
Semi-Annual Report 2023

THE SUCCESS STORY OF THE FLEXIBLE LEARNING ENVIRONMENT

— Based on 2022-2023 Longitudinal Study preliminary data and analysis

Learning Environments & Student Engagement

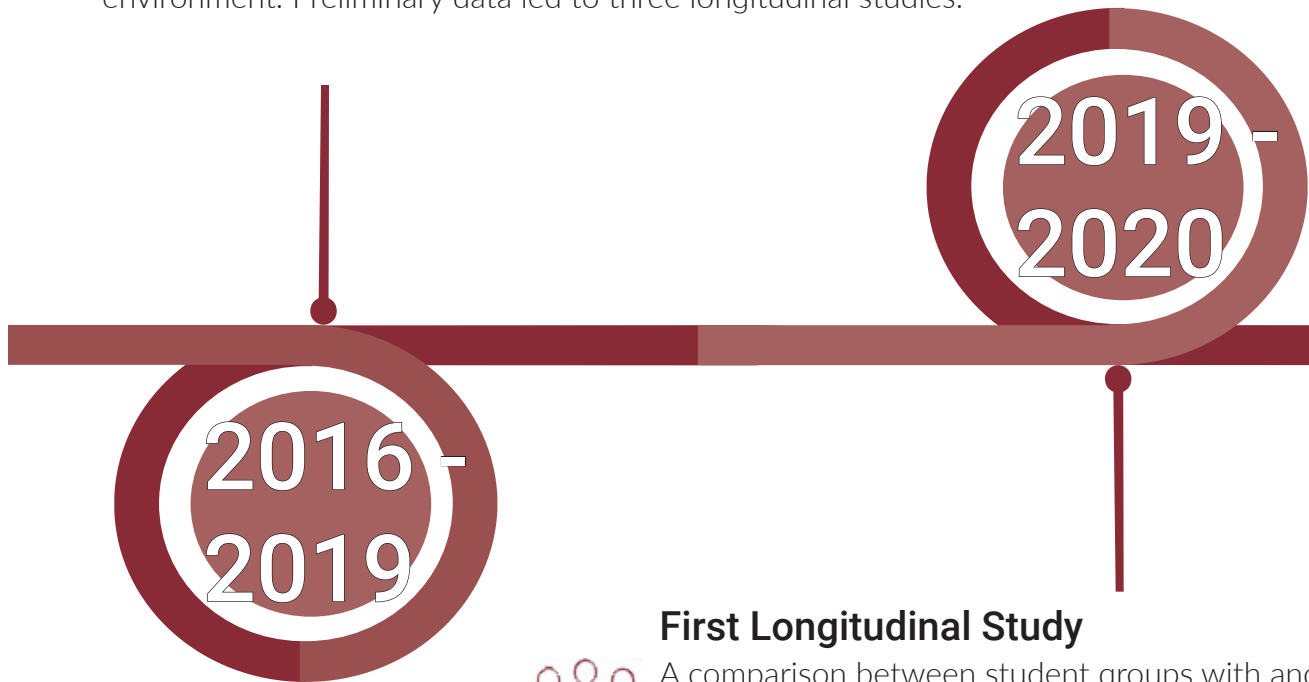
THE FLEXIBLE ENVIRONMENT

Flexible learning environments have changed the mindset of teachers and students alike. This change has allowed teachers to guide students into becoming decision-makers in their learning, producing accelerated student growth and development.



Initial Study

The LEx Collaborative conducted a study on student growth in collaboration with a Central Texas school district. Students were exposed to innovative, flexible learning spaces and taught by teachers trained on the use of flexible learning environment. Preliminary data led to three longitudinal studies.



First Longitudinal Study

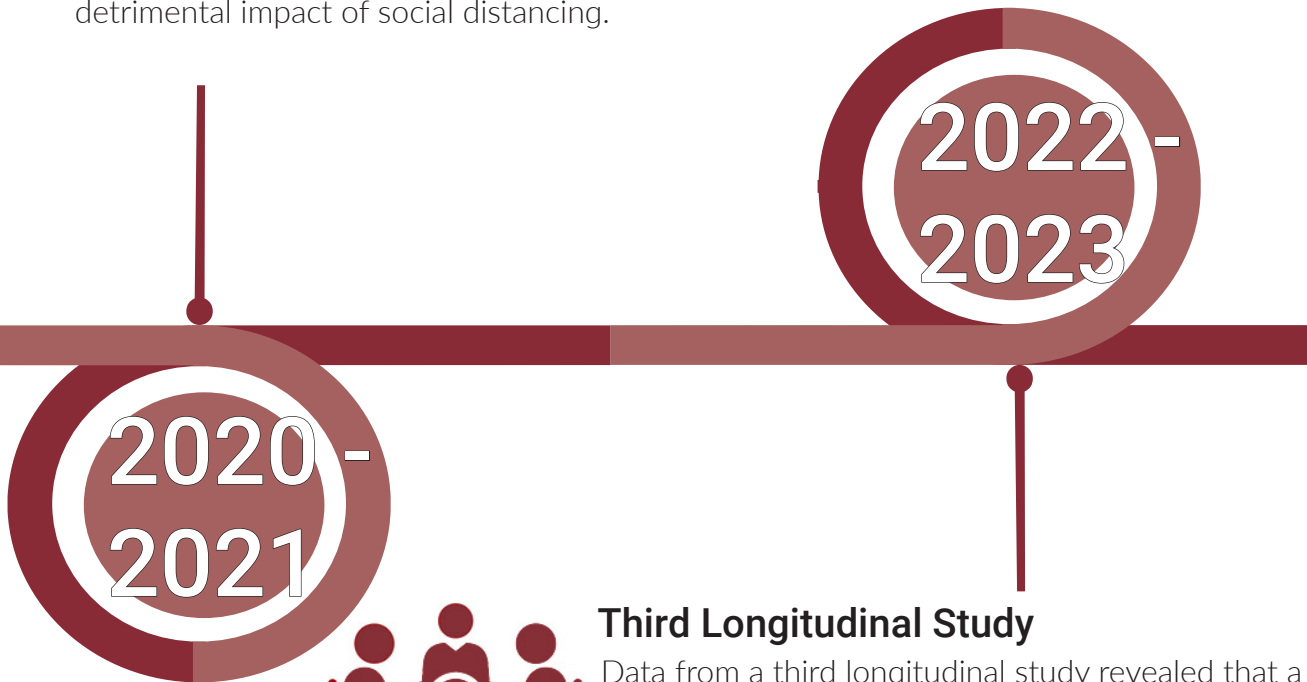
A comparison between student groups with and without flexible furniture showed a small but significant difference in student engagement growth. When given voice and choice, students provided with a flexible learning environment and tailored Professional Development increased multiple components of their student engagement.

SUCCESS STORY (2016 - 2023)



Second Longitudinal Study

During the pandemic, students' prior exposure to a flexible learning environment and their newfound voice and choice mindset allowed them to thrive. Even while quarantined at home, they showed increased student engagement, defying the assumed detrimental impact of social distancing.



Third Longitudinal Study

Data from a third longitudinal study revealed that a flexible learning environment, combined with customized Professional Development, enhances student learning and engagement. Furthermore, the extent to which flexibility is embraced by both students and teachers influences the rate of engagement growth, with full embrace leading to accelerated progress.



Student Engagement

In our latest study, we analyzed data from all student participants to measure the correlation between different components of student engagement. **Increasing student engagement is crucial as it correlates with academic gains, lower school attrition, and stronger community connection.** Our findings indicate a strong correlation between a flexible learning environment and student engagement. Put simply, when a flexible learning environment is utilized effectively, it improves student focus, fosters community involvement, and enhances student independence.

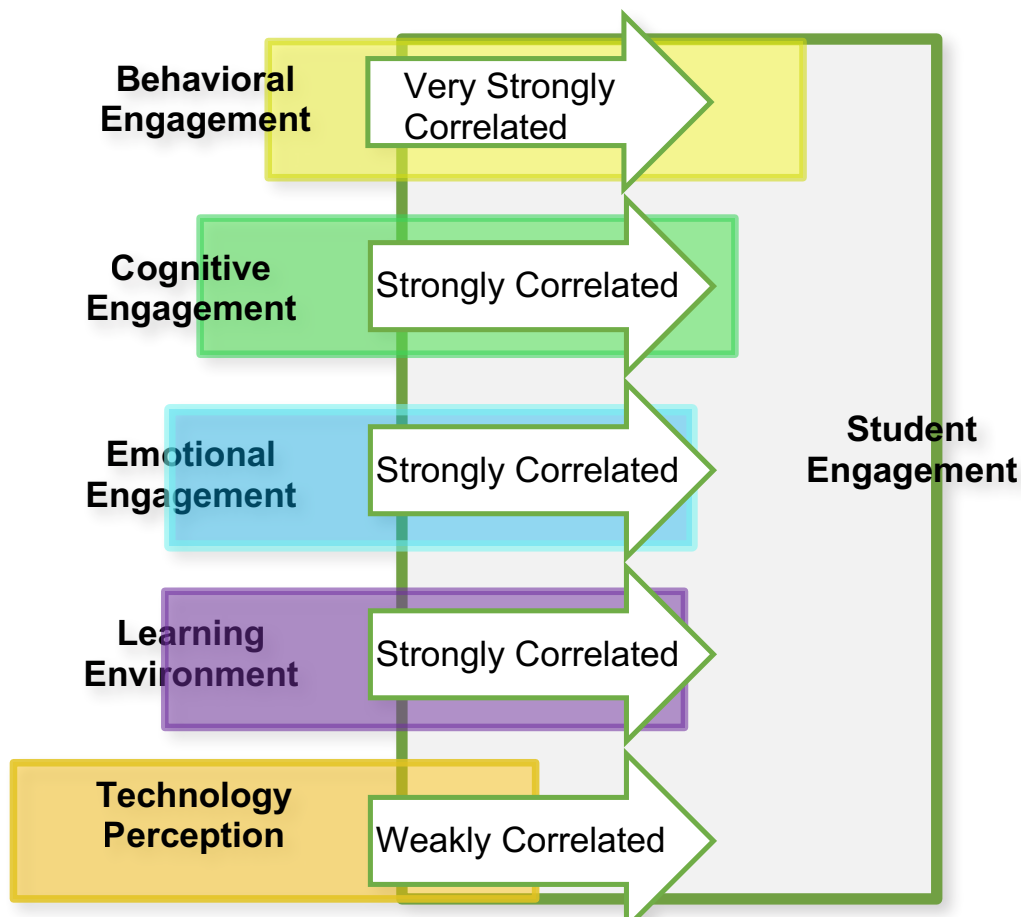


Fig. 1. The level of correlation is denoted above by the space each component shares with Student Engagement, as represented by the green box. As shown, Behavioral engagement is very strongly correlated with a correlation level higher than 0.80, while cognitive, emotional, and the learning environment are also strongly correlated, sharing correlation levels higher than 0.55. The use of instructional technology is weakly correlated at 0.2. (Note: Correlation levels range from -1 to 1, where -1 denotes an inverse correlation. 0 indicates no correlation, and 1 represents the strongest positive correlation.)



Optimization of the Learning Environment

Figure 1 shows a strong correlation between flexible learning environments and student learning. However, this positive impact is maximized when teachers receive appropriate training to facilitate comprehensive flexibility development. During the longitudinal 3.0 study, two distinct groups emerged: those marginally impacted by the flexible learning environment (with average impact) and those who fully embraced it (with optimized impact). Both groups showed continuous growth across all metrics, but the fully embracing group outperformed their peers who had not achieved complete flexibility optimization.

Students using flexibility at their maximum capacity scored 60% higher on overall student engagement.

Students scored higher on effort, participation, autonomy, competence, social interaction, and relatedness.

Students achieved maximum use of flexibility when trained teachers helped them create an environment where they could continuously employ all flexibility components.

Students expressed that consistent and suitable utilization of flexibility resulted in their perception of: 1) a favorable learning environment, 2) appropriate sitting duration, 3) ease of learning in the classroom, and 4) enhanced ability to concentrate on school work.

Overall, the Learning Environment accounts for as much as 30% of the overall growth observed in Student Engagement.

Based on longitudinal 3.0 data, the learning environment has an impact on student engagement equal to emotional and cognitive engagement (see Figure 1).



Socio-Economic Impact

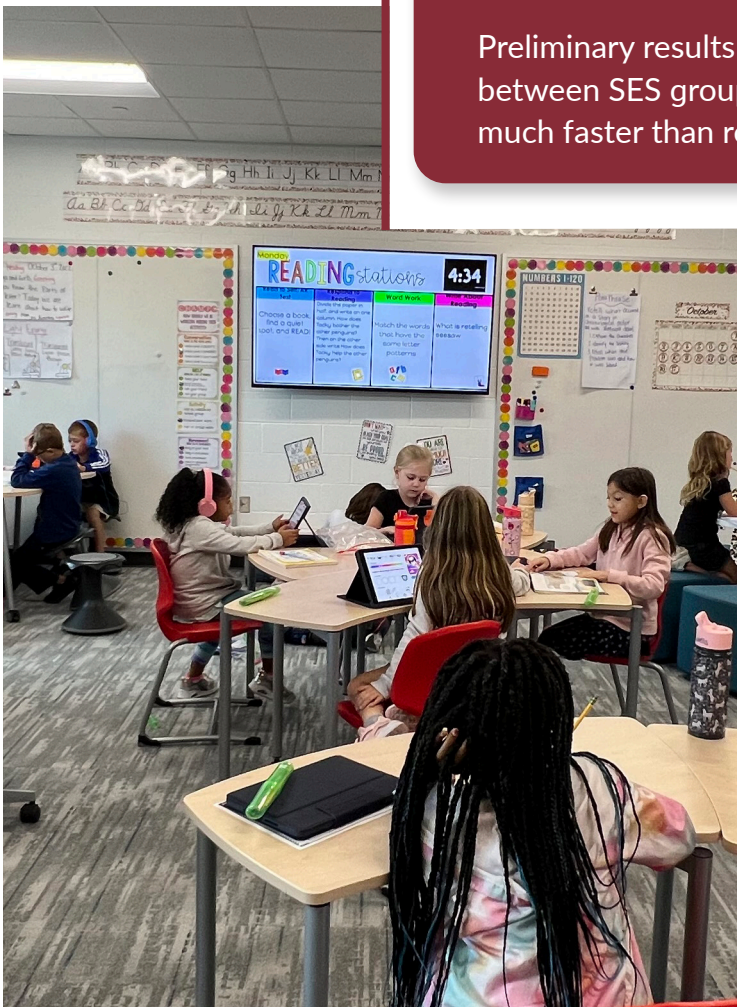
A recent study on the US academic achievement gap projected that the disparity between high and low Socio-Economic Status (SES) students will persist until the latter half of the 22nd century (Hanushek et al., Education Finance and Policy, 17(4), 608-640). Student engagement strongly correlates with academic achievement; thus, when student engagement increases, so does academic achievement. In our study, data suggests that the SES gap is closing faster than the national average. Flexible learning environments play a role in this progress by empowering students to take control of their learning.



No significant difference in any metric between low and high SES students was detected.

The only instance in which a significant difference between students in low and high SES groups was observed coincided with a significant difference in their usage of the flexible learning environment.

Preliminary results imply that the US academic achievement gap between SES groups for Longitudinal 3.0 participants is closing much faster than reported by Hanushek et al.



Recommendations For Reducing the SES Gap

- Participation in class should be continuously encouraged. This can best be accomplished by accepting that making mistakes is part of the learning process.
- Collaboration between students should be continuously encouraged. Utilization of all flexibility components within the environment should be integrated into these types of collaborative activities.
- All students should be challenged to consider how they can best take advantage of the flexible features of the environment.



Outcomes

Data from the Longitudinal 3.0 study reveals that student engagement is significantly enhanced in a flexible learning environment, especially when supported by tailored professional development (PD). The benefits are widespread, as evidenced by the following findings: 1) Students fully utilizing all flexibility features experience a 60% increase in multiple aspects of student engagement compared to those with average utilization; 2) The flexible learning environment contributes to 30% of the observed gains in each component of student engagement; and 3) Investment in flexible learning environments and PD yields positive outcomes for all students, irrespective of their socio-economic status (SES).

Based on our data:

60%

The increase in components of student engagement measured for students who optimized their flexible learning environment compared to those with average utilization of their learning environment.

30%

Gains in student engagement that can be directly attributed to the positive impact created by a flexible learning environment.

Minimal

The differences found for levels of student engagement when comparing high to low SES groups.



**For Questions on the
Research Contact Us !**

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