Supporting Students with Dyslexia with Microsoft Tools in Every Learning Environment

Rachel Berger
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Twitter: @rachelmberger

Closing The Gap

Supporting Dyslexia in any Environment with FREE Microsoft tools

Closing The Gap

Financial Disclosures

- I am in a consulting role for Microsoft Education

EQUALITY vs. EQUITY

Equality = Sameness

GIVING EVERYONE THE SAME THING → It only works if everyone starts from the same place

Equity = Fairness

ACCESS TO THE SAME OPPORTUNITIES → We must first ensure equity before we can enjoy equality

Equity image credit: Please note, this image was adapted from an image adapted by the City of Portland, Oregon, Office of Equity and Human Rights from the original graphic: http://indianfunnypicture.com/img/2013/01/Equality-Doesnt-Means-Justice-Facebook-Pics.jpg

Rachel Berger

- **Disability & Accessibility Engagement PM Microsoft**
- **Education Experience PM Microsoft**
- **Director Decoding Dyslexia MN, Nonprofit**
- **Individual with dyslexia**

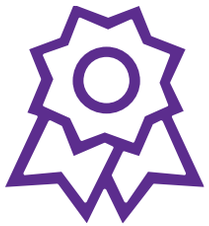
Closing The Gap 2021

Building a foundation for future success

Inclusive education tools give more students personalized access to their curriculum, optimize teacher time, and improve learning outcomes.

Students grow their potential and gain independence

Teachers are more empowered to engage every learner



Schools build reputations as positive places that promote equity and inclusion

Engaging every learner in a diverse classroom

With daily challenges—and limited resources—educators need to be confident they are able to optimize learning for a diverse population, as well as meet professional goals and standards.

73%

of teachers report working in classrooms with student reading levels that span four or more grade levels

52%

of teachers in the US have English as a second language learners in their classrooms

72%

of classrooms have special education students

Up to **50%**

of instructional time can be lost to managing students' needs, including assistive technology

Source: *Primary Sources Third Edition*, Scholastic, 2014.

Promoting independent learning

Accessible technologies help students with disabilities unlock their full potential by addressing a diversity of needs:

Learning

- Dyslexia
- Dysgraphia
- Dyscalculia

Visual

- Low vision
- Blind
- Colorblind

Hearing

- Deaf
- Hard of Hearing

Mobility

- Cerebral Palsy
- Muscle Dystrophy
- Amputation

Neurodiversity

- Autism
- ADD/ADHA
- Seizure

Mental Health

- Anxiety
- Depression
- OCD

See Microsoft Accessibility features for every classroom: http://aka.ms/AccessibilitySway

Microsoft Hackathon 2015 winner extends OneNote to improve learning outcomes for students

Inclusive Classroom

Reading

Writing

Math

Communication

Microsoft Education

Reading More Effectively

#MicrosoftEDU

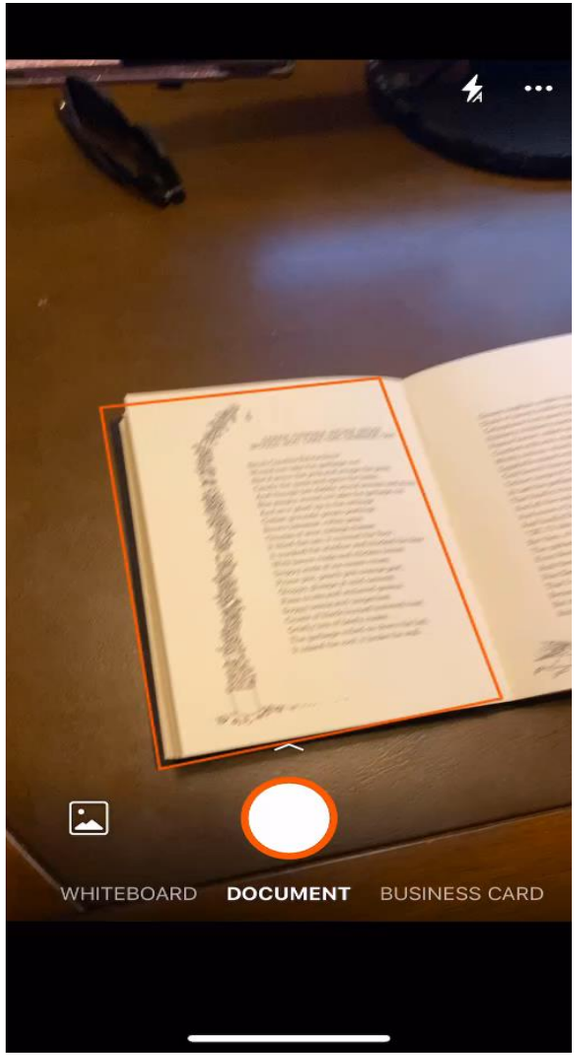
Microsoft Education

Demo

#MicrosoftEDU

Microsoft Education

Microsoft Lens

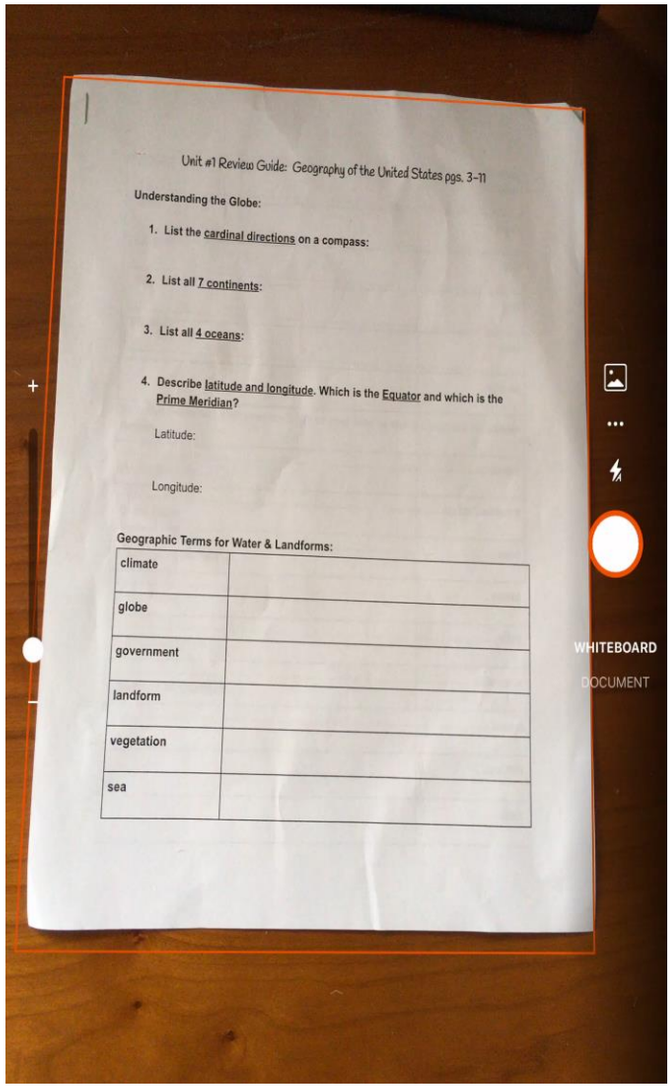


Office Lens

#MicrosoftEDU

Microsoft Education

Office Lens



Office Lens

#MicrosoftEDU

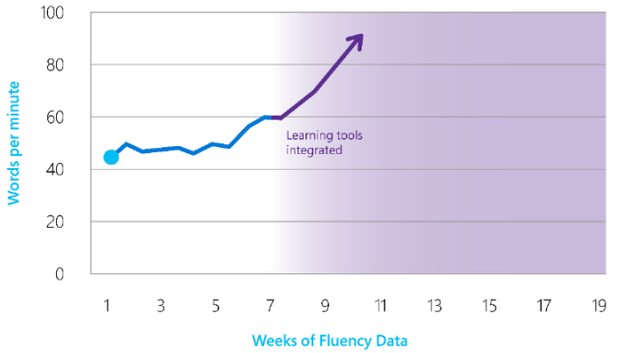
HOLLY SPRINGS ELEMENTARY SCHOOL

“Immersive Reader is a game changer in my Special Education Class”

State Measured Reading Speeds are Increasing

Student 4 IEP Yearly Goal 60 correct words per minute.

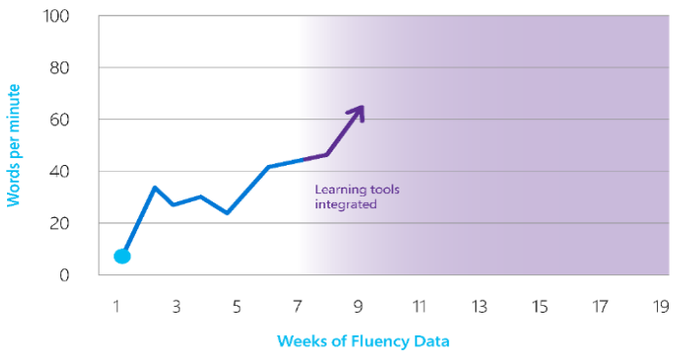
Result: 90 words per minute achieved. Surpassed goal by 30 words per minute well before the end of the school year.



Source: Lauren Pittman, weekly reading speed checks

Student 5 IEP Yearly Goal 8 words per minute to 30 words per minute.

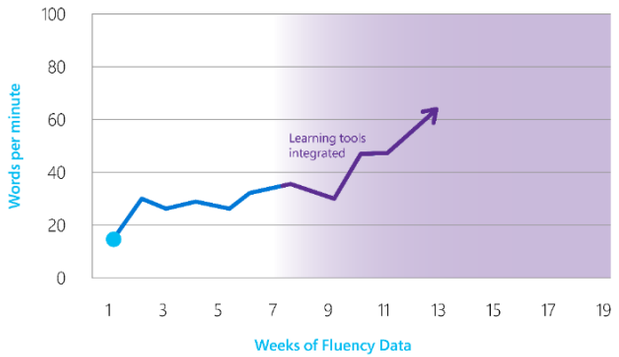
Result: 62 words per minute achieved. Surpassed goal by 32 words per minute well before the end of the school year.



Source: Lauren Pittman, weekly reading speed checks

Student 1 IEP Yearly Goal 15 words per minute to 25 words per minute.

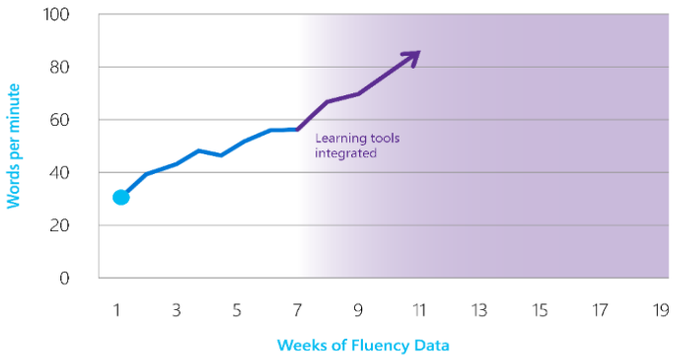
Result: 62 words per minute achieved. Surpassed goal by 37 words per minute well before the end of the school year.



Source: Lauren Pittman, weekly reading speed checks

Student 3 IEP Yearly Goal 33 words per minute to 70 words per minute.

Result: 84 words per minute achieved. Surpassed goal by 14 words per minute well before the end of the school year.



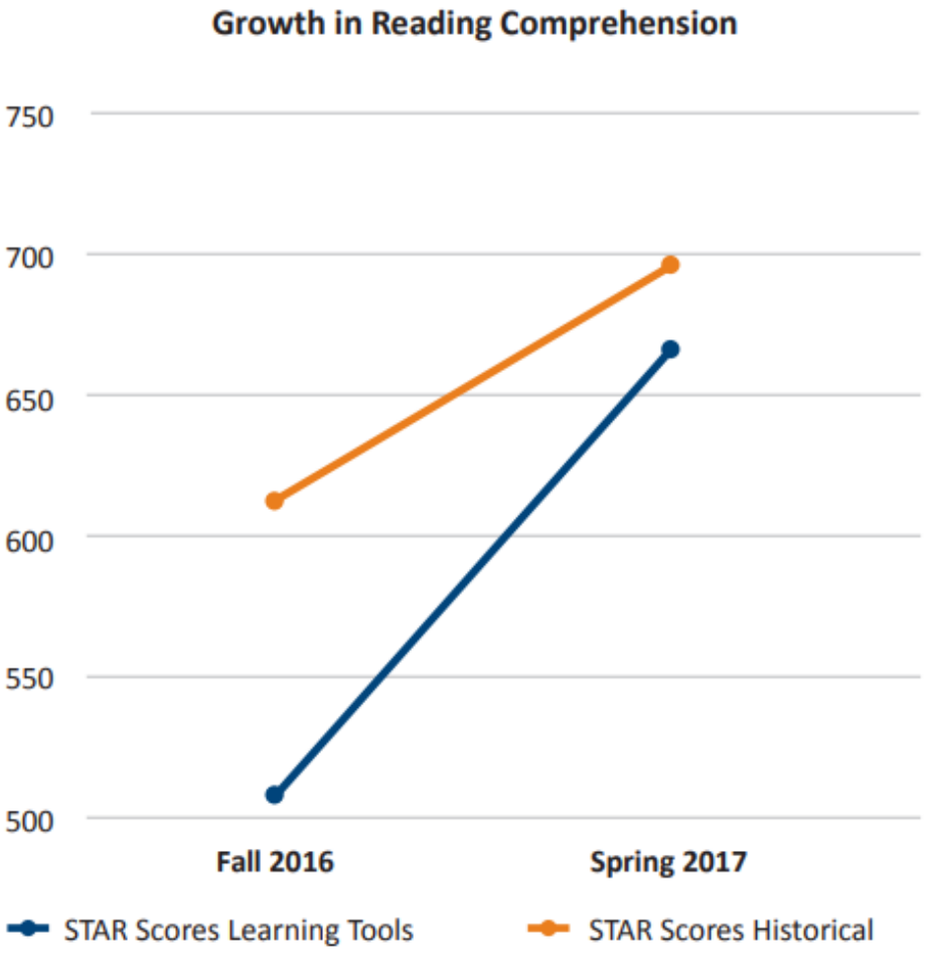
Source: Lauren Pittman, weekly reading speed checks

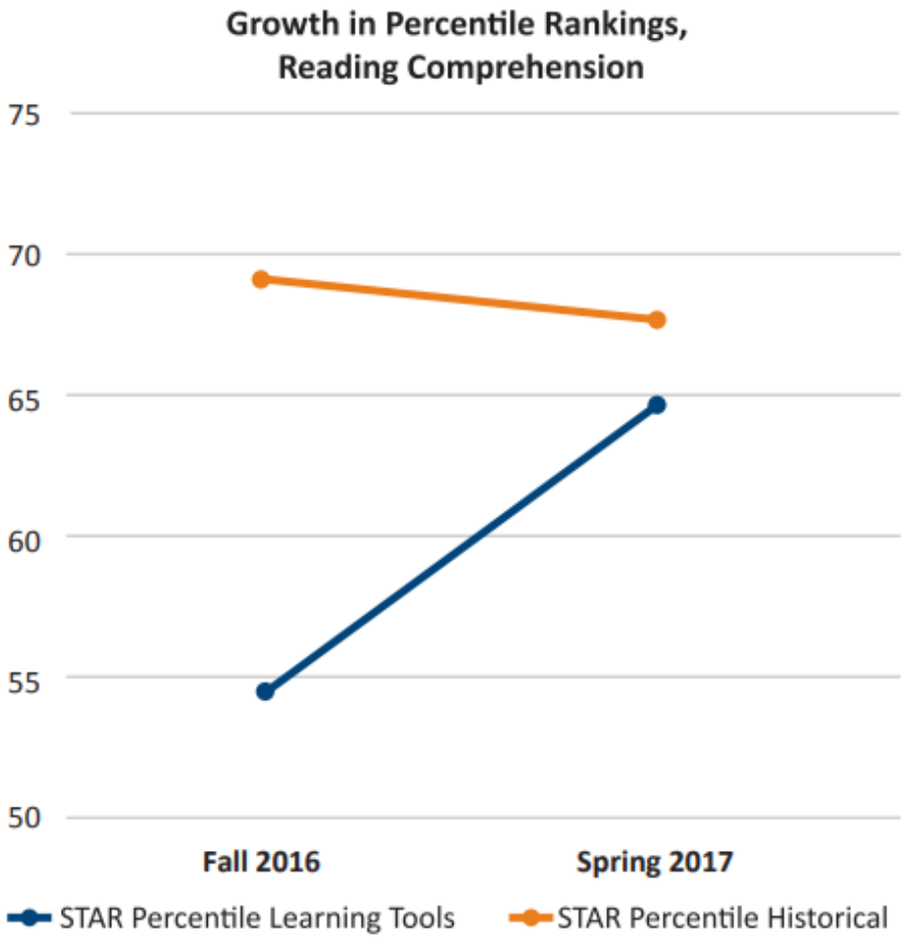
Learning Tools 3rd party research study – RTI

- 4th grade, 6th-8th, and 10-12th grade students
- Reading Comprehension scores improved
- Writing improved
- Non-cognitive processes improved
- Equal access of materials
- Full Report:

  http://aka.ms/LearningToolsStudy

10 Point Improvement in 4th grade Comprehension Scores





Study with British Dyslexia Association and Knowl Hill

Trial finds using Microsoft's OneNote software boosts dyslexic children's learning

A trial finds 16 out of 18 children showed improved behaviour and 11 out of 16 saw their reading comprehension get better.

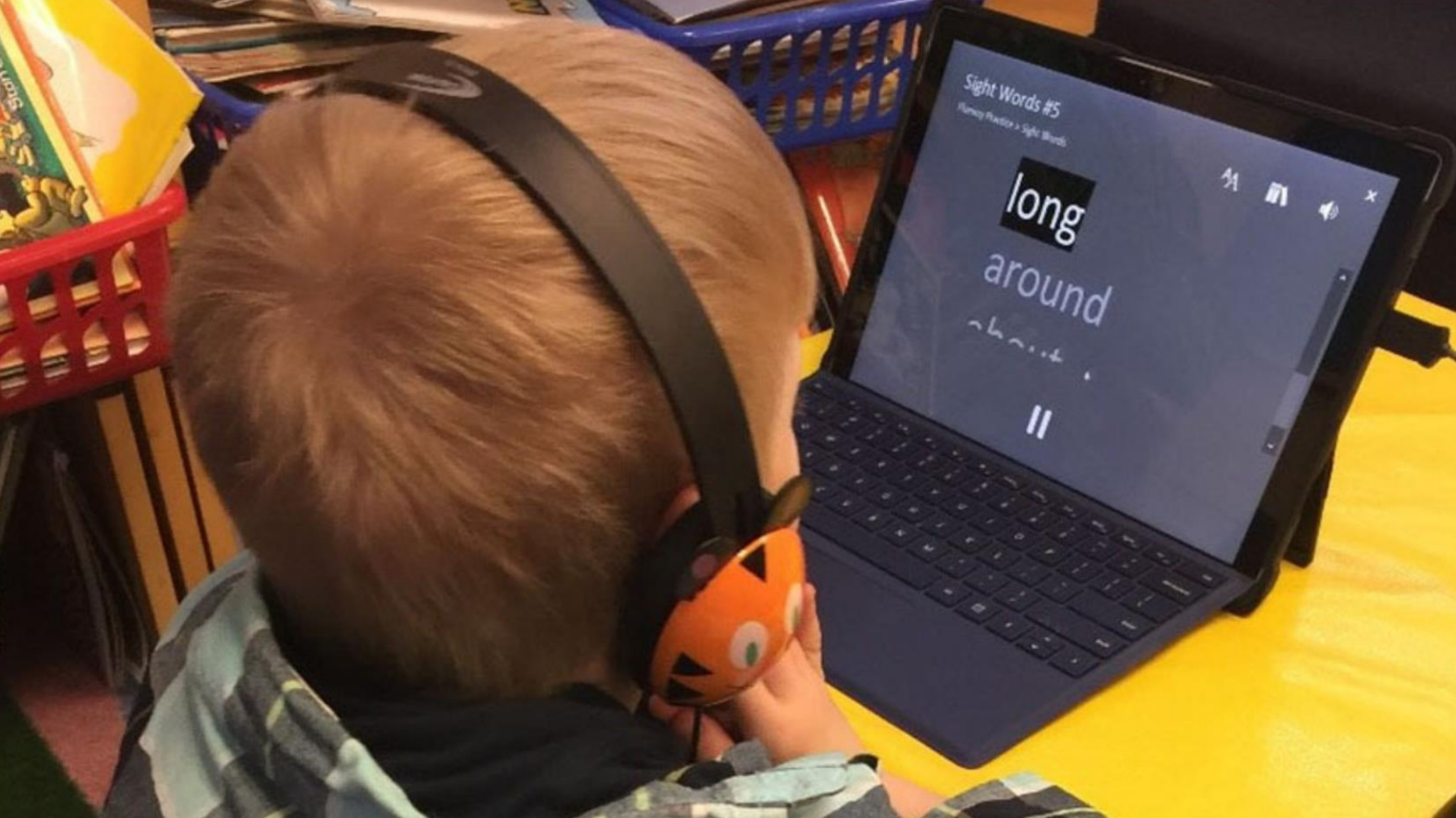
11:21, UK,
Friday 10 February 2017

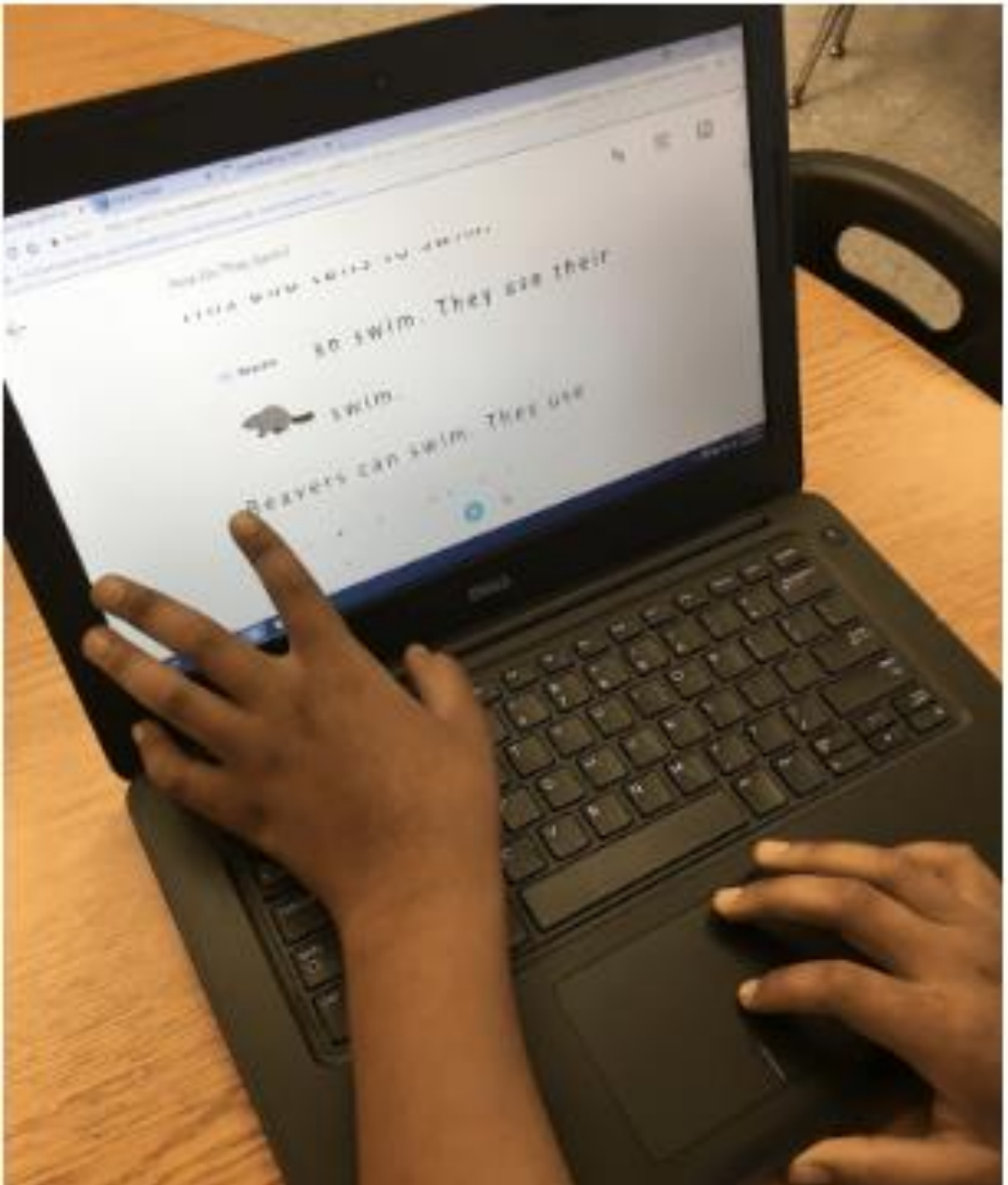
The trial saw most pupils improve their reading and behaviour

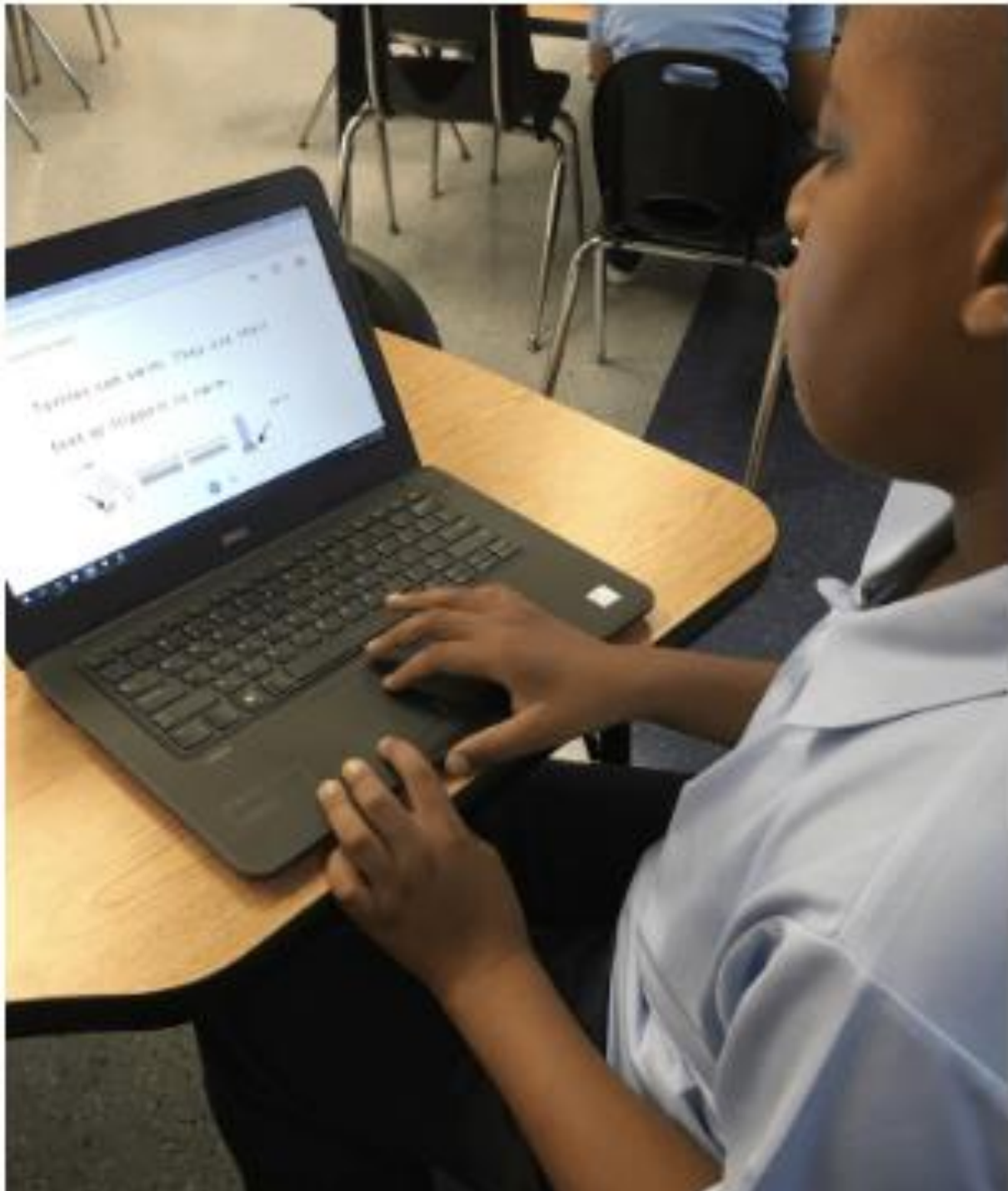
Top Stories

North Korea 'attempts missile launch'

1st Grade Emerging Readers Using Immersive Reader


Sight Words #5
long
around


to swim. They use their
swim.
Beavers can swim. They use

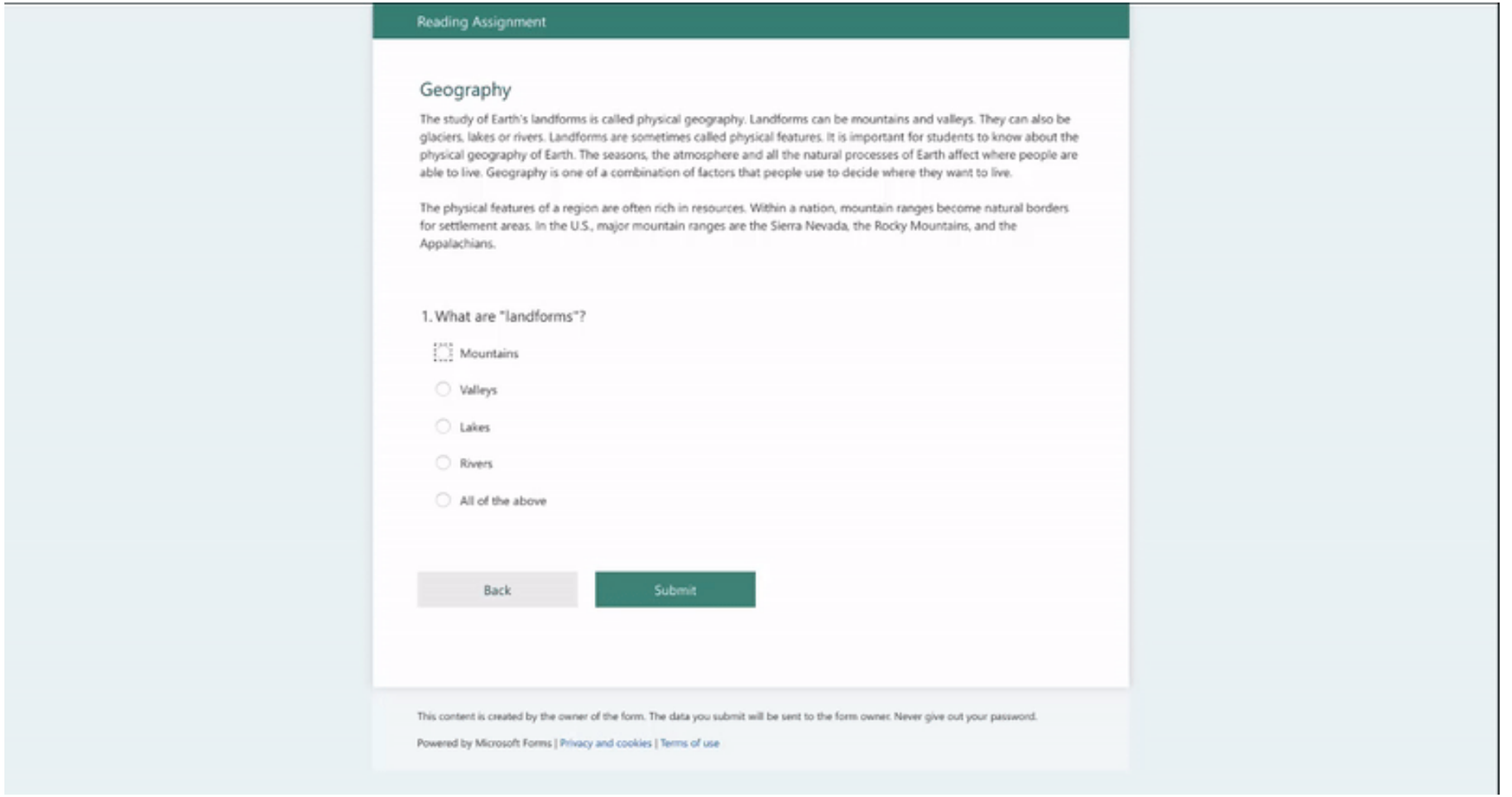


Immersive Reader Feedback

"I just wanted to let you known that today a mom spoke to me and she started crying. Her son was finally able to read on his own thanks to the Immersive Reader. I am currently changing the lives of so many children"

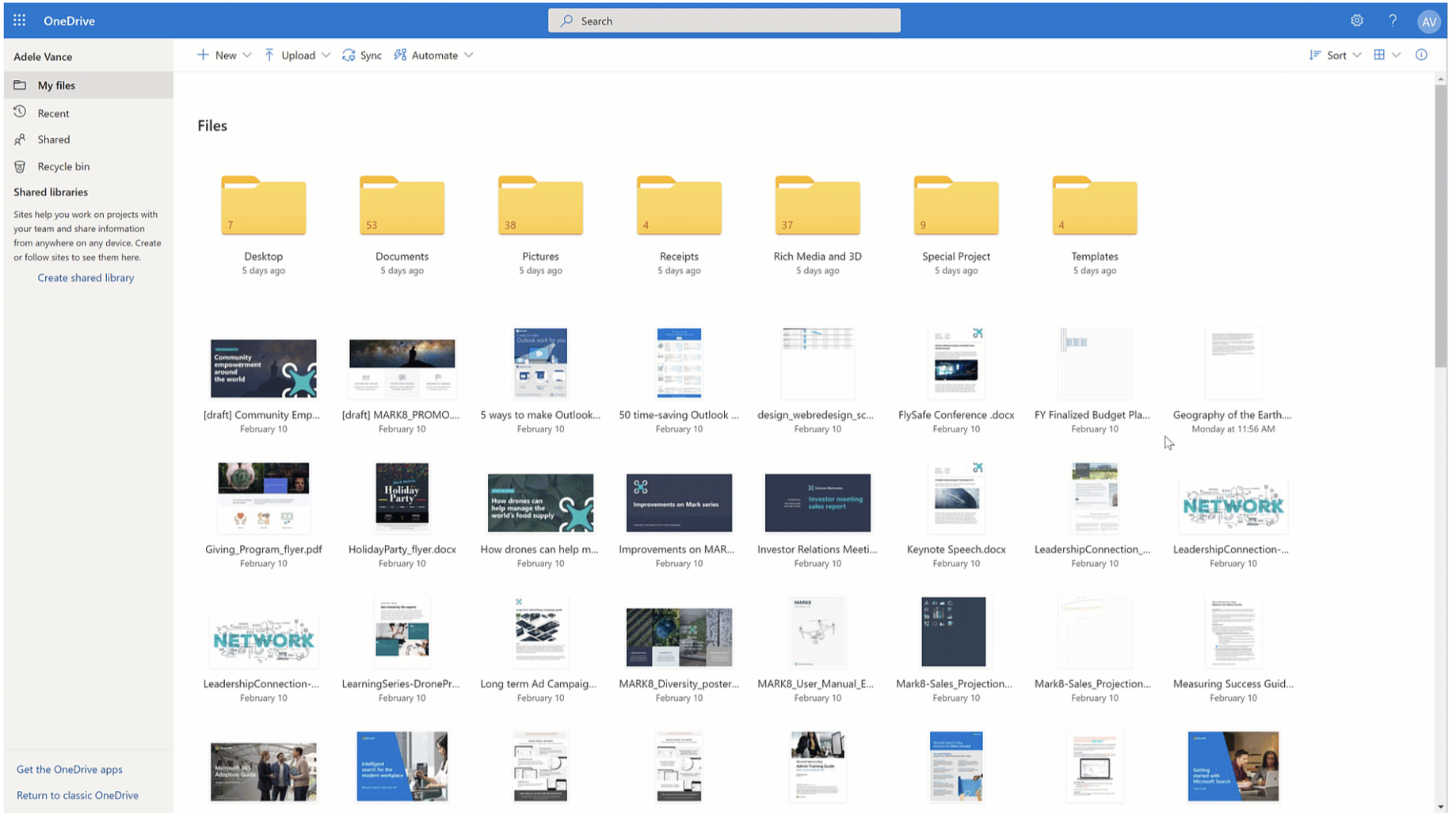
Jennifer Verschoor, Educator from Argentina

Forms Immersive Reader

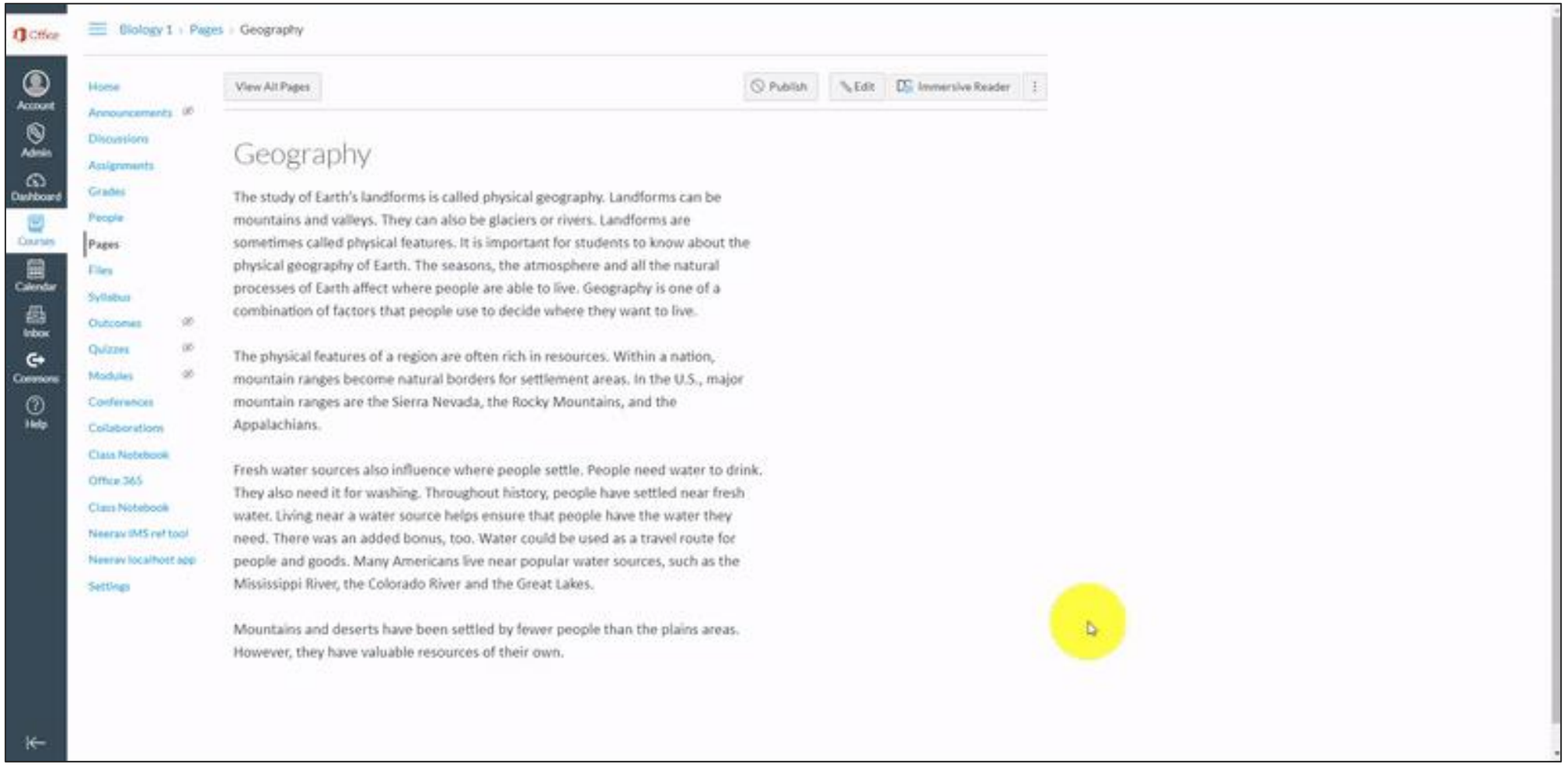


#MicrosoftEDU

Coming Soon: Immersive Reader in OneDrive

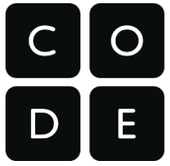


Immersive Reader for 3rd Parties - Canvas

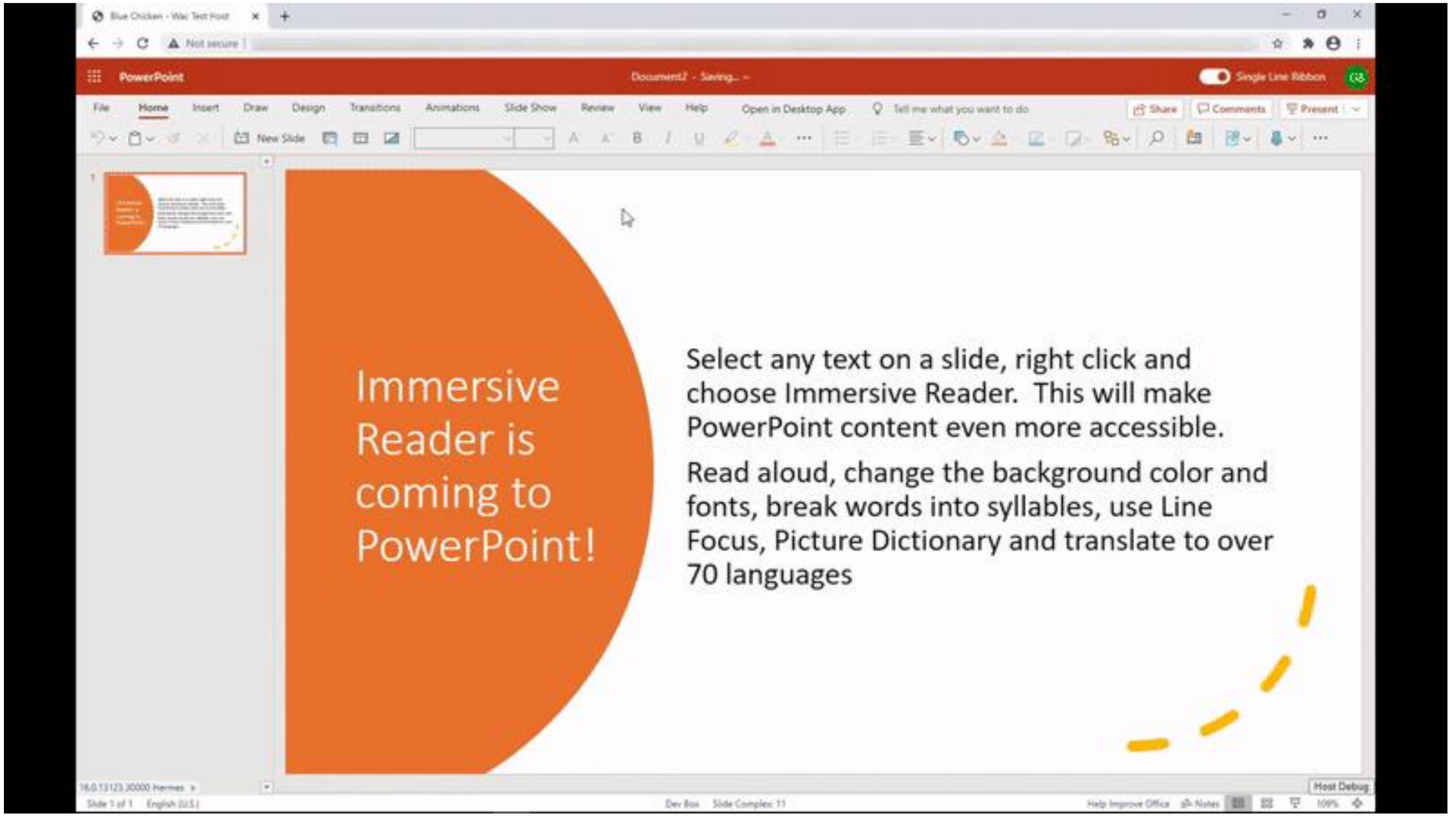


Tell your favorite EdTech app or publisher!

http://aka.ms/ImmersiveReaderCS

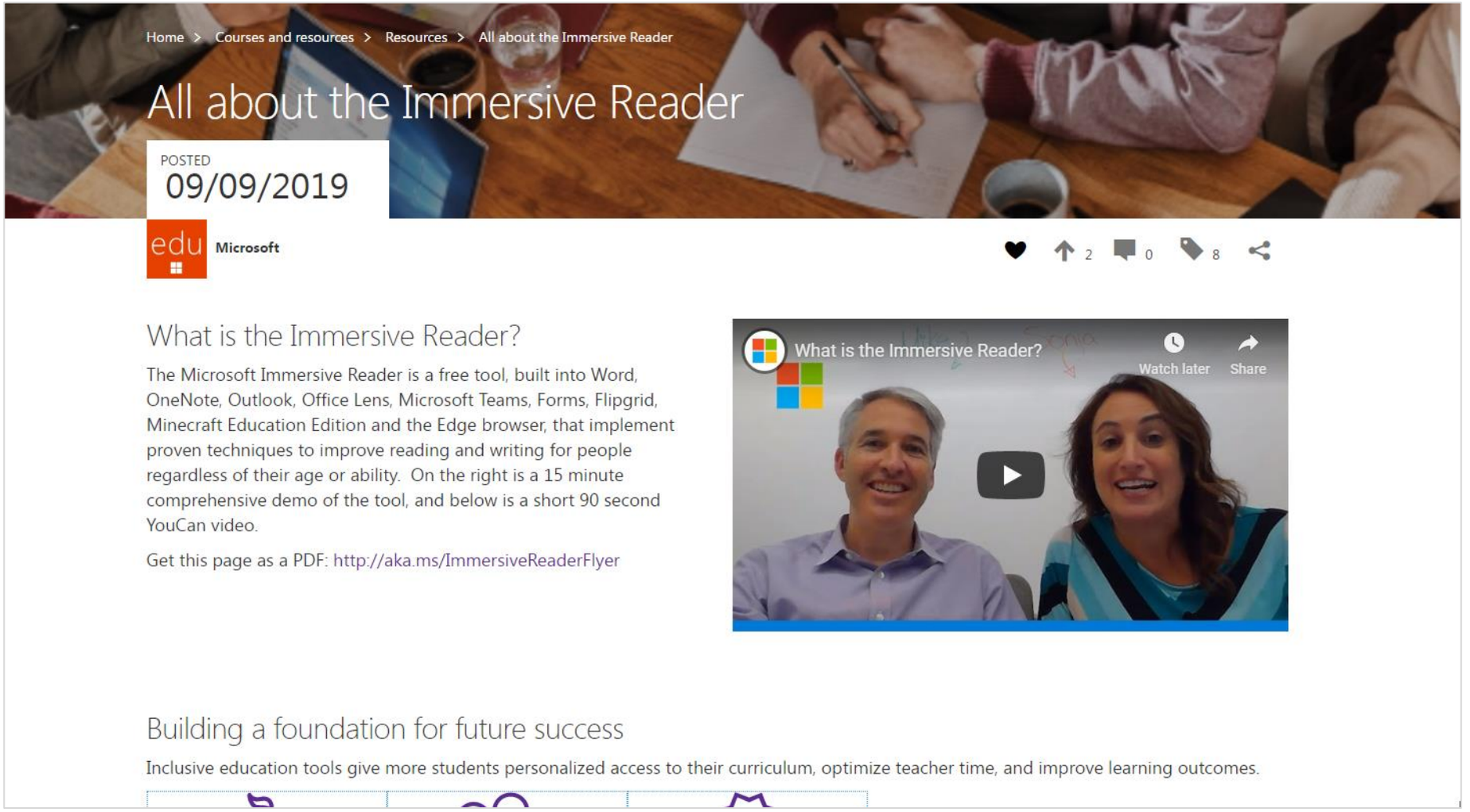


Coming Soon: Immersive Reader in PowerPoint

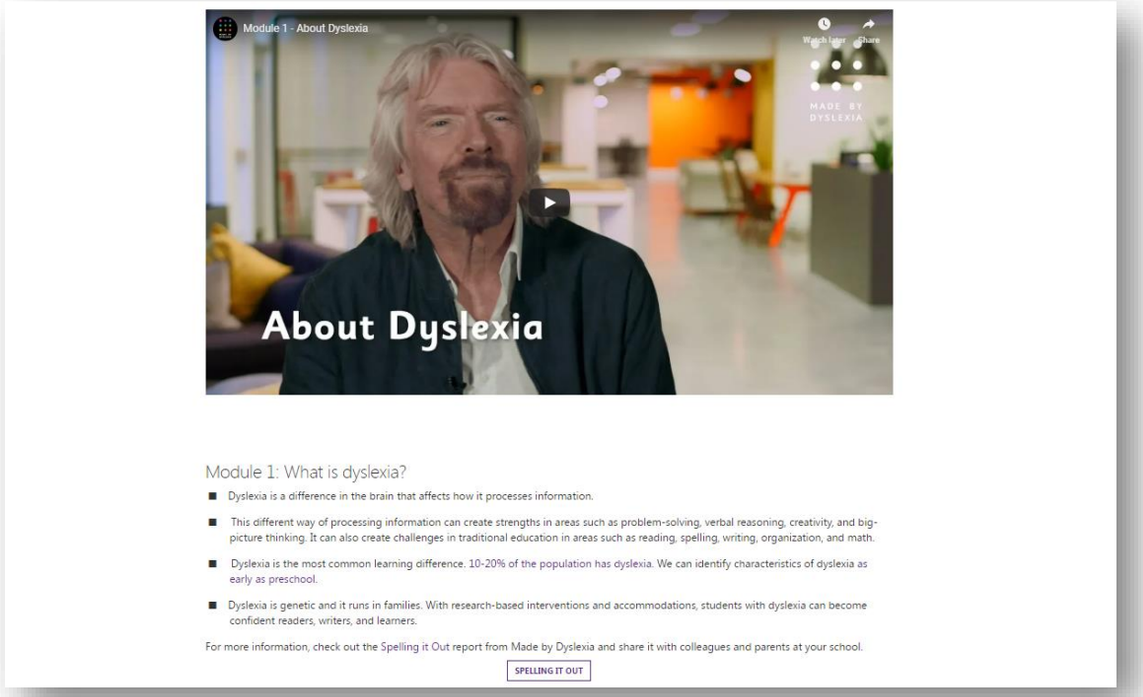


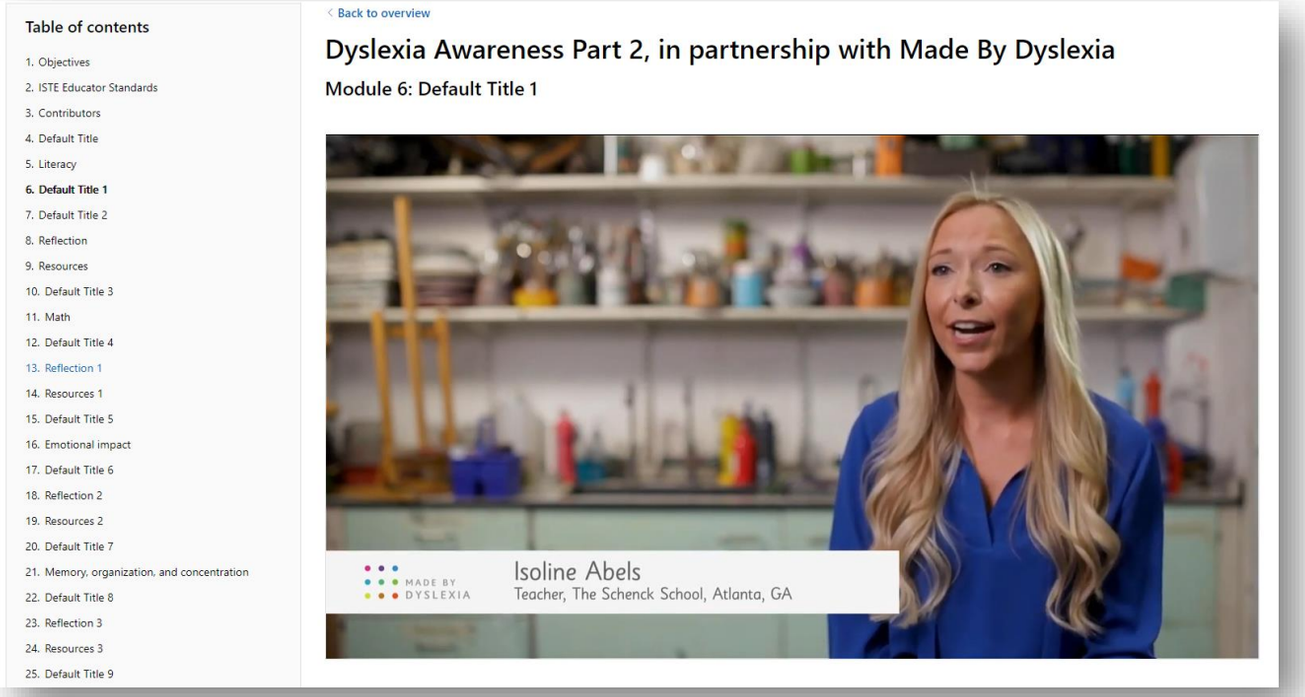
All About Immersive Rader – MEC Page

https://aka.ms/AllAboutImmersiveReader



Dyslexia Awareness Curriculum – Parts 1 and 2





http://aka.ms/MECMadebyDyslexia

http://aka.ms/MECMadebyDyslexia2

Microsoft Learning Tools Availability

Read Aloud & word/line highlighting	OneNote Desktop	OneNote Web	OneNote App	OneNote iOS	OneNote Mac	Word Web	Word Desktop	Word Mac	Word iPad	Outlook Web	Outlook Desktop	Teams	Flipgrid	Flipgrid iOS	Flipgrid Android	White board	Forms	Minecraft Edu	Office Lens	Edge browser
Spacing and Font Size	OneNote Desktop	OneNote Web	OneNote App	OneNote iOS	OneNote Mac	Word Web	Word Desktop	Word Mac	Word Ipad	Outlook Web	Outlook Desktop	Teams	Flipgrid	Flipgrid iOS	Flipgrid Android	White board	Forms	Minecraft Edu	Office Lens	Edge browser
Page Colors	OneNote Desktop	OneNote Web	OneNote App	OneNote iOS	OneNote Mac	Word Web	Word Desktop	Word Mac	Word iPad	Outlook Web	Teams	Flipgrid	Flipgrid iOS	Flipgrid Android	White board	Forms	Minecraft Edu	Office Lens	Edge Browser	
Syllables	OneNote Desktop	OneNote Web	OneNote App	OneNote iOS	OneNote Mac	Word Web	Word Desktop	Outlook Web	Teams	Flipgrid	Flipgrid iOS	Flipgrid Android	White board	Forms	Minecraft Edu	Office Lens	Edge Browser			
Line Focus	OneNote Desktop	OneNote Web	OneNote App	OneNote iOS	OneNote Mac	Word Web	Word Desktop	Outlook Web	Teams	Flipgrid	Flipgrid iOS	Flipgrid Android	White board	Forms	Minecraft Edu	Office Lens	Edge Browser			
Parts of Speech	OneNote Desktop	OneNote Web	OneNote App	OneNote iOS	OneNote Mac	Word Web	Outlook Web	Teams	Flipgrid	Flipgrid iOS	Flipgrid Android	White board	Forms	Minecraft Edu	Office Lens	Edge Browser				
Picture Dictionary	OneNote Desktop	OneNote Web	OneNote App	OneNote iOS	OneNote Mac	Word Web	Outlook Web	Teams	Flipgrid	Flipgrid iOS	Flipgrid Android	White board	Forms	Minecraft Edu	Office Lens					
Translation	OneNote Web	OneNote App	OneNote iOS	OneNote Mac	Word Web	Outlook Web	Teams	Flipgrid	Flipgrid iOS	Flipgrid Android	White board	Forms	Minecraft Edu	Office Lens						
Dictation	OneNote Desktop	OneNote App	OneNote Web	Word Web	Word Desktop	Outlook Desktop	PPT Desktop	PPT Web	Windows 10											
Math & Equations	OneNote Web	OneNote App	OneNote iOS	OneNote Mac	Word Web	Word Desktop	PPT Desktop	Forms												

Learning Tools Flyer for PD: http://aka.ms/LearningToolsFlyer

Microsoft Education

Writing efficiently with Dictation, Editor, and Word Prediction

#MicrosoftEDU

“Our pupils all pretty much without exception hate writing. The learning tools transformed writing for our pupils.”
- Jan Lusty, Head of School at Knowl Hill

even enthusiasm over 2 lessons (about 1hr 30mins of actual writing time).

Tommy McAcid Pants

~~Food~~

1956

At nuclear ~~acid~~ power plant fell into waste + transformed.

He can eat everything stuff — what he eats helps him grow. Clean stuff shrinks him

apart from

(scientist)

This is a story planning sheet for a 9 year old boy who is dyslexic.

Beginning:

when

how

who

what

where

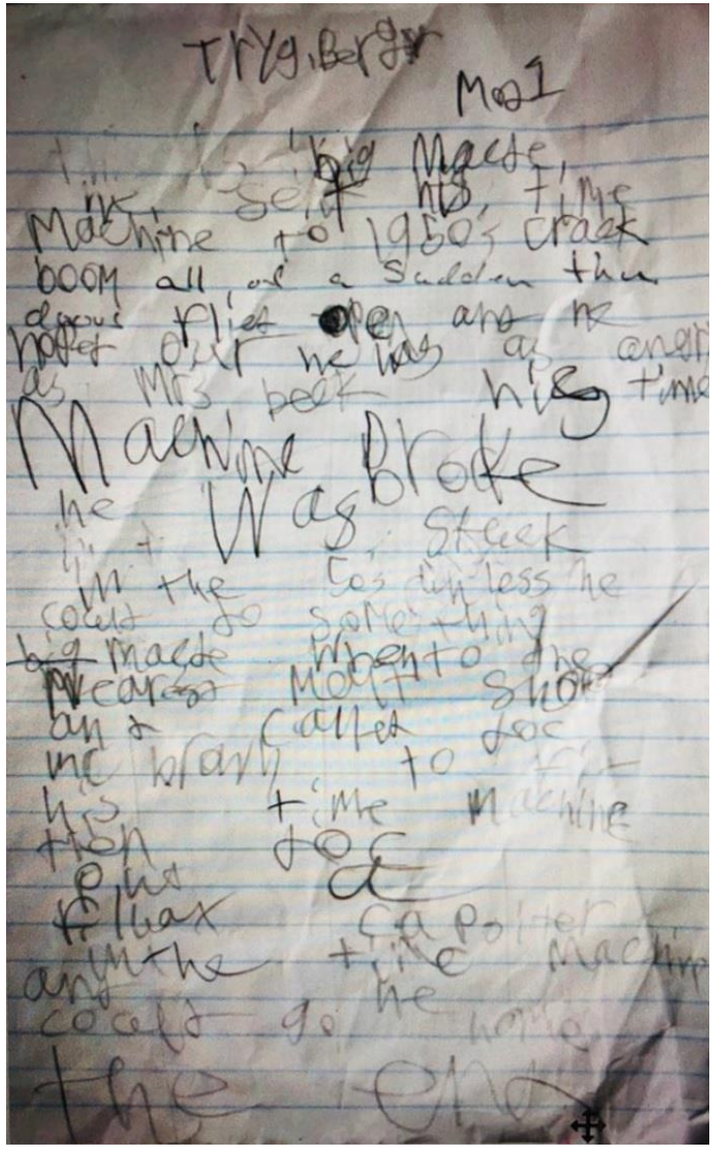
End:

Clean cup of water thrown on him + he dissolves — shrinl to normal size

One day at school Powerbody hit his head on the door and electrocuted himself. It sent Roy & Kate to sleep and they flew home into bed ... Powerbody's work was done here. He had some other work to do so the next day Powerbody ducked down in a doorway. He bumped his head again but he felt sleepy. He automatically transported himself to the zoo without knowing it. The animals glared at him and went crazy. Powerbody electrocuted the animals and they went to sleep. Suddenly, he vanished in a puff of smoke .

This is what she then produced on OneNote

7th Grader Before and After with Dictate



Tryg Berger Mod 1.

Big Macky D the alien time traveler set his time machine to 1878 just before the Minneapolis Minnesota Washburn, A mill flour explosion. Crack, boom, bang, he arrived and all of a sudden, then is door flew open. He hopped out into a 1950's malt shop. Chubby checker was playing on the juke box in the corner. He was as angry as Mrs. Beck. He realized that his time machine had broken and he was stuck in the 1950's unless he could do something to fix it.

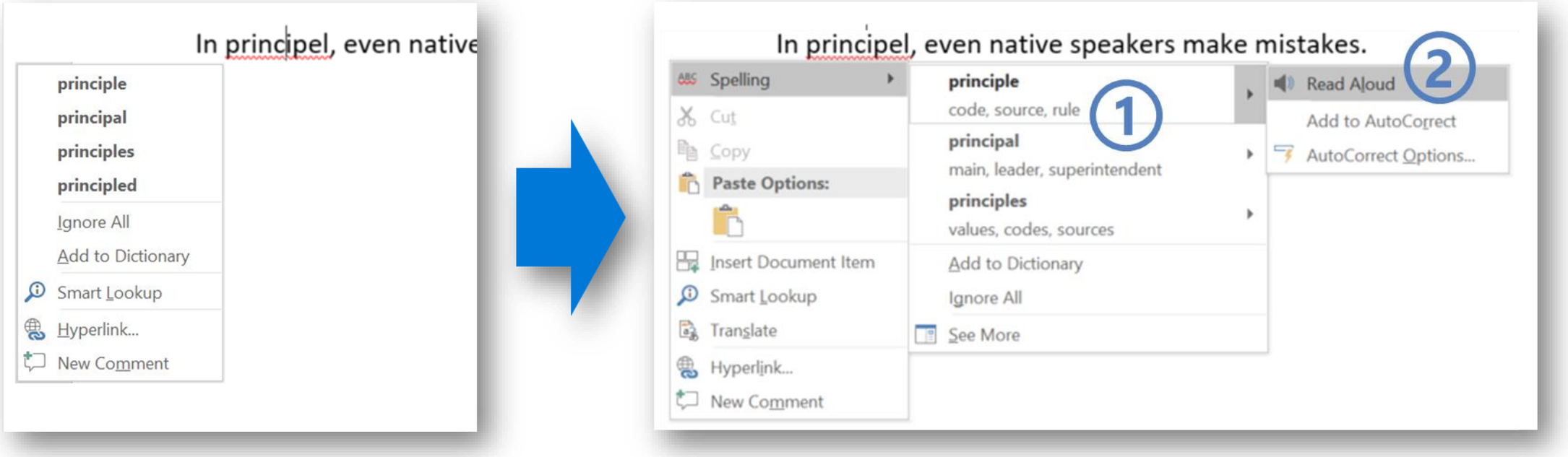
Big Macky D went to the nearest phone booth and called Doc Brown To help fix The Time Machine. He ate a burger and malt while he waited for Doc to arrive from the year 2018.

Microsoft Education

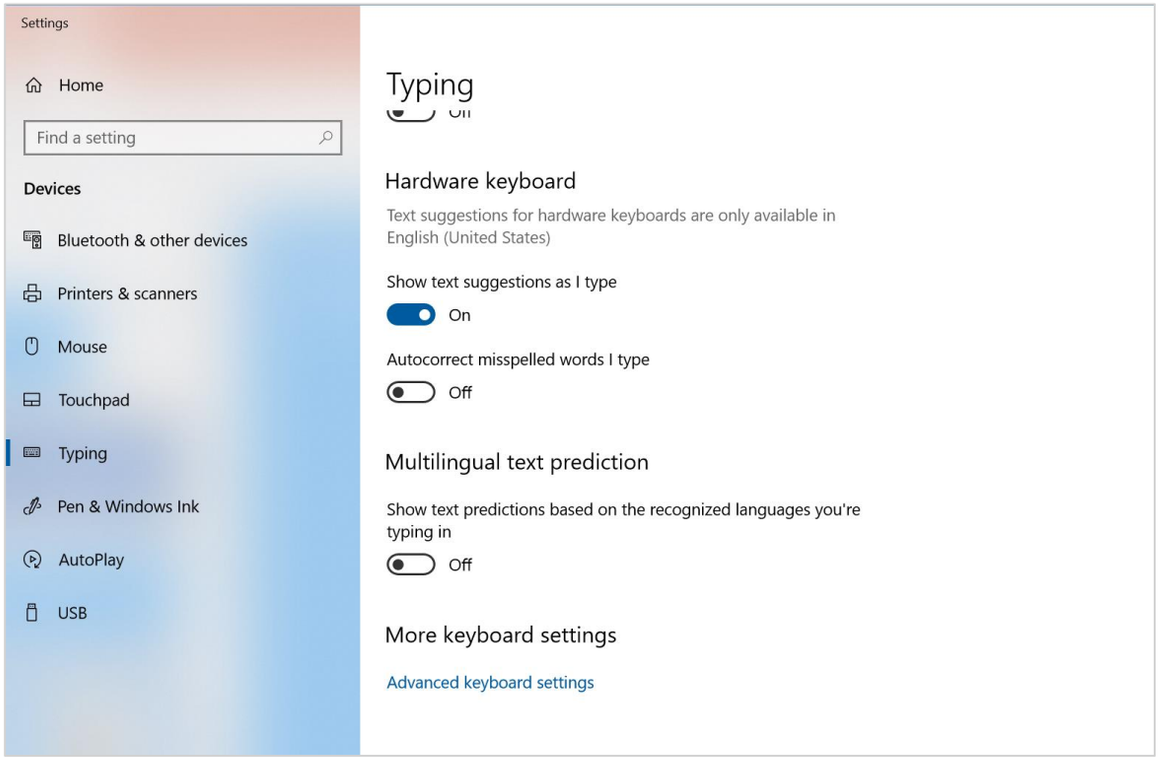
Demo

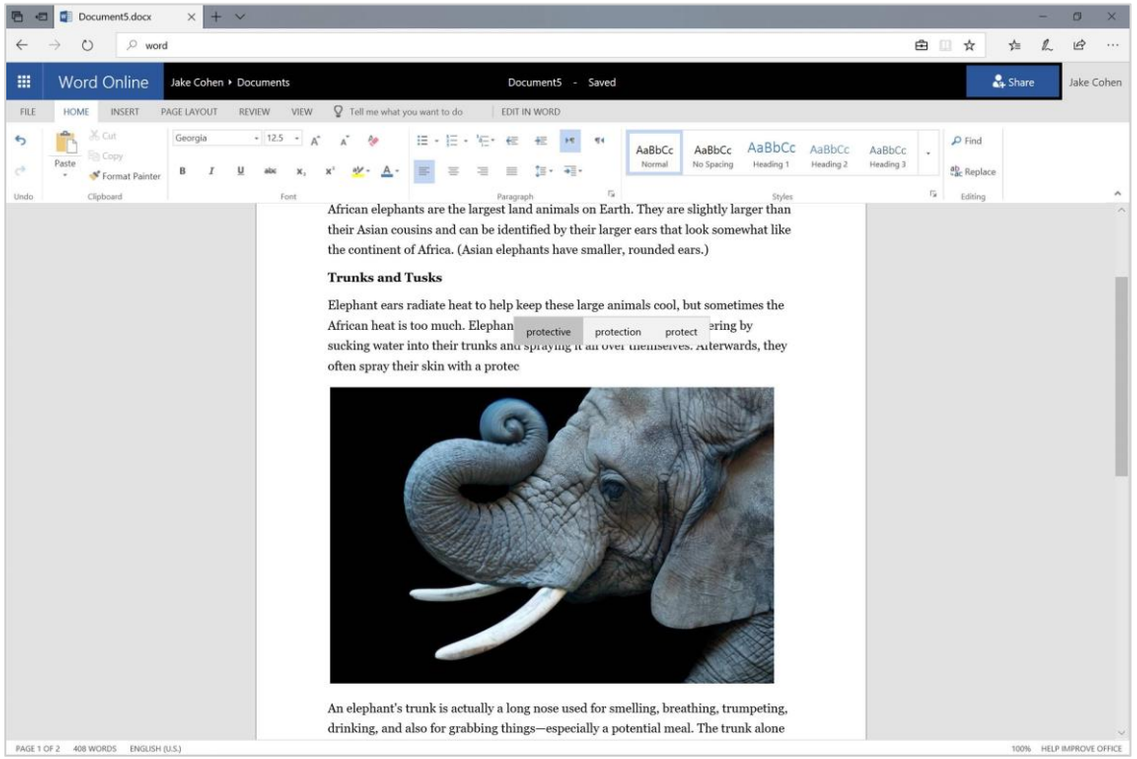
#MicrosoftEDU

Improved Spell Checker - Inclusive design to benefit everyone



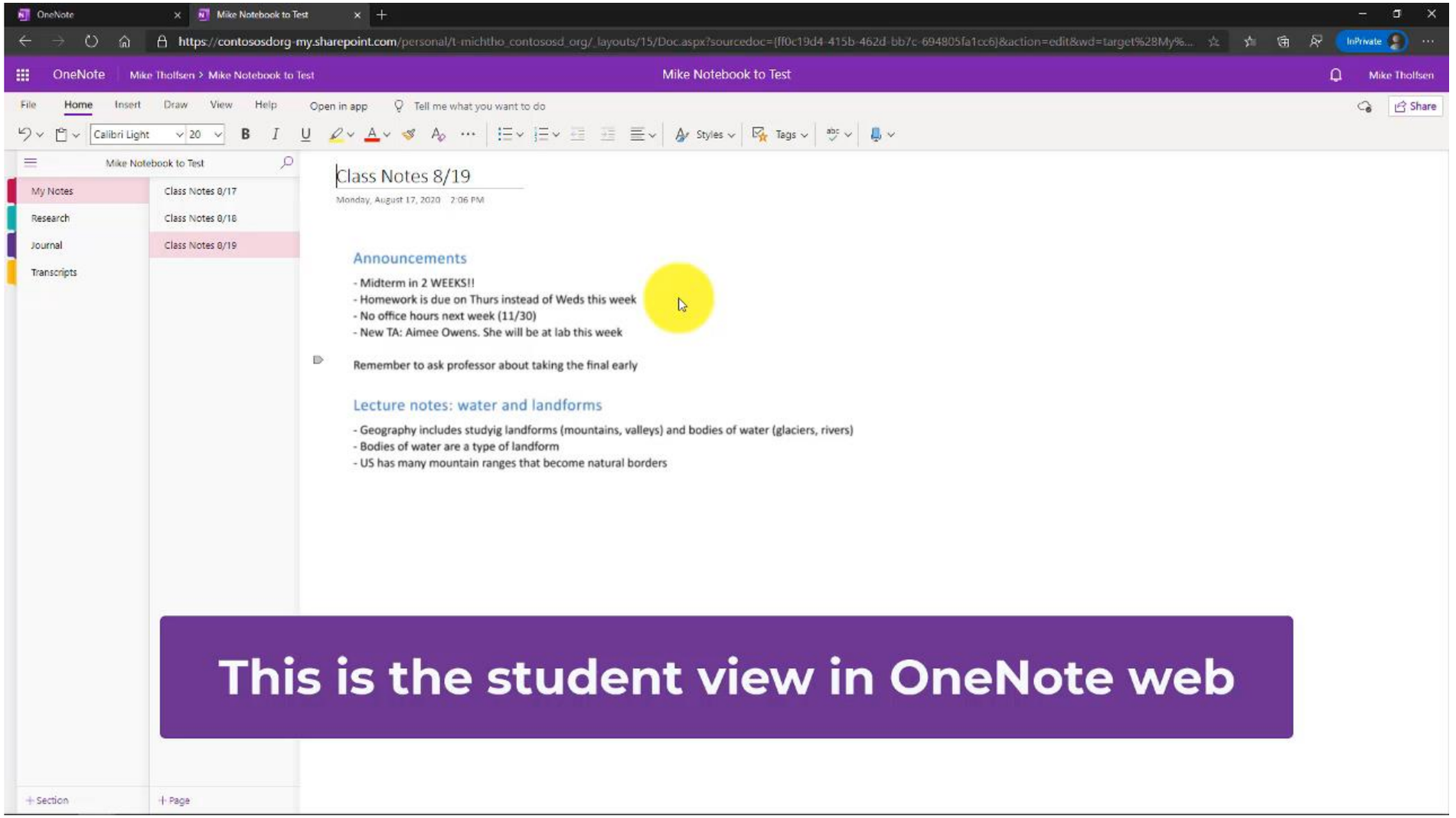
Word Prediction, Windows 10 October 2018 Update





Supports 75 languages with the October 2018 Update

OneNote Live Captions (Beta)



Educator Needs - Teaching students to Write

- ✓ Fixing everything is not productive… encourage students to choose what's most important
- ✓ Tackling everything at once can be overwhelming
- ✓ Want tools to let students self-assess their writing… clearly see what to work on

Writing Feedback

"I have a student who was only writing 3-4 sentences before I learned about these tools. He's now writing 2.5 pages independently with Editor and Dictation. This is changing lives!"

Educator from St. Louis, Missouri

Microsoft Education

Student and Parent Communication

#MicrosoftEDU

Build Communication Skills with **Presenter Coach** in PowerPoint

Presenting in front of others is a vital life-skill that teachers are eager to cultivate in their students.

Based on best practices and academic research, we've integrated common tips and tricks into Presenter Coach to help teachers and students give more effective presentations.

Student can turn on “Rehearsal mode” with the microphone

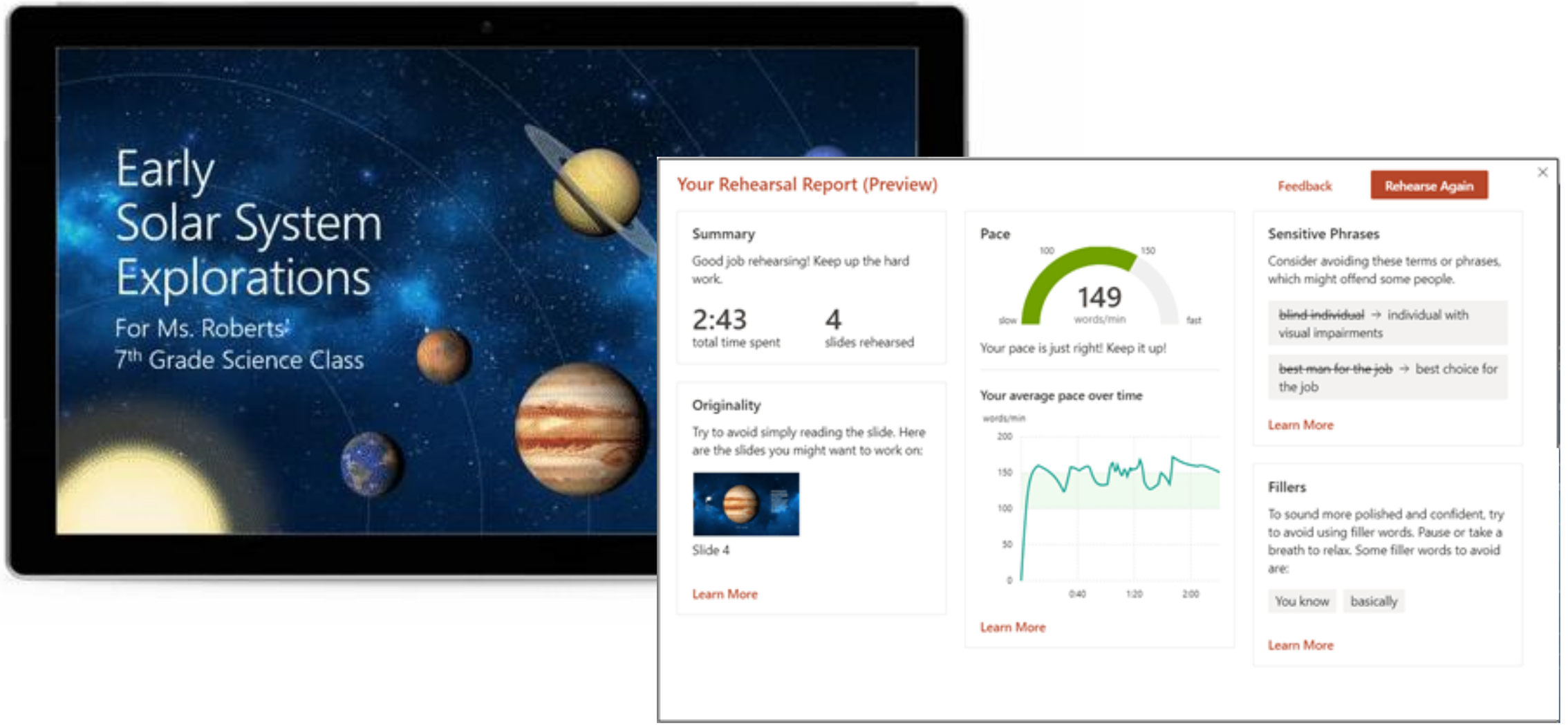
Receive on-screen guidance about

- **Pacing:** when user talks too fast or too slow.
- **Disfluency:** when user is speaking with filler words such as “um”, “ah”, “basically”, etc.
- **Sensitive/inclusive phrases**: insensitive phrases that are biased toward people with different gender, disability, race,
- **Narration:** detecting when user is just reading off the slide

At the end of each rehearsal session, the presenter receives a detailed report with metrics for additional practice.

Presenter Coach is available on PowerPoint on the web now!

Presenter Coach



Presenter Coach Feedback

"I'm 12 years old and I'm doing a project for school. This was very useful for me to prepare for my presentation. I'm hoping I will get an A and it helped me because I have dyslexia."

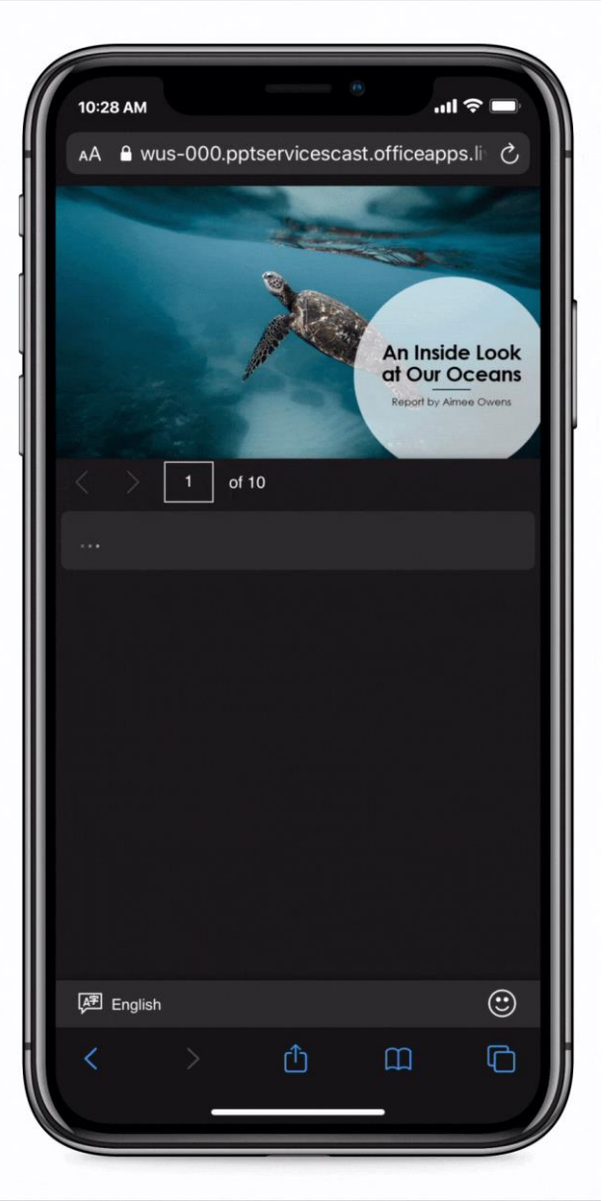
-12 year old student

PowerPoint Live – Starting a session is easy

- Under the Slide Show tab, the presenter clicks **Present Live**
- Anyone can join a public session via QR code or short link
- Audience members can join on **any device** – the experience is optimized for each type of device
- As the presenter moves through the slides it is **synchronized** across all audience member's devices

PowerPoint Live – Captions and Subtitles

- Audience members can **send live reactions** like heart, applause or questioning emojis
- Each audience member can choose from **over 60 languages** to have personal subtitles throughout the presentation
- Audience members can **navigate on their own** – they even see the transcription on previous slides
- Audience members can zoom in on slides or even shift their orientation on a phone for different viewing options



Microsoft Translator

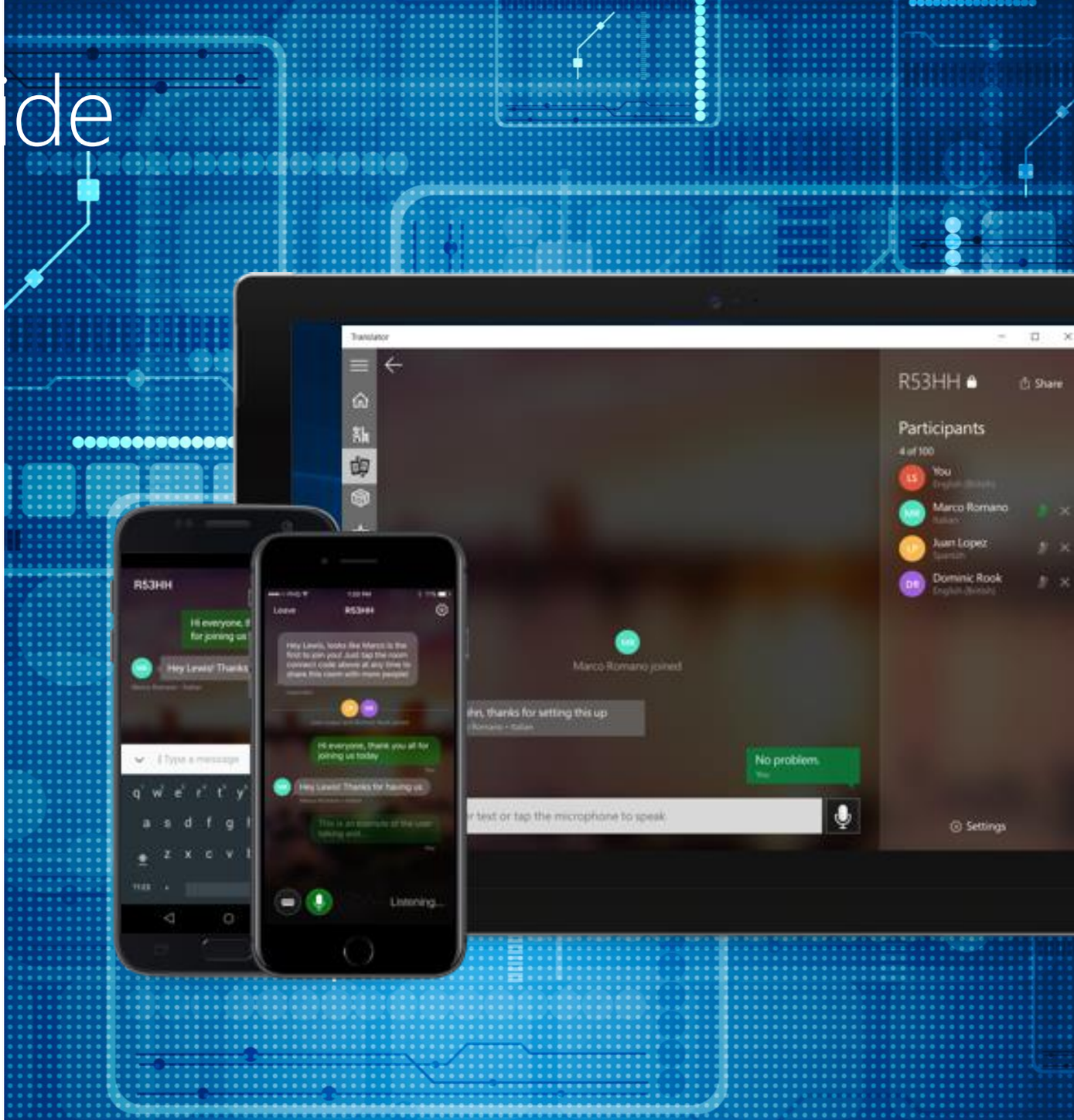
Smartphone apps for in-person, multi-device translation for two or more participants, speech or text

10 speech languages and 63 text languages

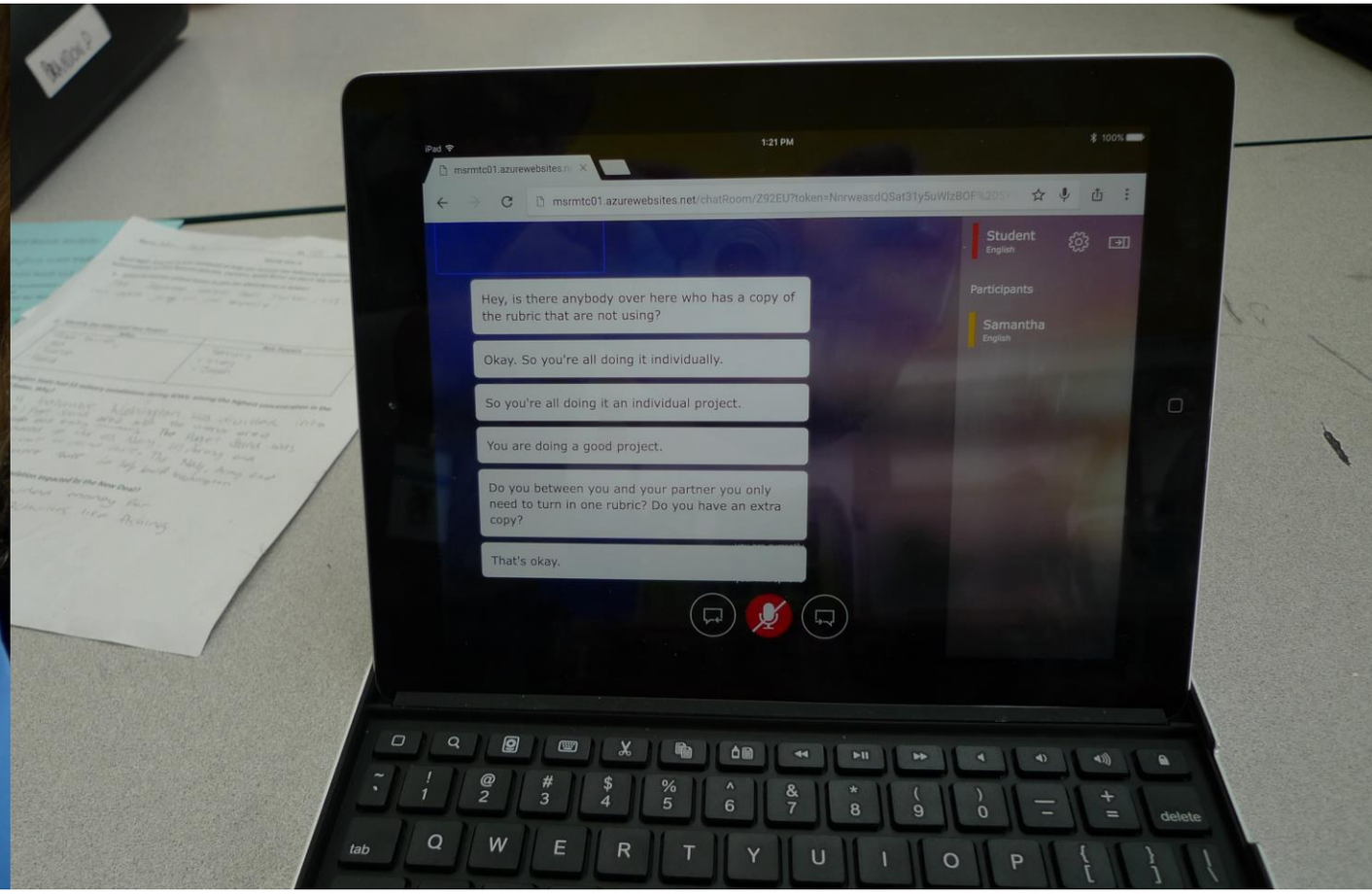
Up to 100 participants at the same time

Free Apps on iOS, Android, Windows UWP, PowerPoint and web.

https://translator.microsoft.com/help/education/



Microsoft Translator in the Classroom - DHH



12:30 PM
EQUTX
jiyeun koo • Chinese Simplified
是的, 你可以现在就问 Eric, 或者在补习的时候到图书馆来问你需要什么。
即使你从来没有用过, 我们在这里帮助。
R
Russ • English
J
学习成绩在哪里？
jiyeun koo • Chinese Simplified
你可以找到许多地方的等级, 是的, 我们将在短短的时间内解决。谢谢你的回答!
R
Russ • English
别客气。 我很高兴有机会对我的孩子如何学习有这样的知名度。
J
jiyeun koo • Chinese Simplified
还有其他人有什么问题要问吗？只需对设备上的麦克风说话。
R
是的, 你想问什么？
Russ • English
J
我可以在教程时间使用图书馆吗？
jiyeun koo • Chinese Simplified

Microsoft Teams – Real-time meeting captioning

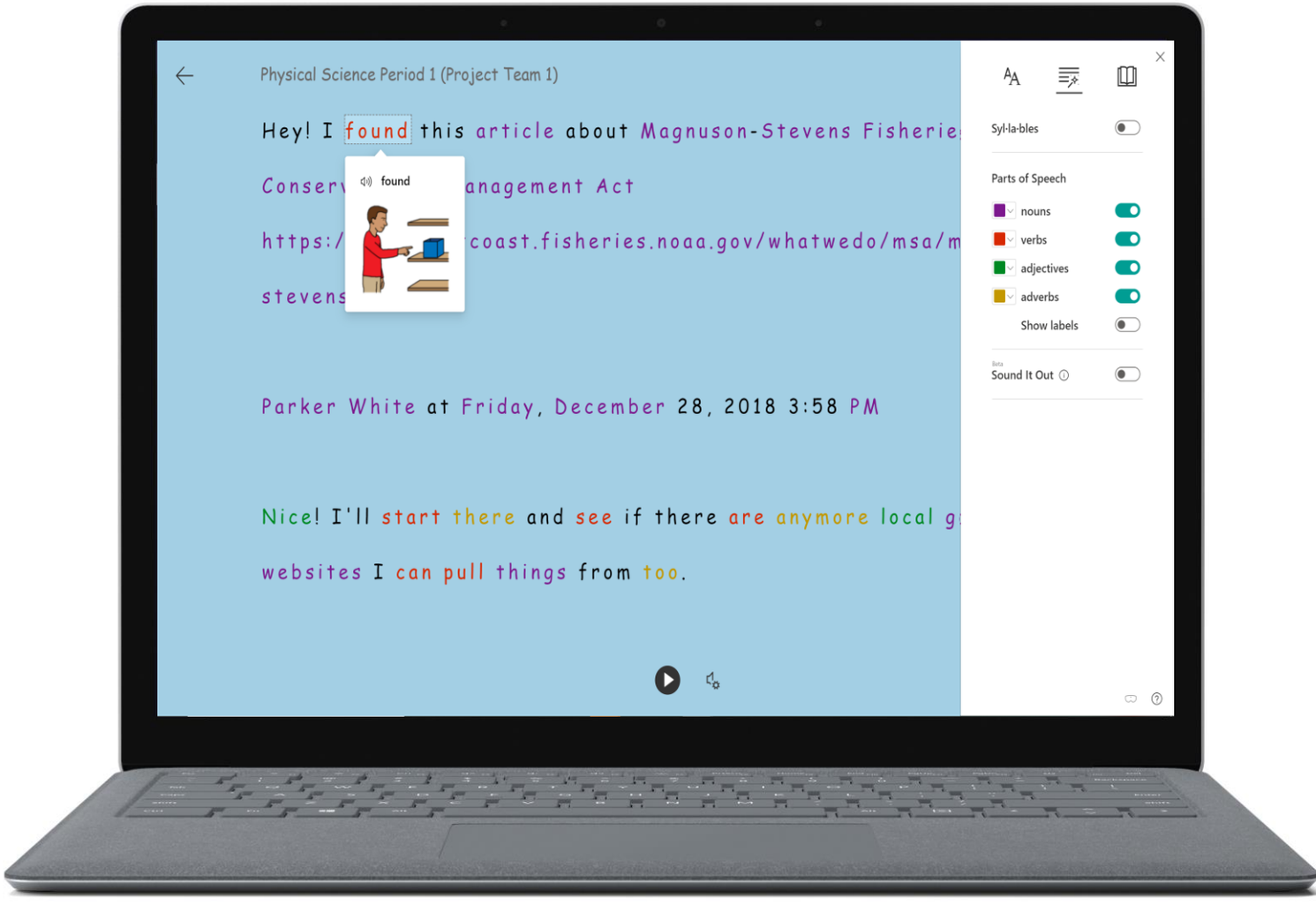
Accessibility in Teams

"Students would rather go without than stand out. We need to move from assuming access to ensuring access in classrooms."

—Robin Lowell, Special Education Teacher

Teams is equipped with various tools to make learning inclusive, safe, and fun.

- Immersive reader
- In-line translation
- Live captions in meetings
- Accessibility checker
- Inclusive math
- Transcript generator



PowerPoint Captions – Desktop, Web and Mac

Present more inclusively with live captions & subtitles in PowerPoint

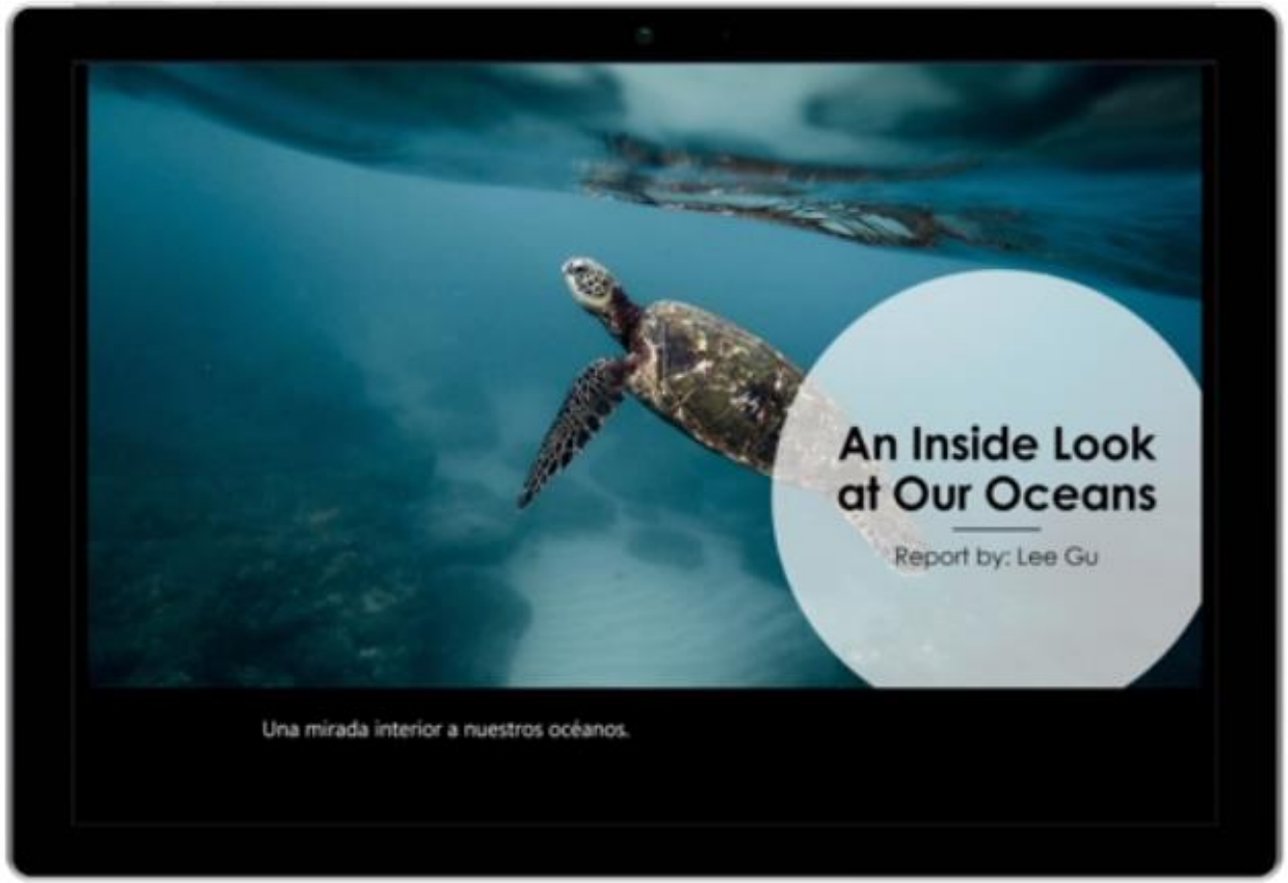
By the PowerPoint team, on December 3, 2018

Live presentations can be thought-provoking, inspirational, and powerful. A great presentation can inspire us to think about something in an entirely different way or bring a group together around a common idea or project. But not everyone experiences presentations in the same way. We may speak a different language from the presenter, or be a native speaker in another language, and some of us are deaf and hard of hearing. So, what if speakers could make their presentations better understood by everyone in the room? Now they can with live captions & subtitles in PowerPoint.

In honor of the United Nations International Day of Persons with Disabilities, we're announcing this new feature—powered by artificial intelligence (AI)—which provides captions and subtitles for presentations in real-time. Live captions & subtitles in PowerPoint supports the deaf and hard of hearing community by giving them the ability to read what is being spoken in real-

PowerPoint Captions – Desktop, Web and Mac

or even translating your speech from one language to another



Translator Feedback

> *"I severely underestimated the impact that the Translator app would have on district leaders, newcomer students and their parents in one short year, and how it would charge up our plans for family engagement in the upcoming year"*

Sam Sakai-Nelson
District Leader from San Diego, California

Microsoft Education

Math

Challenges for Students:

- Dyslexia – reading story problems, visual crowding
- ADHD – focus and attention
- Dyscalculia
- Mobility impairments

School

Home Insert Draw View

Shapes Ink to Shape Ink to Text Ruler Math

School

English
Math
History
Science
Geography

Order of operations
Solving Linear Equations
Word problem
Worksheet
Distance between points
Factoring
Exponents

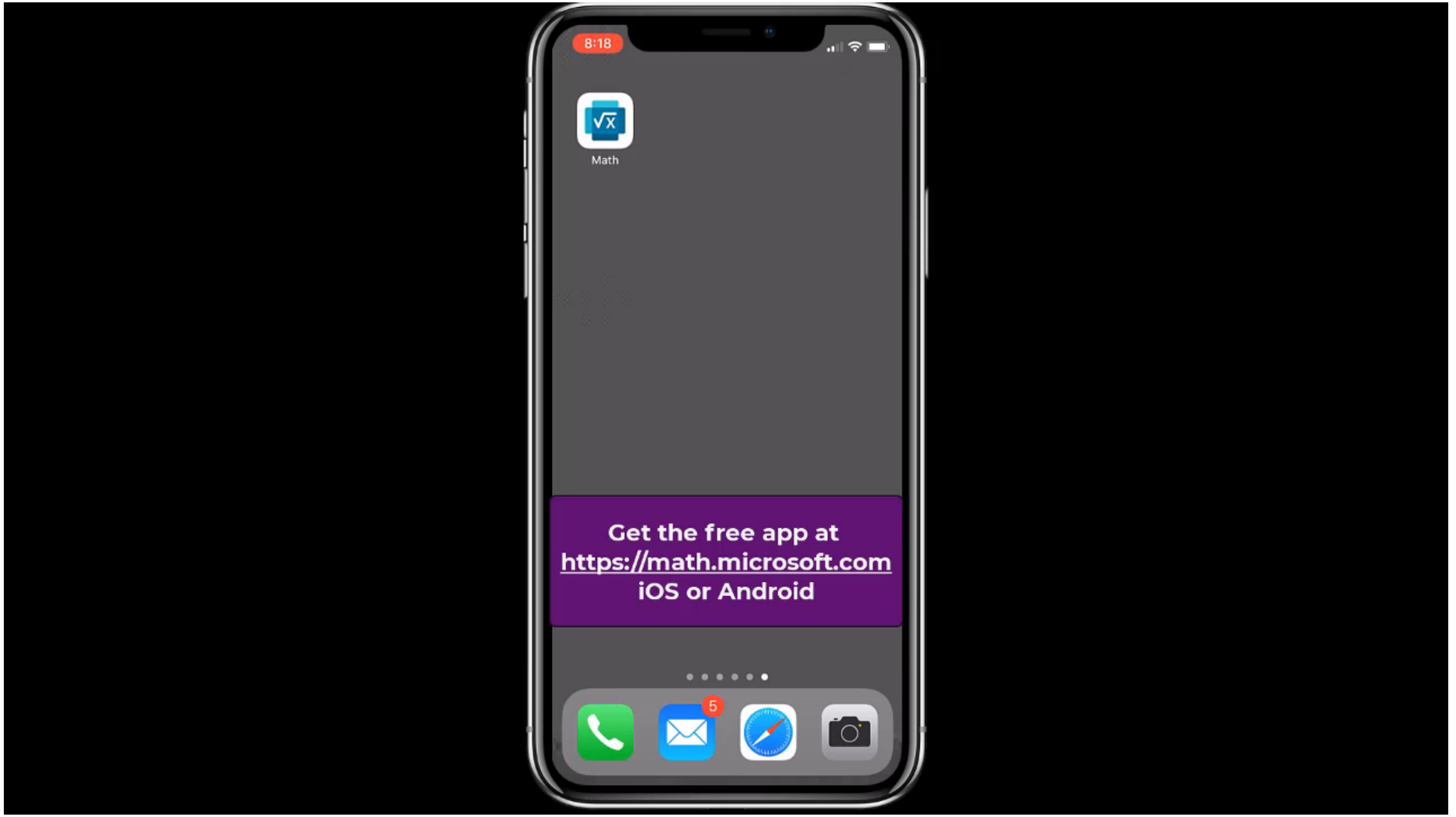
Worksheet

Tuesday, July 3 3:27 PM

$$X^2+4X+3=0$$

$$x^2 + 3x + 2 = 0$$

Math Solver Immersive Reader



Microsoft Education

Demo

#MicrosoftEDU

Short and sweet interactive guides

- ✓ Inclusive Reading: https://aka.ms/InclusiveReadingDemo
- ✓ Inclusive Writing: https://aka.ms/InclusiveWritingDemo
- ✓ Inclusive Math: https://aka.ms/InclusiveMathDemo
- ✓ Inclusive Communication: https://aka.ms/InclusiveCommunicationDemo

https://www.microsoft.com/en-us/education/interactive-demos

Microsoft

Microsoft Education Demo Tours

Get firsthand experience and training with Microsoft Education tools in these interactive demos. Help drive the transition to inclusive online learning, build confidence with remote learning tools, and maintain student engagement.

See how Microsoft Teams can work in your classroom

With Microsoft Education, students and educators can transition quickly to an inclusive online classroom, as well as work successfully in a hybrid-blended model.

Audience: IT Pros, School Leaders, and Educators
Topics Covered: Microsoft Teams, Posts, Meetings, Assignments, OneNote Class Notebook, Grades,

Learn how to support your student's learning in Microsoft Teams

As schools around the world look to distance and hybrid education, parents and guardians play an essential role by helping students navigate new technologies.

Audience: Parents, Guardians, and Students
Topics Covered: Microsoft Teams, Posts, Meetings, Assignments

Engage your students in collaboration and creativity

Learn how Microsoft tools help facilitate student engagement anywhere with immersive experiences that empower learning, imagination, and communication. Stay connected as a class working together, and as an educator seeking insight into how your students are doing and feeling.

Audience: Educators, School Leaders,

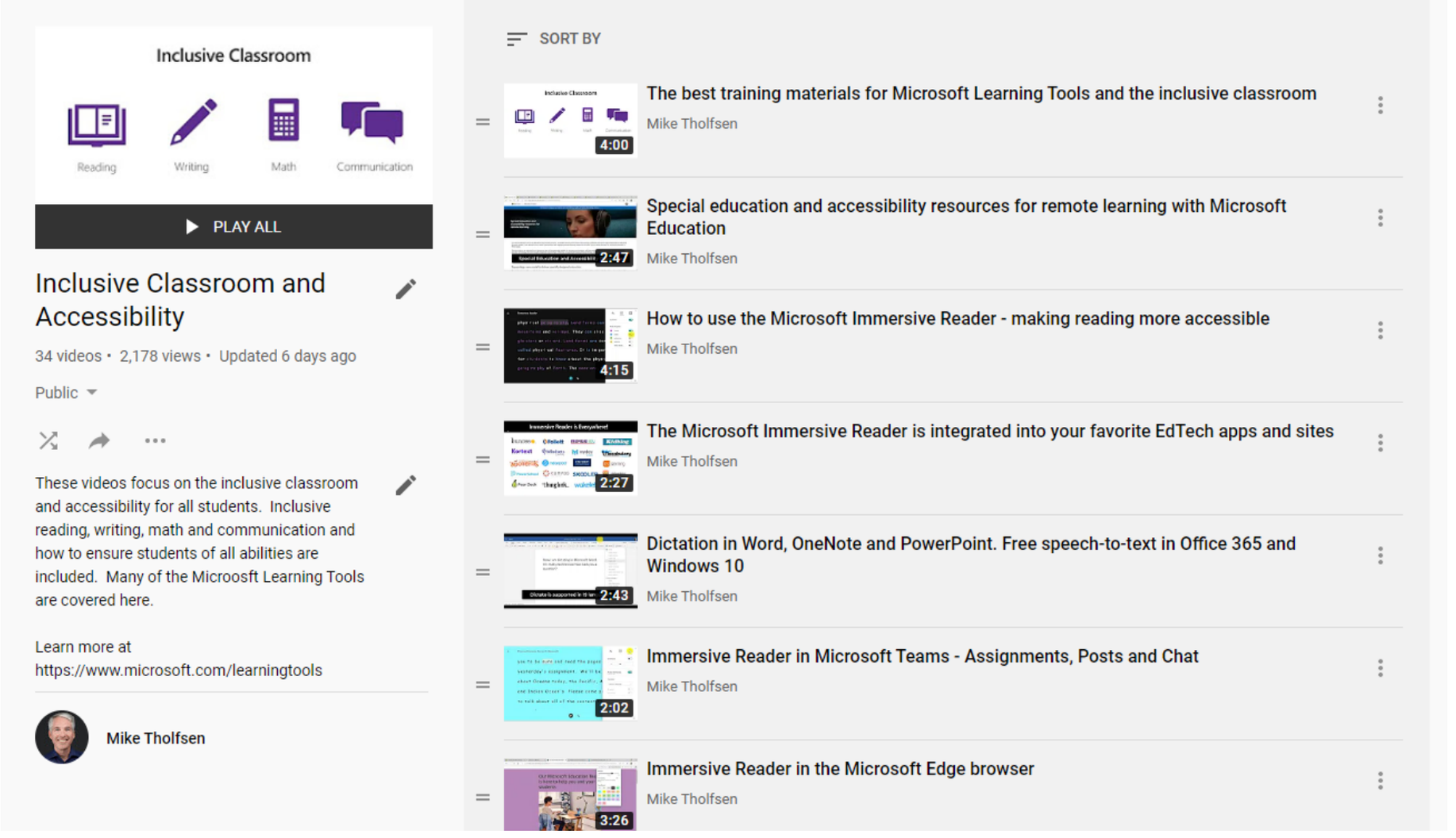
Set up your school with easy-to-manage technology

Deploy and manage classroom technology smoothly and efficiently with a range of time-saving services. Explore the intelligent security features that help keep your school's devices, users, and data safe.

Audience: IT Pros
Topics Covered: Office 365 Admin

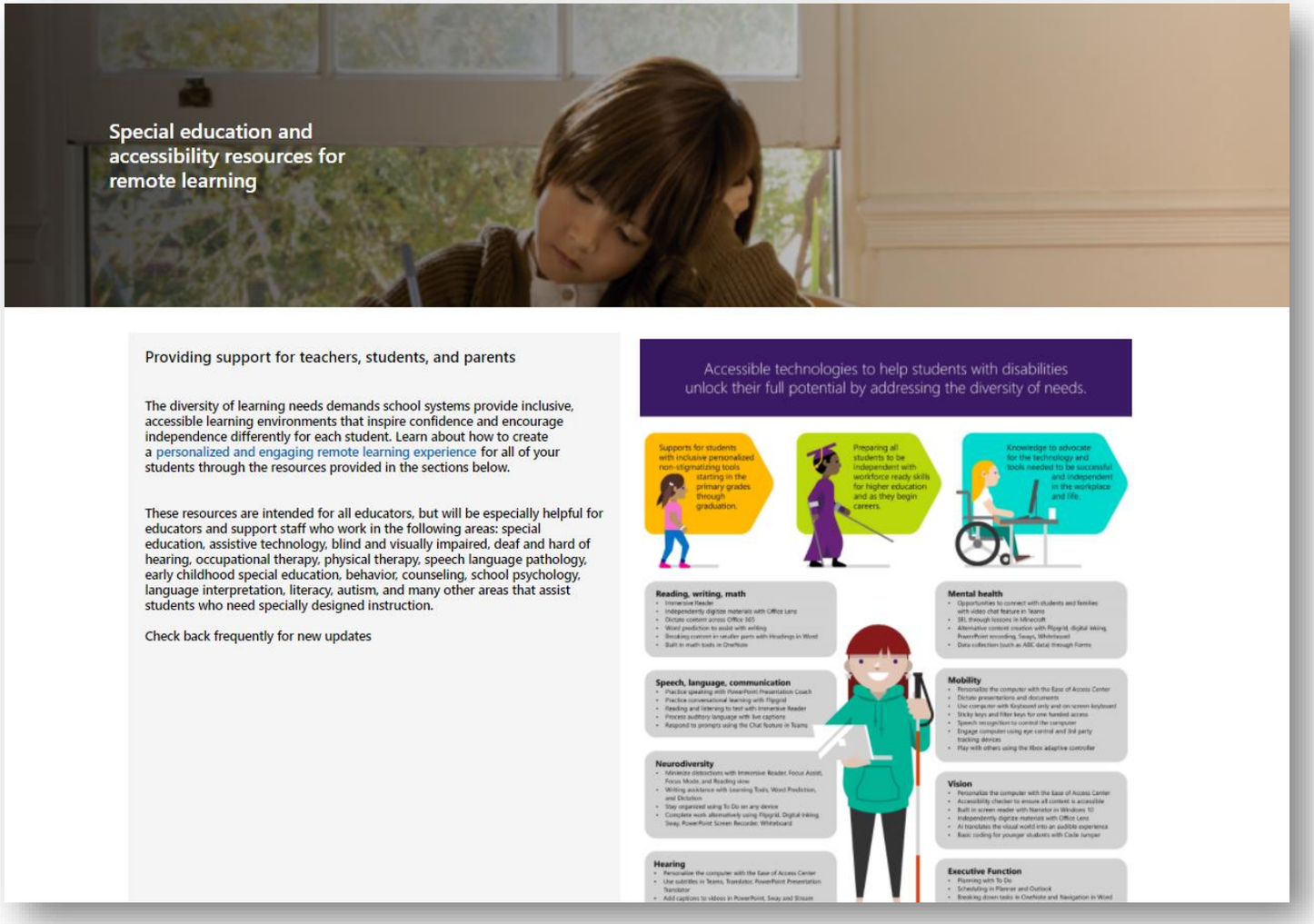
Inclusive Classroom playlist and more

Quick tip videos: https://www.youtube.com/miketholfsen



MEC Accessibility

https://aka.ms/MECAccessibility



Dyslexia Awareness Month

https://aka.ms/dyslexiadecodEd

"No one should have to ask for access, it should just be there."

Marlee Matlin
Academy Award Winning Actress
Outside In Talk at Microsoft
December 2016

Closing The Gap

Supporting Students with Dyslexia with Microsoft Tools in Every Learning Environment `

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Microsoft Education

Thank you.

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