The Role of Furniture in Personalizing Learning Environments

How furniture can meet the needs of students in these rapidly changing times
A Case Study of Saint Paul Public Schools - St. Paul, Minnesota

Tom Parent, AIA, LEED AP
Director, Facilities Department
First, a quick survey...

- Go to www.socrative.com
- Go to “Student Login”
- Enter Teacher’s Room code: SPPSFACILITIES
- Take 7 question quiz
First, a quick survey...

1. Furniture play a significant role in learning
2-7. Please indicate the extent to which the furniture in the classroom supports:
   - Student interactions
   - Flexibility in different learning structures
   - Student group work
   - Physical needs of the students
   - Student comfort
   - Teacher comfort
Learning Objectives

• How to have furniture standards in a continually evolving arena
• Understand the role that furniture plays in supporting student-defined environments
• Explore the role of feedback and analysis in refining furniture standards
• Explore how FFE can help create contemporary learning environments in older buildings
Vision Statement:
Imagine every student inspired, challenged, and cared for by exceptional educators.

Imagine your family welcomed, respected and valued by exceptional schools.

Imagine our community united, strengthened, and prepared for an exceptional future.

Saint Paul Public Schools: Where imagination meets destination.

Mission Statement:
To provide a premier education for all.
**District-at-a-Glance**

- Students speak **100+ languages** and dialects
- **4,000* students new** to SPPS each year; **2,000* at the secondary level**
- **17%** of students require **special education services**
- **73%** of students eligible for **free or reduced-price lunch**
- **2,000* students experience homelessness** during the school year

*Approximate numbers
SPPS Facilities Portfolio

- 72 facilities
- 7.3 million square feet of space
- 465 acres of land
Age of SPPS’ portfolio
Long Term History

Randolph Heights, 1960 (Minnesota Historical Society)

Note: 34 students in this picture

Randolph Heights, 2015

Note: 26 students per class, average
Developing philosophies: Education

1865

Industrial

2015

Personalized
Developing philosophies: Facility Planning

Expert-based

1865

Community-based

2015
Our 21st Century Learners

• Our eighth grade students have never lived in a world without Google

• Preparing our students for jobs that don’t yet exist

• Kindergartners today will retire in 2067 and be the ones to solve many emerging issues

• More than ever, our students need to be collaborative, creative and adaptable
Design for Learning

NOT THIS...

Image courtesy of Cuningham Group Architects & American Architectural Foundation
Design for Learning

THIS...
Personalized Learning is an instructional strategy that tailors teaching and learning to Saint Paul Public School’s diverse student body. Through Personalized Learning:

- **Teachers** have access to resources that support rich, rigorous instruction aligned to district standards while nurturing individual learning styles.

- **Students** have multiple ways to access information, think critically and demonstrate what they’ve learned.

- **Student voice and choice** is integral to student engagement and the classroom experience. With Personalized Learning, students are taught how to advocate and take responsibility for their learning.
Role of Furniture in 21st Century Learning

Furniture should:

• Be an integral part of an intentional learning environment

• Reinforce the collaborative, flexible, adaptable learning environment

• Be comfortable and ergonomically appropriate for students
Galtier Elementary

• Improvements coordinated with significant program change

• Partnership of American Architectural Foundation, Target Corporation, Saint Paul Public Schools

• Extensive Design Thinking process / charrette
Why is furniture important?

• Teaching and learning has changed – furniture must adapt as well

• New teaching environments call for different furniture and design (i.e. STEM)

• Technology is changing rapidly

• Furniture needs to allow *movement*
Impetus for change

• Integrate into Facilities Master Plan
  • Support the District’s Strategic Plan, *Strong Schools, Strong Communities*
    • Enhance Personalized Learning initiatives
    • Edify 1:1 device initiative
    • Support District’s Racial Equity policy
  • Create a furniture standards program to replace all Student furniture in the District
    • Break the current 90 year replacement cycle budget
• Reinforce best business practices / SOPs
How SPPS purchases furniture

Historically:
• Purchasing the same pieces for decades
  – Cost, longevity, matched adjacent existing furniture
• Sent out items to all schools with no way of tracking the useful lifespan
• Filled holes where we needed, more reactionary than planning

Now:
• Centralized point of control
• Design Process
  – Choose neutral colors
• Mass roll-outs
  – Need pervasive application to see benefit & adoption
  – Improve entire schools as a time, redistributing surplus to fill gaps at other schools
Furniture standardization in a large district

**Benefits**
- Rigor in design and selection
- Better pricing
- Simplifies moving furniture within and between buildings
- Fosters equity among schools
- Helps create relationship with vendors and manufacturers so that issues get resolved

**Challenges**
- Has to speak to the breadth of programming offered
- Should not unnecessarily limit student and educator choice
- Must constantly evolve
Creating Furniture Standards – Process

1. Value, Vision, Principles
2. Research options
3. Request samples
4. Create pilot rooms
5. Procurement of items
6. Perform Professional Development
Change Management for Staff

• How do you manage such a big change?
  – Performed professional development with staff
  – Provided furniture pictures and drawings of classroom layouts
  – Sent out pre- and post-occupancy surveys
  – Continue to answer questions, observe classrooms, listen to feedback
Professional Development with Staff

• Spoke at staff meetings

• Shared resources: videos, books, research

• Working with Office of Teaching and Learning for future Professional Development
  • How to teach in a collaborate learning environment
  • Need staff and administrators to champion the change
  • Everyone should work together
Furniture Standards – Final Solution
Furniture Standards – Final Solution
## Implementation

<table>
<thead>
<tr>
<th>Renovation Type</th>
<th>School Name</th>
<th>Students</th>
<th>Grades</th>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Renovation - All New Furniture</td>
<td>Parkway Montessori &amp; Middle</td>
<td>484</td>
<td>Grades 6-8</td>
<td>$223,000</td>
</tr>
<tr>
<td>Minor Renovation - All New Furniture</td>
<td>Riverview Elementary</td>
<td>336</td>
<td>Grades Pre-K-5</td>
<td>$294,000</td>
</tr>
<tr>
<td>No Changes to Physical Space - All New Furniture</td>
<td>Humboldt Secondary</td>
<td>1141</td>
<td>Grades 6-12</td>
<td>$953,000</td>
</tr>
<tr>
<td></td>
<td>Galtier Elementary</td>
<td>182</td>
<td>Grades Pre-K-5</td>
<td>$179,000</td>
</tr>
<tr>
<td></td>
<td>Open World Learning Secondary</td>
<td>361</td>
<td>Grades 6-12</td>
<td>$519,000</td>
</tr>
<tr>
<td></td>
<td>Ramsey Middle</td>
<td>675</td>
<td>Grades 6-8</td>
<td>$278,000*</td>
</tr>
<tr>
<td></td>
<td>Hazel Park Prep Academy</td>
<td>741</td>
<td>Grades Pre-K-8</td>
<td>$331,000*</td>
</tr>
</tbody>
</table>
Design, Data, and Feedback

• Did small scale “pilot” spaces
• Held limited focus groups for programs with specific programmatic needs (e.g. Montessori Middle School)
• Created pre-occupancy and post-occupancy surveys to staff regarding furniture and its role in the learning environment
Survey Results

“How often do you change the configuration of your classroom?”

<table>
<thead>
<tr>
<th>New furniture, accompanied by:</th>
<th>Regularly (Pre)</th>
<th>Regularly (Post)</th>
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</thead>
<tbody>
<tr>
<td>Major Renovation</td>
<td>70%</td>
<td>84%</td>
</tr>
<tr>
<td>Minor Renovation</td>
<td>72%</td>
<td>62%</td>
</tr>
<tr>
<td>No Changes</td>
<td>67%</td>
<td>64%</td>
</tr>
</tbody>
</table>
Survey Results

“Furniture plays a significant role in learning”

<table>
<thead>
<tr>
<th>New furniture, accompanied by:</th>
<th>Agree (Pre)*</th>
<th>Agree (Post)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Renovation</td>
<td>100%</td>
<td>76%</td>
</tr>
<tr>
<td>Minor Renovation</td>
<td>100%</td>
<td>85%</td>
</tr>
<tr>
<td>No Changes</td>
<td>85%</td>
<td>81%</td>
</tr>
</tbody>
</table>

*Limited survey respondents for Pre-Occupancy Survey
"The furniture in the classroom supports student interactions"

<table>
<thead>
<tr>
<th>New furniture, accompanied by:</th>
<th>Agree (Pre)*</th>
<th>Agree (Post)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Renovation</td>
<td>50%</td>
<td>85%</td>
</tr>
<tr>
<td>Minor Renovation</td>
<td>65%</td>
<td>82%</td>
</tr>
<tr>
<td>No Changes</td>
<td>60%</td>
<td>82%</td>
</tr>
</tbody>
</table>

*Limited survey respondents for Pre-Occupancy Survey
Survey Results

“The furniture in the classroom supports flexibility in different learning structures”

<table>
<thead>
<tr>
<th>New furniture, accompanied by:</th>
<th>Agree (Pre)*</th>
<th>Agree (Post)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Renovation</td>
<td>20%</td>
<td>70%</td>
</tr>
<tr>
<td>Minor Renovation</td>
<td>38%</td>
<td>75%</td>
</tr>
<tr>
<td>No Changes</td>
<td>49%</td>
<td>77%</td>
</tr>
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</table>

*Limited survey respondents for Pre-Occupancy Survey
Survey Results

“The furniture in the classroom supports student group work”

<table>
<thead>
<tr>
<th>New furniture, accompanied by:</th>
<th>Agree (Pre)*</th>
<th>Agree (Post)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Renovation</td>
<td>50%</td>
<td>91%</td>
</tr>
<tr>
<td>Minor Renovation</td>
<td>73%</td>
<td>88%</td>
</tr>
<tr>
<td>No Changes</td>
<td>61%</td>
<td>79%</td>
</tr>
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</table>

*Limited survey respondents for Pre-Occupancy Survey
Survey Results

“The furniture in the classroom supports the physical needs of students”

<table>
<thead>
<tr>
<th>New furniture, accompanied by:</th>
<th>Agree (Pre)*</th>
<th>Agree (Post)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Renovation</td>
<td>33%</td>
<td>55%</td>
</tr>
<tr>
<td>Minor Renovation</td>
<td>40%</td>
<td>82%</td>
</tr>
<tr>
<td>No Changes</td>
<td>45%</td>
<td>62%</td>
</tr>
</tbody>
</table>

*Limited survey respondents for Pre-Occupancy Survey
Survey Results - Comments

• “Gives our students the opportunity to pick how they want to learn. They can find what works best for them and change how they work/learn everyday if they want.”
Survey Results - Comments

• “Students really enjoy the wiggly chairs and they have allowed students who have struggled in the past to stay on task or in a seat to be focused while being able to move.”

• “Students have more pride in their environment. Students are able to work in groups more productively and my room has had more of a cooperative approach.”
Our bumps and bruises

Failures
• Operational and pedagogical needs are occasionally cross-purpose
• Meeting educators where they are, finding the right way to push a school culture
• Our process is still adult-centered
• More advocacy on modifying teacher furniture

Successes
• Enhanced belief by educations and administration in the power of furniture in Personalized Learning contexts
• Established furniture replacement as part of district-wide Facilities Master Plan
Future direction of SPPS standards program

• We need to enhance the **student voice** in our design and evaluation processes

• **Codifying** the “standards” and the process

• Adoption of formal **Furniture Replacement Plan**

• **Continue to partner with our educators**
Creating Furniture Standards – Budgeting

• Established approximate $5 per gross sq ft cost
  • Gross square footage for whole building
  • Inclusive of student and staff furniture

• True cost of implementation
  • Delivery, assembly, and installation costs
  • Just-in-time delivery to sites versus centralized assembly and distribution
Eastern Heights Elementary

• Educators aggressively trying to push boundaries of Personalized Learning

• Cleared out underutilized Media Center and added a variety of furniture

• 2\textsuperscript{nd} Grade Team teaches:
  – Half of each day on their own in traditional classrooms
  – Half of each day together in this modified Learning Studio
Takeaways

• Separate kit of parts
• Constantly evolving
• Design process and feedback
• Part of the budgeting and planning
Final question for you...

How would you measure the success of a furniture program?
Questions?

Resources:

http://facilities.spps.org/role_of_furniture

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