INTRODUCTION

Over the past two decades typewriting has transformed into keyboarding. Twenty years ago students were taking typewriting classes in high school. No one ever thought to teach a first or second grade student how to type. Times have changed and the need to know how to type has steadily increased. This has also put increased pressure on educators to teach students how to use this new technology properly. Many schools have focused energy on teaching students how to use computers to obtain and produce information; they have paid little attention to teaching them how to type on the keyboard quickly and accurately, and with correct technique. But who decides at what age should we teach keyboarding? Who should be teaching these classes (Starr, 2005)?

BACKGROUND

The introduction of the personal computer has changed business education and the method in which typewriting instruction is delivered. The ability to interact with computers is an essential skill for the Information Age, in which our schools will need to address to prepare our students to meet the challenges of this new era. The educational reform act of the 1980s has recognized the importance of computers in education. For example, A Nation at Risk (1983) calls for the high school students to:

a. Understand the computer as an information, computation, and communication device;
b. Use the computer in the study of the other basics and for personal and work-related purposes
c. Understand the world of computers, electronics, and related technologies

Presently, people interact with computers via typing words on typewriter, such as a keyboard. Even though it may be possible someday for computers to understand handwriting and human, speech it will take many years for these technologies to filter into the educational systems. It is for these reasons and many more that schools integrate computers, especially keyboarding, into curriculum at all levels (Shuller, 1989).

Keyboarding can be exciting and rewarding when approached through the content areas as a skill necessary to use the computer to its fullest potential (Lindroth, 2002). Computers allow students to become more efficient as they key letters, memos, reports, and so forth. English teachers require that papers be in a typed format, and so do many other disciplines. How can students type papers if they have not learned to type yet? This is the dilemma of many school districts, deciding what grade levels to teach keyboarding. On the other hand, many critics say “how young is too young?”

Many pre-K students are now expected to be familiar with the keys on a computer, that is, knowing where the various letters are located (Lindroth, 2002). However, children in the early years of pre-K through second grade are developing larger muscle groups. Later when they begin to develop smaller muscle groups, they learn to print and write in cursive, cut with scissors, and so forth (Starr, 2005). All children do not have the eye-hand motor coordination to learn keyboarding skills any (Hopkins, 1998).

What Age is Appropriate to Teach Keyboarding?

Some say the proper use of the keyboard should be introduced as soon as a child shows interest in using the alphabet to create or communicate on a computer (Keyboarding Readiness, n.d.). Everyone who uses a computer needs to develop “touch” keyboarding skills. The emphasis on is on the skill of entering alphanumeric data for the primary purposes of obtaining, processing, or communicating information.

Although the National Educational Technology Standards (NETS) require that students be able to apply “basic keyboarding techniques” by the end of the fifth grade, these student guidelines have only been adopted in 30 of the states and are subject to differing
interpretation. Curriculums for schools are set at the state and local levels; therefore, each district has the discretion to determine the appropriateness for early keyboarding education within that school districts policy (Minkel, 2003).

Various groups have suggested that keyboarding be taught prior to using a computer, especially since students need formal instruction to acquire keyboarding skills using the touch system. Benefits of acquiring keyboarding skills include the enhanced use of time and effective use of computers. Research shows that children with keying skills are able to compose faster, they are more proud of their work. These students typically produce documents with neater appearance and have better motivation and demonstration of superior language arts skills (Erthal, 2003).

Some educational technologists are adamant about teaching keyboarding at the lower grades. These specialists say that, “If you combine keyboarding with letter-recognition and hand-eye coordination activities in grades K-3, then you provide a developmentally appropriate skill that helps reinforce classroom learning and develop fine motor skills. To wait is to deprive the student of a fundamental skill (Hopkins, 1998).

Students below third grade, however, do not possess the dexterity and hand size to manipulate the keys effectively. The suggested age for effective keyboard instruction is 10 to 12 years. Children in grades four to six gradually exhibit greater smoothness and command of small-muscle expression, which is reflected in better coordination in activities (Erthal, 2003). This does not mean that children in earlier grades should not be introduced to a computer keyboard. Students should be encouraged to pretend that there is a middle line down the keyboard and to keep the right hand to the right of the line and the left hand to the left of the line. Encouraging students to use more than one finger to type is important beginning step to keyboarding that can be learned prior to the fourth grade. This helps build into more complex keyboarding in the later grades (Hopkins, 1998).

**Who Should Teach Keyboarding?**

Most teachers with knowledge of correct keyboarding skills and the will power to enforce appropriate hand placement for keying can teach keyboarding. When first learning to touch type, students need about 30 hours of keyboarding instruction to acquire the ability to use the correct fingers. In many schools, keyboarding instruction is limited to approximately 10 or fewer hours of instruction due to time constraints. The result is poor keying skills, which will follow the students to the next grade.

Keyboarding instruction can be supplied by elementary teachers who have taken a keyboarding methods class, a business education teacher with elementary learning methods, or a combination of business education and elementary education teachers (Erthal, 2003).

Software can enhance keyboarding skills. However, software cannot take the place of a qualified teacher. Many popular keyboarding software packages violate psychomotor skill development. The complexity of teaching keyboarding requires an extensive and extremely well-written software program. No software program has been shown to be superior to a skilled and experienced teacher. Software programs serve well for drill, remediation, enrichment practice, as well as adding variety to keyboarding instruction. Software cannot be programmed to see, hear, or to feel the keyboarding instructional needs of students (Erthal, 2003).

**How to Teach Keyboarding**

Once you have decided when to teach keyboarding, the decision about how to initiate the process arises. The danger that many schools curriculum have regarding keyboarding instruction is that it is taught at a singular grade level. Keyboarding is like any other skill, the more you work at it, the better you become. If you do not use the skill on a regular basis you can begin to forget what you have learned and loose some of the skills. That is why some experts suggest the continued education of keyboarding beginning in elementary school throughout junior high/middle school. Of course as students progress to higher grades they should be required to complete more complex tasks with keyboarding, that is, more words per minute typed.

Teachers should not discourage the use of the keyboard if no formal education has occurred. However, there are some elementary instructional ways to help a child become familiar with the appropriate ways to use a computer. Therefore, when a teacher has a group of students with no computer experience the use of preparation and explanation are of key importance. For example, to prepare students for keyboarding they must learn the names of the fingers. As you point your
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