Overview

This chapter outlines the educational facility planning concepts which should be considered by the LEA and its planning, design, and construction team.

Public education is at a unique point in history. As we transition from the industrial era to the information age, LEAs across the country are considering changing the way they educate students. LEAs are investigating curricula, organizational models, current and emerging technologies, the role of administrators and teachers, community engagement, and the impact these factors have on student performance and readiness for college and career.

These investigations have resulted in a series of “best practices” intended to provide students with the greatest opportunity for success. Implementing educational “best practices” can have a significant impact on facilities.

- **Curriculum**: Offer essential knowledge, integrate it, and make connections to real life. Curriculum should be relevant and rigorous.

  Curriculum should also:
  - Be based on federal and state content standards.
  - Require content areas to be linked to one another.
  - Accommodate multiple learning styles.
  - Demand critical thinking and problem-solving.
  - Incorporate pervasive technology.
  - Utilize multiple performance assessments.

  Investigation and research suggest that the core of the curriculum must offer both the substance and the practicality to prepare students for an uncertain future. The curriculum should strive to meet individual needs without comprising larger goals.

  Adopting curricula that offer essential knowledge, integrated approaches, and connections to real life can have a significant impact on facilities. Facilities may require student production spaces for project creation, small group rooms for collaboration, and large group spaces for presentations and display of student work.
• **Organizational Models**: Student-centered approaches provide students with a variety of opportunities to learn and develop skills and competencies based on their individual needs. Facilities may be organized into “houses”—instructional units comprised of classroom spaces, student production spaces, and teacher preparation areas.

A “house” concept can provide for grade level teaming, schools-within-a-school or thematic teaming.

• **Grade-Level Teaming**
  Grade-level teaming, found to be developmentally appropriate for secondary students, is based on organizing the building into separate grade-level units. Grade-level teams typically utilize an interdisciplinary approach.

• **Schools-Within-A-School**
  A schools-within-a-school model is based upon multiple units of grades housed in the same facility, with separate governing bodies. Thus, a large school can be divided into smaller, more personalized “houses,” creating small learning communities in which students experience a greater sense of being known and belong to a social and academic unit.

• **Thematic Teaming**
  Thematic teaming is based on delivering curriculum within the context of a specific theme. Themes may include Science and Math, Fine and Performing Arts, Career and Technical Education, or Foreign Language and Literature.

This design offers more flexibility than the traditional double-loaded corridor model. Double-loaded corridor designs cannot accommodate multiple organizational models nor do they foster the same level of cooperation, teaming, and sharing of professional resources as house designs.

• **Technology**: Technology continues to evolve and influence education. Technology has previously been perceived as a stand-alone content area with its own dedicated spaces. Today, technology is most often incorporated into every learning space and curriculum.

Incorporating technology can accomplish two basic goals of education: linking traditionally isolated content areas and providing teachers with tools to differentiate learning.
Incorporating technology into curricula and instruction across all disciplines can have a significant impact on facilities. First, all learning spaces require access to voice, video, data ports, and electrical outlets. Second, infrastructure must be designed in such a way to allow access for maintenance and upgrades as technology continues to evolve.

- **Administration**: Increase administrator visibility and student contact by decentralizing administrative services.

  Facility design should locate offices and support spaces for administrators within each learning community rather than in one central area.

- **Community Use**: Project a welcoming presence that promotes community engagement, participation, and ownership.

  Providing access to the community can have a significant impact on facilities. Additional spaces such as parent/community volunteer rooms, community locker rooms, and storage spaces may be needed. For security purposes, community access requires careful attention to the organization of the facility so that areas not in community use may be secured.

LEAs may choose to utilize these educational best practices as they discuss how best to provide educational opportunities to improve student achievement.
Educational Facility Planning Concepts

One of the goals of the Standards and Guidelines is for LEAs to build facilities that meet the needs of teaching and learning in the 21st century. There is a recognized impact of educational delivery models on the planning, design, and construction of school facilities.

The evolving needs and programmatic initiatives require that facility usage be adapted to support the desired educational environment. A continued relationship between the Office of School Construction Grants & Review and the LEA will ensure that students, teachers, and administrators are provided with facilities aligned with the educational mission of the State of Connecticut.

Spaces within the learning environment should bring students and teachers together, ensuring that the spaces promote, not constrain, learning.

Some suggested approaches for learning environments include:
- Traditional Learning Environment (TLE)
- Student-Centered Learning Environment (SCLE)
- Blended Learning Environment (BLE)

Traditional Learning Environment (TLE)

A TLE is typically associated with classrooms of 25 students and 1 teacher. It is instructor-centered and provides for a teacher-led approach in which the students and teacher meet in a common location for a specific duration of time. The TLE model focuses on transmitting the teacher’s knowledge to the student. The student then transmits by testing the information received back to the teacher, who acknowledges the student’s understanding of the subject through grading.

A TLE should be planned with learning spaces beyond the traditional classroom, including: small group rooms, student and teacher collaboration rooms, and traditional common spaces, i.e., cafeteria, media center, and gymnasium.

Student-Centered Learning Environment (SCLE)

An SCLE focuses on and supports the principles and activities that facilitate learning in an information-based system. Our global economy has made lifelong learning and innovation central to success. An SCLE provides for engagement, interaction, teamwork, and concurrent interdisciplinary themes.
An SCLE is student-centered and focuses on collaborative and independent learning, critical thinking, oral and written communication, use of technology, and project-based learning. Spaces should fuse the “Three R’s” with the “Four C’s” (collaboration, communication, critical thinking, and creativity).

An SCLE has the ability to support shifts in teaching methods such as team-based teaching, project-based instruction, E-learning, and self-learning while also being agile, flexible, and supportive of individual and collaborative activities. Without this shift in teaching style, an SCLE on its own will be less likely to succeed.

Blending Learning Environment (BLE)

Blending learning represents a major shift in instruction. It offers increased levels of integration of computer-mediated instruction into the traditional learning environment.

A BLE reflects and supports information-based systems in which gathering and analyzing data is central to the learning process. A BLE combines the traditional approach of learning in a physical facility with the technological approach of learning online.

Students have the opportunity to meet face-to-face with their teachers and interact with their classmates as well as learn at their own pace in a non-traditional school environment.

A BLE has the following characteristics:
- A shift from lecture to student-centered instruction in which students become active and interactive;
- Increased interaction between learner and instructor, learner and learner, learner and content, and learner and outside resources; and
- Integrated formative and summative assessment mechanisms for both learner and instructor.

It should be understood that no “one size fits all” solution exists. Every solution developed by each LEA’s planning team will be unique, align with the educational specifications, and most importantly, support the learning process of its students while being flexible to adapt to the future.
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