Title: Universal Access using Spell Checker & Thesaurus/Dictionary Supports
Author: Gerry Kennedy © March 2009
Software: Spell Checker and Thesaurus/Dictionary Programs
Category: Checking text using Spell Checker and Thesaurus/Dictionary Supports

1. Introduction

People use computers for a number of different writing tasks. Students type assignment, reports, notes, poetry, class projects, creative prose, poetry, argumentative essays and all manner of curriculum documents. Users rely on spell checkers for a variety of reasons. Typing errors are the obvious mistakes users make whilst entering text due to speed, poor typing skills or missed keystrokes.

Over and above typing errors, users of all ages misspell infrequently or inconsistently. This article is not primarily concerned with the teaching of spelling or mastery, but the technology and software supports that exist to help users identify and correct misspelling in their work.

[Note: A list of popular spelling and phonics programs is listed towards the end of this article for teachers and parents].

2. Spelling Errors

Spelling Utilities and programs

- Assist students who spell poorly
- Assist students with dyslexia
- Gives additional supports to all students who need to check the spelling as they type or after completion of text entry as completed sentences or paragraphs
- Provides greater independence
- Assists in improved independent proof reading

People make errors in a number of ways. Most spell checkers work on similar principles. The more ‘intelligent’ ones track user errors and keep a log. These are more reliable and cater to users who have poor spelling skills. Common errors include:

- Missed letters
- Additional letters
- Double vowels
- Double consonants
- Anagrams
- Reversed order of letters
- Phonetic errors

Spelling programs assist users in identifying errors and usually alert them to the mistake. In MS Word, an incorrect spelling will have a red underline underneath the word. A user can right-mouse-click on the word and a pop-up menu will list possible interventions. If the person incorrectly typed the word ‘Mike’ for word ‘make’, then a list of corrections will promote words such as ‘Mike’, ‘Me’, ‘Moke’ and ‘Moe’.

The user may elect to ignore these words or Add this new word to his or her dictionary. The person...
can nominate to have the word automatically corrected as well. By clicking on the Spelling option, a new window will appear. This is where the user can change the dictionary, or change the word once or many times from ‘Mike’ to ‘Make’ or even cancel this operation.

It is advisable to have the current dictionary as “Australian”, for students will need the appropriate dictionary for their country (i.e. not the American dictionary or English for Canada option etc.).

The Microsoft spelling engine will work across all of the MS Office programs (e.g. Excel, PowerPoint, Access etc). It is when students open other programs that are not in this group or ‘family’ where the need arises for a global spell check. Programs such as textHELP Read & Write V9 or ClaroRead 2008, if used consistently and launched before working on an email, web site, art and design program or other non-Office program, maintain a user’s spelling history. The one spell check can therefore track usage and report when and how a student misspells. Educators and therapists can use these features as a diagnostic tool, to a degree, as both programs monitor word usage and report the type of spelling errors experienced over a time frame. They can list or print the type of errors and then concentrate on attending to the misspelt words and identify them for future reference.

Some words are used incorrectly, but are spelled correctly. Homophones or ‘confusables’ are commonly used words that do not appear in a spell checker, as they are not misspelt. The context is the error. Therefore, a homophone checker in the above tools and in other literacy support programs is essential for some students. There are over 18,500 words in English that can be classified and included as homophones.

Free utilities such as tinySpell V1.5 can be very useful. It caters to students who need a global spell checker. Occasionally users need to check the spelling of words in an application that does not include a spelling checker and they don’t want to launch a word processor. TinySpell is a small utility that allows users to easily and quickly check the spelling of words in any Windows application. tinySpell can watch typing on the fly and alert the user whenever it detects a misspelled word. It can also check the spelling of text that is copied to the clipboard. tinySpell installs itself in the system tray for easy access. It comes with an American-English dictionary containing more than 110,000 words. Optionally, users can download and install other dictionaries, including a British dictionary and install it. Other languages are also supported for LOTE students.

While students are typing, tinySpell watches the text that is entered. A practical, but sometimes annoying feature is whenever it detects a misspelled word it beeps and the tinySpell icon in the system tray turns from white. It does alert the user to errors such as typing mistakes and gives an indication to fast typists that they have made one or many errors in a passage of text.

When a user copies text to the clipboard, tinySpell immediately checks the spelling. If it finds at least one misspelled word in the text it beeps and turns its icon to yellow. If the icon is white it means that no misspelled words were found in the clipboard text. It is a handy free utility that is discrete and works as text is entered or copied to or from any program.

Other programs work very efficiently as imbedded programs. WordTalk has just been re-released as version 4.2. It resides in MS Word as a toolbar. Not only does it perform a spell check, but it also has text-to-speech facilities. Students can hear the word or words being promoted as potentially correct. Students can listen to the words before they use them.

3. Thesaurus and Dictionaries

- An electronic thesaurus assist students with definitions and meanings
- It is available immediately as am installed program on the computer or accessed as a web resource
- Words can be researched quickly and independently
- Words can be cut and paste into the user’s document
- Searching for synonyms or antonyms can access difficult words more efficiently
A number of programs exist for use of electronic thesaurus and dictionaries. Some are installed applications whilst others are web-based resources. A web site such as www.thesaurus.com also links to http://dictionary.reference.com/. Web browsers typically provide a space to place bookmarks on a user’s toolbar, making it a convenient bookshelf for favourite reference tools. Users can drag the links on this site onto the Firefox toolbar for instant access to Dictionary.com, Thesaurus.com, and Reference.com. (http://thesaurus.reference.com/tools/bookmarklets.html)

Their feature-rich buttons let users
- Highlight a word and click on it
- Click on the button and type in a word.
  Note: The user’s browser may not support these buttons.

Other thesaurus programs that require installation include Wordweb V5, The Thinking Man’s Thesaurus and The Sage.

Wordweb V5  http://wordweb.info/free/

Wordweb is a very useful thesaurus. WordWeb is a quick and powerful international English thesaurus and dictionary for MS Windows. It can be used to look up words from almost any program, showing definitions, synonyms and related words. It includes pronunciations and usage examples, and has helpful spelling and sounds-like links.

It suits anyone who requires a thesaurus. Version 5 has fast one-click look up, web-reference tabs, bookmarks, as well as support for MS Windows Vista versions. It works with any software and loads and function into the taskbar. It provides fast and efficient access to definitions. It works off-line, but can also look up words in web references such as the WikiPedia encyclopaedia. Features of the free version include:
- Definitions and synonyms
- Proper nouns
- Related words
- Pronunciations
- 150 000 root words
- 120 000 synonym sets
- Look up words in almost any program

The software has a full dictionary and thesaurus for American, British, Canadian, Australian, Indian, and global English.

The Thinking Man’s Thesaurus  http://www.theabsolute.net/sware/

This is another thesaurus and it works well with Wordweb. It also caters to users who require a thesaurus. This program is an ideal pop-up utility for when the right word is eluding a student. It includes a powerful thesaurus and a dictionary that can check the spelling of individual words as well as provide users with a list of similarly spelt words. The package includes a version of the program that automatically links to the popular freeware dictionary, Wordweb, for looking-up definitions of words.

TheSage  http://www.sequencepublishing.com/thesage.html

TheSage allows you to look up words directly from most applications, offering multiple detailed definitions each coupled with its own thesaurus. TheSage’s English Dictionary and Thesaurus is a professional software package that integrates a complete dictionary and multifaceted thesaurus of the English language into a single and powerful language reference system. It can look up words directly from almost any program (i.e. MS Word, Firefox, MS Outlook, Thunderbird) and is 100% portable. It is included on the popular free AccessApps suite - http://www.rsc-ne-scotland.ac.uk/accessapps/.
Some of the most interesting characteristics of The Sage include:

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<tr>
<th>Feature</th>
<th>Description</th>
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<tbody>
<tr>
<td>Comprehensive Dictionary</td>
<td>Multiple detailed definitions (+210,000)</td>
</tr>
<tr>
<td>Complete Thesaurus</td>
<td>Nearly 1,400,000 relationships between definitions (synonyms, antonyms, hyponyms, metonyms, and holonyms)</td>
</tr>
<tr>
<td>Example Sentences</td>
<td>A large collection that already includes approximately 50,000 examples of usage.</td>
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<tr>
<td>Pronunciations</td>
<td>Over 70,000 phonetic transcriptions</td>
</tr>
<tr>
<td>System Integration</td>
<td>Look up words directly from most applications.</td>
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<tr>
<td>Information Integration</td>
<td>Each definition has its own specific thesaurus.</td>
</tr>
<tr>
<td>Cross-Referencing</td>
<td>Any and all displayed words are click-able, triggering a new lookup.</td>
</tr>
<tr>
<td>Wildcard Search</td>
<td>Match single/ multiple characters as well as filter by single/groups of vowels and consonants.</td>
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<tr>
<td>Anagram Search</td>
<td>Only valid English words are returned.</td>
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<tr>
<td>Clipboard Support</td>
<td>Copy search results, examples, thesauri, definitions.</td>
</tr>
<tr>
<td>Tabbed Interface</td>
<td>Previous lookups and searches remain readily available.</td>
</tr>
<tr>
<td>Structured Display</td>
<td>Clean, flexible, fast, and easy to use presentation of information.</td>
</tr>
<tr>
<td>Custom Appearance</td>
<td>Choose your own font and colour for each aspect of the display.</td>
</tr>
<tr>
<td>Multi-Session History</td>
<td>Quickly available via dropdown or the 'History' tool.</td>
</tr>
<tr>
<td>Portability</td>
<td>Fully functional when run from portable devices such as a USB</td>
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4. Advantages and Disadvantages

Parents often lament that spell checkers make their sons and daughters lazy. The standard of spelling skills seems to have waned over the years. The emphasis on being able to spell accurately has witnessed different approaches to literacy lessons and classroom instruction. Intervention for younger children is required.

When students present with spelling difficulties in secondary or high school, then tools are required to assist them to complete their work. It becomes more prevalent and critical as they negotiate their final years of schooling. Tertiary students just need support in completing their assignment and research. Each stage of learning needs different solutions and approaches.

The facility for helping struggling students complete their own work with some degree of independence and confidence is a key element in keeping them engaged. Creating text is very difficult for many students. Having a spell check and thesaurus provides a level of achievement where their work is not graded poorly due to spelling errors or minimal use of vocabulary.

Many students with dyslexia speak well and have an extended spoken vocabulary. They tend to type smaller less complicated words as they can spell them. They tend not to use the more exact or sophisticated language, as they are less confident of typing these more difficult words correctly.

Educators need to intervene and support students of all ages. If they can use other tools, strategies and methodologies to assist in learning phonics and spelling more accurately, then this will require scrutiny and assessment.
5. Commercial Thesaurus and Spelling checking Software

_textHELP Read & Write V9_  [www.texthelp.com](http://www.texthelp.com) or [www.spectronicsinoz.com](http://www.spectronicsinoz.com)

The Spell Checker has been enhanced in Version 9. It will convert more errors than previously and the corrections are made on a user’s own spelling patterns and usage. It tracks errors and maintains a log file. The dictionary definitions of the suggested corrections can also be voiced. The dictionary caters to younger less experienced students as well as advanced users, with web definitions also available. It also has homophone support. Students can quickly identify and change the words that are used in the wrong context (e.g. to, too and two). They can also be verified by having the definitions read aloud in a human quality sounding voice.

_ClaroRead for Windows 2008_  [www.clarosoftware.com](http://www.clarosoftware.com) or [www.spectronicsinoz](http://www.spectronicsinoz)

_ClaroRead_ provides a single _Check Button_ for use in _Microsoft Word_ that combines a homophone dictionary, thesaurus, reference dictionary and spellchecker, making the checking of text and documents easier and more comprehensive.

If a word is a homophone the _Homophone Check Box_ will appear, along with meanings. If the word has alternative words with the same or similar meaning, the _Meaning Check Box_ will appear. Users can then scroll down further to see the dictionary definition. Users can _Spell Check_ individual words or the whole document at any point. The Check Boxes are fully speech enabled, so hovering the mouse over the words will make them speak. There are also over 1000 picture icons to help with word meanings.

In addition, the _ClaroRead_ homophone feature will:
- Mark in colour all the homophones and confusable words in a document
- Using the Advanced Settings Editor, students can also add additional tricky and confusable words
- The _Check Feature_ will list alternative words that sound the same, along with the meaning of each word
- It will also mark homophones in colour as a user types

_Kurzweil 3000_  [www.kurzweiledu.com](http://www.kurzweiledu.com) or [www.spectronicsinoz.com/catalogue/14408](http://www.spectronicsinoz.com/catalogue/14408)

_Kurzweil 3000_ is a reading, writing and learning solution for students with learning disabilities or reading difficulties. Kurzweil 3000 is a leading reading, writing and learning software for struggling students, including individuals with dyslexia, learning difficulties, or those who are English Language Learners.

5. Freeware and Open Source Solutions


_Open Office Org 3.0_, specifically _Writer_ in the language options, has a spell checker. It also works across all of the other applications in _Open Office Org_ suite.


- Check the spelling and meaning of words from any application using _Microsoft Word_
- Spelling suggestions and meanings are displayed in a non-intrusive way so that you do not have to shift from the application you are working
- When spelling suggestions are displayed, copy any suggestion to clipboard by pressing the corresponding number
- Display time of spelling suggestions and meanings configurable.
- Unlike other programs in this category, Global Spell Checker is loaded to memory only when required and exits after spell check is over
TinySpell V1.8  
http://www.tinyspell.m6.net/  (tinySpell + is also available at cost)

- Checks spelling in any Windows application
- Checks spelling on-the-fly (alerts if the last typed word was misspelled)
- Allows you to specify applications for which tinySpell is disabled or enabled
- Optionally beeps on error (beep sound can be easily set to any wav file)
- Optionally displays a spelling tip
- Provides easy access to on-line web services
- Opens replacements list with a simple mouse click or a hot-key
- Optionally copies the selected replacement word to the clipboard
- Optionally inserts the selected replacement word into the document
- Allows you to add words to the dictionary
- Easy enable/disable function
- Uses minimal system resources

WordTalk V4.2  
http://www.wordtalk.org.uk/Home/

For people with reading and writing difficulties, having text reinforced by hearing it read aloud can be useful. Specialised programs have existed to do this for a long time, and in many cases are very helpful and highly appropriate and should be seriously considered, perhaps in consultation with professional advice where necessary. WordTalk is a free text-to-speech plugin developed for use with all versions of Microsoft Word (from Word 97 upwards). It will speak the text of the document and will highlight it as it goes. It contains a talking dictionary to help decide which word spelling is most appropriate.

WordTalk resides neatly in the MS Word toolbar and is highly configurable, allowing users to:

- Adjust the text highlight colours
- Change the voice and the speed of the speech
- Convert text to speech and save as a .wav or .mp3 file so that it can be played back on an iPod or mp3 player
- Check spelling

Some useful documentation providing more help and details is available at http://www.wordtalk.org.uk/Documentation/.

6. Portable Versions on USB Thumb Drives

TextHELP Read & Write, ClaroRead 2008 and other literacy support tools are now available as portable applications that will fully operate on USB drives. A suite of free solutions is available, called AccessApps. They can be downloaded as a ‘Lite’ or ‘Full’ version. Other portable applications can be added as well.

AccessApps  
http://www.rsc-ne-scotland.ac.uk/accessapps/index.php

AccessApps will run without needing to install anything on a computer and provide a range of e-learning solutions to support writing, reading and planning as well as visual and mobility difficulties. Applications that assist in spelling and word definition include Open Office Org, TheSage, PowerReader (a very useful tool for dyslexics) and Dspeak, amongst many other assistive tools.
The Merriam-Webster USB Dictionary & Thesaurus portable storage device assists students in spelling correctly as well as providing support in defining words, downloading eBooks and eNews and storing files all in one device. Link to: http://www.franklin.com/estore/dictionary/MWD-170 for more details. This USB Dictionary and Thesaurus offers the convenience of electronic file storage and instant access to 300,000 definitions and 500,000 synonyms & antonyms from Merriam-Webster® Dictionary & Franklin Thesaurus.

Franklins has a wide range of hand held models that can also be useful. These portable devices provide support at any location, at any time. For example, the Merriam-Webster Intermediate Dictionary and Spell Corrector provides a portable hand-held English reference tool for reading, writing and spelling.

It features:
- Merriam-Webster's Intermediate Dictionary with a thesaurus of 500,000 synonyms and antonyms
- Phonetic spell correction – type in “nolij” and see “knowledge”
- Confusables function distinguishes commonly confused words (their or there versus they're)
- Classmates feature provides words in similar categories (i.e. tiger, cheetah, jaguar, leopard, lion, etc.)
- Crossword puzzle solver
- Nine games and four learning exercises
- Local/world clock
- Calculator & currency/metric converters
- Up to 4 line LCD display with adjustable font size

7. Learning to Spell and Master Phonics
Some of the following programs may prove to be applicable to younger students who wish to master spelling. Some are game based, whilst others provide drills and practise. There have been many different approaches to the acquisition and mastery of spelling skills. These programs all have some benefit. Essentially, matching the needs of an individual, especially older students and adults, can be a time consuming process. Some advice and guidance may be required.

WhiteSmoke 2009 www.englishsoftware.org/about.html - support for adult users
WordShark V4 www.spectronicsinooz.com - a highly recommended word knowledge program
The First 200 Words http://www.spellingcentre.com/orders/school.htm - for school and home versions
SuperSpell Series www.edsoft.com.au - A Day at the Beach and others
Ultimate Spelling www.ultimatespelling.com/about2.html - eReflect Software, based in the ACT
Spelling Made Simple www.spellingmadesimple.com/
Personal Best Spelling http://www.spellingzone.com/
ISpellWell www.ispellwell.com - 60-day free trial available
Spell Quizzer www.spellquizzer.com - download a free trial

Freeware
Spell the Fruit http://webpages.charter.net/hope4all/fruit/download.htm - basic skill acquisition
Spell the Vegetables http://webpages.charter.net/hope4all/vegetables/veggiedownload.htm
Sebran’s ABC www.senteacher.org/FileDetails/18/Children.xhtml - for very young children
Online Spelling Program www.spellingcity.com - online games and drills
AlphaBeez V1.2 www.softplatz.com/Soft/Education/Languages/AlphaBeez.html