

# ENHANCING STUDENTS UNDERSTANDING OF WORD PROCESSING IN MICROSOFT WORD

*Abdullahi Isa*

## **Abstract**

Computers and stand-alone word processors have replaced typewriters in the creation and production of documents. Observations and long years of teaching have revealed to me that students and users of Word processing are unaware of the various conveniences contained in Microsoft word. It is the aim of this paper to draw the attention of students of Office Technology and Management to the facilities embedded in Microsoft word for a functional learning in word processing. The paper exposes the various features of word processing that discourage students from double efforts of handwriting by composing documents directly on the word processor. The paper concluded by encouraging the handicap students to take full advantage of word processing to advance in their learning. The paper recommended that teachers should encourage students to manipulate documents setting through the various features of word processing.

## **Introduction**

The computer is not a magical writing tool that will transform the way in which exceptional students write; it is neither a writing curriculum nor an instructional method. However, it is a powerful and flexible writing tool with certain physical characteristics and information-processing capabilities that may affect the writing process and facilitate certain types of writing instruction. Computers can support the cognitive processes involved in planning, writing, and revising text. Equally important is the potential impact of the computer on the social context for writing in the classroom. Of all [computer applications](#), word processing is the most common. To perform word processing, one need a computer, a special [program](#) called a [word processor](#), and a [printer](#). A word processor enables one to create a document, [store](#) it electronically on a [disk](#), display it on a [screen](#), modify it by entering [commands](#) and [characters](#) from the [keyboard](#), and print it on a printer.

The great advantage of word processing over using a typewriter is that one makes changes without retyping the entire document. If one make a typing mistake, one simply back up the [cursor](#) and correct the mistake. If one wants to [delete](#) a paragraph, one simply removes it, without leaving a trace. It is equally easy to [insert](#) a word, sentence, or paragraph in the middle of a document. Word processors also make it easy to move sections of [text](#) from one place to another within a document, or between documents. When one have made the entire changes one want, one can send the [file](#) to a printer to get a hardcopy.

This article first discusses the key features of word processors and how they transform text processing through various formatting tools. Next, a summary is presented of research evidence on the overall impact of word processors in schools. Finally, the article discusses the potential role in instruction of several extensions to word processors, such as spelling and style checkers, synthesized speech output, computer networks, and prompting programs that support planning and revising. Word processors permit flexible editing of text. Second, the visibility of the monitor and the use of a keyboard make writing more public. Third, they provide neat, printed copy. Fourth, they change the physical process of producing text, replacing handwriting with typing. Finally, wordprocessors are complex tools that require some learning. The significance of each of these features is discussed in turn.

## Word Processing

Word processing is one of the most widely used application programs today. Although the actual commands and features vary somewhat from program to program, it is important to be familiar with the general concept of what word processing enables us do, as well as the basic features of word d processing. Word prefers to using a computer and word processing software (Microsoft word) to created, edit, save, and print written documents, such as letters, contracts, newspapers, invoice, and

reports. Word processing is used to do what was done on a typewriter before computers were commonplace. Word processing documents can be retrieved, modified, and printed as many times as needed.

### **Assortment of Operations**

Virtually, all formal writing today is performed using a word processing program. Word processing contains an assortment of operations for creating and editing documents, including commands to insert both text and graphic and then move, copy, delete, or otherwise edit the content, as needed. When editing text in a word processing document, it is important to know when to press enter key. Word processing programs use a feature called word wrap, which means the insertion point automatically moves to the beginning of the next line, when the end of the screen is reached. With word wrap, when changes are made to the document, such as adding, modifying or deleting text or changing the text size or page margins, the program automatically adjusts the amount of text on each screen line, as long as the enter key is not pressed at the end of each line.

### **Formatting Options**

In word processing (Microsoft Word), formatting can be applied at the character, paragraph, and document levels. Character formatting changes the appearance of individual characters, such as to change the font face, size, style or colour. To format characters, you usually select them with the mouse, and then apply the appropriate format using the command buttons on the Ribbon's Home tab or the mini toolbar, or by clicking the font dialog box launcher located in the font group of the Home tab to open the font dialog box. Paragraph formatting changes an entire paragraph at one time, such as specifying the line spacing for a particular paragraph. To format paragraphs, you usually select the paragraph with the mouse, and then apply the appropriate format using the command buttons in the paragraph group, on the Ribbon's Home tab or in the paragraph dialog box.

Word processing (Microsoft Word) has a variety of page formatting options, such as changing the margin, the paper size being used, and whether you want the page to use the traditional portrait orientation (8.5 inches wide by 11 inches tall or standard paper) or the wider landscape orientation (11 inches wide by 8.5 inches tall on standard paper). Other types of document formatting include generating footnotes, and end notes, a table of contents, or an index, as well as applying a background or theme to the entire document. Word processing (Microsoft Word) has advanced features to help users create documents or add special features to documents. For instance, a table feature allows content to be organized in a table consisting of rows and columns. Tables can be used as basic data tables. Once a table has been created, shading, borders, and other formatting can be inserted or deleted, as needed. There are a number of ribbon tabs that can be used in Word to help users insert and modify tables. For instance, the Insert tab can be used to insert tables as well as pictures, charts, text boxes, and other boxes.

### **Flexible Editing**

The most often mentioned characteristic of word processors, or text editors, is the flexibility they provide in revising text. Changes in spelling, insertion and deletion of words and sentences, and large-scale movement of blocks of text can all be accomplished relatively easily. The potential impact of word processors on revision is significant, since revision has been identified as both an important part of the composing process and a factor that distinguishes expert from novice writers. Though expert writers revise frequently to clarify meaning as well as to correct errors, the revisions of inexperienced writers are limited primarily to surface changes (Scardamalia & Bereiter, 1986). The ease of revision on the computer may encourage writers to make more revisions and improve their texts. It has also been suggested that the editing capability can affect the entire composing process by encouraging authors to write freely without concern for errors and awkward spots because it is so easy to make changes later (Daiute, 1985).

Some cautions are in order, however. The research evidence to date indicates that the impact of word processing on revision depends on individual writing skill. Revision is a complex cognitive process requiring writers to evaluate their writing, diagnose any problems, and figure out what changes to make (Flower, Hayes, Carey, Schriver, & Stratman, 1986). If students do not possess

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these cognitive skills, easing the physical requirements of revision will not help. Thus, it is not surprising that initial research indicates that experienced adult writers revise more extensively when using a word processor (Bridwell, Nancarrow, & Ross, 1984), but that word processing has limited impact on revision by inexperienced writers (Daiute, 1986; MacArthur & Graham, 1987).

Daiute (1986) reported that average eighth-grade students corrected more mechanical errors with a word processor than with pen and paper, but made few substantive changes within the text. MacArthur and Graham (in press), in a study of learning disabled (LD) students' composing, found no differences between handwriting and word processing in the overall number of revisions made by students, in the syntactic level of the revisions, or in the proportion of revisions that affected the meaning of the text. In both conditions, the majority of revisions were surface changes or minor changes in wording that did not affect meaning. The timing of revision, however, did differ between methods. With word processing, students made most of their revisions as they wrote the initial draft; whereas with handwriting, most revisions occurred while recopying the text. This difference suggests that, rather than freeing students from mechanical concerns during writing, the ease of editing may encourage writers to make many minor changes during initial composition.

Although word processing by itself appears to have little impact on revision by exceptional students, it may facilitate learning revising skills in an instructional context that teaches those skills. Graham and MacArthur (1987) taught LD students a strategy to use when revising opinion essays at a word processor. The strategy instruction increased both the overall number of revisions and the proportion of revisions that affected meaning, and resulted in essays that were longer and higher in overall quality. Morocco and Neuman (1986) reported that a process approach to writing instruction combined with a word processor helped LD students learn to revise.

#### Visibility and Social Context

A second characteristic of word processors less noted but perhaps equally important in instructional settings, is that the upright monitor and clear print make a student's writing accessible to peers and teacher and can promote social interaction around writing tasks. The accessibility of the monitor and the keyboard can be used to facilitate collaborative writing activities among students and sharing of work in progress (Levin, Riel, Rowe, & Boruta, 1985). Discussion of work with peers is a well-established principle of effective writing instruction (Graves, 1983). It should be noted that instruction on working cooperatively with peers is needed to ensure that collaborative writing activities are productive.

The visibility of writing on a word processor can also facilitate interaction between students and teachers (Morocco & Neuman, 1986). Teachers can observe the writing process of their students and gain a better understanding of how individual students approach writing tasks. Teachers can intervene at appropriate points to provide help with difficulties, to reinforce student decisions, or to react as a reader. Of course, the timing and content of teacher comments and questions are critical. Morocco and Neuman reported that special education teachers tended to intervene more actively when students wrote at a word processor, but that the impact on students depended on the teacher's approach to writing instruction. They found that students' motivation and sense of ownership of their writing were enhanced when teachers provided procedural support, or help in how to approach writing tasks, rather than giving substantive help with content or focusing prematurely on mechanics.

#### Printed Copy

Word processors give students the power to produce neat, printed work and to correct errors without damaging the appearance of the paper. This aspect of word processing may be especially motivating for those exceptional students whose written work is typically characterized by poor handwriting and numerous mechanical errors. Printed output may also encourage publication of work in a variety of formats for real audiences (MacArthur & Graham, 1987). Word processors and related software make it possible to produce letters, books, newsletters, and other publications with a professional look. Such publishing opportunities are valuable in establishing writing as a meaningful act of communication and in motivating student writing (Graves, 1983). When the teacher is the only audience, children may see writing as an exercise in correct form and display of knowledge--and as another opportunity for failure. When writing for a real audience, they start to see writing as a meaningful way of telling others about their experience and knowledge. Publication can also

make all phases of the writing process more meaningful. For example, publishing a newspaper involves students in gathering and organizing information, selecting the most important points, writing clear descriptions, and revising and editing each other's work (Riel, 1985).

### Typing

Typing is potentially an efficient way of producing text, especially for students with poor handwriting skills. Typing is not typically part of the elementary school curriculum, however, and most students find that typing is slower and requires more attention than handwriting. When typing is not automatic, it may interfere with higher order processes involved in composing and adversely affect students' writing. MacArthur and Graham (1987) found that typing proficiency was highly correlated with the length and quality of stories composed on a word processor. Our observations and those of others (Daiute, 1985) indicate that the slowness of typing can be frustrating for students and interfere with motivation.

Students need systematic typing instruction if they are to use word processors regularly. A reasonable goal, short of touch typing, is for students to use the correct fingering while looking at the keyboard and to achieve a rate at least equal to their handwriting. Brief instructional sessions can be included as a regular part of computer use. Several typing tutorials are available that provide carefully sequenced instruction, practice on phrases and sentences, and feedback on rate and errors. Teachers should monitor students to encourage them to use the correct fingering. Programs that emphasize games with time pressure should probably be avoided since they encourage students to abandon correct form for short term increases in speed.

### Operation of a **Word** Processor

In addition to typing, students need to master the text-editing, filing, and printing operations of the word processor. The design of word processing software has improved in recent years both in power and in ease of use, and several word processors have been designed specifically for use by younger students. Nonetheless, beginners of all ages commonly experience some frustrating difficulties in learning to use a word processor. MacArthur and Shneiderman (1986) described some of the problems that LD students have in mastering a word processor. One persistent problem area is misunderstanding the function of the return key in formatting text on the screen, which causes problems when students revise and print their work. Another common problem is loss of written work due to confusion about procedures for saving and loading files. Difficulties can be reduced by careful design of word processing software, selection of appropriate software for varying ages of students, and instruction in the operation of the word processor that anticipates common areas of difficulty (MacArthur & Shneiderman, 1986).

### Spelling Checkers and Style Analyzers

The analytical power of the computer can be tapped to help students with editing. Spelling checkers will check each word in a document and recommend possible spellings for any word not appearing in the program's dictionary. Sophisticated programs, for example, Writers Workbench (Frase, Kiefer, Smith, & Fox, 1985), have been developed that will analyze aspects of style and grammar and provide editorial suggestions. Spelling and style checkers have promise for exceptional students who typically have difficulty with spelling and mechanics, but further development of software designed for educational purposes, and of instructional methods, will be needed before computer analysis of writing will be helpful to beginning writers. Students can use spelling checkers to compensate for poor spelling skills, but current software was not designed to help students develop spelling skills. A spelling analysis tool designed for instructional purposes might look for common patterns in misspellings and provide that information to the teacher and student, or it might highlight only misspellings in a small set of words that an individual student is currently working on. Current style analysis programs were developed for business settings and are of limited usefulness for writers below the college level (Bridwell et al., 1984).

### Conclusion

Computers are dynamic tools for writing; they provide a wide range of opportunities for improving writing instruction. Word processors change the physical process of writing by

replacing handwriting with typing and by making revision quick and convenient. Word processors and computer networks can change the social context for writing by supporting publishing for a variety of audiences and by facilitating collaborative writing projects and sharing of work in progress. Computers also can enhance instructional interactions between teacher and student by providing the teacher a window onto the writing processes of individual students. Interactive prompting programs can help students learn strategies for planning, writing, and revising. Synthesized speech can support reading and writing activities by exceptional students with limited reading skills. Spelling and style checkers can help students with the mechanical aspects of writing. A caveat is in order. As with other educational applications of computers, the impact of computers on writing and writing instruction depends on how teachers and students make use of the technology. If computers are to contribute to better writing, they must be integrated with an effective instructional program. Special educators must develop sound instructional methods and computer-assisted composing tools that meet the needs of exceptional children. Further research is needed to determine how computers can be used most effectively to support writing instruction.

### **Recommendations**

1. Teaching of word processing should start from the elementary experience of the students in typewriting. The basic typewriting instructions should serve as the basis of presenting word processing lessons to students.
2. Teachers should try as much as possible to link the Microsoft features with the concrete and real life examples. This helps in making students manipulate and use the Microsoft features with dexterity and accuracy.
3. Teachers should bring to the classroom real live office tasks as practical exercise to students. This will create confidence and improve the skills of students as they come to know that they are handling with real office documents.
4. Students should be using Newspapers as reference copy from which to follow examples in format, style, font, font size and display.
5. Students should be involved in interactive teaching instructions through the use of manuscripts and multi-media instructional facilities in their teaching learning process in word processing.

### References

- Bridwell, L., Nancarrow, P. & Ross, D. (1984). *The writing process and the writing machine*. New York, Guilford Press.
- Burns, H. & Culps. G.H. (1980). Stimulating invention in English composition through Computer-assisted instruction. *Educational technology*, 20(8), 5-10.
- Cohen, M. & Riel, M. (1986). *Computer networks: creating real audience for students' writing*. University of California, San Diego Press.
- Daitu, C.A. (1985). *Writing with computers*. Addison Wesley press.
- Flower, L., Hayes, J., Carey, L., Schriver, J.& Stratman, J. (1986). Detection, diagnosis and strategies of revision. *College Composition and Communication*, 37(2),16-55.
- Frase, L., Kiefer, K., Smith, C., & Fox, M. (1985). *Theory and practice in computer-aided composition*. Incuss publishers. W. Freedman (Ed).
- Graham, S., & Harris, K. (1987). Improving composition skills with self-instructional strategy training. *Topics in Language Disorders*, 7, 66-77.
- Graham, S., & MacArthur, C. (1987). Improving learning disabled students' skills at revising essay on a word processor: Self-instructional strategy training. *Unpublished raw data*.

- Graves, D. H. (1983). *Writing: Teachers and children at work*. Exeter, NH: Heinemann Educational Books.
- Kerchner, L. B., & Kistingner, B. J. (1984). Language processing/word processing: Written expression, computers and learning disabled students. *Learning disability quarterly*, 7, 329-335.
- Levin, J., Riel, M., Rowe, R., & Boruta, M. (1985). *Computer and elementary school writers*. In S. W. Freedman (Ed.), *The acquisition of written language: Response and revision* (pp. 160-171). Norwood, NJ: Ablex.
- MacArthur, C., & Graham, S. (1987). Learning disabled students' composing under three methods of Text production: Handwriting, word processing and dictation. *Journal of special education*, 21, 22-42.
- MacArthur, C. A., & Shneiderman, B. (1986). Learning disabled students' difficulties in learning to Use a word processor: Implications for instruction and software evaluation. *Journal of Learning Disabilities*, 19, 248-253.
- Morocco, C. C., & Neuman, S. B. (1986). Word processors and the acquisition of writing strategies. *Journal of learning disabilities*, 19, 243-247.