Tools and strategies for productive reading and writing: 4 principles and 5 free assistive apps

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Overview

Four things that make reading and writing easier:

- 1. Listen instead of reading or while reading
- 2. Enlarge text and reduce distractions
- 3. Outline and navigate documents when reading and writing
- 4. Dictate instead of writing

Five free technologies that can help everybody improve reading and writing:

- 1. Read Aloud in Microsoft Edge and Office Apps
- 2. Immersive reader in Microsoft Edge and Office to remove distractions
- 3. Outlining with Navigation Pane in Microsoft Word
- 4. Planning with **outliners** and **mind mapping tools**
- 5. Dictate in Microsoft Office, Windows and Voice Typing in Google Docs

Disclaimer

This is a general guide. If you are registered with a disability support service and qualify for funding for assistive technologies, you need to contact them first before making any purchases.

What makes reading and writing easier

1. Listen: Read with your ears

Listening to improve reading

Listening to text has several advantages:

- 1. Helps people who are slower readers to read faster
- 2. Reduces eye strain
- 3. Improves understanding

There are two ways to listen:

- 1. Listen while following on the screen
- 2. Listen without reading as in an audio book or a podcast

Listening to improve writing

Listening to text is also a very useful part of the writing process. When you listen to what you wrote, you will notice many more issues with your text than just by reading it again and again. for example:

- Missing words
- Repeated words

- Unfinished sentences
- Awkward phrasing
- Typos not picked up by the spell check

How to make the most out of listening to text (reading with your ears)

- 1. Learn the controls for pausing and skipping back and forth
- 2. Learn how to switch between different voices
- 3. Learn how to control the **speed of playback** (many people prefer to listen at higher speed but it is also possible to slow playback down)
- 4. Switch between **listening only and listening while reading** to improve your comprehension and processing skills
- 5. Listen on your **mobile device** while on the go or doing chores
- 6. When listening to **PDFs of academic articles**, **crop the pages** to remove headers and footers; this will avoid distracting interruptions while listening

2. Enlarge: Speed up your reading

The smaller the font, the more effort he will have to spend on decoding it. There are three things that will **speed up your reading** and also **reduce eye strain**, and mental effort.

- 1. Large font
- 2. More space between lines
- 3. Shorter lines

Many people make the mistake of trying to fit the whole page on the screen. But scrolling or turning the page takes much less effort than decoding what's written on it.

3. Outline and navigate: See the bigger picture of your text

Using outlines for reading

Often, you may want to see the bigger picture; how the paragraph you are reading fits into the overall text. You should try to **discover the outline** and **navigate** through the text using this.

Understanding the outline of the text you are reading can also help you **read more strategically**. You don't always have to read every document from beginning to end. Here are some useful strategies that can help you **read a complicated document** more quickly and understand it better:

- skip to the **conclusion** section and then return to the beginning
- read all the headings in the document to get a sense of what it contains

- read the first lines of all paragraphs first to get a sense of where to focus your energy
- find all the lists in the document and read them first
- if the document does not have sections, mark them yourself to help you understand it better

Outlining for understanding with mind maps

You can also use outlining to help you understand what you are reading. Take notes in a structured way to help you understand the relationships between parts of the text.

Mind maps as graphical outlines

Many people like to display their **outlines graphically** in the form of a mind map. Mind maps make it easier to **see the whole picture at once**. But they may **not contain as much information** as an outline structured as a list. Most software makes it **possible to convert** between a mind map and a list outline.

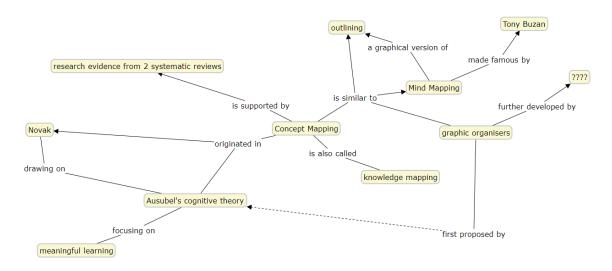
Concept maps for deep dives into ideas

An even more powerful way of understanding difficult concepts is a **concept map**.

Unlike a mind map, which is just a graphical outline, the concept map **labels** connections between ideas and makes it possible to link them in more complicated ways.

Concept maps also **don't have one starting place**. You can follow the flow of an idea in any direction. They fulfil a different role from a mind map in the learning process.

It takes **more effort to create a concept map** because you have to focus on the nature of the relationships between concepts. But concept maps have been shown to be an **effective tool for improving understanding**.



Using outlines for writing

Outlining is also an essential part of writing. You **don't always have to start with an outline**, but at some point you should create one. This will help you get a better sense of how the different parts of what you're writing **fit together**.

If your **outline** is marked with headings, you can also use it to **navigate** around the document and even **change** its structure.

Outlining skills

Many people find outlines a very natural way of organising their thoughts on paper. However, others prefer to think in larger chunks of text and sometimes struggle to create an outline. Both approaches are important when reading and writing. If you find you struggle with creating outlines, try to use these **three steps** to develop your outlining skills:

- 1. Brainstorm: Write down
 - a. What you know already
 - b. What do you want to know / do
 - c. What are common questions others ask
- 2. **Chunk:** Put things on your list that belong together into groups
- 3. **Structure:** Organise the chunks into a hierarchy
 - a. What are the top line ideas
 - b. What are the elaborations

4. Dictate: Save your hands and improve spelling

Reasons to dictate

Dictation technology has improved so that it is now highly usable by most people without much effort. There are several reasons why you may want to consider dictation:

1. Reduce the strain on your hands

- 2. Improve your spelling (reduce the effort it takes to remember more complicated words)
- 3. Make it easier to formulate complex thoughts in your head before writing them down

Dictation skills

- 1. Speak in complete sentences rather than individual words
- 2. Learn to formulate sentences in your head before saying them
- 3. Listen to the text after you dictate it

Dictation limitations

While dictation technology has become very usable and powerful, it is still far from perfect. You should always carefully review what you dictated. Listening to what you dictated while following along with your eyes will produce the best results.

Most of this document was created using dictation and edited with the assistance of read aloud features.

Five free technologies to support reading and writing

1. Read Aloud in Microsoft Edge and Office Apps

New natural voices

Microsoft has introduced new high quality natural sounding voices in multiple languages. They are available across various applications and devices but require an online connection.

Look for the **Read Aloud** feature in Microsoft Office.

Note: You should use Microsoft Office 365 to get all the latest features. They are also available in the online apps and mobile apps.

Microsoft Edge to listen to Web pages or PDFs

You can use the free Microsoft Edge browser to read both web pages and PDFs. You can access this in many ways:

- 1. Click on the **Read Aloud button** in the URL bar
- 2. Go to **menu** and choose Read Aloud to listen to the whole page
- 3. Select any text, right-click and choose Read Aloud Selection
- 4. Use the **Ctrl-Shift-U** keyboard shortcut

Once you start listening, a **menu bar will appear at the top**. You can use it to:

- 1. Play/Pause
- 2. **Skip** back and forth by a sentence
- 3. Change Voice Options
 - a. Voice (prefer Natural voice when available)
 - b. Speed of reading

Microsoft Word to listen to documents

You can access Read Aloud in Microsoft Word in one of two ways:

- 1. Click on Review tab and choose Read Aloud
- 2. Use the Ctrl-Alt-space keyboard shortcut

Microsoft Outlook to listen to messages

In Outlook, you can listen to:

- 1. Messages you received
- 2. Messages you typed before sending them

To launch Read Aloud in Outlook, you can either:

- 1. Use the **Read Aloud** button which is either in:
 - a. Messages you received: Under **three dots** at the end of the Tool bar
 - b. Messages you typed: under the **Review** tab
- 2. Use the Ctrl-Alt-space keyboard shortcut anywhere

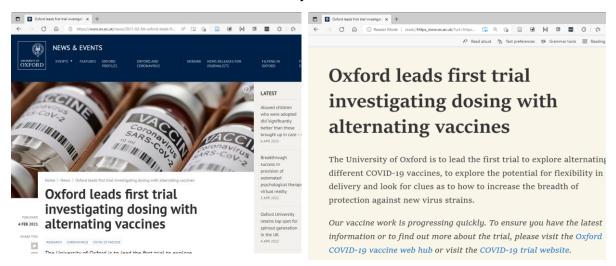
2. Immersive reader in Microsoft Edge and Office

What is Immersive Reader

Immersive Reader is a feature introduced by Microsoft that will enable **more productive reading** in a number of applications. It will:

- 1. Remove distractions from web pages (Edge only)
- 2. Allow larger font and increase space between characters
- 3. Line focus
- 4. Syllabification
- 5. Highlighting of parts of speech (Edge and Onenote only)
- 6. Read Aloud (can work outside Immersive Reader, as well)

Immersive Reader is available across most Microsoft applications. However, the features and interface are not always the same.



Original display of web page

Display in Immersive reader

Microsoft Office: Word, Outlook, Onenote, Teams

Immersive Reader is built into the key Microsoft Office applications used for dealing with large amounts of text.

- Microsoft Word
- Microsoft Word Online
- OneNote
- Outlook
- Teams Chat

It has a slightly different interface across different applications.

To launch it, click on the **Immersive Reader** button under the **View** tab.

Application	Interface differences	Feature differences
Word	Column Page Line Text Syllables Read Width ~ Color ~ Focus ~ Spacing Aloud Reader	No parts of speech highlighting
Outlook	👼 Column Width 🗸 🔓 Page Color 🗸 🗖 Line Focus 🕆	No parts of speech highlighting
OneNote	A _A ≡ □	No column widthRead aloud button at the bottom
Word Online	Same interface as Onenote	 Same features as OneNote Opens with increased font spacing by default Does not remember settings across sessions
Teams chat	Same as Onenote	Same as Onenote

Microsoft Edge

The main purpose of Immersive Reader on Microsoft Edge is to simplify the reading of complex web pages. By default, it only works on pages with articles, not on lists. However, it is possible to select any text on any page and display it in Immersive Reader.

There are three ways to launch Immersive Reader:

1. Click on the Immersive Reader icon in the URL bar



- 2. Type the keyboard shortcut F9
- 3. Select any text, right click and choose Open selection in Immersive Reader

To close Immersive Reader, you can either:

- Click on the Immersive Reader icon in the URL bar again
- Type the keyboard shortcut F9

Note: Immersive Reader only works on web content, not PDFs.

Alternative for PDFs: Adobe Acrobat Fluid mode for PDFs on Mobile

Unfortunately, there is no reliable way to read PDFs in an Immersive Reader style mode. Some PDF reading applications offer reflow mode that allows the reader to enlarge text without having to scroll left to right but the quality is variable.

However, it is now possible to achieve a similar experience on mobile devices with **Adobe Acrobat reader app** using its **Liquid mode** feature. It uses a machine learning algorithm to transform the PDF into a more **readable format** and to create an **outline**.

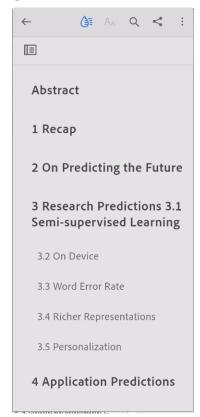
Original 2 column document



Document in LiquidMode



Automatically generated outline



Liquid mode in Acrobat Reader has several **limitations**:

- it requires an online connection
- it does not work on some very complex documents
- it does not work on very long documents
- it does not allow highlighting
- read aloud feature built into Acrobat Reader doesn't work in this mode

3. Outlining with Navigation Pane in Microsoft Word

Microsoft Word is the primary document creation tool for academic writing, reports and draft web pages. Also, many people like to take notes in their Word document.

All of these activities benefit from a robust outlining system. It is very easy to create, manage, and navigate by an outline within Microsoft Word using two powerful but underappreciated features:

- 1. Heading styles
- 2. Navigation pane

An equivalent to these features can be found in most other word processing software.

Headings styles

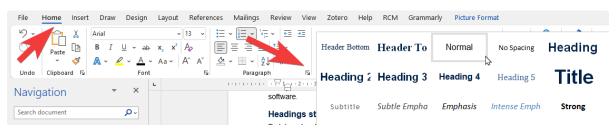
To take advantage of the outlining features in Word, you have to **mark all section headings with Heading styles**. Doing this will enable the automatic creation of Table of Contents as well as the Navigation Pane. It also has the added benefit of making the document accessible for blind readers using a screen reader.

What are styles: Every paragraph in Word has a style which is set to Normal by default. A style contains information about formatting of the paragraph such as, font size, line spacing, indentation, etc. You can change the style from the Styles section on the Home tab.

There are nine **built-in styles called Heading 1-9**. Each number represents the level in the outline.

There are three ways in which you can mark a section heading with a style:

- 1. Click anywhere in the text of the heading, and then **click on** Heading 1, 2, 3, or 4 in the Styles section on the home tab
- 2. Use a **keyboard shortcut**:
 - a. You can choose a keyboard shortcut to choose the number of the heading level directly: **Ctrl-Alt-1**, Ctrl-Alt-2, Ctrl-Alt-3, etc.
 - b. You can promote or demote the level of the heading of the paragraph you are with the keyboard shortcut: Alt-Shift-Left Arrow or Alt-Shift-Right Arrow



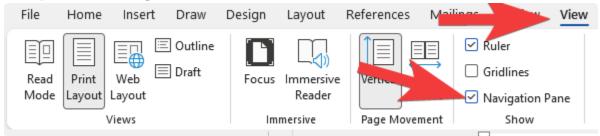
Navigation pane

Microsoft Word has a feature called **Navigation Pane** that shows all the headings in the document. You can use it to manage the document outline:

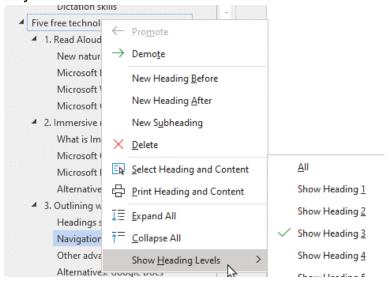
- Collapse sections or subsections
- Only show sections at a certain level of the outline
- Promote or demote selected sections in the outline (this will change the heading levels of all subheadings)
- Select the heading and all the text in subsections belonging to it
- Drag and move sections up and down in the outline (only in Microsoft Word on Windows)

How to use the Navigation Pane:

1. To open the Navigation Pane click on the View tab.



2. To access the main features of the Navigation Pane **right click** anywhere inside it.



Other advantages to using Heading styles

If you've marked all your section headings with Heading styles, you can also:

- create an automatic table of contents based on headings
- export the document into PDF with a clickable table of contents and headings as bookmarks
- change the font style, size, colour and other formatting by redefining the style to ensure consistency across the whole document

Marking headings with styles is also **necessary for accessibility**.

Overall, using styles has many advantages and makes it worth the investment into learning how to use them.

Alternatives: Google Docs

Heading styles are also available in Google Docs with many of the same features including a Navigation Pane called Document Outline and keyboard shortcuts.

However, it is not nearly as full featured as what is available in Microsoft Word. The only features available are:

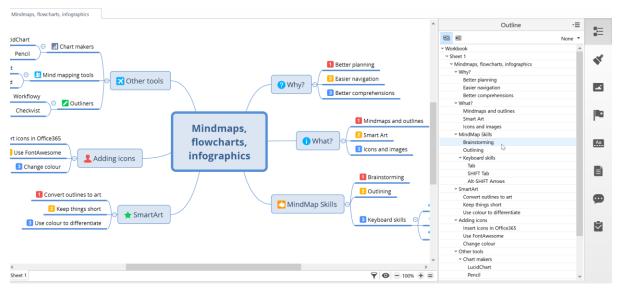
- Use keyboard shortcuts to mark section headings with Heading styles (Ctrl-Alt-1, 2, 3)
- Show document outline
- Generate automatic table of contents
- Change the formatting of headings at different levels

4. Outlining and Mind mapping Tools

For more sophisticated outlining, you should consider using a dedicated outlining tool. There are options of both **free and paid software** for this. There are two types of outlining tools:

- 1. Outliners: Display outline as a list of headings and subheadings
- 2. Mind maps: Display outline visually as branches from a central field

Mind maps can be converted into outlines and vice versa.



Mind map and outline display of the same list

Features to look for in an outlining tool

Most outlining and mind-mapping tools should have these features:

- Use keyboard shortcuts to quickly generate new items and move items around; typical keyboard shortcuts are:
 - o Enter: Create new item
 - o TAB: Move item down one level in the outline
 - o Shift TAB: Move item up one level in the outline
- Collapse and expand levels of the outline
- Export the outline into a word processing application or presentation

Many mind-mapping and outlining tools also have these additional features:

- add images and/icons to items in outlines
- make checklists
- add dates to items on outlines and display them as timelines (this can be used for efficient project management)
- collaborate and/or share outlines or maps online

Outliners

There are many free and professional outlining tools available, these three all offer sufficient free features for most uses:

- 1. Checkvist: Fully online tool
- 2. **Dynalist**: Online tool with associated apps for most platforms
- 3. Obsidian: Note taking app with strong outlining features

Mind Mapping Tools

There are dozens of free and commercial mind mapping tools available at all kinds of price ranges. Free or inexpensive my mapping tools will be sufficient for most needs. These four represent major types:

- XMind 8 (Classic): Free tier of a powerful mind mapping tool for all platforms.
- Mindomo: Online mind mapping tool with an outline view with apps for desktop and mobile (free for three maps with a low monthly subscription).
- 3. Free Mind: Entirely free basic mind mapping tool for desktop.
- 4. <u>WriteMapper</u>: Paid mind mapping and outlining tool focused on creating long documents.

How to make the most out of using outlining tools

To take advantage of the power of outlining and mind mapping tools, you should spend time learning to use them more fluently and productively. You should especially focus on:

- Learn the keyboard shortcuts for fluent creation of outlines to remove the barrier between the brain and the screen
- Become proficient in moving between different levels of the outline
- Develop a workflow of moving information between the mind map and your documents or notes

Concept mapping tools

There are not nearly as many tools available for creating concept maps as there are for mind maps. If you want to create a concept map, you should consider one of these two tools:

- CMap: Free dedicated tool for creating concept maps (works online and on desktop)
- 2. <u>Mindomo</u>: Primarily a mind mapping tool and outline tool with concept mapping functionality

5. Dictate in Microsoft Office, Windows, Mac and Voice Typing in Google Docs

Key features of modern speech recognition

Dictation is now available for free in all major word processors and on both mobile and desktop operating systems. The key features of modern dictation are:

- Positives
 - Does not require training
 - Is responsive to all types of voices and tolerant of accents
 - Does not require special headset or microphone
 - Supports multiple languages
 - Does not have to be installed
 - Is free
- Negatives
 - o Requires an online connection
 - Cannot create custom vocabularies or adapts to individual users
 - Has limited editing capabilities
 - Expects input in complete sentences
 - What is dictated can change as more input comes in

These pros and cons applied to all the systems described below, they do not apply to the only commercial alternative Dragon.

Microsoft Office: Word, Outlook PowerPoint

Where is it available

All new versions of Microsoft Office now support dictation when you are connected to the Internet including the online version.

Note: You must be an Microsoft 365 subscriber. This is available to students of the University.

Dictation works in:

- 1. Microsoft Word (Office 365)
- 2. Outlook (Office 365)
- 3. PowerPoint (Office 365)
- 4. Word Online (Office 365)
- 5. Word Mobile application

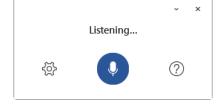
Dictation is not available in Office 2016. You should install the latest version from Office.com.

How to launch

To start dictating, you can either:

- 1. click on the **Dictate button** on the Home tab and start speaking.
- 2. use the Alt-` keyboard shortcut.





Dictate button on the Home tab

Dictation interface

Available commands

You can click on the Question mark button on the dictation interface to get a list of commands.

Most common commands are:

- Punctuation: full stop, comma, question mark
- Document control: new line, start list, start numbered list
- Editing: delete, backspace, bold, italics

Windows

Dictation is also available in Windows 10 and Windows 11 using the same kind of speech recognition engine. To launch it, simply type **Win-H** and start speaking anywhere you can enter text.

You can use this to dictate even in a Word document.

Mac

Dictation is also available on MacOS. See more details on how to use it: Dictate messages and documents on Mac – Apple Support (UK)

Google Docs

Dictation in Google Docs is free without any subscription. It is of similar quality to Microsoft Office but supports more languages. To start it, you can either:

- 1. Go to Tools, select Voice Typing
- 2. Use the **Ctrl-Shift-S** keyboard shortcut

The commands are similar as in Microsoft Office.

Comparing free dictation with Dragon

Dragon is the only commercial alternative to the free dictation options. It is only available for Microsoft Windows. It is the only alternative for people who require complete voice control over their computer and/or who want to dictate while offline.

Key features only available in Dragon:

- Spell out unknown words
- Set up a custom vocabulary
- Train speech recognition based on own writing
- Have full control over editing the document
- Control any part of the computer interface with voice

The main downsides of Dragon:

- very high cost
- requires some training to get the best results
- cannot be used by different people on the same computer without loading a separate profile
- is relatively resource intensive (may not work well on very slow computers)
- more sensitive to signal quality (trained on particular microphone)

Note: Dragon used to be called Dragon Naturally Speaking and Dragon Dictate.

- ♦ Works offline
- ♦ Can edit existing text
- **♦** Can control PC
- ♦ Can be trained for own vocab
- ♦ Any text input field
- Expensive
- No MacOS
- Some training required

Dragon



- Free
- No training required
- Requires online connection
- Limited editing
- No computer control
- No custom vocab
- Only some applications



Appendix 1: Switching to Microsoft Edge

The new Microsoft Edge browser has built in **two very useful assistive technologies** that make it better than Chrome for reading.

- 1. Read Aloud
- 2. Immersive Reader

Edge has the same engine as Google Chrome and is fully compatible with it. When **switching to Edge**, **you can import all**:

- 1. Extensions
- 2. Bookmarks
- 3. Passwords

Some additional features of Edge that may be beneficial are:

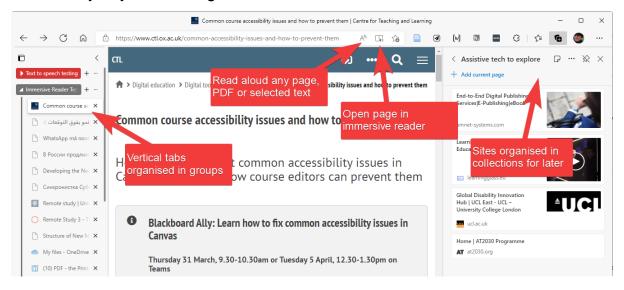
- 1. Vertical display of tabs
- 2. Grouping of tabs
- 3. Collections of websites
- 4. Icons in menus to make selection easier

Microsoft Edge works well on:

- 1. Windows (it is built in)
- 2. MacOS (it can be installed alongside Safari and Chrome)
- 3. Android Phones and tablets
- 4. iPads and iPhones

Read Aloud is available on all platforms. PDF reading is only on Windows and Mac.

You can sync your reading across all devices.



Appendix 2: Listening on a mobile device

It is often more convenient to listen to a document on a mobile device. Each platform has specific features or applications that enable this for free or at a low cost.

All of these applications can be used while reading or simply for listening with a phone or tablet closed.

iPad and iPhone

- 1. **Speak Screen:** Feature built into iOS that can be enabled in Accessibility settings
- 2. Acrobat Reader: Free PDF application with Read Aloud features
- VoiceDream Reader: Paid application designed for listening to documents
- 4. Microsoft Edge: Can be used to listen to web pages

Android

- @Voice Aloud: Free app that will enable listening to any PDF, ebook, or web page (supported by advertising which can be disabled for a small fee)
- 2. Acrobat Reader: Free PDF application with Read Aloud features
- **3. Moon Plus Pro:** Cheap app for reading and listening to PDFs and eBooks

Appendix 3: Three best pocket guides to help with reading and writing strategies

These three books are best for companions for improving your strategies for reading and writing. Having the right approach can

All these books are:

- 1. Pocketable and affordable
- 2. Brief, to the point and practical
- 3. Contain checklists and self-assessments

They are also available as ebooks in the Oxford University library but you will get the most out of them, if you carry them with you in your pocket, write in them, and consult them often.

1. 50 Ways To Excel At Writing by Stella Cottrell

Handy booklet with **practical tips** supported by **short worksheets and checklists** that you can always **keep in your pocket**. It is useful to browse through as an eBook, but you will get more out of it if you buy a copy for yourself that you can write in.

Links

- 1. Check out ebook in SOLO
- 2. Purchase book on Amazon

Pros

- Very practical with worksheets and checklists to assess your needs and track progress
- User-friendly format that can be easily carried around
- Does not require a lot of time or effort to use
- Cheap to buy

Cons

- Not systematic
- Not ideal as an eBook

2. Reading and Making Notes by Jeanne Godfrey

Essential information for students at all levels on how to **improve reading productivity** and **take effective notes**. It covers 10 myths of reading and note taking and offers practical alternatives.

Links

- 1. Check out ebook in SOLO
- 2. Purchase book on Amazon

Pros

- Systematic approach to reading and note taking
- Very brief; does not add additional reading burden
- Practical tips
- Relevant examples

Cons

Vertical format makes for long-lines

3. Writing for University by Jeanne Godfrey

Systematic overview of the most **important strategies** for improving academic writing. Focuses on **approach and developing writing skills** rather than on structure and grammar.

Pros

- Systematic overview of effective writing
- Very brief; does not add additional study burden
- Practical tips
- Relevant examples

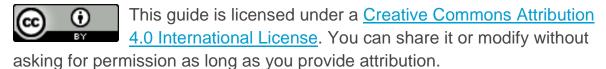
Cons

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