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FOUNDATIONS PAPER

Imagine Edgenuity

Supporting Students with Disabilities

The Growing Concern

According to the U.S. Department of Education (2019), approximately 14 percent of public school students, or 7.3 million youth ages 3–21, receive special education services under the Individuals with Disabilities Education Act (IDEA). These students are heterogeneous in terms of ability, learning style, and needs. The majority of students receiving special education services have specific learning disabilities (33 percent), but others have similarly compelling challenges: 19 percent have speech or language impairments; 15 percent suffer from health issues; 6 percent possess general intellectual disabilities; and the remaining students have emotional problems, autism, developmental delays, hearing impairments, orthopedic impairments, or multiple disabilities (Irwin et al., 2021).

IDEA requires public schools to provide students with learning, cognitive, physical, emotional, or behavior disabilities with a free, appropriate public education. However, data indicate that special education students are not receiving the targeted support needed to master subject material. According to the 2019 National Assessment of Education Progress (NAEP), only 9 percent of students with disabilities achieved proficiency or higher in math, compared to 37 percent of Grade 8 students without disabilities (National Center for Education Statistics, 2019a). Similarly, only 7 percent of students with disabilities achieved reading proficiency, compared to 37 percent of students without disabilities (National Center for Education Statistics, 2019b).

Imagine Edgenuity: Supporting Students with Disabilities

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.

Our solution: Explicit instruction is the cornerstone of Edgenuity courses. That is why our courses feature on-screen instructors who deliver explicit instruction, orient students to the lesson 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 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 (Vaughn et al., 2012). 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.

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

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 (Xin & Jitendra, 1999). 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.

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 read, write, practice, explore, create, and discuss. Throughout Edgenuity instruction and assessments, students are presented with opportunities to manipulate images, answer 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 present 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 (Kim et al., 2004). Teachers must provide scaffolds to support learning, then gradually remove them once student mastery is achieved (Larkin, 2001).

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

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 diagnostic pretests to modify a student's learning trajectory within a course.

Imagine 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 a digital notebook, as well as downloadable Guided Notes to scaffold their note-taking process. Students also benefit from 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, and embedded comprehension questions. After instruction, educators can extend the time allotted for assessment and number of retakes.

The Edgenuity LMS also assists educators in accommodating students with IEPs or 504 plans. Educators can reduce the number of questions on assessments, reduce the number of answer choices on assessment items, adjust the assessment timer (and hide it from student view, if desired), and view an IEP icon to quickly identify students with accommodations on the Manage Students page.

IEP icon to quickly identify students with accommodations

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 (Konald, Miller & Konold, 2004).

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Course Report: AZ-Common Core Mathematics 8
Grade: 8
Actual Grade: 37.5% | **Overall Grade:** 90.0% | **Relative Grade:** 9.4%

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Created On: 03/23/2021, 01:18 PM
Start Date: 02/21/2021 **Target Date:** 11/21/2021
Student Progress: 4% | **Target Progress:** 9%

Activity	Due	First Attempt	Submitted	Attempts	Est Time	Total Time	Category	Score
Unit: Linear Functions								
Lesson: Constructing Linear Functions								
Warm-Up	02/22/2021	01/28/2020	01/28/2020	1	9m	4m 12s		
Instruction	02/24/2021	01/21/2020	01/27/2020	1	35m	4s	Assignment	92%
Summary	02/24/2021				3m			
Assignment	02/25/2021	01/27/2020	01/27/2020	1	18m	0s	Assignment	93%
Quiz	02/26/2021	01/27/2020	01/27/2020	1	15m	1m 9s	Quiz	90%
Lesson: Rate of Change and Introduction to Slope								

Edgenuity offers Course Reports for monitoring student progress.

Our solution: Students receive immediate, corrective feedback each time they respond to a question within 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.

IMAGINE EDGENUITY SUPPORT FOR STUDENTS WITH SPECIAL NEEDS

Tools and Supports Available to All Students

- Highlighter tool to let students mark up important information
- Lesson glossary with terms and definitions
- Video captions and transcripts
- Objectives and standards for each lesson
- Scientific and graphing calculators
- Reference sheets and other course-specific reference tools
- Test and Exam Reviews / Practice Tests
- Video transcripts and captions
- Immediate feedback after students answer each question in instruction and assignments
- eNotes digital notebook
- Printable Course Report to provide checklists and due dates for assignments
- Gated, sequenced activities to help students focus on one assignment at a time
- Content meets WCAG 2.1 AA guidelines for contrast

Accommodations and Modifications That Can Be Enabled for Individual Students as Needed

- Text-to-speech read-aloud
- Translation for on-screen text and video transcripts
- Show/hide timer for assessments
- Reduce number of items on assessments by 10, 20, 30, 40, or 50%
- Remove either 1 or 2 answer choices on multiple-choice questions
- Configure assessment timers to provide extended time
- Guided Notes (partially completed class notes)
- Customize a student's course to exclude assessments and provide projects as alternatives to tests or exams
- Allow "Save and Exit" to provide breaks during assessments
- Configure grade weights for each student to weight daily work more heavily than formal assessments
- Configure passing thresholds for assessments
- Configure number of attempts for assessments
- Allow students to move freely through the course sequence
- Enable access to eNotes for quizzes, tests, and/or exams
- Lesson-level pretesting with configurable passing threshold to exempt students from previously mastered content
- Student orientation video to provide training on how to navigate through the course
- Live chat to provide 1:1 on-demand tutoring (available for an additional cost)

Compatible with Assistive Technologies

- Third-party screen readers
- Third-party speech-to-text tools
- Browser zoom

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 (Hasselbring & Glaser, 2000).

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.

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