The 8th Global Competition on Design for Future Education (2025)

Announcement of Vocational Education Track

The report of the 20th National Congress of the Chinese Communist Party emphasized the need to "speed up efforts to build a contingent of personnel with expertise of strategic importance and cultivate a greater number of master scholars, science strategists, first-class scientists and innovation teams, young scientists, outstanding engineers, master craftsmen, and highly-skilled workers." Since 2018, Beijing Normal University has annually hosted the Global Competition on Design for Future Education to explore innovative models for nurturing talent in the digital era.

In 2025, co-organized by Beijing Normal University (BNU) and the UNESCO Institute for Information Technologies in Education (UNESCO IITE), the 8th Global Competition on Design for Future Education will be held from March to December. This competition is also one of the annual events of the "World Digital Education Alliance." The Vocational Education Track encourages students from higher vocational institutions worldwide to actively participate, applying design thinking to solve educational problems and demonstrating their ability to innovatively apply new technologies and concepts in educational activities. The details are as follows:

I. Participants

- Students currently enrolled in higher vocational institutions both domestically and internationally, with no limitation to their majors.
- Teams must consist of 3-5 members. The team leader is responsible for registering on the official website and adding the information of team members.
- Each participant may only join one project. Team members cannot be added or replaced after the preliminary contest results are announced.

II. Competition Content

(A) Competition Themes

- **AI and Education:** How can AI tools based on their features of generating texts, videos, programming codes, 3-D printings, create infinite possibilities in improving the

efficiency, effectiveness and equity, and make education more intelligent and more effective?

- **Metaverse and Education:** How can an immersive online space construct educational scenarios in metaverse courses, learning space design, new educational games, cultural heritage and protection, metaverse conferences, metaverse with digital twins and metaverse educational spaces supporting various subjects, etc.?

- **Rural Education:** What design can help solve the needs of rural areas, such as teacher shortages, students' motivation improving, learning environmental design, curriculum development, interdisciplinary inquiry activities and experimental teaching innovations based on local rural resources, cultivation of technical talents, theme-based learning, project-based learning, teaching tools for various subjects, educational toys, innovative design of teaching tools, equipment, and instruments using digital technology, etc.?

- **Inclusive Education:** How can an educational model help provide appropriate and high-quality education to promote educational equality? Consider people with physical disabilities and health impairments, the elderly, girls and women, students with learning difficulties, those affected by war conflicts or crises, migrants or displaced persons due to climate change, etc.

- **Educational Neuroscience:** How to integrate neuroscience, psychology, and education to design scientific and effective educational solutions based on evidence, including policy design, curriculum design, instructional design, evaluation design, educational culture and space design, teaching aids and toys design, artificial intelligence meta-universe design, and so on, in order to improve the quality of education and teaching.

- **AI and Engineering:** How can AI, with its capabilities in optimization, simulation, and intelligent systems, transform engineering by addressing real-world challenges, improving design processes, and promoting sustainability (e.g., in sectors such as transportation and mobility)? How can AI be integrated throughout every phase, from initial design and manufacturing to operations and maintenance, ensuring more effective engineering solutions?

(B) Work Types

The projects should be designed based on the themes of the competition, reflecting participants' hands-on capability, innovative thinking, and practical skills. The content should include

innovative solutions and be presented in a visual format, including but not limited to the following types:

1. **Physical Modeling Design:** Design objects or models of educational products using model-making software or physical materials. Submitted works should include the design concept, images or videos of the product, and explanations of its key structure, materials, functionalities, and application scenarios.

2. **Hardware Sketching Design:** Design sketches of educational hardware products in the form of hand-drawn or computer-generated images. Submitted works should include the design concept, overall and detailed images, and a description of the key structure, manufacturing process, main materials, dimensions, and usage instructions.

3. **Software Prototyping Design:** Design prototypes of educational software products. Submitted works should include the design concept, product structure, and core functionalities. It is encouraged to include high-fidelity prototypes showcasing visual or interactive designs, demonstrated through images or videos.

4. **Solution Design:** Design feasible solutions for specific educational issues, including courses, activities, resources, or services. Submitted works should include the design concept, main content, implementation steps, and application scenarios.

(C) Work Requirements

1. Submissions must align with the competition themes, demonstrating creativity and meeting the five assessment criteria.

2. Submission materials for the First Round must include four items: **Project PPT**, **Project Design Report**, **Poster**, and **Video**.
   - o **1) Project PPT:** Use your own template, but each page should present the logo of the competition. The content should fully demonstrate the creativity of your project.
   - o **2) Project Design Report:** Submit materials in both Word and PDF formats. The content should include a project summary, product introduction, design concepts, and innovative highlights.
   - o **3) Poster:** Size: 800mm (width) * 1800mm (height); Resolution: at least 250DPI; Format: JPG (RGB colour mode). The poster should include the team's name, member names, project name, and project LOGO, with a complete layout and harmonious tones.

- **4) Video:** Image ratio: 16:9; Resolution: 1920×1080; Length: No more than 3 minutes; Format: MP4; Size: No more than 100M. The video should display the overall appearance, methods of use, major functions, and design highlights of the product.

Final submissions for the First Round should be compressed into a single package, named "Team Name + Project Name," and then uploaded.

3. The intellectual property rights of the submitted works belong to the participants. The organizers and hosts have the right to use, display, report on, publicize, and publish the award-winning works for free.

4. Works that have been officially published or have won provincial-level awards or higher are not eligible. Plagiarism is strictly prohibited. Works must be independently designed and developed by the team members.

III. Schedule

(A) First Round

1. **Registration and Project Design: September 1, 2025 - October 15, 2025.** Participants (team leader) must complete registration and add team members' information through the competition's official website (https://gcd4fe.bnu.edu.cn/). Participants are also expected to engage with the "Training Courses" module on the website, take relevant MOOCs such as "Design and Learning" on XuetangX, and participate in training sessions organized by the committee to complete their project design. **Final works can be submitted until 18:00 on October 15, 2025 (UTC+8).**

2. **Project Review and Results Announcement: October-November, 2025.** The organizing committee will organize experts to review projects, and the shortlisted projects will be released on the official website.

(B) Finals: December, 2025.

The finalist teams will participate in an offline event, conducting project optimization and roadshow presentations with the guidance of mentors. The final winning projects will be announced on the official website.

IV. Assessment

The organizing committee will organize expert review sessions. The number of award-winning works will, in principle, not exceed 30% of the total submissions.

(A) First Round: Experts will select the shortlisted teams, mainly relying on the submitted materials.

(B) Final Review: Experts will select the winning teams, mainly relying on the submitted materials and final presentation.

(C) Assessment Criteria: The criteria are weighted as follows: Problem Awareness (15%), Innovative Spirit (30%), Integration of Science and Education (15%), Application Prospects (20%), and Presentation (20%).

V. Benefits

Participants in the competition will have the opportunity to receive the following benefits:

1. Participate in relevant events organized by the World Digital Education Alliance.
2. Bonus and certificates of honor jointly issued by Beijing Normal University and UNESCO IITE.
3. Winning projects to be included in the competition project collection and featured in the E-Library initiated by UNESCO IITE, accompanied by an inclusion certificate.
4. Opportunities to transform projects into intellectual property, papers, or monographs.
5. Opportunities to receive expert recommendation letters and internship positions at renowned companies.
6. Support for applying for other projects and awards based on winning works.
7. Invitations to attend conferences hosted by Beijing Normal University, such as the Global Smart Education Conference.

VI. Organizations

Organizer: Beijing Normal University

Co-organizer: UNESCO Institute for Information Technologies in Education

Hosts: Smart Learning Institute of Beijing Normal University, National Engineering Research Center of Cyberlearning and Intelligent Technology, Fuzhou Software Technology Vocational College

Special Support Organizations: Beijing Design Society, Beijing Design Week Organizing Committee

Supportive Organizations: Relevant higher education institutions, vocational colleges, and research institutions worldwide

Sponsors: NetDragon Websoft Holdings Limited

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Official Website: http://gcd4fe.bnu.edu.cn

Attachment: Recommended Topics for the Vocational Education Track of the 8th Global Competition on Design for Future Education (2025)

Organizing Committee of the Global Competition on Design for Future Education

National Engineering Research Center of Cyberlearning and Intelligent Technology

September 1, 2025

Attachment I

Recommended Topics for the Vocational Education Track of the 8th Global Competition on Design for Future Education (2025)

The 8th Global Competition on Design for Future Education (2025) focuses on six themes: "Generative AI and Education," "Metaverse and Education," "Rural Education," "Inclusive Education," "Educational Neuroscience," and "AI and Engineering." The competition encourages participants to leverage digital technology to explore innovative opportunities in education, technology, and design. Participants in the Vocational Education Track may either develop their own project ideas based on these six themes or draw inspiration from the topics below to address a specific educational challenge.

Intangible Cultural Heritage Inheritance

Topic 1: Virtual Museum Design for Intangible Cultural Heritage

Traditional exhibitions often struggle to convey the full depth and richness of Intangible Cultural Heritage (ICH). This topic calls for the design of immersive virtual exhibitions that showcase the craftsmanship, techniques, and historical context of ICH, offering learners a comprehensive and engaging experience.

Design Guidelines:

1. **Immersive Experience:** Utilize VR/AR technologies to create virtual exhibitions that simulate authentic ICH scenes and creative processes.
2. **Interactivity:** Design interactive elements that allow learners to engage with artifacts and information, deepening their participation.
3. **Educational Content:** Integrate rich cultural backstories, technical explanations, and narratives of heritage succession to enhance educational value.
4. **User-Friendly Interface:** Design a simple, intuitive interface that ensures easy navigation and participation for all learners.

Topic 2: Interactive Experience Design for ICH Skills

Preserving ICH skills requires engaging the younger generation. By designing interactive digital experiences—such as simulations of folk dances or traditional handicrafts—this topic aims to

foster a deeper understanding of and appreciation for these skills, thereby promoting their cultural value and social recognition.

Design Guidelines:

1. **Interaction Design:** Employ digital tools (VR/AR, touchscreens) to create hands-on learning experiences, such as craft-making simulations, skill demonstrations, or guided practice modules.
2. **Educational Integration:** Embed educational content—such as historical context, cultural significance, and related stories—directly into the interactive experience.
3. **User Experience:** Ensure a high-quality learning experience with a user-friendly and intuitive interface designed to captivate and retain learner engagement.
4. **Technical Feasibility:** Provide a detailed implementation plan outlining the necessary hardware and software to ensure a stable and operable interactive experience.

Topic 3: ICH-Inspired Cultural and Creative Product Design

Integrating ICH elements into modern design can create innovative and marketable products, breathing new life into traditional culture. This topic involves designing a series of creative products—such as home goods, fashion accessories, or stationery—that are inspired by ICH.

Design Guidelines:

1. **Innovative Design:** Uniquely blend ICH elements with contemporary design principles.
2. **Functionality:** Ensure products possess both cultural value and practical, market-appealing functions.
3. **Market Viability:** Conduct market and target user analysis to validate the product's potential and propose a corresponding promotional strategy.
4. **Producibility:** Consider production processes and material choices to ensure the design is feasible, cost-effective, and ready for manufacturing.

Topic 4: Communication Design for ICH Culture

In a digital and globalized world, innovative communication strategies are needed to broaden the reach and impact of ICH. This topic calls for a new communication plan that utilizes digital platforms, social media, or other modern channels to promote ICH and engage a wider audience.

Design Guidelines:

1. **Creative Content:** Develop an engaging communication strategy using formats like short videos, graphic stories, or interactive campaigns. The content should be visually compelling and strategically designed to resonate with the target audience.

2. **Platform Strategy:** Select appropriate communication platforms (e.g., social media, online communities, video platforms) and develop tailored strategies for each to maximize reach and impact.

3. **Audience Engagement:** Design interactive activities, such as online challenges, virtual events, or themed campaigns, to encourage active participation and sharing.

4. **Impact Assessment:** Establish clear metrics to evaluate the campaign's effectiveness, including reach, engagement, and audience feedback, and propose a plan for continuous improvement.

Specialized Educational Resources

Topic 1: Cross-Disciplinary Educational Resource Design

Cross-disciplinary breaks down subject barriers, enabling students to integrate knowledge from various fields to develop holistic understanding and innovative capabilities. This topic focuses on creating resources that guide students through comprehensive projects where they can apply diverse knowledge to solve real-world problems.

Design Guidelines:

1. **Disciplinary Integration:** Ensure the educational resource's theme inherently connects multiple subjects, such as science with art or mathematics with social studies.

2. **Project-Based Learning:** Center the resource around a real-world problem or scenario, requiring students to apply multidisciplinary knowledge to complete the project.

3. **Flexible Learning Paths:** Offer multiple pathways through the material to accommodate diverse learning styles and needs.

Topic 2: Practice-Based Educational Resource Design

Emphasizing a "learning by doing" approach, practice-based education helps students translate theory into tangible skills. These resources should bridge the gap between classroom instruction

and real-world application, allowing students to learn through hands-on exploration and experience.

Design Guidelines:

1. **Clear Learning Objectives:** Focus the resource on developing specific practical skills or problem-solving competencies, such as mastering a technical process or experiencing a professional role.
2. **Relevant and Challenging Content:** Select projects or tasks that are professionally relevant and challenging enough to require students to apply and extend their knowledge.

Topic 3: Educational Resource Design for Special Needs Groups

Effective educational resources for special needs groups require deep consideration of their unique requirements. This involves providing adaptive materials, assistive technologies, and supportive services to help learners overcome barriers and thrive in an inclusive learning environment.

Design Guidelines:

1. **Defined Target Group:** Clearly identify the specific needs of the target group, which may include persons with disabilities, the elderly, children with learning disabilities, gifted students, or vulnerable populations in crisis-affected regions.
2. **Personalized Customization:** Design resources that can be customized in terms of content, presentation format, and interaction mode to meet individual learner needs.
3. **Multi-Sensory Design:** Utilize multiple sensory channels (visual, auditory, tactile) to convey information. Examples include tactile graphics for visually impaired students or subtitled visual demonstrations for the hearing impaired.

Topic 4: Social Education Resource Design

Social education resources aim to cultivate social awareness, promote civic engagement, and enhance civic literacy. These resources should encourage students to critically examine and act upon important social issues, public affairs, and their responsibilities as citizens.

Design Guidelines:

1. **Relevant Social Issues:** Base the resource on current or enduring social themes, such as environmental sustainability, community service, social justice, or cultural diversity.
2. **Bridging Theory and Action:** Guide learners to apply their knowledge to real-world situations and social actions, such as reducing personal carbon footprints, organizing community environmental initiatives, and promoting sustainable consumption.
3. **Adaptability:** Design the resource to be flexible for use in various contexts, including school curricula, community programs, and online learning.

Innovative Educational Games

Topic 1: Open-Theme Educational Game Design

Design an educational game on any theme or subject that helps students learn and master knowledge through interactive and engaging gameplay. The design must balance entertainment value with educational effectiveness, ensuring the content enhances learning interest and participation.

Design Guidelines:

1. **Thematic Freedom:** Select a theme based on personal interest or professional expertise, spanning any academic or practical field.
2. **Innovative Gameplay:** Create novel game mechanics that spark curiosity and motivate learning, such as mission-based scientific problem-solving or professional role-playing scenarios.
3. **Educational Impact:** Ensure the game content is meaningful and effectively supports knowledge acquisition through well-designed challenges and activities.

Topic 2: Creative Visual Educational Game Design

Design an educational game where creative visuals are central to the experience. This topic explores how to merge learning content with a compelling visual journey through gamification, sparking students' intrinsic motivation to learn.

Design Guidelines:

1. **Visual and Content Synergy:** Seamlessly integrate learning objectives with visual design, using intuitive graphics and animations to explain complex concepts.

2. **Gamified Learning:** Implement game mechanics like missions, rewards, or leveling systems to make learning challenging and enjoyable.
3. **Artistic and Creative Appeal:** Emphasize unique artistry in the visual design, from character creation to environmental effects, to captivate players and encourage exploration.

Topic 3: Digital Art Educational Game Design

Use digital art as a medium to deliver educational content, enhancing students' creativity and artistic appreciation. This topic encourages designs that allow learners to experience the power of digital art and understand its role in modern culture and society.

Design Guidelines:

1. **Art and Education Fusion:** Combine the process of digital art creation with learning contents, allowing players to build artistic skills while playing (e.g., an adventure game about art history).
2. **Multi-Sensory Immersion:** Leverage multi-sensory technologies (visual, auditory, haptic) to create a fully immersive art-learning environment, such as a VR experience where players can "touch" virtual sculptures.

Topic 4: Comprehensive Skills Learning Game Design

Design an educational game focused on developing practical life and professional skills. The game should provide a simulated environment for players to learn and practice diverse skills, enhancing their personal capabilities and social adaptability.

Design Guidelines:

1. **Diverse Skill Domains:** Cover a range of skills, from life skills (e.g., financial literacy, first aid) to professional competencies (e.g., project management, teamwork, communication).
2. **Engaging Task Design:** Create imaginative and challenging tasks using scenario-based missions and interactive learning to make the skill-building process enjoyable.
3. **Real-World Application:** Design scenarios that are directly relevant to real-life and career situations, enabling players to apply their newly acquired skills to solve practical problems.

Intelligent Learning Assistants

Topic 1: Intelligent Teaching Aid Design

Design an intelligent teaching aid that integrates AI to offer personalized learning experiences. The aid should be highly interactive, intuitive to use, and adaptable to diverse learner needs and course requirements.

Design Guidelines:

1. **Functional Innovation:** Propose a completely new intelligent teaching aid or an intelligent upgrade to a traditional one.
2. **AI-Powered Personalization:** Incorporate AI to provide adaptive learning support based on student data and performance.
3. **User-Centered Design:** Prioritize simplicity and ease of use to ensure effortless adoption by both students and teachers.

Topic 2: Intelligent Learning Environment Design

Design an intelligent learning environment for settings like schools, homes, or training centers. This can involve anything from adaptive physical conditions (light, sound) to the integration of virtual and augmented reality, personalized learning spaces, and enhanced tools for collaboration.

Design Guidelines:

1. **System Integration:** Consider integrating virtual labs or AR overlays to create immersive, hands-on learning experiences that are safe and scalable.
2. **Collaborative Spaces:** Explore how the environment can foster teamwork and social learning, for example, with smart furniture that reconfigures automatically for group work.
3. **Practicality and Sustainability:** Ensure the design is energy-efficient, safe, and user-friendly for long-term use in its intended setting.

Topic 3: Process Improvement and Innovation Design

Identify a specific real-world process, craft, or technology and design an innovative plan to improve it. The goal is to make it more efficient, sustainable, or effective through equipment modifications, new operational methods, or an optimized workflow.

Design Guidelines:

1. **Real-World Problem:** Root the project in a practical need, aiming to improve production efficiency, product quality, or learning outcomes.
2. **Technological Innovation:** Leverage modern technologies like automation, new materials, or data analytics to drive the innovative design.
3. **Feasibility:** Ensure the proposed improvement is practical, operable, and can be realistically implemented in its target context.

Topic 4: Applied Method Design

Design a practical teaching or learning method that can be effectively implemented in real-world educational settings. The method should be flexible, user-friendly, and help students bridge the gap between theoretical knowledge and practical application.

Design Guidelines:

1. **Problem-Oriented Approach:** The method should be designed to solve a common challenge faced by learners or educators.
2. **Innovative Pedagogy:** Propose a novel teaching strategy or learning model, such as project-based learning frameworks or case-study methodologies, that promotes active learning and creativity.
3. **Broad Applicability:** Design the method to be adaptable across different subjects, age groups, and learning environments.
4. **Evaluation Framework:** Include a plan for assessing the method's effectiveness and gathering feedback for continuous improvement.