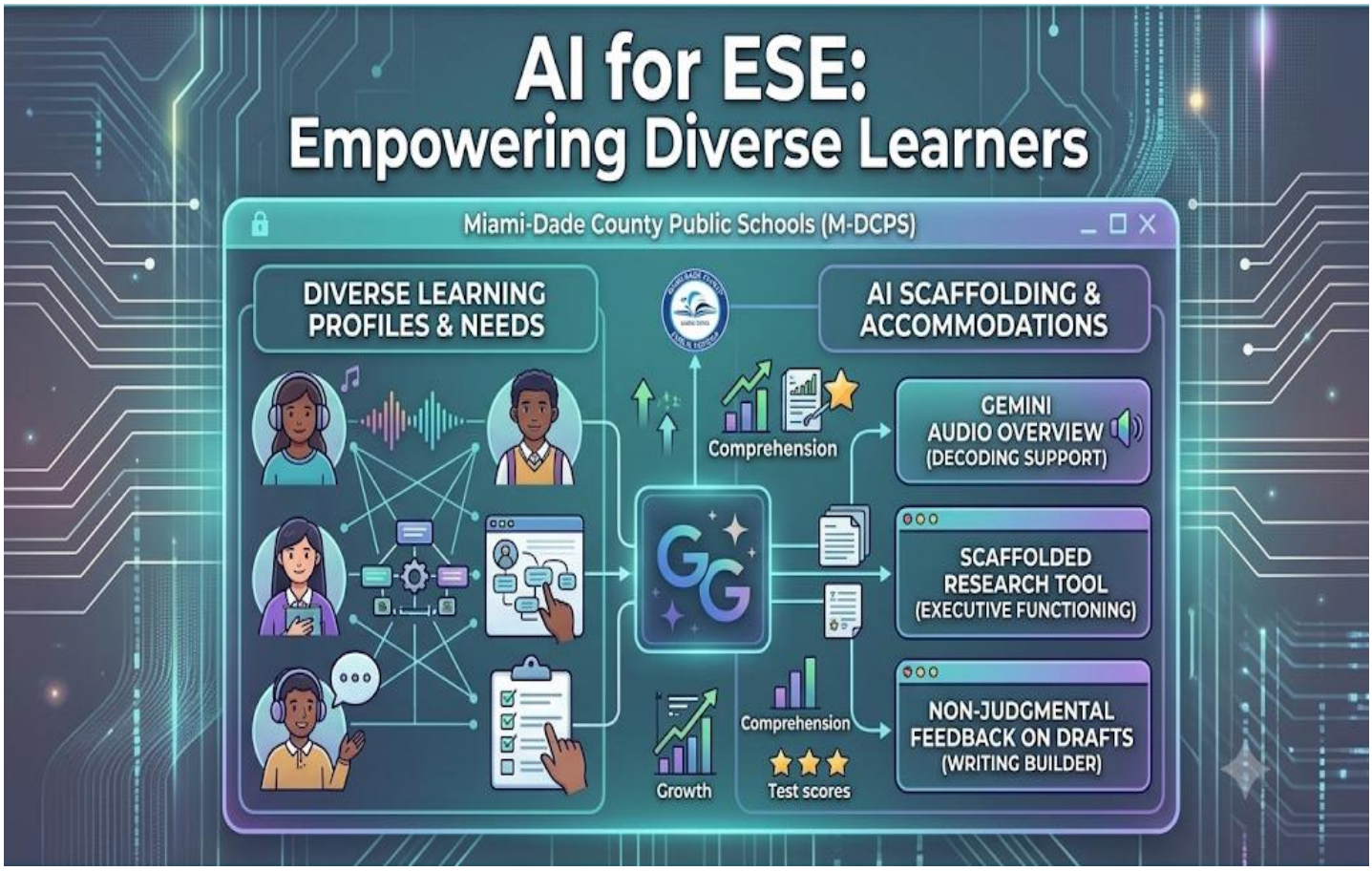
AI for ESE: Empowering Diverse Learners



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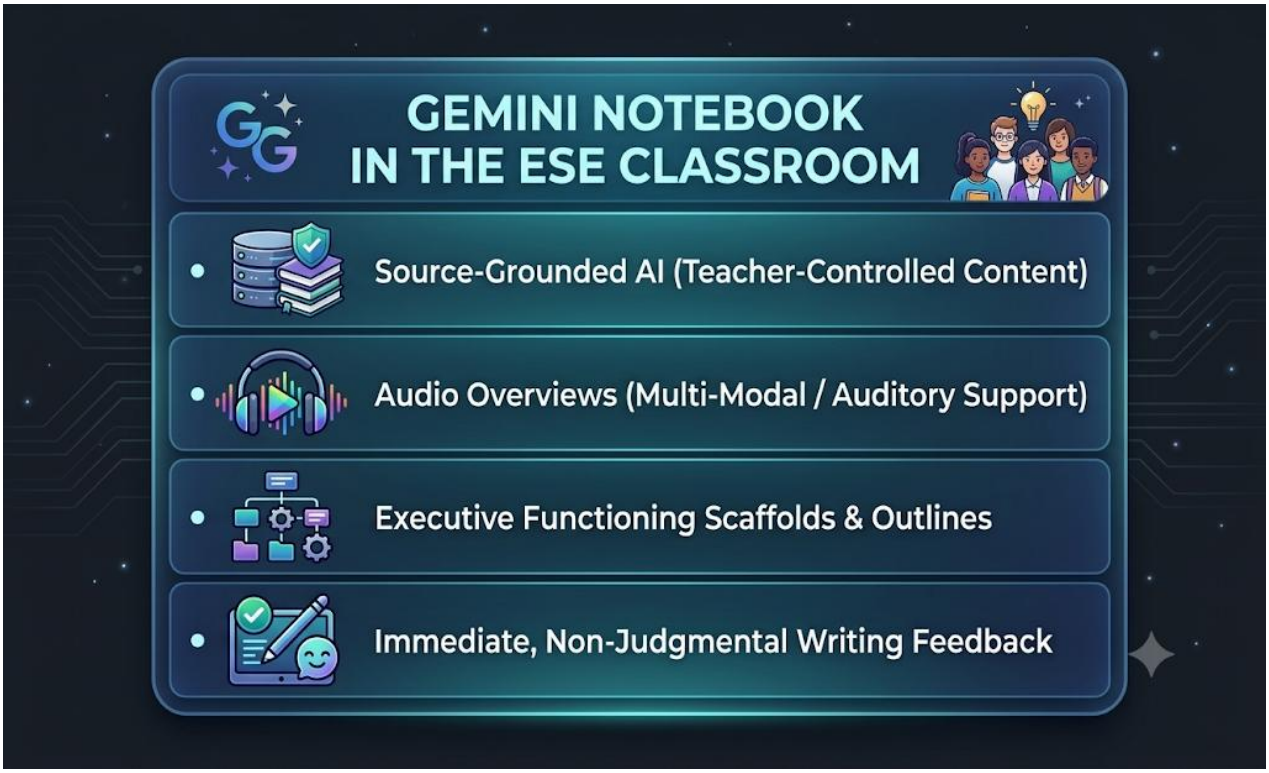
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Goals and Objectives

The overarching goal of this project is to strategically guide M-DCPS educators in leveraging Google's **Gemini Notebook** through their secure M-DCPS enterprise accounts to support Exceptional Student Education (ESE) students. By embedding this secure AI tool into daily instruction, educators provide equitable access, personalize learning scaffolds, reduce executive functioning barriers, and boost content retention and engagement for students with diverse learning needs.



Objectives

Objective 1: Accessing & Utilizing M-DCPS's Secure Enterprise Environment

- Teachers will successfully log into their protected M-DCPS Google enterprise account to access Gemini Notebook, ensuring all student and instructional data stays secure within the district network.
- Teachers will navigate Gemini Notebook's interface to upload teacher-curated, grade-level instructional materials safely.

Objective 2: Applying Universal Design for Learning (UDL) via AI Scaffolding

- Teachers will utilize Gemini Notebook to transform dense, complex text into accessible, multi-modal study guides and audio summaries tailored to ESE accommodations.
- Teachers will design scaffolded lessons that cater to varying reading levels, processing speeds, and learning styles across content areas.

Objective 3: Utilizing Audio Overviews for Decoding & Auditory Processing

- Teachers will leverage Gemini Notebook's "Audio Overview" feature to generate conversational summaries, enabling students with reading disabilities or decoding challenges to access grade-level content.
- Students will interact with audio summaries to strengthen content comprehension and vocabulary retention without getting overwhelmed by heavy reading tasks.

Objective 4: Easing Executive Functioning Load in Inquiry & Research

- Teachers will structure research tasks using Gemini Notebook's source-grounded notes, helping students with ADHD or executive functioning difficulties organize key dates, concepts, and vocabulary.
- Students will learn to pose targeted questions to Gemini Notebook, building confidence in information retrieval and inquiry-based learning.

Objective 5: Delivering Non-Judgmental Writing & Revision Support

- Teachers will guide ESE students in using Gemini Notebook to receive instant, non-judgmental feedback on draft writing.
- Students will utilize AI-generated suggestions to refine their writing, support IEP goals, and develop self-advocacy skills.

Objective 6: Aligning Accommodations with Florida Standards

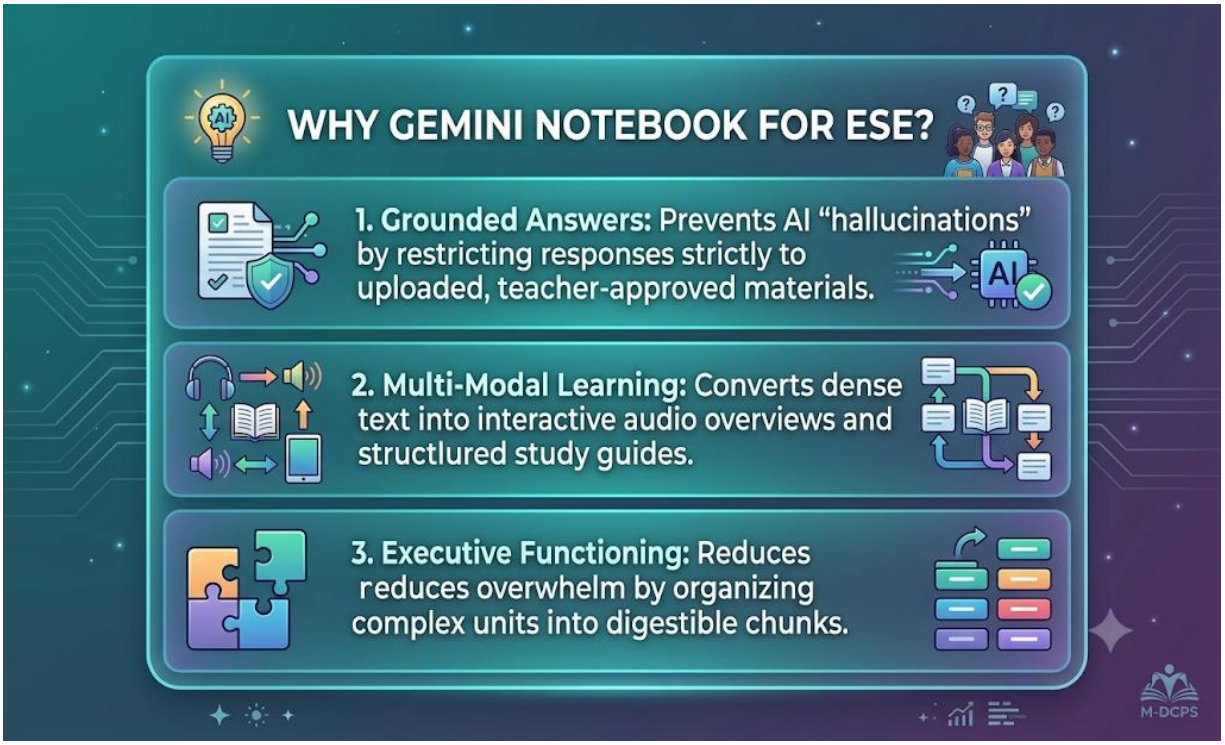
- Teachers will demonstrate how Gemini Notebook's scaffolding features directly support Florida B.E.S.T. and CPALMS standards across STEAM, ELA, and Social Sciences.

Florida Standards

- **SC.912.ET.1.7:** Describe how technology has changed the way people build and manage organizations and how technology impacts personal life.
- **SC.8.HS.1.1:** Describe the impacts of the presence of technology and the lack of technology on everyday life.
- **SC.912.N.1.1:** Define a problem based on a specific body of knowledge, for example: biology, chemistry, physics, and earth/space science, and pose questions about the natural world.
- **G.K12.5.3.3b:** Technology - Understand: Demonstrate the ability to propose new uses for current technology.
- **ELA.K12.EE.04:** Make inferences to support comprehension.

Overview of Gemini Notebook for ESE Classrooms

Gemini Notebook is a secure, AI-powered research and study assistant developed by Google that is specifically tailored to enhance learning equity in Miami-Dade County Public Schools.



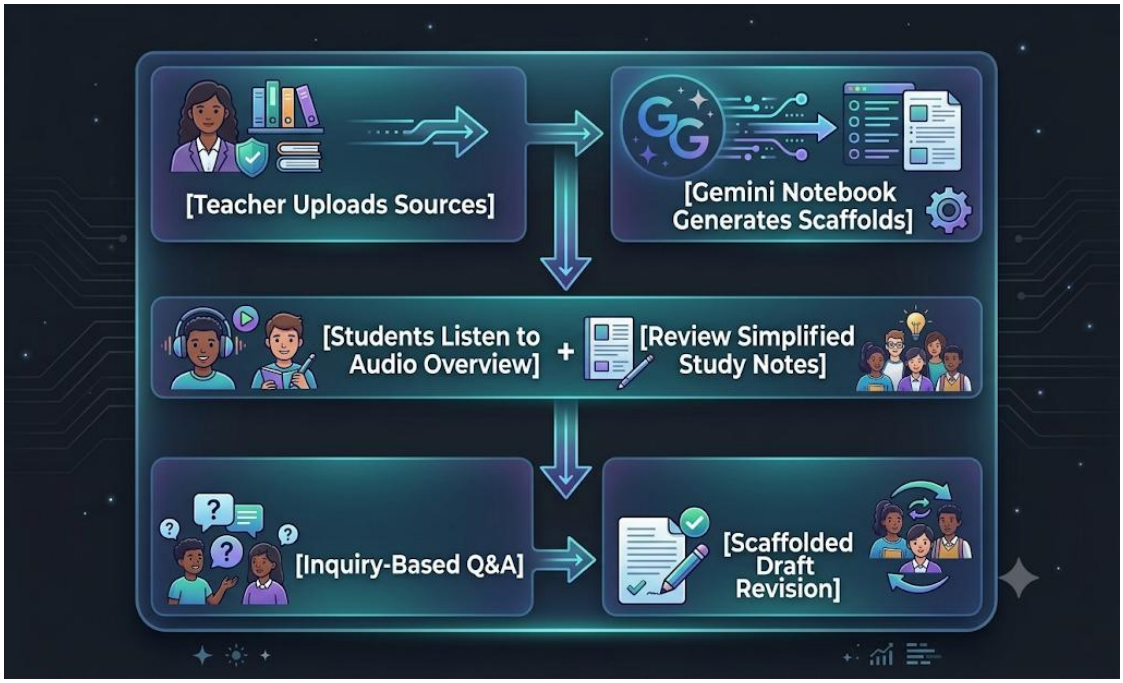
Key Accessibility Features for Diverse Learners

- **Strict Source Grounding:** Gemini Notebook relies solely on teacher-selected documents (PDFs, Google Docs, slides). This keeps ESE students grounded in verified curriculum without getting lost or exposed to external web distractions.
- **Audio Overviews:** For students with dyslexia, auditory processing needs, or low reading levels, Gemini Notebook generates conversational podcast-style overviews that summarize key concepts clearly.
- **Executive Functioning Support:** Gemini Notebook automatically synthesizes long reading passages into bulleted outlines, glossaries, key dates, and guided study questions, bridging the gap between cognitive capacity and reading fluency.
- **Safe Enterprise Workspace:** Accessible via M-DCPS employee/student single sign-on, ensuring full data privacy within the district's secure network.

Sample ESE Classroom Activity

Activity Title: Scaffolded Primary & Secondary Source Analysis

This multi-modal social studies/ELA activity supports middle and high school ESE students in analyzing complex historical or literary texts using Gemini Notebook's scaffolding capabilities.



1. **Teacher Preparation:** The teacher uploads selected reading materials (e.g., historical documents or literature excerpts) into a dedicated Gemini Notebook workspace. The teacher generates an **Audio Overview** and an interactive vocabulary list/study guide.
2. **Auditory & Visual Engagement:** Students begin by listening to the Gemini Notebook-generated Audio Overview to grasp the central themes before reading. They review teacher-prepared outlines alongside the original text.
3. **Targeted Inquiry:** ESE students ask Gemini Notebook guided questions (e.g., *"What were 3 main reasons for this event?"* or *"Explain paragraph 2 in simpler terms"*) to clarify understanding at their own pace.
4. **Scaffolded Draft & Feedback:** Students draft short responses or reflections. They use Gemini Notebook to review their writing against the source notes, receiving immediate, non-judgmental prompts to expand their ideas and correct misconceptions.

Step-by-Step Implementation Guide

Lesson Focus: Content Scaffolding & Multi-Modal Learning for ESE Students

Target Grade Level: All Grades (Adaptable across ELA, Social Studies, Science, and STEAM)

Time Allotment: 3–5 class sessions

Preparation (Teacher)

Step 1: Upload Curriculum Materials

- Access Gemini Notebook using your M-DCPS enterprise credentials.
- Create a new notebook titled for your unit (e.g., *"ESE Scaffold: Civil War Primary Sources"* or *"Science Unit 3: Cell Structures"*).
- Upload reading passages, PDFs, or Google Docs.

Step 2: Generate Accommodations & Support Scaffolds

- Click **Generate Audio Overview** to create a conversational podcast summary for auditory learners.
- Prompt Gemini Notebook to create a simplified glossary of complex terms and key concepts.

- Generate 3–5 scaffolded reading comprehension questions ranging from literal recall to basic inference.

Implementation (Student Activity)

Step 3: Multi-Modal Introduction

- Distribute text materials to students along with the Gemini Notebook-generated Audio Overview.
- Have students listen to the audio summary while following along with highlighted text, providing multi-sensory reinforcement.

Step 4: Scaffolded Guided Inquiry

- Guide students to ask Gemini Notebook specific clarifying questions to ease reading comprehension barriers.
- *Example prompts:*
  - *"Give me a 2-sentence summary of this section."*
  - *"Define [Vocabulary Word] using an easy example."*
  - *"List 3 important facts from this document."*

Step 5: Draft Writing & Non-Judgmental Feedback

- Have students write short analytical responses based on their learning.
- Students paste their draft into Gemini Notebook to check if their claims match the provided source text. Gemini Notebook provides constructive, non-judgmental prompts for improvement.

Step 6: Reflection & Assessment

- Evaluate student learning through adapted exit tickets, audio reflections, or structured graphic organizers.
- Track individual IEP goal progress regarding reading comprehension and content retention.

Resources List

I. Gemini Notebook & Accessibility Resources

- Google Gemini Notebook Portal — Direct access via M-DCPS login credentials.
- Gemini Notebook Help Center — Official guides for source management and feature updates.
- M-DCPS Professional Learning Management System (PLMS) — Professional development offerings for instructional technology integration.

II. Florida Educational & ESE Standards

- CPALMS Official Standards Directory — Searchable index for Florida B.E.S.T. Standards.
- Florida Department of Education ESE Resources — Accommodations guidelines and Universal Design for Learning framework resources.

III. Primary Source Repositories for Accessible Content

- Library of Congress Digital Collections — Rich primary sources for social studies and literature units.
- National Archives DocsTeach — Accessible primary source activities and documents.