAI technology, guide them to develop values, essential qualities, and key abilities adapted to development in the intelligence age.

---

[1] Translator's note: CSET's English translation of the *Outline of the Plan for the Construction of China into an Education Powerhouse (2024-2035)* is available online at: https://cset.georgetown.edu/publication/china-education-powerhouse-plan-2024-2035/.

[2] Translator's note: This translation renders the Chinese word 强国 qiángguó—which literally means "strong nation"—in English as "powerhouse," as in the phrase "education powerhouse" (教育强国). For a more thorough discussion in English of the Chinese word qiángguó, see: https://www.newamerica.org/cybersecurity-initiative/digichina/blog/lexicon-wangluo-qiangguo/.

Adhere to educational equity and respect student differences. For the cognitive levels of students at different educational stages, clarify the boundaries for using GenAI tools. Ensure that technological tools benefit different regions and individuals equally, and provide barrier-free services for special needs groups with physical or cognitive disabilities.

Adhere to a value-guided approach and ensure that technology is used for social good. Strengthen values-oriented guidance in AI education, and ensure that the use of GenAI technology is correct in direction, healthy in content, and positive in orientation, so as to foster a healthy, orderly, uplifting, and virtuous AI education ecosystem.

Adhere to demand-driven development and advance continuously and steadily. Taking into account school realities, select, match, and apply GenAI technology tools in a purposeful, planned, and organized manner, ensure that their use evolves from fragmented to systematic, and promote innovation in educational scenario applications.

Adhere to a bottom-line mindset and guarantee safety and controllability. Build full-chain assurance mechanisms covering data security, ethical review, content supervision, and risk prevention and control, and firmly establish the security bottom line for the application of GenAI technology in the field of education.

III. Typical Application Scenarios

In primary and secondary school application scenarios, the potential of GenAI should be thoroughly exploited through standardized usage, taking the assurance of personal privacy and data security as the precondition. At the primary school level, students should be prohibited from using open-type (开放式) content generation functions independently, while teachers may use them appropriately as classroom teaching aids. At the middle school level, the logical analysis of generated content may be explored to a moderate extent. At the high school level,[3] it is permissible to carry out exploratory learning combining technological principles. Different user groups, including students, teachers, and educational administrators, can choose the most suitable implementation model, taking into account the maturity of technology, the complexity of tasks, and the characteristics of local resources, so as to promote the orderly implementation of relevant application scenarios in practice.

(1) Promoting student growth

Centered around the diverse requirements of different types of students at different educational levels, GenAI is applied in specific scenarios to provide

[3] Translator's note: The Chinese term 初中, translated throughout as "middle school," refers to grades 7-9. The term 高中, translated throughout as "high school," refers to grades 10-12.

personalized support and guidance, promoting students' comprehensive development and healthy growth.

Scenario 1: Supporting personalized learning. Students can use GenAI tools to independently manage their learning progress, and obtain personalized learning plans in real time. For example: AI study partners (智能学伴) can be used to generate multidimensional diagnostic reports to accurately assess students' knowledge mastery, ways of thinking, and cognitive development levels, so they can set their own learning pace; tiered learning resources, targeted reinforcement question banks, and extension tasks can be adapted using AI-based in-depth analysis and dynamic recommendations; and knowledge maps, error analysis, and breakthrough strategies can be updated simultaneously using instant feedback mechanisms, thereby building systematic cognitive networks.

Scenario 2: Providing interactive exploration. Students can use interactive exploration environments built with GenAI technology to engage in interactive learning practices and systematically improve their logical reasoning, critical thinking, and innovative thinking. For example, students can: Analyze complex issues such as climate change and cultural heritage through cross-disciplinary knowledge maps, obtain intelligent suggestions and data analysis frameworks using natural language interaction, dynamically adjust parameters in simulation experiments, generate visual models, and issue risk warnings; strengthen their language skills through virtual dialogue partners; use virtual reality (VR) technology to achieve three-dimensional reconstructions of historical events and micro-processes (微观过程), support hypothesis testing and system cognition construction; simulate innovative solutions such as smart city design in AI sandboxes, calibrate optimization nodes, and iterate and improve.

Scenario 3: Enhancing the in-depth reading experience. Students can rely on GenAI to construct multi-dimensional reading scenarios, appreciate cultural classics, and cultivate deep reading skills. For example, students can rely on AI reading partner systems to analyze reading trajectories in real time and obtain personalized recommendations and interactive reading questions; younger students can use dynamic picture book generation tools to converse with virtual characters that incorporate elements of traditional culture and revolutionary culture (红色文化), advancing interactive storytelling. Students can also invoke multimodal audiobook systems to experience classic texts with emotional voiceovers in multiple dialects; and they can generate visual knowledge maps based on academic literature analysis functions, and combine these with cross-cultural analysis to deepen their understanding.

Scenario 4: Improving mental health. Students can use GenAI for a reasonable level of psychological adjustment under the guidance and supervision of teachers and parents. For example, they can: Confide in a GenAI assistant about emotional distress such as learning anxiety, and receive emotional comfort and positive coping suggestions; participate in virtual interactive practice in AI-simulated public speaking scenarios, gradually easing social pressure; learn emotional management strategies through growth mindset case studies delivered daily; and access a mental health knowledge base to understand the patterns of their own psychological state changes.

Scenario 5: Supporting accessibility. Students with special needs can make use of GenAI application technology to overcome physical or cultural barriers and receive equal learning opportunities. For example, through intelligent noise reduction and contextual compensation techniques, visually impaired students can obtain tactile feedback models and voice explanations of teaching materials in real time, and classroom content can be automatically translated into accurate sign language animations for hearing-impaired students.

(2) Helping teachers teach

GenAI can provide comprehensive support for teachers in teaching preparation, classroom implementation, after-class tutoring, and teaching research. Relying on its accurate analysis and content generation capabilities, teachers can optimize resource allocation and improve teaching efficiency, helping them build a highly efficient teaching system of human-computer coordination (人机协同).

Scenario 1: Preparing for classroom teaching. Teachers can use GenAI to assist them in generating instructional designs, courseware, and other resources. Intelligent tools automatically generate instructional designs based on teaching objectives, teaching content, teacher style, student characteristics, etc., providing tailor-made tutoring plans and material lists for students of different levels and abilities, and achieving large-scale personalized instruction. They can also automatically generate interactive teaching materials, including text, images, audio, and video materials, according to teachers' specific requirements. Building on this foundation, teachers can further optimize and adjust to ensure the materials better align with students' actual circumstances and learning needs. Teachers can use GenAI-based virtual teaching research platforms to conduct teaching research activities, broaden their teaching horizons, and boost their teaching abilities.

Scenario 2: Empowering classroom interaction. To improve classroom teaching effectiveness, teachers can use GenAI tools to conduct interactive teaching, create an immersive teaching experience, and conduct real-time monitoring and analysis of learning progress. For example, they can utilize interactive virtual teaching assistants

to guide students in actively participating in classroom interaction through diverse language styles and interaction methods. Combining augmented reality (AR) and VR technologies, teachers can create learning scenarios with virtual-real integration, reconstruct interactive courses, and provide students with multi-angle, contextual, and gamified learning experiences that promote students' deep learning.

Scenario 3: Precise after-class tutoring. Teachers can utilize GenAI to assist in homework generation and grading, as well as learning progress analysis. The system automatically generates tiered assignments based on learning progress, conducts writing checks, plagiarism detection, and homework grading, and generates diagnostic feedback reports, helping teachers understand student learning status and provide personalized guidance. In classrooms, GenAI can carry out teaching analysis, student ability assessment, and learning outcome monitoring, provide adaptive analytical reports, and recommend precise and optimized post-class tutoring solutions.

Scenario 4: Collaborative teaching evaluation. GenAI supports teachers in incorporating multi-agent coordination (多智能体协同) mechanisms into teaching evaluation and collaboration. By simulating different roles such as teachers and students, intelligent agents (智能体) can participate in group discussions, evaluation of students' writing, and other teaching activities, providing teachers multi-dimensional assessment support. For example, in evaluations of written projects, intelligent agents can generate analysis suggestions based on predetermined evaluation criteria from perspectives such as content logic, technical realization, and collaborative contribution, helping teachers complete efficient and objective teaching evaluations, and at the same time promoting teaching reflection and strategy optimization.

Scenario 5: Promoting differentiated instruction. In classroom teaching, teachers can use GenAI to build intelligent teaching agents, and thereby achieve personalized instruction and intelligent tutoring. Through multimodal perception and retrieval-augmented generation technologies, intelligent agents can dynamically generate adaptive teaching content and practice questions based on students' learning progress, cognitive levels, and interest preferences. For example, in project-based learning scenarios, intelligent agents can act as "teaching assistants" or "study partners," and assist teachers in designing tiered tasks, providing them real-time feedback, and generating customized learning resources tailored to individual student differences, thereby enhancing teaching precision and student learning outcomes.

(3) Supporting education management

Education administrative departments, schools, and teachers can utilize GenAI to manage text generation and intelligent analysis data, and optimize routine office work, education supervision, and evaluation decision-making, enhancing the accuracy and

scientificness (科学性) of management.

Scenario 1: School management intelligentization (智能化). Routine management and collaborative office processes of school administrative departments are optimized based on GenAI technology, assisting in task processing and resource integration under the precondition that data privacy protection is strictly observed. GenAI is used to quickly draft meeting minutes, work reports, activity plans, and other text content, and multilingual translation and format standardization are supported to reduce workloads. Taking into account school characteristics and student requirements, themed plans such as cultural festivals and study tours are recommended, and process design and resource allocation suggestions are offered to enhance activity diversity. AI is used to monitor potential risks in school management processes in real time and generate compliance check reports, ensuring management standardization.

Scenario 2: Educational resource balancing. Use GenAI to promote educational equity, focusing attention on resource-poor areas and special needs groups, while preventing technology dependence from leading to a digital divide. Lesson plans, exercises, and multimedia materials suited to local curricula can be automatically generated for schools in remote areas, with support for multiple languages and accessible formats. Utilize AI-powered digital teachers to provide personalized question-answering and learning progress tracking for regions with teacher shortages, and flag complex issues requiring human intervention, avoiding over-reliance on technology. One should ensure that generated content reflects regional cultural diversity, and avoid bias in training data that could marginalize the viewpoints of minority groups.

Scenario 3: Innovative educational assessment. Use GenAI as a supplementary tool in assessment system design, strengthen human review and critical judgment, and put an end to the direct use of AI outputs as assessment conclusions. For student ability evaluation, focus on higher-order thinking dimensions such as creativity and critical thinking that AI cannot replace, and revise existing evaluation schemes accordingly. Use GenAI to analyze student behavior and learning data, generate psychological crisis warning reports, and assist teachers in developing intervention strategies, while avoiding algorithmic bias that misjudges underprivileged communities. Generate classroom observation feedback and professional development recommendations, and customize personalized growth plans for teachers.

Scenario 4: Intelligence-driven scientific decision-making. Combining the simulation and deduction capabilities of GenAI with human experience, construct “human-computer coordination” decision-making mechanisms to make management more scientific. Simulate the effects of educational resource allocation under different

policies, generate multi-dimensional analysis reports, and support managers in balancing efficiency and fairness. Test the potential impact of campus management measures on student development and teacher workloads, identify risks, and generate recommendations for optimization. For campus safety or security[4] incidents, generate multi-scenario contingency plans and communication scripts to strengthen rapid response capabilities.

Scenario 5: Establishing intelligent databases. Utilize GenAI to mine archived information accumulated by schools, promoting intelligent categorization and dynamic management of archives. For example, one can: Digitize paper documents, converting paper documents into editable electronic text through optical character recognition (OCR) technology, then utilize GenAI for text analysis and information extraction; extract key information from archives such as student grades, course settings, and teacher evaluations, and generate structured data to support educational management decision-making; and analyze teaching materials and research results from historical archives to extract valuable teaching methods and research ideas, helping teachers to improve teaching practices and carry out educational research.

IV. Assurance Measures

The application of GenAI technology in primary and secondary schools is a complex process involving multiple levels, dimensions, and stakeholders. To effectively advance this work, it is necessary to establish sound policy support systems, organizational assurance mechanisms, safety and security supervision systems, and other multi-dimensional and coordinated assurance measures. All levels of education administrative departments, educational and teaching institutions, educators, students, parents, and all sectors of society should form a collaborative pattern of governance, strengthen overall coordination, and specify responsibilities and boundaries, so as to ensure the safe, secure, controllable, standardized, and orderly application of GenAI technology in basic education.

(1) Education administrative departments

In the process of promoting GenAI applications in education, education administrative departments should adhere to the basic principles of “adapting methods to local conditions, differentiated policy implementation, and standardized management.” They should: Fully consider objective factors such as regional

[4] Translator's note: The Chinese word 安全 encompasses the meanings of both "safety" (protection from accidental harm) and "security" (protection from deliberate harm). In this translation, it is variously translated as "safety," "security," "safety and security," or "safety or security" at the translator's discretion.

development imbalances, urban-rural resource disparities, and local characteristics and diversity, and scientifically formulate application promotion paths for their jurisdictions; Formulate relevant policies and regulations on the application of GenAI, develop data security protection management measures, specify ethical review mechanisms, establish a dynamic "whitelist" system specifying a list of GenAI tools that can be used in schools; Promote mechanisms for public participation throughout the policy-making process to ensure transparency and fairness; Adhere to the regulatory concept of "inclusive and cautious, graded and categorized," and establish a sound regulatory system, so as to promote the healthy development and application of GenAI technology; and Strengthen guidance on application implementation, and organize and carry out education, training, demonstrations, and exchanges to promote the effective implementation of GenAI technology in their regions.

(2) Primary and secondary schools

Schools should: Strengthen the construction of GenAI application environments and the cultivation of users' competency in its use; Establish a mechanism for the introduction of GenAI into schools, and actively create a campus culture that supports the application of GenAI in education; Develop differentiated and progressive AI application strategies for students at different age levels, based on differentiated educational scenarios and objectives; Establish mechanisms for routine supervision and diversified assessment, give comprehensive consideration to factors such as technology application security and AI technology trends, and adjust and optimize school AI application management policies in a timely manner to ensure that technological empowerment is in harmony with the essence of education; Avoid adopting simplistic "one-size-fits-all" management models, be vigilant against excessive reliance on AI tools, and strengthen governance of data security and privacy protection; and Balance the dual objectives of enhancing teachers' and students' practical skills and meeting emotional needs, ensuring that technological empowerment is integrated with humanistic care.

(3) Teachers

Teachers should actively participate in professional training to acquire knowledge and skills related to intelligent technologies through continuous learning, thereby enhancing their AI competency. Teachers must make science-based decisions about the appropriate use of technology according to student development circumstances and teaching environment characteristics, and ensure the appropriateness and accuracy of instructional content, achieving the seamless integration of technology with educational objectives. Teachers should assume responsibility for supervising and guiding students' use of AI applications, recommend reliable GenAI tools to students,

foster students' AI technology understanding, application, and innovation ability, as well as their ability to scrutinize information, and enhance students' critical thinking skills, data security awareness, and understanding of technology ethics. Teachers shall not use GenAI as a substitute for teaching, and are prohibited from directly using AI to answer students' questions or provide consultation; they shall avoid directly using AI-generated content to evaluate students; they shall strictly prohibit the input of sensitive data such as personal information and exam questions into AI tools to prevent data leakage and privacy infringement; they shall not use AI to copy and disseminate others' works without authorization to avoid copyright infringement; and they shall avoid over-reliance on AI plagiarism [detection] tools.

(4) Students

Students should learn and understand better the technological principles and application scenarios of GenAI, explore GenAI tools that meet their learning needs, practical life experiences, and personal development aspirations, better plan their own development, cultivate independent thinking and problem-solving abilities, learn to use GenAI critically, strictly adhere to norms of academic integrity, enhance their awareness of privacy and security, and achieve comprehensive development of core competencies. Students should: Avoid simply copying content generated by GenAI tools in their homework; avoid using GenAI on exams and tests, and never use GenAI to cheat; avoid abusing GenAI in learning tasks that require creative or personalized expression, thus losing individual thought and perspective; avoid rashly using GenAI to obtain information without first consulting high-quality textbooks or authoritative sources; avoid entering personal information into GenAI tools, which may lead to data or privacy leaks; and avoid using GenAI to copy or distribute works without authorization, which may infringe copyrights.

(5) Parents

Parents play an important supervisory and supportive role in GenAI technology application. Parents should actively enhance their understanding of emerging technologies, use GenAI reasonably to support family education, and pay particular attention to guiding young children in its safe and healthy use. Through parent-school collaboration and other means, supervision and guidance should be strengthened to ensure that children learn and grow in healthy and safe ways with the support of GenAI. Parents should: Avoid entering any content into GenAI tools that may disclose sensitive personal or family information; avoid using GenAI to copy or disseminate works without permission, thereby infringing copyrights; avoid neglecting children's emotional needs and mental health, and prevent over-reliance on technology from causing a lack of spiritual nurturing.

(6) Other stakeholders

Other stakeholders such as social organizations, enterprises, and educational research institutions should make full use of their social responsibility and professional advantages to provide necessary technical and resource support. They should collaborate to advance innovation in GenAI technology, data resource construction, education and training, risk prevention, and other areas; provide application products adapted to educational requirements, such as intelligent teaching systems, intelligent teaching tools, and digital teachers; and strengthen management of cybersecurity and data security for AI products. They should foster an open environment and jointly explore the effectiveness, existing issues, and challenges of AI applications in education, and explore effective responses; promote the deep integration of AI technology with educational practices; and facilitate the healthy development of GenAI in the field of education. They should avoid providing technologies and resources that are disconnected from the needs of schools and educational institutions; avoid applying technologies and resources to inappropriate scenarios or targets; avoid illegal, non-compliant, or unethical use; avoid neglecting training support for applicable entities; and avoid problems of uneven distribution of technology and resources.