Edgenuity: Supporting Students with Disabilities

The Growing Concern

According to the U.S. Department of Education, approximately 13 percent of public school students, or 6.5 million youth ages 3–21, receive special education services under the Individuals with Disabilities Education Act (IDEA).[1] These students are heterogeneous in terms of ability, learning style, and needs. The majority of students receiving special education services have specific learning disabilities (38 percent), but others have similarly compelling challenges: 22 percent have speech or language impairments; 11 percent suffer from health issues; 7 percent possess general intellectual disabilities; and the remaining students have emotional problems, autism, developmental delays, hearing impairments, orthopedic impairments, or multiple disabilities.[2]

IDEA requires public schools to provide students with learning, cognitive, physical, emotional, or behavior disabilities with a free, appropriate public education.[3] However, data indicate that special education students are not receiving the targeted support needed to master subject material. According to the 2011 National Assessment of Education Progress (NAEP), only 9 percent of students with disabilities achieved proficiency in math, compared to 36 percent of students without disabilities.[4] Similarly, only 7 percent of students with disabilities achieved reading proficiency, compared to 34 percent of students without disabilities.[5]

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Edgenuity courses include the following evidence-based practices designed to meet the needs of students with disabilities.

1. Provide explicit instruction.

Explicit instruction includes setting learning goals, modeling with examples and non-examples (examples that are not correct), and providing multiple opportunities for practice. A meta-analysis by Vaughn, Wanzek, Murray, & Roberts (2012) found that explicit instruction improved acquisition of basic skills and abstract concepts among students with disabilities.[6]

» **Our solution:** Explicit instruction is the cornerstone of Edgenuity courses. That is why our courses feature highly qualified, certified on-screen instructors who deliver explicit instruction, orient students to the lessons, goals, ground concepts in relevant real-life and worked examples that show the answer, and offer clear and concise explanations of subject matter. Tasks, assignments, and assessments embedded throughout each lesson and course provide students the opportunity to exercise higher-order thinking skills of analysis, evaluation, and application. They also offer students the chance to apply learned skills and demonstrate information transfer.

2. Model learning strategies.

Research indicates that many students with disabilities face challenges in organizing ideas, selecting strategies to process information, focusing on activities, setting goals, and monitoring their actions.[7] Experts agree instructors should model learning strategies for this population of students.

- A meta-analysis by Jitendra, Burges, & Meenakshi (2011) revealed that students with learning disabilities and behavioral disorders improved their ability to comprehend text after they were taught metacognitive strategies.[8]

- A meta-analysis by Xin & Jitendra (1999) revealed that mathematics interventions that included strategy instruction led to significant gains in mathematical problem-solving ability.[9]

» **Our solution:** Edgenuity's on-screen teachers model learning strategies and explicitly teach students a wide variety of metacognitive strategies, such as self-monitoring, self-evaluation, goal-setting, questioning, and self-explanation. Students learn to draw upon already known concepts and apply understanding to new, unfamiliar contexts. They are also taught how to identify appropriate learning strategies and to monitor their own understanding.

3. Make instruction accessible.

Experts agree that curriculum should be accessible and provide students with multiple means of representation, expression, and engagement.[10] Visual aids and non-written expression enable special education students who have difficulty with audial, written, or verbal instruction to organize key concepts. A research study by Kim, Vaughn, Wanzek, & Wei (2004) supports the use of graphic organizers to promote comprehension among students with learning disabilities across all grade levels and content areas.[11]

» **Our solution:** Edgenuity courses provide students with multiple means of representation, expression, and engagement.

» **Multiple Means of Representation:** Edgenuity courses use video lectures, graphic displays, text, simulations, video captioning, and read-aloud support features. Key concepts and tasks in Edgenuity courses are explained using multiple representations (verbal, concrete manipulative, numerical, graphical, and symbolic), and students are guided in mapping meaning among the varied representations. Graphic organizers (web diagrams, hierarchical diagrams, concept maps, T-charts, Venn diagrams, flow charts, timelines, and sequence graphics) are included in instruction, tasks, and assignments.

» Multiple Means of Expression: Edgenuity courses require students to master learning objectives by asking students to read, write, practice, explore, create, and discuss. Throughout Edgenuity instruction and assessments, students are presented with opportunities to manipulate images, answer multiple-choice questions, highlight text, complete surveys, and fill out graphic organizers. These multiple means of expression appeal to multiple learning styles and allow students to demonstrate their knowledge in a variety of ways.

» Multiple Means of Engagement: Edgenuity courses are designed to engage students in a variety of ways. The self-paced technology is a motivating medium for students, and the on-screen teachers presents course concepts in ways that are relevant to students' lives. Further, courses are designed to promote self-regulation. Detailed course maps and pacing guides clearly state expectations, provide students with a structured overview of course activities and objectives, and visually alert students and teachers to students' course progress and pace.

4. Provide tools to support learning.

Research indicates that targeted support improves the academic success of students with disabilities.[12] Teachers must provide scaffolds to support learning, then gradually remove them once student mastery is achieved.[13]

A meta-analysis by Gersten, et al. (2009) found that scaffolding helped improve math achievement and motivation for students with disabilities.[14]

» Our solution: Edgenuity presents a wide array of tools to support student learning. Before instruction, teachers can create tutoring modules to give struggling students a more simplified explanation of fundamental concepts and skills. Instructors also have the option of enabling prescriptive and diagnostic pretests to modify a student's learning trajectory within a course.
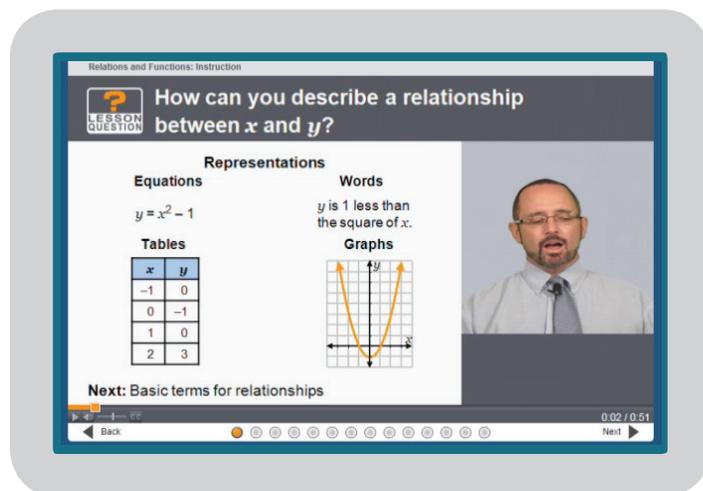
Edgenuity math courses use multiple representations to make concepts clearer.

Assignment calendars with clear due dates give students the structure they need to maintain focus and efficiently manage time and effort. Students have access to eNotes—the Edgenuity embedded note-taking feature—as well as the eWriting tool, which helps students organize their thoughts during the writing process. Students also have access to the Edgenuity toolbar, which includes text mark-up (highlighting, word look-up, and annotation), language support (read-aloud and translation), as well as a number of specialized tools for math and science (a variety of calculators, references such as a periodic table, and other learning supports). The Edgenuity CloseReader™ includes contextual definitions for key vocabulary, text-based teacher's notes, audio commentary, and embedded comprehension questions. After instruction, educators can extend the time allotted for assessment and number of retakes.

5. Provide appropriate feedback.

Research demonstrates that positive, corrective feedback that explains the reasons for errors and directs students through the correction process is associated with improved outcomes for special education students.[15]

» Our solution: Students receive immediate, corrective feedback each time they respond to a question within
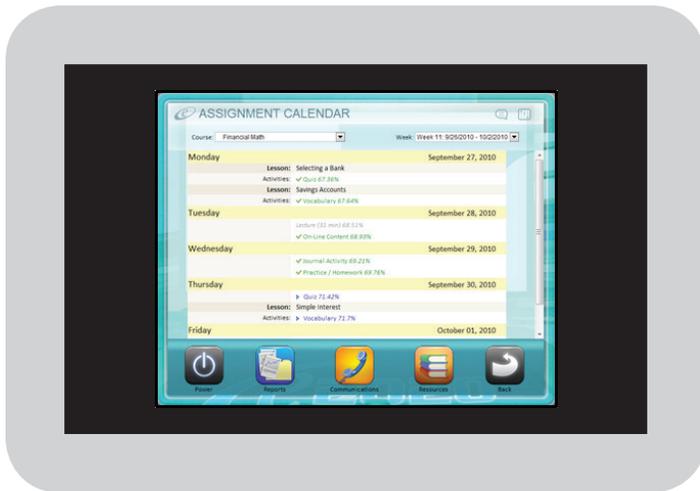
Edgenuity offers a customized assignment calendar to help students focus and prioritize their work.

Edgenuity instruction and assignments. Feedback messages are consistently designed to refine students' understanding of concepts and correct misconceptions. Edgenuity withdraws explanatory feedback as students demonstrate success.

6. Capitalize on technology.

Research indicates that technology can level the playing field for students with disabilities by providing customized supports that make the learning environment more active, accessible, and engaging.[16]

» **Our solution:** Edgenuity's courses are designed to reduce learner anxiety and ensure instruction meets the needs of all students. Edgenuity recognizes that deeper transfer occurs when students are actively engaged in their learning process and apply what they have learned to real-world settings. Accordingly, Edgenuity uses direct video instruction, interactive web links, virtual labs, graphic organizers, manipulatives, and simulations to encourage active engagement in courses.

Endnotes

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12 Martha, J. L. (2001). Providing support for student independence through scaffolded instruction. *Teaching Exceptional Children,* 34(1), 30–30.

13 Margolis, H., & McCabe, P. (2003). Self efficacy a key to improving the motivation of struggling learners. Preventing school failure. *Alternative Education for Children and Youth,* 47(4), 162–169.

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15 Konold, K., Miller, E. & Konold, K. (2004). Using teacher feedback to enhance student learning. *Teaching Exceptional Children,* 36(6), 64–69.

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Edgenuity courses provide a powerful set of tools, helping put students on a path to personal, professional, and academic success. **For more information e-mail solutions@edgenuity.com.**