

Technology that removes barriers: enabling students to engage learning one click at a time



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Program learning intentions

- Identify general barriers to learning experienced by students
- Reflect on common perceptions relating to adjustments and achievement standards
- Identify State School resources to substantiate the application of adjustments and technology within the curriculum
- Explore a range of technologies that reduce or remove barriers to learning
- Reflect on how these technologies could be used in your school

What are the barriers?

- Curriculum and assessment
 - Perceived
 - Actual
- Accessing curriculum
- Engaging with learning
- Understanding curriculum
- Responding to assessment

Technology reduce or remove one or multiple barriers

Curriculum perceptions

- Where in the AC does it say we can use assistive technology?
- Using assistive technology is cheating.
- AT gives students an unfair advantage.

- You can't use a computer for writing. It has a spell checker.
- All aspects of an achievement standard must be done in the same task.
- If a student cannot handwrite, they can only receive a D in the writing task.

- All students must do their oral presentation in front of the class.
- A student cannot use text-to-speech in a reading task.
- I can't assess a deaf student in a listening task.

- I can't make adjustments to my assessment.
Only during regular school work
- My student cannot read but they know what I read to them.
- All students must handwrite their first draft of an essay.

Addressing these perceptions

- Whole-school consistent understanding of curriculum
- Official documentation to support
- Practical examples of tailored supports and adjustments

CT&L documents

- Series of one-page support documents
- Produced by Curriculum Teaching and Learning
- Substantiate the use of adjustments within the AC
- Four documents (so far) addressing
 - Reading
 - Writing
 - Speaking
 - Listening

Documents provide

- Reflection on practice
- Definition of important key terms (cognitive verbs)
- Some means for assessment
- Critical considerations
- An example
- Links to relevant information

Access the documents

- The Learning Place
 - Assessment and Moderation Hub
 - Curriculum
 - Differentiate teaching and learning
 - <https://learningplace.eq.edu.au/cx/resources/file/76fcf9c5-4485-4fa1-9981-19073ca3865b/1/curriculum/differentiate-teaching-learning.html>
- Supporting EDTV video
 - <https://youtu.be/72RR-ZnJkao>

Let's explore the documents...

Removing barriers

- Whole-school approach to differentiation
- Implement tailored support at school level
- Adjustments for focused or intensive support
- All aspects of learning
 - Curriculum
 - Planning
 - Assessment
 - Learning environment
 - Pedagogies
 - Resources
 - Student
- Use of technology

Removing barriers with technology

- Enable access to curriculum content
- Support engagement with learning processes
- Develop curriculum understanding
- Deliver effective response to assessment

Some technologies may remove barriers in multiple aspects

Technology to support access to curriculum content

- Transformation tools (e.g.: Live text, Seeing AI)
- Screen readers (e.g.: JAWS)
- Braille and tactile content
- Magnifiers and enhancement (e.g.: iPad magnifier, ZoomText)
- Sound amplification and support (e.g.: Soundfield)
- Accessible content (e.g.: alt text, audio description)
- Accessible format (e.g.: font, colours, layout, styles)
- Text-to-speech tools
- Translation tools
- Reading support tools
- Captioning and transcription

Text-to-speech tools we have access to

- Speak selection (iPad)
- Speak screen (iPad)
- Voiceover (iPad)
- Translate (iPad)
- Speak selection (Mac)
- Voiceover (Mac)
- Narrator screen reader (Windows)
- Read Aloud (Outlook Offline)
- Read Aloud (Word 2019)
- Read Aloud (Edge browser)
- Speak tool (Word 2016)
- Speak tool (Word 2019)
- Speak tool (OneNote 2016)
- Speak tool (MS Excel)
- Speak tool (MS PowerPoint)
- Immersive Reader (OneNote for Windows 10)
- Immersive Reader (Word Online)
- Immersive Reader (OneNote Online)
- Immersive Reader (Outlook Online)
- Immersive Reader (OneNote 2016 with learning tools add-in)
- Immersive Reader (MS Teams)
- Adobe Reader Read Out Loud (Windows)

Translation tools web have access to

- Live text (iPad)
- Notes app (iPad)
- Safari browser
- Translate app (iPad)
- MS Word 2019 translate tool
- Outlook 2019 translate tool
- PowerPoint Online
- Immersive Reader (MS Edge)
- Immersive Reader (OneNote for Windows 10)
- Immersive Reader (Word Online)
- Immersive Reader (OneNote Online)
- Immersive Reader (Outlook Online)
- Immersive Reader (MS Teams)
- Immersive Reader (Canvas in QLearn)

Reading support tools we have access to

- Reader View (Safari app on iPad)
- Reader View (Safari app on Mac)
- Immersive Reader (MS Edge)
- Read Mode (MS Word 2019)
- Immersive Reader (OneNote 2016 with Learning Tools add-in)
- Immersive Reader (OneNote for Windows 10)
- Immersive Reader (Word Online)
- Immersive Reader (OneNote Online)
- Immersive Reader (Outlook Online)
- Immersive Reader (MS Teams)
- Immersive Reader (Canvas in QLearn)

Captioning and transcript tools we have access to

- MS Teams meetings (live and recorded)
- PowerPoint Online (live)
- Zoom (with subscription) (live and recorded)
- OneDrive stored videos (recorded)
- Most speech-to-text tools with a word processor

Technology to support engaging with learning processes

- Alternative hardware (e.g.: Pencil grips, alternative keyboards, alternative mice, interactive systems, OS settings)
- Management tools (e.g.: Apple Classroom, Guided Access, Lanschool)
- Notetaking support
- Digital manipulatives (e.g.: digital ruler, Jungle maths apps)
- Organising support tools (e.g.: OneNote, Inspiration 10)
- AAC (e.g.: Proloquo2Go)
- Online and remote learning (e.g.: MS Teams, Zoom)
- Collaboration (e.g.: MS Teams, Class Notebook, Canvas)
- Task management (e.g.: OneNote tags, FTHD app, schedules)
- Tactiles (e.g.: braille ruler)

Technology to develop curriculum understanding

- Interactive systems
- VR/AR (e.g.: Insight Heart app)
- 3D printers
- Tactile supports (e.g.: Touchtronics, Osmo iPad tactiles)
- Symbol-based content (e.g.: Boardmaker)
- Immersive readers
- Text-to-speech
- Multimodal texts

Technology to support responding to assessment

- Basic and extended word processors
- Digital worksheets (Word forms, PDF forms)
- PDF annotation (e.g.: Drawboard)
- 3D printers
- Digital recorders (sound, image, video, screen capture, screen recording)
- Writing support tools (word prediction, spell checkers, Clicker, DocsPlus)
- AAC
- Speech-to-text

Speech-to-text tools we have access to

- Dictate (iPad)
- Voice Control (iPad)
- Translate (iPad)
- Dictate (Mac)
- Voice Control (Mac)
- Speech Recognition (Windows)
- Dictate (Windows)
- Dictate (OneNote 2016 Learning Tools add-in)
- Dictate (OneNote for Windows 10)
- Dictate (OneNote Online)
- Dictate (Outlook Online)
- Dictate (Word Online)
- MS Teams captioning tool
- PowerPoint Online caption tool

Finishing up

- Consistent approach across the school
- Clear understanding of the curriculum
- Whole school approach and tailored support most effective
- Start with what you have
- Most effective tools are those that reduce range of barriers

Thank you

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