



Spell CHECKING

Making Writing Meaningful in the Inclusive Classroom

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With all the advances in software that assist writers all over the world, one would think that students with disabilities would especially benefit from programs like spell checkers in word processors (see box, “Writing and Text Production Today”). However, when introducing computers and word processors to students with learning disabilities, educators often forget to directly teach skills in the actual operation of the hardware and the features of the software being used. One example of this is the use of spell checking.

Are you surprised when students can instantly recognize the correct word when the spell checker finally gives appropriate choices?

What to Do When Spell Check Doesn't Check Spelling

Spell checking devices are useful to most writers. Although originally designed to detect typographical errors, spell checkers can be an excellent tool for enhancing spelling skills. Often, however, students with learning disabilities do not make effective use of this feature. One example of this is that the correctly spelled version of the word the students with learning disabilities are attempting to write is not presented as an alternative. The combination of letters that the person has typed is often not a close enough approximation of the intended word for the software to offer the needed choices. Because the word isn't there on the first attempt, students with learning disabilities will often click on “Go to Next Word,” “Skip Word,” or the like, without making a change. They are then left with a document containing many misspelled words.

As a part of two research studies with 24 teachers and 124 students, I developed the CHECK strategy to help students become more effective and independent in the use of spell checkers (Lewis, 1994-1996). These studies looked at written language issues for

Figure 1. The CHECK Procedure

- | | |
|----------------|--|
| Check | - Check the beginning sound of the word.
- What other letter(s) could make that beginning sound? |
| Hunt | - Hunt for the correct consonants.
- Have you included all the consonants in the rest of the word? |
| Examine | - Examine the vowels.
- What other vowel(s) could make the same sound(s)? |
| Changes | - Changes in suggested word lists may give hints.
- What words are being suggested? Is that the one you're looking for? |
| Keep | - Keep repeating Steps 1 through 4.
- Need help? Try dictionaries and asking others for assistance. |

students with learning disabilities. Specifically, the software program Write This Way (1993) was used in the first study, and Write:OutLoud (1993-94) was used in the second.

We found that we had to teach a preskill before teaching the actual strategy. Because the spell checkers in most word processing programs will allow the user to type in the "Change To" box, explain to students that they can make a change in the spelling of their word and then click on "Change" or "Replace." If the new word is closer to the intended word it may appear in the next list of suggested words. This can be repeated as many times as is necessary. However, it is best to make one type of change at a time.

A Mnemonic to the Rescue: CHECK

The following strategy, which can be used cross-platform and with any word processing program that includes a spell checking feature, helps students remember a sequence that will get them to the desired word in the most direct fashion (see Figure 1).

Check the beginning sounds.

Most spell checkers do not work phonetically and will search for similar words beginning with the same letter as the one the writer has typed. The correctly spelled version of the word is much more likely to appear in the list of suggested words if the initial letter is correct. For example, if a student is attempting to spell the word "elephant" but has begun her word with "ul," teach her to ask herself what other letter(s) make that same beginning sound.

Hunt for the correct consonants.

After the initial sound, teach the students to alter the consonants throughout the remainder of the word. For

How do you teach students to "guess" spellings well enough to "fool" the spell checker?



After persistent manipulation of vowels in a word, the spell checker program should list the desired word in the "suggested word list."

Writing and Text Production Today

Many students with learning disabilities have difficulties with the multifaceted dimensions of written language. Each stage of the writing process presents its own challenges for this group of students (Lynch & Jones, 1989; Newcomer & Barenbaum, 1991). One of the most demanding stages seems to be that of revising and editing. More specifically, students with learning disabilities face some of their most difficult challenges with the mechanical aspects of writing (i.e., spelling, grammar) (Houck & Billingsley, 1989).

Word processing has been shown in most cases to be an extremely helpful tool for writers with learning disabilities (e.g., Dalton, Morocco, & Neale, 1988; Graham & MacArthur, 1988; MacArthur, Graham, Schwartz, & Schafer, 1995). This method of creating text allows students a great deal more flexibility in the addition and deletion of text, the movement of text from one location in the document to another, and the production of a final product that is similar in appearance to that of their classmates who do not have learning disabilities. Recent advances in technology (Lewis, Graves, Ashton, & Kieley, 1998) can assist student with learning disabilities, as follows:

- Alternative methods of text entry, such as keyboards arranged in alphabetical order.
- Larger keyboards.
- Word prediction software programs.
- Synthesized speech in reading text aloud as it is entered or after it has been created.



By using the spell CHECKING strategy, students with learning disabilities can produce final products they are proud of.

example, one fourth-grade boy using the word processor Write This Way (1993) was writing about Egypt and wanted to use the word “pyramid.” His initial attempt was “perament.” The only suggested word was “per,” so he continued to sound out the word and changed it to “peramed.” This still didn’t give him the word he was looking for, so he altered his word further to “peramid.” “Pyramid” appeared in the suggested word list and he instantly recognized it as being correct.

This young man’s first and final drafts of this writing sample follow. The final draft still contains a number of grammatical errors; but by using the spell checking strategy, this student was able to turn in a document about which the teacher could give constructive feedback rather than just circling spelling errors.

What can students do if their spelling is so garbled the word processor’s spell checker doesn’t recognize very many words?

First Draft

Gabe is a boy in the story we are reading. It takes place in a dark perament in the desert. Gabe is brave avencher and curossh. The perament is misty spouky mestrees and scary. Gabe pendant is old and it has a scarab in it.

Final Draft

Gabe is a boy in the story we are reading. It takes place in a dark pyramid in the desert. Gabe is brave adventure and cure us. The pyramid is misty spooky mysterious and scary. Gabe pendant is old and it has a scarab in it.

Examine the vowels.

Vowels can be sounded out in so many variations that it can sometimes be difficult for students with spelling difficulties to know which vowels or vowel combinations to use. Spell checkers, if given enough guidance, can be particularly useful in these instances. One such example is the word “cafeteria.” A fifth-grade girl telling about the location of her most recent band concert initially spelled this word “cafitirea.” After persistent manipulation of the vowels in this word, she eventually came close enough to have the correct spelling shown in the suggested word list.

Can students learn how to manipulate the spell checker to their advantage?

Changes in word lists may give hints.

A sixth-grade girl who has quite a serious deficit in her spelling skills was attempting to type the word “favorite.” Her initial attempt was “fovoriate.” In Write This Way, no help was available. Following the first three steps of this strategy, she began altering the vowels from “fovariate” to “fovaritue” to “favaritue.” After this last change “favor” was given as a suggested word. From that clue, she typed “favoritue” and “favorite” was then listed as a word choice, which she was able to quickly recognize as being the word she needed.

The first and final drafts of her brief paragraph follow. Although the paragraph is still not perfect, through the use of nothing but a spell checker, this student was able to turn a poorly written paragraph into one that is readable and presentable.

First Draft

My fovoriute lucky chame
My fovoriute lucky charm is a ribbit folt. It’s die purple. It is 3inch log. It’s soft and fuzy.

Final Draft

My favorite lucky charm
My favorite lucky charm is a rabbit foot. It’s die purple. It is 3 inch log. It’s soft and fuzzy.

Keep repeating Steps 1 through 4.

Persistence is the key for helping students with learning disabilities use a spell checker successfully. As a last resort, have the student look the word up in a dictionary, a children’s dictionary, or a “my words” list if available (e.g., a continually updated list which the student keeps of words he or she has had to look up previously). The use of a thesaurus, an electronic spelling

What do you do when spell check offers no choices of alternate spellings?

device, or consulting with peers and teachers are other popular solutions.

Patience and Persistence Are Key

Limitations of the CHECK strategy are twofold. First, it seems that each word processing program that is currently available uses different terminology and a different layout for each aspect of the spell checking feature (e.g., change to, add, ignore, select). Students who typically have difficulty with generalizability may take longer to adapt to a variety of programs being used in different classrooms.

Second, students for whom spelling is an extremely arduous task sometimes either use unrecognizable and garbled spellings (even to highly sophisticated spell checkers) or are unwilling to manipulate their spelling as suggested by the CHECK strategy. Through time and persistence, however, we found both limitations to be manageable, in the aforementioned research studies.

Many students with learning disabilities are included in today's general education classrooms. Deficits in the many aspects of written language are often responsible for highlighting differences between students with and without disabilities. By using learning strategies, such as the spell CHECKing strategy, students with learning disabilities can begin to produce final products that they can be proud of and that can show how much they truly are capable of achieving.

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