Rethinking assistive technology for students with diverse learning needs.

IDEAS

Fiona Thomas
Texthelp
TEDx Talk - Todd Rose
The myth of average.
WHY UNIVERSAL DESIGN FOR LEARNING?

Classrooms are filled with students who:

- have different needs
- come from different educational backgrounds
- have different attention spans and interests
- have different language abilities
- have different cultural backgrounds
Equality

Equity

Accessibility
How will/ do your students....

Access
information

Process
meaning

Express
understanding

Reflect
and respond

Greg Alchin 2018
Differentiation done digitally
SETT Framework
Joy Zabala

- Developed by Joy Smiley Zabala
- Group of questions to guide Assistive Technology Decision Making
- Focuses on:
  - The Student
  - The Environment
  - The Tasks
  - The Tools
- Be as specific as possible when answering questions
Student & Environment Tasks. Tools. Flexibility
Guiding principle

Assistive technology is related to function not a specific disability.

Joy Zabala
Accessibility

Everyone can acquire the same information, engage in the same interactions and enjoy the same services...... in an equally effective and integrated manner, with substantially equivalent ease of use.....
Freemium is a pricing strategy by which software, apps and/or services are at first offered free of charge for a basic version of the tool, but a payment is required to unlock the more advanced features. (which are considered "premium").
Digital Technologies

Student & Environment
Tasks. Tools. Flexibility
Guiding principle

Assistive technology is related to function not a specific disability.

Joy Zabala
Accessibility

Everyone can acquire the same information, engage in the same interactions and enjoy the same services...... in an equally effective and integrated manner, with substantially equivalent ease of use.....
Accessibility features of devices & platforms

Apple Accessibility

Windows accessibility
Find out how Windows accessibility features help you do more

Google Accessibility

Chromebook Accessibility
Where to get more info on Google Accessibility

✓ Google Accessibility site: google.com/accessibility
✓ G Suite User Guide to Accessibility
✓ Chromebook Help Center: Personalize your Chromebook Accessibility
✓ Chrome & Chrome OS Accessibility Video Series: https://goo.gl/IBcDFj
✓ Chrome Web Store Accessibility Category
Apple Accessibility
https://www.apple.com/au/accessibility/

iPad Accessibility
Microsoft Accessibility

All in one link Windows 10, 8 and 7

https://www.microsoft.com/en-gb/accessibility/windows

Office accessibility

https://www.microsoft.com/en-us/accessibility/office?activetab=pivot_1%3aprimararyr2
Accessible Educational Materials

National Center on Accessible Educational Materials

CAST
Personalising Reading

Display Options

Allow learners to adjust the content within the same media in order to make the information easier to see and process. These options include text resizing, font selection, and spacing adjustments.
Personalising Reading

Text to Speech

Transform the information into a different medium (audio) in order to support challenges with decoding or allow the information to be consumed without the need to look at a screen.
Personalising writing

Texthelp Read&Write
Across Platforms & Devices
Word prediction & Voice typing

Voice Typing/ Dictation
Google
Apple Mac & iOS

Microsoft/ Office

Dictate
Personalising maths

EquatIO
G Suite Tools
Word Doc’s

Desmos
Web based

MathType

Immersive Reader
Microsoft OneNote
Known as the Netflix for books, make sure teachers are using Epic in their classrooms. It is FREE for teachers! Works on all devices... iPads, Chromebooks, Smartphones.

And... the books are from great publishers of popular titles and series!
Reading on an E-Reader App

Popular e-reader apps learners can use to acquire and read e-books include:

- **iBooks** (free): Mac, iOS
- **Amazon Kindle** (free): Windows, Mac, iOS, Android
- **Google Play Books** (free): iOS, Android
- **Nook** (free): Windows, iOS and Android
- **Kobo** (free): Windows, Mac, iOS and Android
- **Libby by Overdrive** (free): Windows, iOS and Android
- **Moon+ Reader** (freemium): Android
- **Voice Dream Reader** (commercial): iOS and Android
Text Leveling

Text leveling provides materials for instruction with simplified vocabulary and sentences that are not as complex as materials written on grade level. It is important to ensure that the content aligns with the original materials and meets the expectations of the grade level standards.

Web pages and extensions
Web pages and extensions

**Summarisers**
- Text Compactor
- Shorten
- Read&Write for Google

**Text Complexity**
- Rewordify
- Newsleaa
- Tween Tribune
- Simple English Wikipedia
Text Compactor

- Type or paste text into Text Compactor text box
- Choose the % you wish to compact text
- Step 3 it will appear in Text Compactor at reduced percentage.

Reduces number of words not complexity
Follow these simple steps to create a summary of your text.

**Step 1**
Type or paste your text into the box.

Why cognitive load theory? To improve student performance, teachers need to understand the evidence base that informs and helps improve their practice. An area of research with significant implications for teaching practice is cognitive load theory. Cognitive load theory was recently described by British educationalist Dylan William as “the single most important thing for teachers to know” (William 2017). Grounded in a robust evidence base, cognitive load theory provides theoretical and empirical support for explicit models of instruction. Research in cognitive load theory demonstrates that instructional techniques are most effective when they are designed to accord with how human brains learn and use knowledge. This paper describes the research on cognitive load theory and what it means for more effective teaching practice. The first part of the paper explains how human brains learn according to cognitive load theory, and outlines the evidence base for the theory. The second part of the paper examines the implications of cognitive load theory for teaching practice, and describes some recommendations that are directly transferable to the classroom.

**Step 2**
Drag the slider, or enter a number in the box, to set the percentage of text to keep in the summary.

---

**Step 3**
Read your summarized text. If you would like a different summary, repeat Step 2. When you are happy with the summary, copy and paste the text into a word processor, or text to speech program, or language translation tool.

Why cognitive load theory? The first part of the paper explains how human brains learn according to cognitive load theory, and outlines the evidence base for the theory. The second part of the paper examines the implications of cognitive load theory for teaching practice, and describes some recommendations that are directly transferable to the classroom.
Rewordify

Reduces complexity of text.

Yellow highlighted text can be changed.

Why thinking-related load explanation (of why something works or happens the way it does)? To improve student performance, teachers need to understand the (event(s) or object(s) that prove something) base that informs and helps improve their practice. An area of research with significant effects/results/suggestions for teaching practice is thinking-related load explanation (of why something works or happens the way it does). Thinking-related load explanation (of why something works or happens the way it does) was (not very long ago) described by British educationalist Dylan Wiliam as ‘the single most important thing for teachers to know’ (Wiliam 2017). Grounded in a strong and healthy (event(s) or object(s) that prove something) base, thinking-related load explanation (of why something works or happens the way it does) provides (related to ideas about how things work or why they happen) and (based on actually seeing things) support for clear models of instruction. Research in thinking-related load explanation (of why something works or happens the way it does) demonstrates that instructional ways of doing things are most effective when they are designed to agreement/peace with how human brains learn and use knowledge. This paper describes the research on thinking-related load explanation (of why something works or happens the way it does) and what it means for more effective teaching practice. The first part of the paper explains how human brains learn according to thinking-related load explanation (of why something works or happens the way it does), and outlines the (event(s) or object(s) that prove something) base for the explanation (of why something works or happens the way it does). The second part of the paper examines the effects/results/suggestions of thinking-related load explanation (of why something works or happens the way it does) for teaching practice, and describes some recommendations that are directly move (from one place to another)able to the classroom.
Enter English text or a web page to simplify:

Why cognitive load theory? To improve student performance, teachers need to understand the evidence base that informs and helps improve their practice. An area of research with significant implications for teaching practice is cognitive load theory. Cognitive load theory was recently described by British educationalist Dylan Wiliam as ‘the single most important thing for teachers to know’ (Wiliam 2017). Grounded in a robust evidence base, cognitive load theory provides theoretical and empirical support for explicit models of instruction. Research in cognitive load theory demonstrates that instructional techniques are most effective when they are designed to accord with how human brains learn and use knowledge. This paper describes the research on cognitive load theory and what it means for more effective teaching practice. The first part of the paper explains how human brains learn according to cognitive load theory, and outlines the evidence base for the theory. The second part of the paper examines the implications of cognitive load theory for teaching
Why thinking-related load explanation (of why something works or happens the way it does)? To improve student performance, teachers need to understand the (event(s) or object(s) that prove something) base that informs and helps improve their practice. An area of research with significant effects/results/suggestions for teaching practice is thinking-related load explanation (of why something works or happens the way it does). Thinking-related load explanation (of why something works or happens the way it does) was (not very long ago) described by British educationalist Dylan Wiliam as 'the single most important thing for teachers to know' (Wiliam 2017). Grounded in a strong and healthy (event(s) or object(s) that prove something) base, thinking-related load explanation (of why something works or happens the way it does) provides (related to ideas about how things work or why they happen) and (based on actually seeing things) support for clear models of instruction. Research in thinking-related load explanation (of why something works or happens the way it does) demonstrates that instructional ways of doing things are most effective when they are designed to agreement/peace with how human brains learn and use knowledge. This paper describes the research on thinking-related load explanation (of why something works or happens the way it does) and what it means for more effective teaching practice. The first part of the paper explains how human brains learn according to thinking-related load explanation (of why something works or happens the way it does), and outlines the (event(s) or object(s) that prove something) base for the explanation (of why something works or happens the way it does). The second part of the paper examines the effects/results/suggestions of thinking-related load explanation (of why something works or happens the way it does) for teaching practice, and describes some recommendations that are directly move (from one place to another)able to the classroom.
Why thinking-related load explanation (of why something works or happens the way it does)? To improve student performance, teachers need to understand the (event(s) or object(s) that prove something) base that informs and helps improve their practice. An area of research with significant effects/results/suggestions for teaching practice is thinking-related load explanation (of why something works or happens the way it does). Thinking-related load explanation (of why something works or happens the way it does) was (not very long ago) described by British educationalist Dylan Wiliam as ‘the single most important thing for teachers to know’ (Wiliam 2017). Grounded in a strong and healthy (event(s) or object(s) that prove something) base, thinking-related load explanation (of why something works or happens the way it does) provides (related to ideas about how things work or why they happen) and (based on actually seeing things) support for clear models of instruction. Research in thinking-related load explanation (of why something works or happens the way it does) demonstrates that instructional ways of doing things are most effective when they are designed to agreement with how human brains learn and use knowledge. This paper describes the research on thinking-related load explanation (of why something works or happens the way it does) and what it means for more effective teaching practice. The first part of the paper explains how human brains learn according to thinking-related load explanation (of why something works or happens the way it does), and outlines the (event(s) or object(s) that prove something) base for the explanation (of why something works or happens the way it does). The second part of the paper examines the effects/results/suggestions of thinking-related load explanation (of why something works or happens the way it does) for teaching practice, and describes some recommendations that are directly move (from one place to another) able to the classroom.