

## DOCUMENT RESUME

ED 301 890

CS 211 617

AUTHOR Strickland, James  
TITLE Computer Strategies for Teaching Revision: It May Be Convenient, but It's Not Easy.  
PUB DATE Nov 88  
NOTE 20p.; Paper presented at the Annual Meeting of the National Council of Teachers of English (78th, St. Louis, MO, November 18-23, 1988).  
PUB TYPE Speeches/Conference Papers (150) -- Guides - Classroom Use - Guides (For Teachers) (052)  
EDRS PRICE MF01/PC01 Plus Postage.  
DESCRIPTORS Computer Uses in Education; Higher Education; \*Revision (Written Composition); \*Word Processing; \*Writing Improvement; Writing Instruction  
IDENTIFIERS Revision Processes; \*Writing Strategies

## ABSTRACT

Word processing does not, in itself, teach revision. Students with incomplete revision strategies will not begin revising at a higher level simply by using a word processor. New computer strategies for teaching revision are needed--revision strategies that use the computer to reorganize, elaborate, and strengthen what has already been written. For example, the following revision strategies are more likely to occur with a computer than without one: (1) outlining; (2) creating a "stairway" of logically elaborated points; (3) writing cumulative sentences through the addition of noun phrases, verb phrases, and absolutes; (4) writing new introductions, using the insert function and the copy/move function of the software; (5) using the search-and-replace function to check style; and (6) creating a computer monitor exchange, a "collaborative revision" which allows writers to act as readers and editors for fellow classmates. All of these activities can be implemented on the computer as lesson files--a planned sequence of activities operating as word processing text files, which offer directed help for a specific type of assignment, a specific grade level, or a specific type of activity. (A figure illustrating the "stairway strategy" is included, and three appendixes consisting of earlier reports on revising with word processing; four students' strategies for revision; and a student's essay with subsequent revisions noted are attached.) (MM)

\*\*\*\*\*  
\* Reproductions supplied by EDRS are the best that can be made \*  
\* from the original document. \*  
\*\*\*\*\*

"PERMISSION TO REPRODUCE THIS  
MATERIAL HAS BEEN GRANTED BY

James Strickland

TO THE EDUCATIONAL RESOURCES  
INFORMATION CENTER (ERIC)"

U. S. DEPARTMENT OF EDUCATION  
Office of Educational Research and Improvement  
EDUCATIONAL RESOURCES INFORMATION  
CENTER (ERIC)

- ☐ This document has been reproduced as  
received from the person or organization  
originating it.
- ☐ Minor changes have been made to improve  
reproduction quality.

- Points of view or opinions stated in this docu-  
ment do not necessarily represent official  
OERI position or policy.

# COMPUTER-STRATEGIES FOR TEACHING REVISION:

It may be convenient, but it's not easy.

James Strickland

Slippery Rock University of PA

National Council of Teachers of English

St. Louis

November 20, 1988

To speak about teaching revision assumes many things: that the writer has solved the dilemma of generating ideas, that the writer has generated a sufficient amount of text, and that the writer is able to deal with editing problems of spelling, usage, and punctuation. Teaching revision with a computer further assumes that the writer has used word-processing to enter text into a text file. With all of this in mind, computers offer a unique medium in which to teach substantive revision, allowing, as they do, manipulation of electronic rather than hard-copy text. Revision with word-processing is often typed as simple, easy, and convenient. I've decided to subtitle my presentation: it may be convenient but it's not easy.

What constitutes revision?

Some of the activities we count as revision include the following: Re-organizing text that has already been produced--moving words, sentences, paragraphs; Adding advance organizers; Elaborating; Rethinking an opinion or thesis--having second thoughts or changing one's mind; Strengthening coherence between discourse units; Strengthening clarity and logic.

It is not the same as editing--making the final version conform to standard edited English (spelling, grammar, punctuation). It is not the same as rewriting--copying over a previously written and revised text, what Hans Guth (1988) calls cosmetic revision.

Revision means to envision another version; re-vision; imagine what is not--imagine the better essay. Students ask me what do they have to do? I say, make it better. They ask how. Make it longer; make it shorter. Rearrange it; reorganize it. To know which requires vision. Guth says students "need to learn

to look at their writing through the reader's eye, noticing gaps in the information, precarious inductive leaps, and missing links." It may not be that easy.

I asked my new stepdaughter, 15, how she makes papers better. She told me that when she gets a chance to work on a paper again she fixes the words that jump out at her. She adds sentences and changes a few words (if she thinks of a better one). She remembered adding one sentence to the end of her last paper. Her teacher gave her some "notes" but she doesn't remember them. They're in her notebook, if I want to see them. Dismayed, I asked her classmate the same question when Laura wasn't around. Leah waits for the teacher to tell her where to "add some details." If the teacher doesn't do it, or isn't available, then Leah goes to someone who is really smart and has that person read it. Otherwise, she doesn't know what to do. She did tell me that she can spot misspelled words (she circles the ones she's not sure of) and she can fix run-ons, the result of her writing too quickly. Laura, having read notes from Leah, disputed even these claims. My students come to college with the same set of strategies. They make it longer, adding to the end of the text; they substitute words; they correct punctuation, grammar, and spelling; and they call it revision.

When students bring strategies such as these to the writing task, it is wishful thinking to hope word processing will make students revise more and at a higher level, as many of us in the early 1980's believed it would. (Appendix A). Word processing does not, in itself, teach revision. Marcia Curtis (1988) makes the point that we wrongly assumed that the functions of word processing that we have found useful in revision (add/delete,

insert, cut-and-paste, along with instant reprint) would "in themselves" change inexperienced writers. It may be convenient, but it's not easy.

We need new paradigm techniques, computer-strategies for teaching revision: strategies that allow for the computer to do what is impossible or unlikely with handwritten-text revision; that is, revision which would necessitate copying or typing over. Granted, revision has always necessitated copying over. I do not wish to imply that the only virtue of revision with a computer is that the "copying over" tedium is relieved. Computer-strategies for teaching revision achieve results that could not be otherwise achieved unless writers were to make all or a significant portion of the revisions by hand, copy the text over, and evaluate the results. Such writers would also find themselves hard pressed to reverse their decisions because such a decision would imply another copying task. So, the revision strategies I will discuss, each of which can be taught using any of a variety of word-processing software, are more likely to occur with a computer than without one.

### Revision Strategies

A problem sure to be encountered when teaching revision on the computer is that a word-processed paper doesn't look like it needs to be revised. At least with handwritten pages, the errors jump out; they look messy. Even freewriting on the computer looks polished. Once finished, the documents, in typeface rather than a student's own hand, are no longer familiar. Students even have trouble locating specific parts of their document when it is word processed, as Haas and Hayes (1986) have noted. How do we suggest that the writing needs to

be revised? One way is to make them expand and contract their writing, arbitrarily. My first two strategies help: Outlining as Revision and the Stairway of Elaboration.

Outlining. Outlining is normally thought of as a prewriting activity at best. I use it as a computer strategy for revision. I ask writers to choose the Most Valuable Sentence (MVS) in the essay and copy it to the top of the page to serve as the theme of the piece. Selecting the MVS seems a much more reasonable request than directing them to write a thesis sentence for a yet-as-unwritten essay, because even students who could not identify topic sentences have a sense which sentence is the "most valuable." I then ask them to create headings for their paragraphs--short phrases that capture the essence of the paragraph. When they have performed the task for each paragraph, the theme and headings create a map of the forward motion of the essay, a top-level view of its structure. At this point, students have a better chance of spotting leaps of logic and missing transitions, places where more needs to be said in order to get from "point a" to "point b."

Stairway. With this sense of an outline, they can now return to their original text for the second strategy: the stairway of elaboration. Sentences and paragraphs can be added that will further explain the theme or the individual headings. I also ask them to look at pairs of sentences and ask them to see if another sentence needs to come between the sentence-pair in order to help the sentences make sense. The essay will expand like a magic staircase, avoiding once more the tedious "copy-over" aspect of revision.

After they have expanded their essay, I suggest that they

trim it, asking them to reconsider what they've written. Tom Reigstad (1988), a professor at Buffalo State, has a similar exercise where he has writers generate multiple drafts for a book review. This year, his students are reviewing Nancie Atwell's In the middle. Once they have the review, he shows them the review form for the Library Journal, a periodical for which he himself reviews books. The form allows room for approximately 150 words. He challenges his students to pare their reviews to meet the journal's requirements. It may be convenient but it is not easy.

While working on this strategy, students can be shown how sentences within a paragraph elaborate on what was said by the "most valuable sentence" and how the sentences do so without necessarily moving the essay forward. The directional-movement metaphor of this strategy might be helped by an illustration of the staircase (see figure 1); builders can increase the number of stairs, but they can also elaborate on each step, making it wider or deeper.

-----  
-----

Figure 1 about here

-----  
-----

If this seems too obscure, I simply say to students, "okay, now tell me more--before you go on to the next sentence."

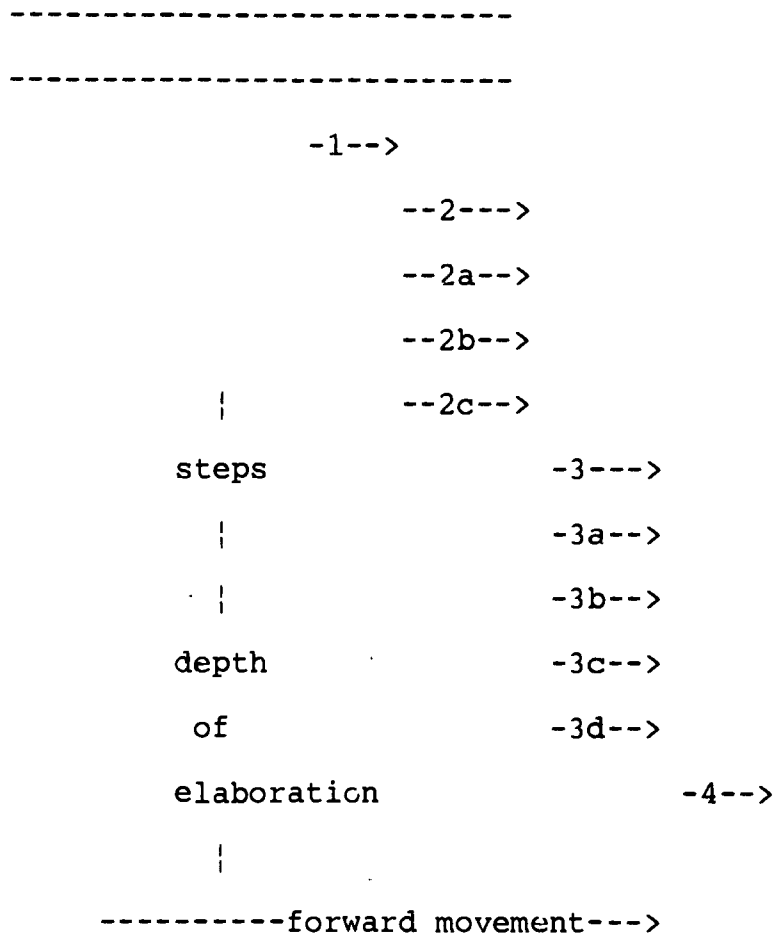


Figure 1: ILLUSTRATION OF FORWARD MOVEMENT STAIRCASE

-----  
 -----

Cumulative sentences. The third strategy involves the creation of cumulative sentences through the addition of noun phrases, verb phrases, and absolutes. This activity is based on Christensen's generative rhetoric, adding right-branch modifiers to sentences, elaborating on the basic premise, explaining a term, or completing a thought the way this sentence does. Students who have been shown Christensen's principle may return to any point in the text to add information, generating more ideas which, in turn, spark more thoughts. For example, a student could be directed to return to any sentence in their essay, one such as this:

Dave stood patiently at the corner.

They would then be instructed to add a noun phrase to describe any noun in the sentence, in this case, Dave or the corner.

Here are two noun phrases:

Dave, a recent graduate of Robert's School of Mixology, stood patiently at the corner, a busy spot for the late hour of 3 am.

The student could add a verb phrase to describe the action in the sentence, here, the standing on the corner:

Dave stood patiently at the corner, waiting for the last bus.

Or the student could add an absolute phrase, a reduced-sentence:

Dave, a man tired from his first day at work, stood patiently at the corner.

A student might even take risks and use all the ideas generated in the revision activity:

Dave, a recent graduate of Robert's School of Mixology, a

man tired from his first day at work, stood patiently at the corner, a busy spot for the late hour of 3 am, waiting for the last bus.

Sentence-combining techniques can also be used for this strategy to encourage the student to try different arrangements and variations:

Waiting for the last bus and tired from his first day at work, Dave, a recent graduate of Robert's School of Mixology, stood patiently at the corner, a busy spot for the late hour of 3 am.

Compare this sentence with the original: Dave stood patiently at the corner. Word-processing encourages cumulative sentence revision because it moves the text over to make room for the new modifiers, and with "word wrap" and "paragraph reformatting" features, it adjusts everything so that the text looks untouched. The revised text has, what Helen Schwartz (1986) calls, "visual credibility"--in its modified form, it is undetectable from the original. The same strategy using pen and paper for this activity leaves a trail of strike-overs, arrows, and cross-outs. The advantages are obvious.

Make a new beginning. The fourth strategy uses both the insert function and the copy/move function of the software. I demonstrate how the insert mode of word processing allows them to write an introduction after reading what the essay ended up being about. I also demonstrate how to rearrange and reorganize a writing by moving paragraphs, sentences, and/or phrases. Once students learn the techniques, I ask them to either to write a new introduction or to mark and move their concluding paragraph to the very beginning of the essay. If necessary, I suggest

moving the "old" introductory paragraph to the end. A reading of their "revised" essay usually results in a discussion, wherein two points are often made: 1. writing is a mode of learning and, thus, the conclusion, not the introduction, is where the discovery is made--after writers find what they wanted to say. 2. readers usually need to know about the discovery much earlier, perhaps at the beginning. This activity teaches a strategy for turning writer-based prose into reader-based prose (Flower, 1979). Writers can also use the copy/move strategy to try out various arrangements of an essay--global revision in action.

Style check. The fifth revision strategy uses the search-and-replace function of the software to simulate more sophisticated, more expensive style-checking software. Students using style-checkers, confronted with an elaborate printout of their style-analysis, are often at a loss how to revise their text. Instead, my strategy uses the word-processor to search for "fuzzy" words, for example: very, really, quite, or rather. At the point where the fuzzy word occurs, the student has the responsibility to decide whether to keep the word or change it. This activity can be repeated by searching for excessive "which" phrases (to be replaced by free modifiers), "th-" words (dummy subjects of sentences to be reworded), and nominalizations (to be replaced by active verbs). This strategy avoids the "authority" question that arises when a powerful style-checker tells writers that their prose, written at the following readability level, contains "x" number of sentences that are too long (or too short), "y" percent of fuzzy words, and "z" percent of "to be" verbs. My strategy for revision keeps the writer in control.

Computer monitor exchange. The final strategy, a computer

monitor exchange, allows writers to act as readers and editors for fellow classmates. I think of this as "collaborative revision." Writers, sharing similar interests or assignments, can offer their reactions to each other's writings, providing a stimulus to further writing. Collaborative revision, created as computer conversation, is a natural revision strategy: writers talking to each other. The content of the on-line conversations can be the natural questioning and elaboration characteristic of oral conversation or it can be directed conversation, perhaps in the form of chain paragraphs, where writers discover what they think by reading (or scanning) what was written by others and having to add or react to it. An instructor can even enter the on-line conversation, adding a comment as simple as, "tell me more," which sometimes is as effective as any other strategy. The configurations for these on-line conversations can be as varied as writers linked to a network by modems; writers hooked together in a local-area network (one main station, storing all the programs and data files, and numerous workstations); writers sitting together sharing the same keyboard and file, sitting across from each other's terminal with exchanged keyboards, or leaving remarks on each other's disk whenever time allows (Langston, 1987; Roberts, 1988; Derrick, 1986; Cosgrove, 1988).

All of these activities, and more, can be implemented on the computer as lesson files, a planned sequence of activities, operating as word processing text files, presented screen by screen, offering directed help for a specific type of assignment, a specific grade level, or a specific type of activity, having the advantage of allowing students to return to previous screens to revise or modify answers.

It is no longer enough to observe that the ease of editing with a computer eliminates the tedium of revision. As can be seen in the difference between earlier and recent reports about computers and revision, writers at this point need strategies for reconsidering their text. I believe the combination of these strategies will change the way students perceive their texts. No longer will writing be seen as fixed in stone; instead, it will be seen as a fluid text, one capable of being added to, subtracted from, rearranged, and manipulated. Students, using a computer, will no longer be afraid, reticent, or unsure how to revise their writings. I would like to share a brief look at the revising strategies of four of my freshmen as they worked on an essay between the first weeks of class and midterm. (Appendix B). As can be seen, they learned to move and rearrange blocks of text, to elaborate within sentences and paragraphs, to add to the ends of paragraphs previous to the conclusion, to rework sentences, to delete, and to create top-level introductions. (Appendix C).

It may be convenient but it is not easy.

#### WORKS CITED

- Cosgrove, N. (1988). Conferencing with computers. CSSEDC Quarterly, 10(3), 5-6.
- Derrick, T. J. (1986). DOSEQUIS: An interactive game for composition students. Computers and Composition, 3(2), 40-52.
- Flower, L. (1979). Writer-based prose: A cognitive basis for problems in writing. College English, 41, 19-37.
- Guth, H. (1988). Revitalizing composition: The unfinished agenda. promotional literature for The Writer's Agenda,

Belmont, CA: Wadsworth.

Haas, C. & Hayes, J. R. (1986). What did I just say? Reading problems in writing with the machine. Research in the Teaching of English, 20, 22-35.

Langston, M. D. (1987, March). Invention aids for computer-based writing: Expanding the horizons through collaborative invention. Paper presented at the Conference on College Composition and Communication, Atlanta. (ERIC Document Reproduction Service No. ED 280 055)

Reigstad, T. (1988, October). Responding to In the middle, paper presented at the annual meeting of New York State English Council, Amherst, NY.

Roberts, D. H. (1988). Creating a community of writers. CSSEDC Quarterly, 10(4), 4-5.

Rodrigues, D., & Rodrigues, R. J. (1986). Teaching writing with a word processor. Urbana: NCTE/ERIC.

Schwartz, H. (1986). The student as producer and consumer of text: Computer uses in English studies. (ERIC Document Reproduction Service No. ED 283 211)

## Appendix A

### EARLIER REPORTS ON REVISING WITH WORD PROCESSING:

- Bean, J. C. (1983). Computerized word-processing as an aid to revision. College Composition and Communication, 34, 146-148.  
Believes the novelty attraction of the computer encouraged students to revise multiple drafts of papers.
- Clark, B.L. (1984). Revising by computer. English Record, 35(4), 6-9.  
Finds long term effects: students become less demanding of themselves while working on rough drafts, concentrate more on getting their ideas down, and spend less time worrying about the final form of the text while doing revisions.
- Collier, R. M. (1983) The word processor and revision strategies. College Composition and Communication, 34, 146-155.  
Describes study, employing protocol techniques and videotaping, of the revision strategies of four subjects using word processing.
- Dauite, C. A. (1983). The computer as stylus and audience. College Composition and Communication, 34, 134-145.  
Finds text editor relieves physical and psychological constraints which inhibit revision.
- Monahan, B. (1982). Computing and revising. English Journal, 71, 93-94.  
Feels that word processing will make students revise more and at a higher level because the act of typing requires more concentration and the program allows insertion of words, phrases, and even complete paragraphs.
- Selfe, W. (1983, Spring). Computers: Changing writer's relationships with their composing processes. Focus, 9, 17-21.  
Believes the computer, while not any more responsible for our writing than a typewriter would be, changes our relationship to our writing, allowing revision for rhetorical reasons rather than time constraints, presenting each draft as a fresh work.

### RECENT REPORTS ON REVISING WITH WORD PROCESSING:

- Curtis, M. S. (1988). Windows on composing: Teaching revision on word processors. College Composition and Communication, 39, 337-344.  
Word processing does not in itself teach revision; it is only a tool. When left unguided, students produce the same essays they have always produced. Teachers must still teach the value of and strategies for revision.
- Dauite, C. (1986). Physical and cognitive factors in revising: Insights from studies with computers. Research in the Teaching of English, 20(2), 141-159.  
Found students wrote more with word processor but made fewer significant revisions, adding text at the end of the document rather than making internal changes.

Haas, C., & Hayes, J. R. (1986). What did I just say? Reading problems in writing with the machine. Research in the Teaching of English, 20(1), 22-35.

Describes a study of reading problems encountered when composing on the computer: difficulty in locating information, difficulty in detecting errors, and difficulty in reading text critically.

Hawisher, G. E. (1987). The effects of word processing on the revision strategies of college freshmen. Research in the Teaching of English, 21, 145-59.

Found that, for advanced college freshmen, use of the computer did not lead them to revise more extensively or more successfully than with conventional methods.

LeBlanc, P. (1988). How to get the words right: A reappraisal of word processing and revision. Computers and Composition, 5,(3), 29-42.

Believes word processing has not created new revision strategies, only allowed those existing strategies to be more or less effective. A teacher's help is necessary for the computer to change a student's ability to revise.

Lutz, J. A. (1987). A study of professional and experienced writers revising and editing at the computer and with pen and paper. Research in the Teaching of English, 21, 398-421.

Found computer users made more changes, at lower linguistic levels; moved in smaller chunks; and moved more frequently. They also worked longer and produced shorter texts, but made many more changes than those using pen and paper.

Schriner, D. K. (1988). Risk taking, revising, and word processing. Computers and Composition, 5,(3), 29-42.

Found students using computers were no more successful than those using pen and paper when choosing revision strategies.

## Appendix B

## Four Students' Strategies for Revision

James Strickland  
Slippery Rock University of PA

Writer/ Draft	<u>paragraphs</u>			<u>sentences</u>		<u>words</u>			<u>sentences added:</u>			
	#	increase	#	/para.	#	/p	/s	text end	paragraph end-mid-begin			
Shawn	1	-	5	-	102	-	20.4					
1	3	2	11	3.7	196	65.3	17.8	0	3	2	1	
2	3	0	11	3.7	196	65.3	17.8	0	0	0	0	
3	4	1	17	4.3	304	76.	17.9	2	2	0	0	
Chris	1	-	3	-	65	-	21.6					
1	4	3	12	3.0	230	57.5	19.2	8	3	0	0	
2	7	3	19	2.7	374	53.4	19.7	0	4	2	1	
3	6	-1	20	3.3	388	64.6	19.4	0	0	2	1	
4	5	-1	11	2.0	247	49.4	22.5	0	3	0	0	
Michelle	1	-	6	-	74	-	12.3					
1	4	3	19	4.8	299	74.8	15.7	13	0	0	0	
2	6	2	31	5.2	461	76.8	29.7	5	4	1	0	
Julie	1	-	10	-	145	-	14.5					
1	3	2	25	8.3	456	152	18.2	12	2	1	0	
2	6	3	37	6.2	715	119	19.3	0	15	1	1	

Writer/ Draft	sentences			new		word/ phrase subst.	annotation
	reworked	moved	deleted	intro?	concl?		
Shawn							
1	0	0	0	no	no	0	
2	0	0	1	no	no	0	
3	2	0	0	yes	yes	13	edits
Chris							
1	0	0	0	no	yes	0	
2	0	0	2	no	no	0	
3	0	2	3	no	no	0	
4	4	12	1	yes	no	4	experiments
Michelle							
1	0	0	0	no	yes	0	
2	0	0	4	yes	yes	2	adds
Julie							
1	2	0	0	no	yes	3	
2	4	2	7	no	no	4	expands

## Appendix C

A student's essay with the subsequent revisions noted:

bold face: addition

underline: word change

\*M\* : move position (Pn/n=Paragraph number/sentence)

\*D\* : deleted in later drafts

An education is completely different than "going to school". In a technical sense, going to school only states that you go into a classroom and are physically seated [sit] in front of a teacher. There is no guarantee [No where does it state] that the person [you] will learn anything. I feel that an education is not only the regurgitation of classroom material, but involves motivation, social and cultural experiences and the understanding of the important concepts behind what is being learned.

Every student must have the desire to learn. The most important origin of this sense lies within the responsibility of the students parents. Children learn at a very young age that there are rewards in life for their accomplishments. Through simple childhood tasks we can find the importance of learning things that seem irrelevant in our present life. An example of this may be when a parent expects a child to eat his spinach. The child may see two values in doing this. He may make his parents happy and recieve ice cream for desert. These kinds of inner self gratification and material goals are wonderful at a young age. Hopefully, as the child gets older, the parent will explain that the spincack was good for his health and will eat it without relating it to a material goal. To gain an education, I feel that you need to develop a feeling that there is no more important reward for learning than to better yourself.

In order to aid the process of learning, \*M-P1/9\* facts need to be seen as concepts and whole ideas \*D-if you are expected to remember them\*. \*M-P1/4\* In many cases, teachers use a method of reading a textbook [chapter] \*D-taking notes\*, completing [possibly doing] a study guide and then taking a test, **without any class discussion**. \*M-P1/7\* Students will often memorize material for a test and then forget it as soon as they are done. \*M-P1/5-6\* In my opinion, all that this is, is regurgitation. You may learn things this way, but only a small percentage of the information you received will be remembered after some time has passed. \*M-P1/8\* I had this experience many times [quite often] \*D-in classes that I had no interest in\*. I feel that having facts forced upon me was the main reason that I

was uninterested in the material. Facts need to be seen as whole ideas, if you are expected to remember them. If these ideas are understood and presented at a level that the students can understand, they are more likely to be learned than to be memorized.

I feel that when you get an education, you learn things that will enhance your career, and the social and cultural aspects of your life \*D- and are interested in learning them\*. At Slippery Rock University, I hope to get an education that is going to help me in my future endeavors. I want to learn about the things that will help me to have a good career in a field that I will enjoy working in for the next forty-five years. \*D-I also think that an education can have a great deal to do with things other than facts and figures.\* In my opinion, many of the most important things that you need to learn cannot be learned from a book. \*D-If we are to be well educated and well rounded people, there are many other aspects of learning which we must conquer.\* We have to get out into the world and have social experiences. **What we learn from trial and error enables us to grow** [We need to learn from trial and error and experience.] **Without these things, I don't feel that there is education.**

I think that college life is a good place to seek out [get] these experiences. I could have committed to Slippery Rock, but I wanted to have a chance to learn what it would be like to be on my own. I am getting an education, while at the same time, I am adjusting to being separated from my family and friends. Also, I am learning responsibility for myself and for my bills. If I am lucky, I may even get to experience the ways of different cultures and different countries because of the many varieties of people and the one hundred and forty four exchange students.

\*new-para\* All of these things will be important if I am to become an educated person in our society. **I do not feel that anyone can ever be given an education, you must seek out this knowledge.** \*M-P2/2-3\* I realize that I will learn many things that may not ever directly pertain to my life, but with the knowledge and experience that I will gain from all the these areas, I feel that I will be the best, most rounded person that I can be. [They may not all be remembered or pertain to your life, but most of them will. They help you to be a more well rounded person.]