



AIA Utah

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AIA UTAH · ARCHITECTURE FOR EDUCATION COMMITTEE · WHITE PAPER SERIES · VOLUME A · ISSUE 1 · JANUARY 2010



Good Day:

As the Chair of the AIA Utah - Architecture for Education Committee, I would like to introduce you to a new informational K-12 Education series. The following is the first of a monthly series our committee will be publishing as a service to AIA Members and K-12 School District, and Charter School staff throughout Utah.

This month's white paper, "Chicken or the Egg: Educational Programming or Facility Design" was written by Bruce Penland, Ph.D., Executive Director for the Ogden City School District and President, Utah Chapter of the Council of Educational Facility Planners International.

Each month's white paper will be written on current informative topics related to the development of facilities in support of the educational advancement of our K-12 students in Utah. Each topic will be addressed by leaders in educational facility administration, planning, design, and construction throughout Utah and the Intermountain West, ensuring that these publications will provide you with information you can use in your daily work as an architect or educational facility provider and manager.

Future topics may include the latest thinking on:

- RIGHT SIZING
- SUSTAINABLE FACILITY DEVELOPMENT
- BENEFITS OF REGISTRATION AS A FACILITY PLANNER
- SITE PLANNING AND ORGANIZATION
- CITY AND COUNTY IMPACT FEES : WHEN DO THEY APPLY?
- CONSTRUCTION DELIVERY METHODS: PROS AND CONS
- PROCURING AN ARCHITECT AND BUILDER: STATE REQUIREMENTS
- UTAH STATE OFFICE OF EDUCATION (USOE) PROJECT MANUAL: HOW CAN IT HELP?
- CITY AND COUNTY PROJECT APPROVALS: WHEN AND HOW REQUIRED?
- DESIGNING SCHOOLS IN THE FLAT WORLD
- CHARTER SCHOOL ORGANIZATION AND DEVELOPMENT

The Committee would like to hear from you on other topics you may want information on as it relates to K-12 Education Facilities. Please email your request to Elizabeth Mitchell, Executive Director, AIA Utah at, emitchell@aiautah.org.

The Architecture for Education Committee is committed to sharing leading edge information, research, and topical discussions to promote the design of educational facilities which enhance student learning, promote community involvement in education, and inspire the creation of active, vital Utah citizens. We hope this series will generate dialogue and make a positive contribution in the vital work you do for Utah's children.

Dennis C. Cecchini, AIA
Chair, AIA Utah - Architecture for Education Committee



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*Bruce Penland, Ph.D.
Executive Director
Ogden City School District
President, Utah Chapter of the Council of
Educational Facility Planners International*

CHICKEN OR THE EGG: EDUCATIONAL PROGRAMMING OR FACILITY DESIGN

"Good heavens," I don't remember learning that "stuff" when I went to public school.

"Water cooler talk" about public schools is influenced by a single point of view – personal school experience. Almost without exception, friends and neighbors alike do NOT recognize that "education" in the last 100 years has drastically metamorphosed into a highly dynamic and politically charged process that continues to evolve. In the period between the establishment of the first public schools by the Puritans colonists in 1640 and the beginning of the 20th Century, responsibility of "public schools" was very limited in scope and almost exclusively focused on two basic objectives:

1. **Teaching the "Three R's" (Reading, Writing, and Arithmetic) and**
2. **Instilling in children cultural, civic, and community values.**



Prior to 1900, raising and caring for school age children was exclusively the domain of the immediate and extended family members with support from the churches within the community.

Due to pressure from politicians, business leaders and policy makers since 1900, there has been a growing list of responsibilities transferred to the American public school system. The evolution of school responsibilities since 1900 can be characterized by the description "creeping paralysis." For example:

1. Between 1910 and 1920, public school responsibilities expanded to include nutrition, immunization and health.
2. Between 1920-1940, public schools were asked to include vocational education, school lunch program, half-day kindergarten and Physical Education into their programming.
3. During the 1950's, public schools driver's education and sex education was added to the curriculum.
4. In the 1960's, public schools added Advanced Placement programs, consumer education and career education.
5. In the 1970's, public schools were directed to add Special Education, Head Start, Title IX programs, drug

and alcohol abuse education, school breakfast program.

6. In the 1980's, programs such as ESL, early childhood education, full day kindergarten, after school programs, anti-smoking education, child abuse monitoring was all added.

7. Since 1990, public schools have added HIV/AIDS education, computer education, inclusion, and Tech Prep to the curriculum – to name only a few. Pressure will continue to mount to better utilize public school facilities in ways the buildings were not designed. Even though the list of programs mentioned above are only representative of the many added responsibilities placed on public schools since 1900, most states have not added a single instructional minute to the school calendar in the past 50 years.

Whether or not one agrees with any or all the "expanded" public school responsibilities of the past 100 years, planning/design of instructional space must have the flexibility to adapt to the constantly evolving educational landscape. Increased community expectations on our public schools will continue to accelerate and the field of educational facility design/planning will have to adapt to accommodate this steady tidal wave of higher expectations placed on our educational facilities.

In an effort to respond to the growing school responsibilities, new educational models are being implemented. One such non-traditional model being implemented by Ogden School District is the Full Service Community School Model. This model is based upon published research and previously successful national models. It is widely accepted in the educational community that the best approach to help students meet rapidly escalating academic standards is to meet their academic/nonacademic needs and those of their families. The most common risk factors negatively impacting student learning are attributed to persistent poverty, unstructured/unsupervised time, unsafe school environment, and the lack of parental involvement in education. The Full Service Community School Model focuses on three objectives:

1. **An increase student learning through improved school attendance, improved Criterion Reference test scores, and appropriate behavior.**
2. **Increase family engagement through school volunteerism, increased school-home communication, family stability and involvement with PTA.**
3. **Improve school effectiveness through stronger parent-teacher relationships, teacher satisfaction, school environment and community support.**

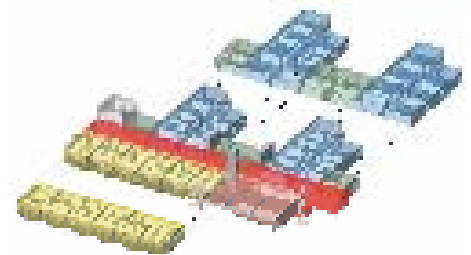
Ogden School District is currently implementing the Full Service Community School model at Mound Fort Junior High School. Expanded services to the students and families at Mound Fort Jr. HS include, but are not limited to the following: Head Start (pre-school) classes, education-focused drop-in daycare, Asset-Building Nights (skill development training), computer/writing lab access for adults, a Hispanic Center, one-on-one mentoring, cross age reading, Inclusion, Center activities, adult employability skills training, health education services, preventative health care services, adult education classes and Plazas Comunitarias adult education classes (sponsored by the Office of the Mexican Consulate, Salt Lake City, Utah).



In spite of the significant changes in educational expectations since 1900, public school design has seriously lagged behind the need for increased flexibility of the traditional educational space to accommodate increasing community needs that go well beyond the basics of reading, writing and arithmetic. In reviewing the non-traditional Full Service Community School model at Mound Fort Junior High School, the wide range of activities mentioned above go beyond keeping a school open longer in the evenings. The Full Service Community School Model is operating in a 40-year-old Junior High School building that is not designed to cope with an instructional model that goes well beyond teaching 30 adolescences seven instructional periods per day for 180 school days per annum. Will the space at Mound Fort Jr. High be adequate to operate the building as a Full Service Community School? Of course, the answer is, we will make the square peg fit in the round hole, because the location of the school is ideal to serve the community." The core question of this discussion is not whether we can force an educational space to work, but whether the instructional program would have been implemented differently if the original building design had not been based on a one-dimensional thinking that has permeated educational design culture for the last 200 years.

Professor and author M. Barbacci's (M.I.T.) refers to the term "flexibility" as an attribute that is best described as "the ease with which a design can be modified for use in application others than those for which it was specifically designed." In creating a vision for new educational space, the architects must adapt to new learning pedagogies, innovations in information technologies and other influencing factors that will evolve over time. Architectural near-sightedness of the past 100 years has resulted in limited ability

to accommodate changing needs. School districts and institutions of higher learning are frequently faced with a dilemma of massive renovation costs of old existing learning space that was "right sized" to the needs of previous generations. We have many examples of non-flexible building designs that force program/pedagogy to adapt to the space, rather than, the space economically adapting to the educational needs of the program. To find a balance between planning for future change and meeting the immediate program needs is the central task of the architect. A primary goal of a "flexible" educational design is to imbed within the design the attributes of agility, reusability, modifiability and performance. Within the 75-100 year life cycle of newly constructed educational facilities, owners will see continuous waves of changing responsibilities and community expectations.



The ongoing design dilemma facing architects and school districts is whether a proposed architectural design has the inherent flexibility to accommodate evolving educational philosophy over the period of the next 75 to 100 years. Although there is no accurate system of anticipating the future educational program innovations, there is currently a movement within the field of architecture to alter the traditional myopic view of only meeting short-term educational space needs and incorporate long-term flexibility into the original design. Future educational facility planning must be able to answer the question,

"How are we limiting future implementation of instructional programs by moving forward with a proposed school design?"

The committee would like to hear any comments or feedback regarding this topic. Please e-mail comments to: Elizabeth Mitchell, Executive Director, AIA Utah at: emitchell@aiautah.org.