# The Learning Shift



Why interactive learning solutions are better than textbooks

Textbooks have been a tradition in education for decades. But, with the advent of technology, online interactive educational programs have emerged as more effective, engaging, dynamic, and interactive learning tools. Research has proven the advantages of these programs over textbooks in numerous areas. Read on for evidence-based benefits of using digital solutions in lieu of textbooks.

- More profound engagement
- Enhanced accessibility & mobility
- Intensified learning
- Strengthened student involvement
- Bonus benefits.





# Students have changed. Teaching methods must too.

A shift from textbooks to interactive, online content offers a two-way learning experience where students engage along the way with modules packed with multimedia videos, animations, interactive diagrams, definitions with pronunciations, educational application games, quizzes, simulations, collaboration with classmates, and more. Plus, with online engagement, educators can track student preparedness for class and their growth throughout the course or curriculum.

"In any given moment we have two options: to step forward into growth or step back into safety."

- Abraham Maslow

**Improved motivation, communication, collaboration, & research.** Teachers and students are optimistic about the use and influence of mobile devices in all these areas<sup>1</sup>.

**Fun with gamification.** Gamification — such as points, badges, feedback, levels, rewards, and challenges — encourages students' motivation, user interaction, and social effects<sup>2</sup>. Students are also more satisfied and engaged when study content includes technology<sup>3,4</sup>.

**Facilitated teaching.** Information and communication technologies (ICT) and e-learning materials allow students to learn more effectively, which can facilitate the teaching process<sup>5</sup>. Professors recognize the potential of this technology and its positive effect on learning and development<sup>6</sup>.

**Self-reliant studying.** Mobile devices enable students to search for answers to questions asked in class or other settings and feel more confident during discussions<sup>7</sup>.

**Enhanced learning.** In providing opportunities for interactive and multimedia-rich content — embedded videos, animations, quizzes, and interactive simulations — digital solutions improve student motivation, engagement, and knowledge retention<sup>8</sup>.

**Online as the preferred option.** In one survey, 84% of students preferred digital course materials, with 79% citing they preferred online quizzes, adaptive learning, and e-textbooks<sup>9</sup>.

**Highly satisfied nursing students.** Nursing students using online interactive educational programs have higher satisfaction rates and greater engagement with the material than those using traditional textbooks<sup>10</sup>.

**Reluctant readers.** Up to 80% of college students don't read the assigned materials, especially Gen Z students, who have grown up with technology and online learning — not physical textbooks — as a fundamental part of their daily lives<sup>11,12</sup>. Growing up with computers has made today's students technologically savvy and interested in more innovative ways of learning <sup>13</sup>.

**Textbook refusers.** While faculty have often reported that students don't read all the assigned pages<sup>14</sup>, some students never even purchase the required textbooks. <sup>15</sup>

# Enhanced accessibility & mobility

Accessibility and inclusivity. Digital solutions offer enhanced accessibility and inclusivity compared to traditional textbooks because they can incorporate features like text-to-speech, adjustable font sizes, and color contrast settings. Also, students can access digital resources from any location with an internet connection, ensuring that learners who can't physically visit libraries or bookstores still have access to educational materials.

**Up-to-date and customizable content.** Creators can quickly and easily update digital resources, allowing for more current and relevant content. In addition, digital platforms often enable customization options, allowing instructors to adapt the content to meet specific learning objectives and cater to diverse student needs.

**Portability and convenience.** With digital solutions, students can access course materials from various devices, such as laptops, tablets, or smartphones, providing them with greater flexibility and convenience, without having to carry heavy textbooks. Mobile devices allow on-the-go studying, maximizing productivity and use of study time, and improve independent, autonomous learning. Plus, students can adopt more active approaches toward course materials and facilitate the learning process via repeated learning opportunities<sup>7</sup>.

## **Intensified learning**

**Different ways to learn.** Healthcare students using mobile learning tools experience different, diverse learning methods, including accidental learning, group learning, trial and error, just-in-time learning, and blended learning<sup>7</sup>.

**Better class preparation.** Question-embedded videos enforce more productive feedback-driven problem-solving behaviors than textbook readings, leading to substantial gains in performance and metacognitive monitoring. The result is better-prepared students for in-class instruction<sup>16</sup>. Online modules are also an effective preparation for face-to-face meetings for postgraduate health professionals<sup>17</sup>.

**High academic performance.** Digital technologies expand the boundaries of "self-directed learning," developing leadership in the pedagogical environment, creating conditions for the formation of individual educational trajectories of students, modernizing tools for assessing student knowledge, and differentiating forms and methods for teaching<sup>18</sup>.

**Faster problem-solving.** Healthcare students using mobile phones facilitate and accelerate their learning, allowing them to solve workouts and problems much faster, thus improving the learning process<sup>7</sup>.

**Impressive potential.** Emerging technologies such as augmented reality (AR) have the potential to radically transform education by making challenging concepts visible and accessible to novices<sup>19</sup>.

#### Strengthened student involvement

**Student-centered learning.** Mobile technologies place the student at the center of the teaching-learning process. This results in the teacher being the mediator between content and knowledge. This technology also allows the inclusion of multiple learning models, thus managing to involve students in the construction of their own learning<sup>20</sup>.

**Augmented education.** The key benefits of using augmented reality in e-learning include support of kinesthetic (tactile) learning, collaborative learning, distance/remote learning, learner-centered learning, and creative learning. Studies also report that AR enhances students' engagement, motivation, attention/focus, interactivity, verbal participation, concentration, knowledge retention, and spatial abilities, as well as information accessibility<sup>21</sup>.

**Motivating modules.** A majority (81%) of students say e-learning provides scientific material in an interesting way. Similarly, 80% say e-learning increases the possibility of contact between students and between students and teachers<sup>22</sup>.

#### **Bonus benefits**

**Cost-effectiveness.** A primary advantage of digital solutions is their potential to reduce costs for students — an important aspect for financially insecure students having trouble paying for their textbooks<sup>23</sup>:

- 25% needed to work extra hours.
- 19% decided which classes to take based on the cost of course materials.
- 11% said they skipped meals due to the cost of materials.

**Environmental sustainability.** The digitalization of textbooks contributes to environmental sustainability by reducing paper consumption and the associated carbon footprint. Using e-textbooks for one year can save up to 700 pounds of CO<sup>2</sup> emissions, equivalent to driving a car for 785 miles<sup>24</sup>.

Visit atitesting.com to learn more about ATI's first-of-their-kind interactive learning tutorials:

# The Engage Series and HealthAssess

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