

DODEA IDEOLOGY AND EDUCATIONAL PEDAGOGY



21st Century Learning Overview

Key Themes

The DoDEA 21st Century facilities are guided by six major themes. Two are overarching themes that are used to frame how a 21st Century school is to be designed and constructed. Four major themes form the framework and set the tone for exploring the vision for 21st Century education, based on best-practices and promising new trends that promote student success. The six themes are:

Flexible and Adaptable Facility: School facilities should have an expected life cycle of 45 years or greater. Providing an environment that compliments education for this period of time is difficult given the rapid change in technology as well as curricular advances that will be adopted to support student achievement and preparation for the future. For this reason, facilities must be flexible and adaptable. This can be best accomplished by minimizing interior load bearing

walls which in the long term allows for more economical reconfiguration. In the short term the use of partition walls will allow facilities to adapt to short term requirements. Considerable thought should also be given to how support systems in the building are constructed and the impact they might have on implementing future facility modifications.

Facility as a Teaching Tool and Teaching Environment: Design teams should consider how every square foot in a facility might contribute to education. Building systems and architecture can be used to illustrate and compliment science, technology, engineering and math (STEM) as well as the arts through architectural design, lighting, and the use of color or materials. Functional spaces within the school that previously were not considered as more directly supporting education or learning, should also be reexamined and opportunities for learning or instruction identified.

Differentiated Learning: Students are individuals with unique learning requirements. To facilitate more effective, accelerated rates of learning, 21st Century

education must respond to students' individual learning needs. Academic needs vary greatly and students have varying skill and interest levels. Some students work best as individual learners, while others prefer one-on-one or group arrangements. Additionally, some students may benefit from atypical space layouts. The current model of one instructor to many students in a 900 square-foot classroom does not provide sufficient opportunities for customized education. 21st Century learning models must empower each student by optimizing learning potential through personalized, differentiated instruction.

Multiple Modalities: To accommodate this wide array of learning styles, students need facilities that adapt to different spatial, furniture and learning arrangements both inside and outside the educational facility. 21st Century education must evolve beyond the traditional classroom configuration and instead provide spaces that can respond to a variety of concurrent instructional activities, including team-building events, small group sessions, individualized learning, and opportunities for meta-cognition and peer presentations—all potentially simultaneously. Spaces shared between teachers, content areas, and even communities can provide opportunities for a wider array of room configurations without necessarily increasing the footprint and resultant cost of a facility. Instead, sharing spaces increases the usefulness of each room by keeping them fully occupied for more hours of each day.





Multidisciplinary Teaching: Teaching across disciplines adheres to the concept of differentiated learning while being directly supported by multiple modalities, as described above. Providing students with ways to approach new subjects within the context of familiar and more approachable topics can enhance each student's access to, and interest in learning. Synthesizing subject content across disciplines enhances critical thinking skills and creativity. As teachers assemble lesson plans, they have opportunities to explore and integrate cross-curricular matter while simultaneously receiving and providing expert peer input via collaboration. This contributes to the professional development of the teachers and advanced learning opportunities for students.

Real-world Skills Development: The ability to prepare students to be competitive in the real world is key to the success of the 21st Century learning program. To achieve this goal, learning environments must provide access to hands-on instruction and opportunities for students to apply their knowledge and thinking while still providing a rigorous focus on core curricular competencies. Shifting the delivery method of core competency education to include related real-world problem solving, enhanced by multidisciplinary critical thinking and creativity, can provide effective learning experiences.