

# School Learning Index:

## Making school facilities management mission-relevant

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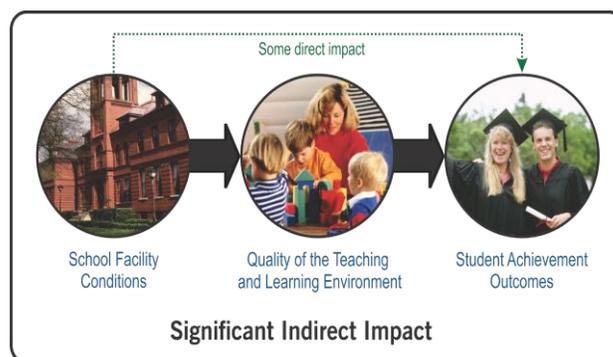
### *The Importance of Facilities to the Mission of Schools*

In school divisions, 90 per cent of the budget is typically directed to “academic” issues (e.g. teachers’ salaries, textbooks), with the remaining ten per cent split between school facilities and operations. In most jurisdictions, school trustees consider facilities as necessary, but reluctant, investments. The passage of facilities budgets are often associated with commentaries like, “Okay, I know we have to spend all that money on boilers, windows, and the like, but I wish we could spend it on things that make a difference to our students’ education.”

The position of facilities departments as an “outsider” to the school mission is misplaced. Like teachers, textbooks, and teaching styles, school facilities are mission-relevant. A review of the hundreds of scientific studies and reports on the subject shows that the connections between school facilities and students’ outcomes are both direct and indirect.

Schools facilities do have some “direct” effects on student learning. For example, when acoustics are poor and students’ cannot hear the lessons, learning suffers. A similar result occurs if the indoor air quality is so degraded that students are regularly missing because of asthma attacks.

The evidence shows, however, that the most important educational effects of facilities are “indirect” or mediated effects. Facilities’ primary impact is on the quality of teaching and learning environments (QTLE). Proper facility enhancements yield QTLE dividends by increasing student and teacher morale and commitment, as well as impacting a variety of other achievement factors.



### *The Conventional Approach to School Facilities*

Conventional approaches to school facilities utilize a “property-management” perspective, in which school investments are determined through the same approach used for assessing apartment blocks, hospitals, and other buildings. The “facility condition index” (FCI) used across North America illustrates the pervasiveness of this property-management approach.

This conventional approach to school facilities is necessary because, after all, schools are “properties” that must be managed. However, this conventional perspective is too narrow, since schools are not “just properties” containing “occupants”. Schools are properties with a purpose. Failing to give sufficient attention to the unique educational mission of school facilities does a disservice to everyone invested in successful school outcomes.

Recent evidence collected from Alberta and Saskatchewan schools reveals that *FCI measures of school facilities have no systematic connection to the quality of teaching and learning environments in schools*. In other words, focusing facility renewal investments primarily on FCI and other property management measures will yield no reliable return toward advancing the educational mission of schools.

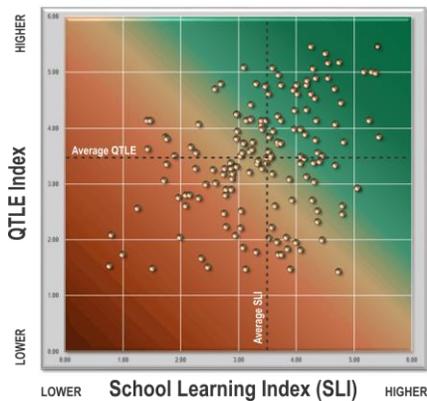
### *A Mission-Relevant Approach*

If school facilities are going to take their rightful place as a contributor to the educational mission, then a new approach is necessary. The new approach, which is intended to supplement conventional property management tools, *centers on educators’ assessments* of school facilities and the quality of teaching and learning environments.

Working in partnership with the Calgary Board of Education, I have developed a new tool called the School Learning Index (SLI). The SLI is a *reliable, validated* means of assessing the *educational-relevance* of K-12 school facilities.

Using the SLI, schools can be rank-ordered to *identify which school facilities have the most hindrances* to optimal quality teaching and learning conditions. The following graph displays the rankings of a set of schools on the SLI.

The SLI is a global measure of the mission-relevance of school facilities that decomposes facility assessment into four, educationally-relevant dimensions. The following brief description of these dimensions gives a sense of the meaning and importance of this new approach to school facilities assessment.



### Dimension 1: Pedagogical Functionality

**Value Proposition & Rationale:** *School facilities must provide structures that support the teaching and learning process.* The teaching and learning functions need to take place in buildings whose basic systems function adequately. These facility fundamentals may be labeled “critical building systems”. The research literature suggests that there are four critical building systems, including thermal comfort, indoor air quality, lighting, and acoustical control. Where students are uncomfortably warm or cool, or cannot breathe, see, and hear properly, their ability to learn is impeded.

**Illustrative Components:** Temperature and humidity control systems; air filtration; roof leaks encouraging mould and fungi growth; levels of available natural light; types and levels of electric light; exterior noise; interior wall sound proofing; ceiling sound control.

### Dimension 2: Programmatic Suitability

**Value Proposition & Rationale:** *Schools should provide facilities that support the delivery of curricular programmes.* Curricular programmes change and are becoming increasingly sophisticated. Part of this sophistication centres on the technical materials for demonstrating important concepts and principles; another part centres on the technical materials supporting active learning by students. Effective teaching and learning requires that school facilities adequately support these curricular programmes.

**Illustrative Components:** Classroom furniture condition; science lab condition; theatre production facilities; athletic training equipment and playing spaces; music programming space.

### Dimension 3: Cosmetic Appropriateness

**Value Proposition & Rationale:** *Schools should provide aesthetics that support the dignity of educational purpose.* The cosmetic condition of schools has an undeniable symbolic function that sends important messages about the deemed importance of the educational work. “Pride of place” is an important contributor to both student and teacher morale and commitment.

**Illustrative Components:** Graffiti removal; interior and exterior paint condition; ceiling tile replacement following roof leaks; wall colours; condition of lockers.

### Dimension 4: Participant Wellness and Safety

**Value Proposition & Rationale:** *Schools must provide healthy and safe environments for all in attendance.* The teaching and learning process is complicated and challenging. Moreover, by its nature, the process leaves itself open to frustration from many sources. Optimal learning outcomes cannot be efficiently or effectively accomplished when participants are surrounded by concerns about personal health or safety.

**Illustrative Components:** Asbestos removal; fire code compliance; mould abatement; building risk reduction.

## Merging Conventional and Mission-Relevant Views

The distinction between the conventional and mission-relevant approaches to K-12 facility management is evident by comparing the following statements of their core strategic objectives:

- **Conventional approach:** To manage and maintain the efficient and functional operation of school facilities.
- **Mission-relevant approach:** To optimize the quality of teaching and learning environments in schools.

It is clear that the “conventional” objective can be pursued with only incidental consequences for the “mission-relevant” goal. The mission-relevant approach, however, necessitates inclusion of the conventional approach objectives.

Like teachers, textbooks, and pedagogy, school facilities can be important contributors to the teaching and learning mission of schools. But facilities departments cannot fulfill this important role by restricting management to conventional property-management approaches.

The tools now exist for supplementing the conventional approach to K-12 renewal with mission-relevant evidence. The School Learning Index approach provides valid, reliable, and actionable educational assessments of school facility conditions. Progressive schools are now adopting this approach to ensure that investments in school facilities are optimizing the quality of the teaching and learning environment.