Engaged and Ready to Succeed:
How Active Learning Spaces Impact Teaching and Learning
Over the last two years, Steelcase has partnered with middle schools, high schools and higher education institutions across North America to understand how teaching and learning is evolving – and how smarter, more active environments can help.

Together, with a cohort of over 40 diverse institutions serving thousands of students at all levels, we studied what’s possible and surfaced exciting results.

About the study

METHODOLOGY
Measuring perceptions related to engagement and student success. The Steelcase Learning Environment Evaluation (LEE) is a set of online surveys that gather student and instructor perceptions relative to a number of factors that suggest engagement and student success. Questions seek to detect cognitive, behavioral, emotional and academic engagement and align with the National Survey of Student Engagement (NSSE). Questions also seek to gauge behaviors and attitudes linked with student success factors, including mindset, sense of belonging, creativity, collaboration, critical thinking and communication.

Responding by degree. LEE surveys present students and instructors with five-point Likert-style rating scales to indicate, for example:

- Level of agreement: strongly disagree, disagree, neutral, agree, strongly agree
- Frequency: never, rarely (1–2x/month), sometimes (at least 1x/week), often (multiple times/week), always (multiple times/class)
- Level of difficulty: very difficult, difficult, neutral, easy, very easy
- Direct comparison: much worse, sometimes worse, about the same, somewhat better, much better

Comparing experiences. To provide a basis for qualitative and quantitative comparison, surveys were administered for both groups after they had used and reflected on their experience in a traditional, row-by-column desk/table classroom and then again in a learning environment designed for active learning, featuring more casual, mobile furniture and learning tools arranged in thoughtful proximities.

SCOPE
Conducted spring 2016 through winter 2018, this study of instructor and student perceptions involved:

- 44 educational institutions including 32 schools serving students in grades 6-12 and 12 colleges/universities
- 6,472 students surveyed and observed by their instructors
- 180 instructors surveyed

About the study

Exploring what’s possible in spaces made for active learning
### Learning Environment Evaluation

**Key findings: students**

Students reported notable gains in movement, communication, creativity, critical thinking and collaboration. Comparing their time in two types of classrooms, 82% of students reported that the experience in the environment designed for active learning was somewhat or much better than in the traditional classroom.

<table>
<thead>
<tr>
<th>Major gains</th>
<th>Smaller gains</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the active learning space, students reported significantly higher levels of:</td>
<td>Transitioning from traditional to active classroom, students reported gains or similar levels in:</td>
</tr>
<tr>
<td>• Movement through the classroom</td>
<td>• Mindsets associated with learning</td>
</tr>
<tr>
<td>• Communication with peers and instructor</td>
<td>• Sense of belonging</td>
</tr>
<tr>
<td>• Creative activities</td>
<td>• Critical thinking</td>
</tr>
<tr>
<td>• Collaborative learning</td>
<td>• Collaborative learning</td>
</tr>
</tbody>
</table>

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**Student survey results**

(6,472 students surveyed)

Students perceived new advantages for movement, communication, collaboration and thinking in the active learning spaces they experienced.

#### Movement

<table>
<thead>
<tr>
<th>Students reported that they often or always:</th>
<th>Traditional Classroom</th>
<th>Active Learning Classroom</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Move furniture into new layouts to support learning</td>
<td>23%</td>
<td>49%</td>
<td>122% INCREASE</td>
</tr>
<tr>
<td>Move in their chair to work with others</td>
<td>45%</td>
<td>72%</td>
<td>63% INCREASE</td>
</tr>
<tr>
<td>See instructor moving around the classroom</td>
<td>77%</td>
<td>84%</td>
<td>10% INCREASE</td>
</tr>
</tbody>
</table>

#### Communication

<table>
<thead>
<tr>
<th>Students reported that they often or always:</th>
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<th>Active Learning Classroom</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use classroom tools to communicate</td>
<td>33%</td>
<td>50%</td>
<td>53% INCREASE</td>
</tr>
<tr>
<td>Meet with instructor one on one</td>
<td>15%</td>
<td>22%</td>
<td>44% INCREASE</td>
</tr>
<tr>
<td>Present work/class to classmates</td>
<td>40%</td>
<td>53%</td>
<td>33% INCREASE</td>
</tr>
<tr>
<td>Participate in class</td>
<td>64%</td>
<td>70%</td>
<td>11% INCREASE</td>
</tr>
</tbody>
</table>

#### Creativity

<table>
<thead>
<tr>
<th>Students reported that they often or always:</th>
<th>Traditional Classroom</th>
<th>Active Learning Classroom</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use tools to think through ideas</td>
<td>30%</td>
<td>43%</td>
<td>51% INCREASE</td>
</tr>
<tr>
<td>Feel inspired by the work of others</td>
<td>35%</td>
<td>44%</td>
<td>27% INCREASE</td>
</tr>
<tr>
<td>Explore ideas/opinions</td>
<td>54%</td>
<td>64%</td>
<td>19% INCREASE</td>
</tr>
</tbody>
</table>

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“**The physical environment improves my focus and concentration, which in turn allows me to get more work done. Also, I feel more comfortable in class, which improves my learning experience drastically.”**
“The Steelcase room was great for coming up with new ideas and for working as a team. The environment is more relaxed than a regular classroom and gives us the ability to move around and get creative.”

Student survey results
(6,472 students surveyed)

CLASSROOM EXPERIENCE

Students agreed or strongly agreed that the classroom helped them:

- Be more creative: 47% increase
- Connect with others: 38% increase
- Feel motivated to learn: 36% increase
- Collaborate with classmates: 34% increase
- Facilitate problem solving: 30% increase
- Communicate work/ideas: 29% increase

CRITICAL THINKING

Students reported that they often or always:

- Critically examine and discuss classmates’ work/ideas: 35% increase
- Engaged in their best type of learning

Students reported being able to often or always work independently and focus – another dimension of critical thinking – almost equally in both types of spaces: 74% in traditional classroom, 75% in active learning classroom.

LEARNER BELONGING

Students agreed or strongly agreed that:

- My peers support my learning: 62% increase
- I am an important member of class: 8% increase

Students reported positively on several dimensions of learner belonging in both types of classrooms. They overwhelmingly agreed or strongly agreed that my instructor cares about me (83% in traditional classroom, 84% in active learning classroom) that my instructor supports my learning (83% in both types of classroom) that my instructor values me (83% in both types of classroom) and that I have a friend in class (86% in traditional classroom, 87% in active learning classroom).

LEARNER MINDSET

Students agreed or strongly agreed that they are:

- Confident to participate in class: 76% increase
- Move to work with others: 5% increase

Students showed no change in two more dimensions of learner mindset. In both space types, 83% agreed or strongly agreed that they would be successful in the future, and 83% agreed or strongly agreed that they would achieve a high grade in class.
Instructor survey results
(180 instructors surveyed)

Instructors perceived new advantages for supporting desired teaching strategies and observed improvements in behaviors and mindsets.

**USE OF FURNITURE AND TOOLS**

Instructors agreed or strongly agreed that:

- Space supports their desired teaching and learning: 43%
- Space helps me teach the way I want: 45%
- Students have access to a variety of tools: 52%
- Students use a variety of tools: 46%
- Students reconfigure the classroom daily: 26%
- I reconfigure the classroom daily: 24%

Key findings: instructors

"[Students] seem to form community much faster/earlier in the semester. I think the environment enables more one-on-one than in a traditional classroom which I believe impacts a student’s learning."

Instructors reported that the new space supports the type of teaching and learning that they want in their classroom and noticed improved student behaviors and mindsets. Instructors also favored the time they spent teaching in an active learning classroom when comparing the experience to that in a traditional classroom.

**POSITIVE INSTRUCTOR BEHAVIORS**

Instructors agreed or strongly agreed that they:

- Move furniture into new layouts: 16%
- Instruct students to work collaboratively: 72%
- Have deep, meaningful interactions with students: 63%

Not statistically significant: In both classroom types, a large proportion of instructors agreed or strongly agreed that they differentiate instruction based on students’ needs (72% in traditional classroom, 74% in active learning classroom), move around while instructing to maintain focus (81% in traditional classroom, 83% in active learning classroom) and move around the room to coach and mentor (84% in traditional classroom, 85% in active learning classroom).
"The students are a lot more engaged and excited when they come to math class now than they were before the new classroom. Students are participating and wanting to do math rather than just be an observer in the class."

**.positive student behaviors**

**Instructors agreed or strongly agreed that students**:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Traditional Classroom</th>
<th>Active Learning Classroom</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-create content</td>
<td>38%</td>
<td>59%</td>
<td>21%</td>
</tr>
<tr>
<td>Move furniture to new layouts</td>
<td>23%</td>
<td>34%</td>
<td>11%</td>
</tr>
<tr>
<td>Engage in group discussions</td>
<td>68%</td>
<td>87%</td>
<td>20%</td>
</tr>
<tr>
<td>Work collaboratively</td>
<td>71%</td>
<td>88%</td>
<td>17%</td>
</tr>
<tr>
<td>Actively apply new concepts</td>
<td>76%</td>
<td>85%</td>
<td>9%</td>
</tr>
</tbody>
</table>

**INSTRUCTOR-MINDSET**

**Instructors agreed or strongly agreed that they**:

<table>
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<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have enough time to be innovative</td>
<td>50%</td>
<td>61%</td>
<td>11%</td>
</tr>
</tbody>
</table>

Not statistically significant: Instructors overwhelmingly reported that they had positive mindsets in both classroom types, agreeing or strongly agreeing that they feel safe to try new innovative activities (92% in traditional classroom, 95% in active learning classroom), believe continuous learning makes them better (94% in active learning classroom, 92% in traditional classroom), feel prepared to teach (94% in traditional classroom, 85% in active learning classroom), and view their role as coach/mentor to learning (96% in both classroom types).

**Next steps**

**Set your goals.** Steelcase Education invites educational leaders to use the findings in this report to understand what’s possible when the physical environment is designed to support more active teaching and learning experiences. We invite you to use this information for inspiration and goal setting.

**Customize your evaluation.** Results reported here are based on dimensions of teaching and learning studied consistently across dozens of institutions. Our Learning Environment Evaluation (LEE) can be customized to examine additional areas of impact as prioritized by your institution.