

Real-Time Translation in Live Presentations

Comparing how Microsoft PowerPoint and Google Slides make learning materials accessible for English Language Learners through real-time translation.



Executive Summary

Since 2000, immigration patterns in the U.S. have shifted to include many more hubs around the country as opposed to several high concentrations¹, which has led to schools becoming increasingly diverse and serving more bilingual students. Consequently, the ability to effectively translate learning resources, both written and spoken, is a core tenant of the modern classroom.

While translation through dedicated school personnel has its benefits, the emerging trend of using Artificial Intelligence (AI) translation tools allows for a more equitable access to learning materials that range from text-based files to real-time audio transcription and translation. Live Presentations in Microsoft PowerPoint* provides built-in translation tools for students that can remove language barriers and increase student access in classroom or virtual instruction.

For comparison, Google Slides* does not offer live translation during presentations. Students need to manage multiple screens, apps, or third-party tools to access their teacher's direct instruction in their chosen language.

For all users, students or educators alike, Live Presentation translations for PowerPoint provide faster, more integrated translation that address each students' unique language needs without depending upon third-party apps, extensions, or add-ons to provide access and educational support.

“ English Language Learners deserve the same right to a great education as their English-speaking peers. They deserve access to a rich curriculum and validation of their home language and culture... They deserve the best we have to give them. These are America's students, and the nation can't afford to let them down.

— [National Education Association](#)



¹ Source: [Bloomberg](#)



Rationale

Serving Every Learner in any Language

As of 2018, there were over 5 million English Language Learners in the United States, accounting for approximately 10.2% of the total student population.² According to some estimates, the percentage could rise to 25% by 2025.³

In the U.S., there are several federal laws and court cases that ensure equal access to education for emerging bilingual students. These include:

- [Bilingual Education Act \(BEA\)](#) and later [English Language Acquisition, Language Enhancement, and Academic Achievement Act](#)
- [Lau v. Nichols](#) (1974)

- [Castañeda v. Pickard](#) (1978) From cases from 1946 through present day, courts in the United
- States have continued to support equal access to education, educational materials, and learning programs for all English Language Learners including those who are undocumented. Therefore, schools must ensure that students have the tools, resources, and content necessary for students to access learning materials, process instructional concepts, and demonstrate their knowledge and skills.

² Source: [National Center for Educational Statistics](#)

³ Source: [National Education Association](#)



Learning Scenario

Ensuring Presentations are Accessible to All Learners in their Preferred Language

The following scenario compares the step-by-step process that a representative fourth grade teacher would complete in order to provide a real-time translated transcription of a spoken presentation for students in their preferred language. For comparison, we used identical versions of presentations in Microsoft PowerPoint and Google Slides.

At a Glance

Topic

Erosion

Subject

Earth Science

Grade Level

4th grade

Accommodation

Ensure that classroom instruction is accessible to all students regardless of their preferred language.

Step-by-step Comparison

Test Devices

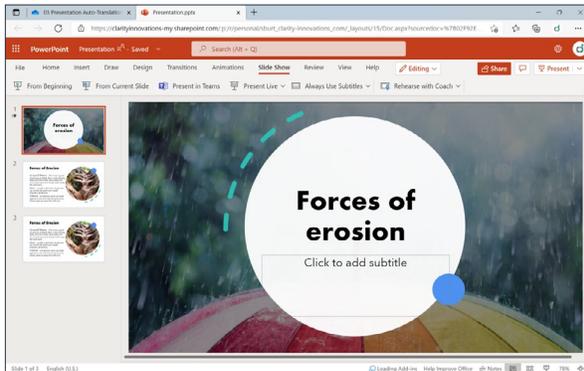
In conducting this comparison, the K-12 Blueprint team tested the following devices and configuration:

- **Microsoft Surface Go 2** running Windows 11 Pro 22000.318
- **ASUS Chromebook Flip C436** running 94.0.4606.124 (Official Build) (64-bit)
- **Pixel 4a 5G** running Android 12

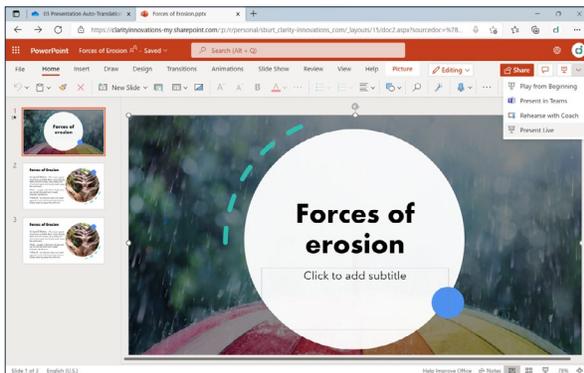
Live Translations using Microsoft PowerPoint

Online Access

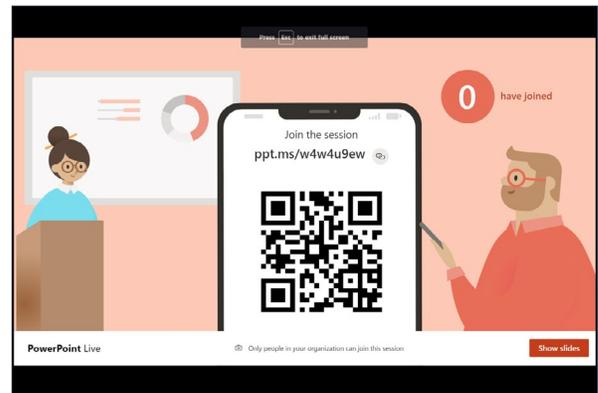
1. Open the presentation in Microsoft PowerPoint.



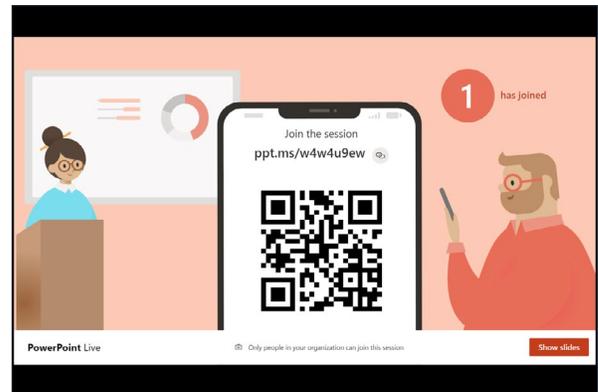
2. Select drop-down menu to the right of **Present > Present Live.**



3. Have students access Present Live PowerPoint by scanning QR code or using shortened link.



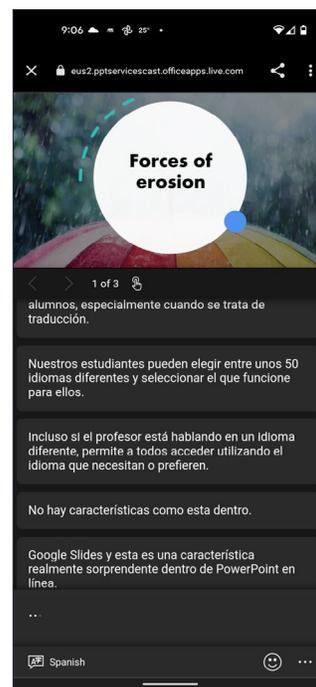
4. When students have joined, click Show Slides and begin activity.



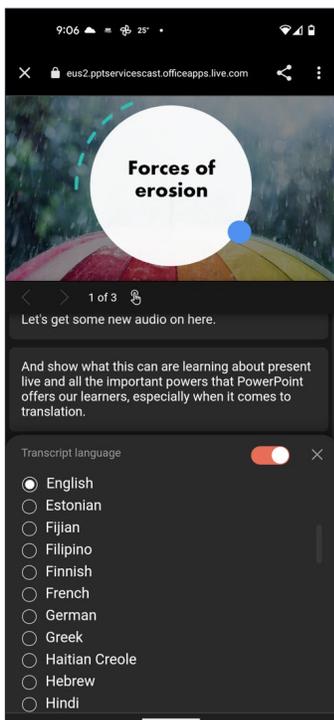
5. **Student view** - Open QR code reader on learning device



7. Presenter's dialogue is transcribed in their preferred language.



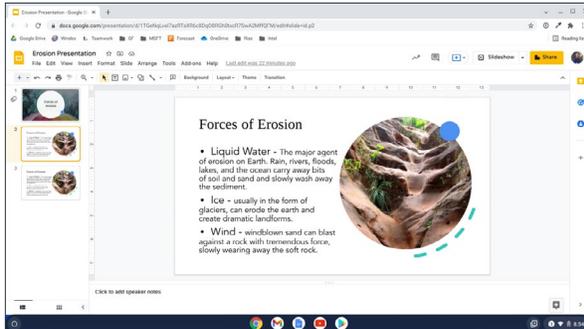
6. Click **English** in bottom-left corner. Select their preferred language.



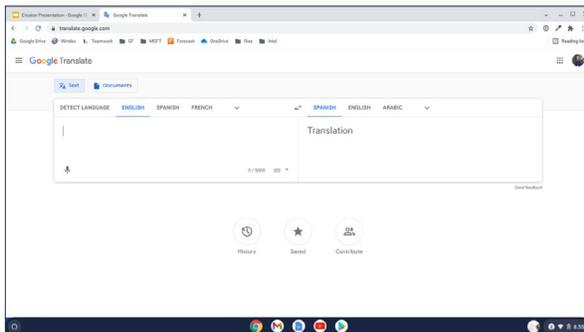
Live Translation using Google Slides

Online Access

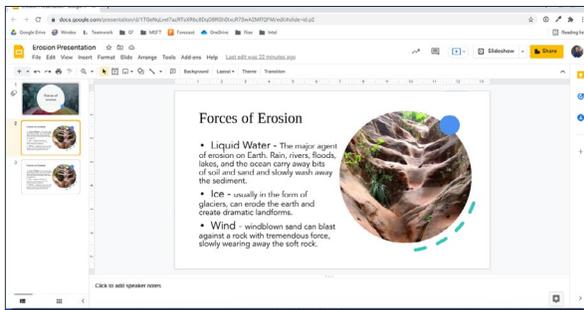
1. There is no native live translation nor the ability for participants to select their own language in Google Slides. To accomplish this task, arrange two Google Chrome windows side-by-side.
2. Open the presentation using Google Slides in one window.



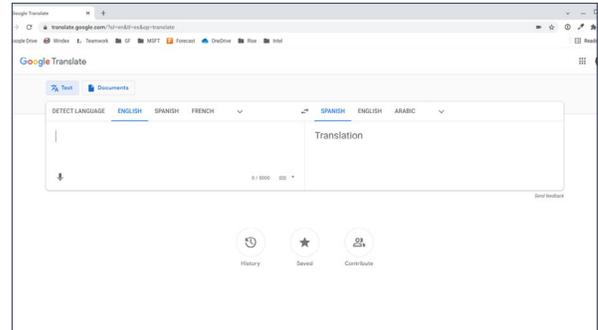
3. In the second tab, go to Google Translate.



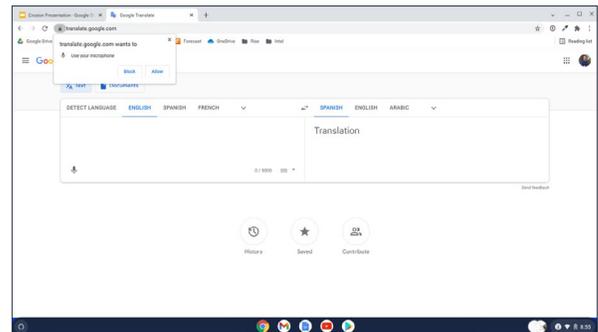
4. Separate tabs and arrange Chrome windows side-by-side.



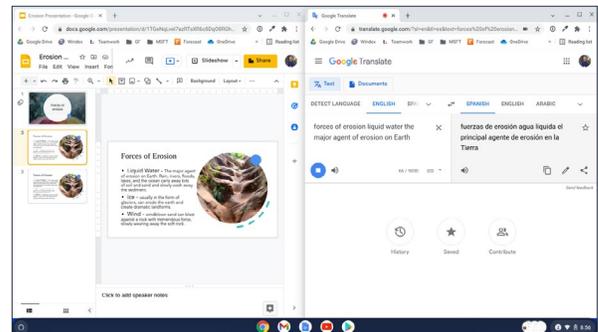
5. Select your input and output languages.



6. Click the microphone icon in the bottom-left corner.
7. Allow microphone permissions.



8. Begin speaking. Translations will appear on the right-hand side of the Google Translate page.



Conclusion

Microsoft Education Solutions Provide Increased Access for English Language Learners

Microsoft tools including Live Presentations in PowerPoint help ensure that English Language Learners have access to the educational content in their preferred language, removing barriers through advanced AI by automating real-time verbal translation by simply scanning a QR code and selecting their preferred language.

The Google Workspaces for Education equivalent, Google Slides, requires either students managing multiple browser windows or installing a third-party add-on that can take more time, more IT involvement, and pose student privacy risks.

| | Microsoft PowerPoint Present Live Translations | Google Slides Live Translations with Google Translate |
|------------------|---|---|
| Number of Clicks | 7 | 8 |
| Sample Results | Spoken English is translated into student-selected language. Speech is transcribed and translated in real time. | Spoken English is translated in real time in a separate tab in a separate window. |

Given the continued growth of the English Language Learners population in U.S. K-12 schools, it is imperative that school systems provide educators and students with the tools and resources needed to remove barriers and help increase access to learning materials while also empowering students to showcase their knowledge and understanding. Live Presentation translations in PowerPoint provide unmatched translation services.