

# Provide options for language, mathematical expressions, and symbols

A suggestion for implementing the strategy  
'Provide multiple means of Representation'  
from the Guide: [Universal Design for Learning](#)

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## Includes:

- Overview
- Access to new language
- Understanding across languages
- Use multiple media
- Reflection questions
- Useful resources

## Inclusive Education

From

Guide: [Universal Design for Learning](#)

## Strategy: Provide multiple means of Representation

Suggestion: Provide options for language, mathematical expressions, and symbols

Date

19 May 2024

Link

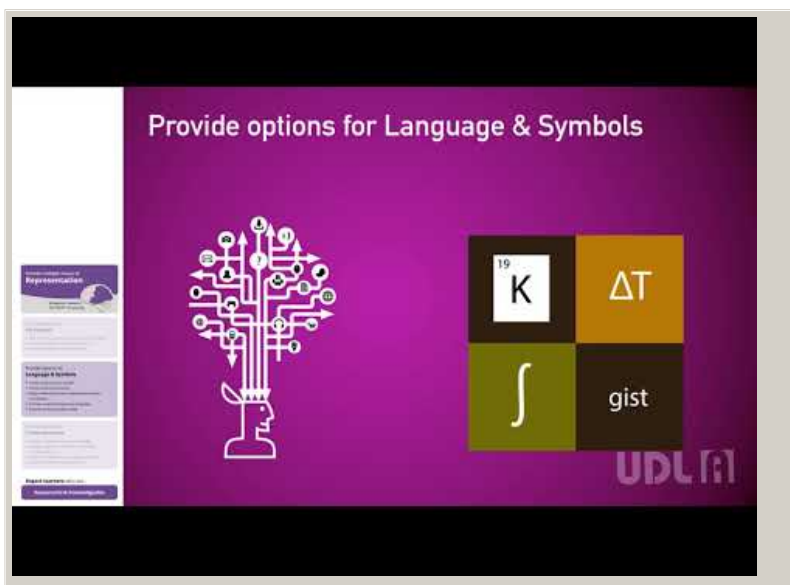
[inclusive.tki.org.nz/guides/universal-design-for-learning/provide-options-for-language-mathematical-expressions-and-symbols](https://inclusive.tki.org.nz/guides/universal-design-for-learning/provide-options-for-language-mathematical-expressions-and-symbols)

# Overview

Explore the 'language' guideline.

Recognise which approaches and strategies are already part of your practice.

Take note of anything you hadn't considered before.



Video hosted on Youtube <http://youtu.be/rmnPiU6dMns>

## Closed Captions

Source:

UDLA LACOE

<https://www.youtube.com/channel/UCZMomkDLikL-sWPoKTt-otQ/featured>

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## Access to new language

To support understanding of new vocabulary and unfamiliar symbols:

Examples of support:

- provide illustrations connected to students' experiences
- use diagrams and visuals alongside
- pre-teach important concepts and vocabulary
- provide opportunities to build vocabulary together
- encourage use of online dictionaries (for example, maths dictionaries)
- embed glossaries or word definitions within online learning environment
- explicitly teach vocabulary through concrete objects and demonstrations.

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## Understanding across languages

Students highlight the need for teachers to focus on supporting understanding when communicating.



Video hosted on Vimeo <http://vimeo.com/85294786>

[View transcript](#)

Source:

[Pasifika Education Community \(NZ\)](#)

<http://pasifika.tki.org.nz/Media-gallery/Effective-teaching-for-Pasifika-students/Student-advice-for-teachers2>

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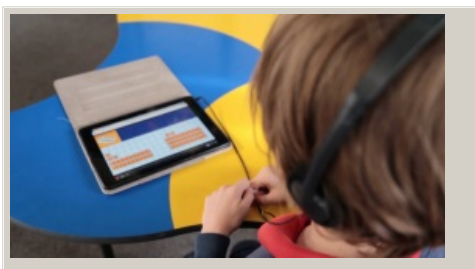
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## Use multiple media

Felix is a Year 5 student with dyslexia.

Having the option to use video supports his understanding of new concepts.



Video hosted on Vimeo <http://vimeo.com/105617225>

Closed Captions

### Source:

[Enabling e-Learning \(NZ\)](#)

<http://elearning.tki.org.nz/Teaching/Inclusive-classrooms/Universal-Design-for-Learning/Using-an-iPad-to-support-learning>

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## Reflection questions

How will I clarify important vocabulary (for example, embedded support, highlight terms)?

How will I reduce the barriers for decoding of text (for example, text to speech, digital text)?

How will I support second language learners?

What are alternative ways to promote understanding of language (for example, dominant language, link key vocabulary, electronic tools)?

How will I incorporate multiple media to support understanding of text (for example, animation, storyboard, illustrations, simulations, images, or interactive images)?

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## Useful resources



### Illustrated mathematics dictionary

A online maths dictionary with easy-to-understand definitions, illustrations, and links to further reading.

Publisher: Maths Is Fun

[Visit website](#)



### UDL Guideline Language, Math Expressions, Symbols

Supporting resources, including video to support the guideline Language, Math Expressions, Symbols

Publisher: CAST

[Visit website](#)

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