



**DR. PHINNIZE J. FISHER**  
**MIDDLE SCHOOL**  
**Changing The Face of Education**



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## Talk About It!

As you read and enjoy articles inside this issue, make it a point to talk about it with your co-workers and colleagues in educational facility planning, design and construction. Your feedback is important to us. We would like to share your comments. Please send to the LEConnect Open Forum at the Association for Learning Environments (A4LE) or email your comments to Barbara Worth at Barb@A4LE.org.

**ON THE COVER:**

DR. PHINNIZE J. FISHER MIDDLE SCHOOL –  
Changing the Face of Education  
Greenville, South Carolina

# THE SPACE UTILIZATION INQUIRY TOOL (SUIT™)

## AN ENHANCEMENT OF STANDARD BUILDING CAPACITY ASSESSMENTS

BY THOMAS MARTINEAU AND TATIA PRIETO

*In the ideal world, school districts renovate their facilities to keep pace with developments in educational practice. All school districts operate on the same cutting edge of technology implementation. Each school district works hard to ensure a consistent learning experience across all its classrooms. Teachers embrace similar ideas of the best teaching methods. If only.*

Unfortunately, we do not yet live in that ideal world. Instead, school facility planners are called to assist schools and districts in the struggle to work with existing buildings while rolling out new learning models, to adapt Depression-era structures to accommodate wi-fi, and design spaces that satisfy only the average of local teaching methods. What school facility planners cannot afford to ignore in this struggle is that one common metric, school capacity, is becoming an increasingly outdated concept, unless it is undergirded with a nuanced understanding of the current educational environment and the true likely next steps for the school and district.

In its most common form, “building capacity” is calculated on the basis of a floor area allotment per person. Several states have developed hard rules on building capacity. In New Hampshire, it has been decided that kindergarten students each require 50 square feet of space. In New York State, one official guideline states 30 square feet for a publicly funded kindergarten, 35 square feet for private daycare facilities. In Virginia, a kindergarten student must have an average of 41 square feet of classroom space, but not less than 34 square feet. Yet, these measures are strictly mathematical<sup>1</sup>. One visit to any kindergarten classroom, stacked to the legal limit with tubs of manipulatives, lunch boxes piled in a corner, fish tank perched on the out-of-use radiator under the window, and iPad cart charging in the last spot on the daisy-chained extension cord, shows just how short these building capacity square footage measures can be in the face of educational needs.

The literature abounds in research concerning the influences of educational trends on school design. Prominent in this literature has been a series of papers on the influence of educational trends on the design and construction of schools by Kenneth R. Stevenson, Ed. D., (2002, 2007, 2010) of the University of South Carolina in Columbia. In its most current incarnation (2010), Stevenson’s monograph *Educational Trends Shaping School Planning, Design, Construction, Funding and Operation*, offers 15 key trends and observations as they are likely to influence the planning, design, construction, funding and operation of public schools in the United States. These trends forecast, among others, more flexible and changeable school facilities, increasing



*Example kindergarten classroom, this one in Alaska  
Photo credit: Prismatic Services*

educational delivery by electronic means, and a restructuring of the teaching profession into expert educators similar to medical doctors, assisted by a cadre of technicians and assistants who carry out educational protocols and orders. Yet, Stevenson's observations do not adequately underscore the sheer variety of places schools and districts occupy along the spectrum of educational practice.



*Eldorado High School in Oklahoma  
Photo credit: Prismatic Services*

In consulting with public school clients across the country for the past decade, we have seen the same scenario play out again and again, with the same result. School capacity based on a rigid allotment of floor area per student is no longer enough to decide on the adequacy of a school building or school design. The use of space in Eldorado High School outside of Las Vegas, with its deep strands of technology coursework is fundamentally different from the space needs of Eldorado High School in Oklahoma, where schooling is still decidedly traditional, with nary a computer in sight.

Instead, a methodology was needed to determine the suitability of an existing school or of a new school design on the basis of changes in technology and pedagogy, as evidenced by a recognition of new teaching and learning styles and newfound approaches and practices in these areas. We also needed a way to account for where the school/district was along the spectrum of educational practice. Is the district implementing center-based learning in most classrooms? Are teachers effectively integrating technology in the classroom? Is most technology learning happening in the lab environment?

The mere calculation of whether or not the student population of a school building is above or below capacity no longer carries sufficient meaning, except perhaps for the most proximate moment. Of greater importance is a threefold consideration:

1. Are the school district's existing buildings suitable for the educational programs the district envisions during the coming 20 years?
2. If the existing buildings are not fully suitable, then what are the types of renovation and remodeling actions the district should initiate?
3. What types of new buildings should the school district plan, design, and construct, if any?

To help answer these questions, and to serve school district clients in a more complete and thorough manner, we have developed a tool that permits us to assess the suitability of our clients' buildings, and the possible need for new facilities that fit future programs. The reference frame we use is our clients' view of the future, instead of a rigid, external ideological construct of what prospects are to come. We have named our tool SUIT™ – the acronym for Space Utilization Inquiry Tool.

When applied in our consulting practice with schools and districts, SUIT™ relies on the current experiences of a school district's educators (principals and teachers), facility support staff (custodians and maintenance workers, kitchen staff, etc.), and students to define and categorize the district's existing building stock along the dimensions of pedagogical and facility suitability. This collected information is then combined with an on-the-ground assessment of every space in every school building of the district.

SUIT™ contains an inventory of factually – and positively – worded statements (issue statements) in two key categories: pedagogy and facilities. Some examples of pedagogy statements are:

- Significant technology assets are deployed in each classroom. The use of computer labs is minimized.
- Classes are provided in the appropriate spaces (science in a class equipped with a hood, etc.)
- The school is small in size or is broken into more than one school-within-a-school, or it has in place other measures to boost connectivity and familiarity among students and staff.

- Room locations, size or features do not limit educational programming options.

Some examples of facility statements are:

- The spaces in my school can be flexibly rearranged with little cost or effort as needs and uses change.
- My school has adequate seating space in the cafeteria.
- The core spaces of my school (cafeteria, kitchen, gymnasium, auditorium, offices) were expanded as classroom wings or portables were added.
- Most classrooms are occupied each period.

Issue statements provided in surveys are tailored to the reference frames of each school district’s stakeholder group. The issue statement inventory serves as the basis for client customization. While clients cannot remove issue statements from the list, they may create, with assistance from our staff, issue statements to be added to the inventory. The customized survey is then administered to a variety of school stakeholders:

- faculty;
- staff (kitchen, cafeteria, office, and custodial);
- administrators; and
- students.

If a school district has a high rate of community usage, then community members would be an additional stakeholder group. Once a statistically significant numbers of stakeholders have provided input, each issue statement must be evaluated by district stakeholders on two scales:

- actuality of the statement from the viewpoint of the respondent; and
- significance of the statement from the respondent’s perspective.

Each answer lies on a five-point Likert scale. The actuality scale ranges from 1 to 5, with 1 being “not at all true” to 5 being “very true”. The significance scale ranges from 1 to 5, with 1 being “not at all important” to 5 being “extremely important”. Sample results for four pedagogical questions are shown below.

Survey results are then categorized by user group as follows:

Hypothetical Actuality and Significance Scores for Selected Issue Statements		
Issue Statement	Actuality	Significance
Significant technology assets are deployed in each classroom. The use of computer labs is minimized.	4	5
Classes are provided in the appropriate spaces (science in a class equipped with a hood, etc.)	3	2
The school is small in size or is broken into more than one school-within-a-school, or it has in place other measures to boost connectivity and familiarity among students and staff.	1	1
Room locations, size, or features do not limit educational programming options.	1	4

- **Most urgent issues:** issue statements with the lowest actuality ratings and the highest significance ratings are potentially the most urgent issues to be addressed.
- **Least urgent issues:** issue statements with the lowest actuality and the lowest significance ratings.
- **Secondary issues:** issue statements with mixed results, either by user group or overall. These issues may require follow-up, such as more in-depth interviews with key stakeholders and decision-makers, before they are placed in the prioritization order.

We have found this approach provides the school/district a clearer picture of where they currently are on the spectrum of educational practices and what their logical next steps might be. If they are not ready for a high-tech, one-to-one, personalized learning environment, their facilities should not attempt to push them in that direction. If they are already on the cutting edge in regard to technology, they are likely bristling at trying to implement that in the traditional cookie-cutter square classroom and need to find ways to carve out small group meeting space.

As we work with SUIT™ in the coming years, we expect to make incremental improvements and enhancements. In our consulting practice, we move from final report to final report. In our tool development work, nothing is ever final or finished. ●

## REFERENCES

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## ABOUT THE AUTHORS

### Tatia Prieto

Tatia Prieto, MBA, PMP, founder and president, Prismatic Services, Inc., has more than 20 years of experience consulting for school districts in 30 states, ranging from Alaska to Florida, and in districts from 112 to 740,000 students. Over the years, she has seen the good, bad, and really ugly of school facilities. Tatia holds an MBA from the University of Texas – Austin and has nearly completed an Ed.D. in educational leadership from the University of North Carolina – Charlotte.

### Tom Martineau

Tom Martineau, AIA, NCARB, LEED AP, started as a research associate with the New York State University Construction Fund in 1966. As a licensed, registered architect, he has nurtured his expertise in pre-design analysis and facilities management. He strives to inform design sufficiently to discourage architects from creating schools that gloss over client needs and look like regional airports. Working with Tatia since 2005, he's seen some of the same good, bad and ugly of school facilities. He holds Bachelor and Master of Architecture degrees from Rensselaer Polytechnic Institute.