

Text Builder: Computer-Based Writing Instruction for Postsecondary Deaf Students (Level One)

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Abstract

Text Builder is a Windows-based computer program that provides extensive writing instruction and practice for low-verbal deaf students. The program is almost totally self-sufficient, so staff involvement is minimal. The program is in two parts, and comes with full documentation including master copies of student handouts and curriculum. In the first part, students “build” groups of 15 sentences with three Patterns and eight Verb Forms. In the second part, students build groups of 15 yes-no questions with six Patterns and the same eight Verb Forms. In both parts, the program checks each student’s writing *as they type*. If a mistake is detected, a message describing the error and its solution is presented and the student retypes the segment. The program saves all student work, and has numerous pull-down help screens with definitions, rules, etc. The program allows students to learn intuitively and naturally by providing abundant practice with instant feedback.

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Text Builder (Level One)

I was trained as a teacher of the deaf, and have been working with this population for almost 30 years. I have worked with students who demonstrate a wide range of reading and writing abilities. Many are low-verbal, and are often unable to write even simple sentences correctly. Over the years, I have spent most of my teaching time with these low-verbal students. During that time, I struggled to find a teaching tool or method that would produce measurable improvement in the writing abilities of my students. I took small comfort in the fact that my counterparts in other schools were feeling equally frustrated. None of the traditional methods of writing instruction that I had used or seen used were ever truly effective.

The only solution I could imagine was to clone myself so that I could give each student one-on-one attention. In that environment, I would watch as the students write, stop them whenever they made a mistake, explain their mistake, have them correct it, and continue. I would be available to repeat any relevant grammar rule or definition whenever the student needed help. In this situation, students would be able to learn through self-discovery and extensive hands-on practice while I would act more as a guide than a teacher. I knew that this form of learning would produce writing improvement, but I needed to find an appropriate substitution for this group of imaginary mentors.

Then I had an idea. Why not put all of my knowledge and writing instruction into a computer program? The computer would provide all of the individualized attention in my imaginary solution, and it would never criticize nor intimidate, and it would allow students to progress at different rates. Fortunately, I had learned programming in my undergraduate days so I felt confident that I could create such a program. My program design would focus on writing

simple sentences and yes-no questions. I got to work right away, writing the program in the summer of 1996, and using it in a special writing class for the deaf I taught at Pierce College in the fall semester of that year. Several other classes of deaf students have used the program since that time, and have helped me to perfect its design and operation. The program provides instant feedback as a student types a sentence, and has an extensive capacity for student practice from which mastery is achieved. Students using the program “build” sentences and questions, therefore I called the program *Text Builder*. The program runs in the Windows environment.

The *Text Builder* program is divided into two (2) sections that focus on various grammatical concepts. The program guides students through the steps of writing simple sentences and yes-no questions using Patterns and Verb Forms. The program can be used in a special English class or as a resource for deaf students in programs without access to special classes. I do not know how well the *Text Builder* program will work with ESL students, but I intend to investigate that possibility soon.

The first section of the *Text Builder* program focuses on sentence writing. This section involves three Sentence Patterns. For example:

SUBJECT + TRANSITIVE VERB + OBJECT + (ADVERB)

These patterns are used to practice eight Verb Forms. For example,

PRESENT, PAST, NEGATIVE

Students use assignment sheets I created to practice writing all three sentence patterns with each verb form. Each student builds groups of 15 sentences by typing one segment of a Sentence (or Question) Pattern at a time (for example, the Subject, then the Transitive Verb, the Object, and if requested an Adverb). The student types each sentence as usual using spaces between words and between segments. After the student types a segment, the program instantly checks for mistakes. If no mistakes are detected, the student types the next segment. If a mistake is detected, the program presents a message describing the error and the reason for the error. The student must retype the incorrect segment, which the program again checks for mistakes. In this way, students write grammatically correct sentences approximately 98% of the time. If the student needs help or more information, the program offers extensive help using pull-down menus.

After the student finishes a group of 15 sentences, the program saves the group for subsequent access by the teacher and by the student. Students continue to write sentences in a Verb Form until mastery is achieved (measured by their ability to successfully free write sentences on paper or using a word processor). After mastery of a Verb Form is achieved, students move on to the next Verb Form, which again is practiced in all three sentence patterns. This process continues until the student has mastered all eight Verb Forms using all three Sentence Patterns. To achieve this mastery, the student may type up to 100 sentence groups (1500 sentences).

The second section of the *Text Builder* program is identical to the first section except students practice Question Writing using six (6) Yes-No Question Patterns. These patterns use the same eight Verb Forms from the Sentence Pattern section. As before, the *Text Builder* program checks for student mistakes as the student types each question. Students type questions in groups of 15, and are able to type up to 100 of these question groups.

Deaf students using the *Text Builder* program at Pierce College have learned concepts and acquired writing skills intuitively without having to memorize the grammar. These students have internalized these writing abilities so that the transition to free writing has been natural and automatic.

Any school or program that works with low-verbal deaf students can use the *Text Builder* program. The amount of grammar instruction that is required for a student to complete the program is minimal. The *Text Builder*

program and curriculum package does not need a staff person with experience teaching English grammar. The grammar concepts involved, and are simple and few in number. The staff person would not even need to be trained in the area of the deaf as long as there was access to a sign language interpreter. To assist in this regard, schools can use the curriculum I developed to support the *Text Builder* program. This curriculum includes a master set of student notes containing all the rules, word lists, and information involved in the *Text Builder* program. Also included are assignment sheets, a course outline and timeline, and tests and quizzes. An entire course can be based on the *Text Builder* package. No other teaching materials are needed to provide the instruction. Most students using the package require approximately 200–250 hours to complete the course which would mean possibly one, but probably two semesters. Any students wanting to continue after completing the *Text Builder* program can use the program to learn how to write paragraphs. Students could practice writing groups of 15 sentences that belong to one idea or concept. When these sentences are combined, they would form a paragraph. In this manner, students learn how to write paragraphs while still having their work checked by the program.

In the future, I plan to augment the *Text Builder* program with more levels. These will continue from where level one left off and will focus on Verb Forms and Sentence and Question Patterns that were not addressed in the first level of the *Text Builder* program. There will also be a program that will practice the so-called WH questions (who, what, where, when, why, how).