CURRICULUM ALIGNED GAMES DELIVER SIGNIFICANT IMPACT

FIRST WIDE-RANGING GBL STUDY SHOWS STRONG ENGAGEMENT AND CONTENT MASTERY

When used as part of the curriculum, simple standards-aligned games increase lesson retention and student engagement, and improve academic performance according to Vanderbilt University's new research study on game-based learning (GBL), "Substancial Integration of Typical Educational Games into Extended Curriculum."

The study is the first of its kind to produce deep, wide-ranging, and statistically significant data across a large variety of game types. It not only validates curriculum-based games, but it does so in a large, multi-state, diverse study cohort over a significant time period.

1,002 Student Participants

3 Weeks

55 Games

16 Game Developers

13 Teachers

BLIND GRADERS
People unaware of which students played games to learn the lessons scored the students' performance.

TYPES OF SCHOOLS

The study proved efficacy across a wide range of schools, both geographically and socio-economically.

SEVEN STATES

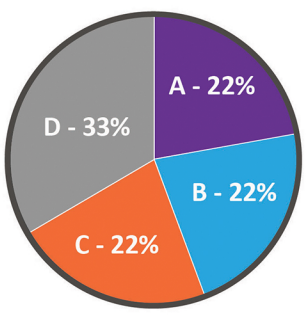
Alabama, District of Columbia, Kentucky, Maryland, Missouri, New Jersey, Rhode Island

54% Urban **23%** Suburban **23%** Rural

56% of the participating students received a free or reduced price lunch (FRPLs).

SCHOOL ENVIRONMENTS

Participating schools had wide-ranging school environments (based on letter grades scale by SchoolGrades.org).

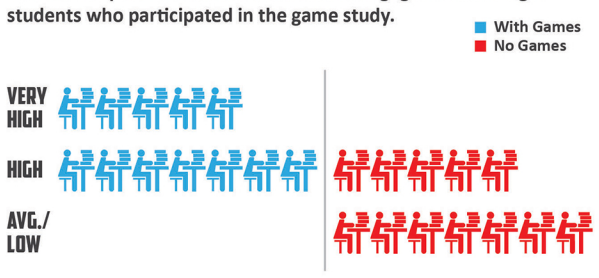


A MUST HAVE

92% OF THE TEACHERS
agreed they would like to use curriculum-based games in the future.

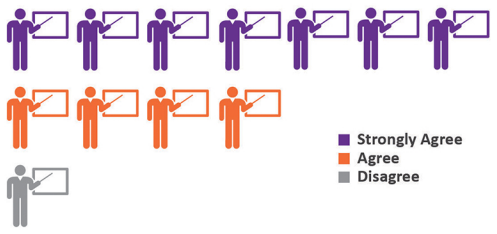
DRAMATIC ENGAGEMENT INCREASE

Teacher's reported dramatic increases in engagement amongst students who participated in the game study.



THE TEACHER'S POINT OF VIEW

Students normally off task became more focused.



3/4 OF THE TEACHERS
agree or strongly agree that it was easy to incorporate games directly into their existing class materials.

BLENDED CLASSROOM IDEAL

Q: After participating in the study, how much classroom time will you dedicate to games in the future?

A: TEACHERS SAID >30% OF CLASSROOM TIME.

Teachers found their instructional time was more effective in a blended classroom environment with games than with traditional instructional methods.

2/3 Strongly Agree or Agree

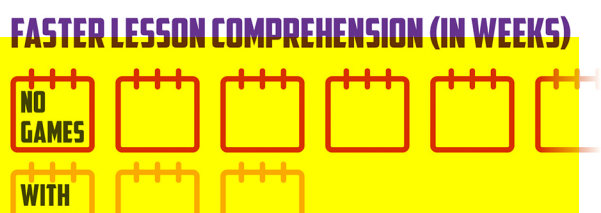
1/3 Unsure

STUDY IMPACTS

IMPROVED TEST SCORES

Students who participated in the game-based learning study increased their test scores by an equivalent of over one half a letter grade.

FASTER LESSON COMPREHENSION (IN WEEKS)



Students who played games understood more content than their peers taught using regular materials. The difference was the equivalent of absorbing nearly five and one half weeks of content in three weeks. [1]

PERFORMANCE GAP BENEFIT

FRPL students who played games **CLOSED THE EQUIVALENT OF A FIFTH OF THE PERFORMANCE GAP** in just three weeks. [2]

STUDENTS RECEIVING SPECIAL EDUCATION SERVICES

Students who played games...

- **WROTE SUBSTANTIALLY LONGER RESPONSES** to open ended questions;
- had **SIGNIFICANTLY HIGHER CONFIDENCE IN THE SUBJECT** after playing the games; **and**
- **ACHIEVED LARGER THAN A WHOLE STANDARD DEVIATION DIFFERENCE.***

*For reference, moving a student from a classroom to full-time, one-on-one tutoring (an incredibly expensive proposition) led to only 0.79 of a standard deviation change in student performance.

ABOUT THE STUDY

Vanderbilt University's study, "Substantial Integration of Typical Education Games into Extended Curriculum" was published in May, 2017 by Journal of the Learning Sciences. The study was co-authored by Legends of Learning CEO Dr. Vadim Polikov; Dr. Douglas Clark, Vanderbilt Universtiy; Dr. Emily Tanner-Smith, Vanderbilt University; Dr. Andrew Hostetler, Vanderbilt University; and Aryah Fradkin, Baltimore City Public Schools.

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