

Innovative Strategies for Teaching Writing through Cooperative Learning and Team Work Projects

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Abstract: *The main thrust of this paper is to propose an innovative model of teaching writing to Jordanian middle school students by using technology and computer. More specifically, the paper aims at modeling new teaching strategies that will aid the Jordanian English language teachers to develop effective approaches for teaching composition and writing in the electronic and technology age. The writing procedures and computer programs the paper proposes function as an innovative aid that helps language teachers in Jordan to apply technology in the way that it makes their middle school students become good writers.*

1. Introduction

Most recent studies report that computers have made very small change in the classroom. Some classroom teachers think that the use of computers is limited for simple drills and exercises or educational games. Therefore, the teacher's role in using computer programs for teaching different learning activities is still passive. Most often, computers sit unused because teachers are unable to integrate the use of technology in the classroom (Devoogd, 1995). It is the technologists' and educators' responsibility to educate classroom teachers about the importance of integrating computers and technology in daily classroom instruction. The students' role with using technology shall shift to that of the elaborator and the motivator of the learning and teaching process. The norm of education where the teacher is in firm control of all activities must end. New roles of teachers and students in the learning process will be developed in the way that they become congruent with the technology revolution.

Writing by using computers is the focus of this paper. Some students tend to regard writing as an unpleasant chore because they believe that they lack the ability to write (Inman, 1989). The following dialogue between a teacher and his students is an example of the students who have such attitude towards writing:

Student: I do not like school because I hate writing.

Teacher: Why do you hate writing? Why do you hate school? Just write me a short sentence expressing why you hate school.

The student writes: The reason I do not like it is that I have to do a lot of hand writing in the class.

Teacher: Hand writing? Do you mean you need something else to write with?

Student: Yes, teacher. I need to use the computers in my school to draw and write with.

Teacher: You must have a reason for liking to use computers in your school.

Student: All my classmates have computers at home and they do a lot of nice writing with them, but I do not have one.

Teacher: Then tell me "you would like writing if we assign a computer for you?"

The student answers, "definitely, I will like writing."

An increasing number of research studies is focusing on the use of computer programs as writing tools. It is hoped that the computer will be a more engaging tool than the conventional writing tools like the pencil. The application of technology will not only help students improve their writing, but other language skills such as oral discussion and communication will also be improved through working on writing activities. The paper has the following objectives:

First, describing how both teachers and students make use of computer programs in the writing and composing activities. The writers will present an explanation about the use and the application of the following programs in the writing classroom:

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|-------------------------------|-----------------------------------|
| A) Word Processing Program | B) Sensible Grammar |
| C) Spelling Checker | D) Ghost Writer |
| E) Writer's Helper | |
| F) MultiScribe | G) Kid Talk/ Master Type's Writer |
| K) KidWrite/ Story Maker/Bank | |

Second, explaining how the use of technology and computer programs in writing classroom contributes to the introduction of new instructional strategies, such as problem solving, critical thinking, experimentation, cooperative learning tele writing, oral discussion, and E-mail discussion. The paper will also demonstrate how the writing experience with computers enhances other language skills such as oral language and discussion. In the brain storming process and prewriting stage, the teacher motivates his students to discuss orally the ideas of the chosen topic. Conferences, seminars, discussion groups, and workshops are organized to discuss the ideas.

Third, showing the writing teachers how they can make the most efficient use of computers during all the stages of the writing process (Prewriting, writing, revising, editing and publishing). Teachers can develop an approach that helps their students adopt more sophisticated writing strategies with the use of classroom computers and technology. Traditionally, teachers used to play the key role in getting their students to write. They intended to use the easiest ways to introduce the class into a new type of writing, either by reading something to the class related to the type of writing or by listing a number of titles. Then they would ask the students to initiate the writing activity. Nowadays, students can play the key role in the writing process with the use of technology and computer programs. They can use NetScape programs to search for ideas and information related to the topic, or they can use the traditional tools that may help them in finding relevant information and ideas. Once the students have got the information about the topic, they can start the writing activity by using different

computer word processing programs through all the stages of the writing process.

2. Literature Review

The literature review is structured in the following way: firstly, research on roles of teachers of writing classes in the technology age and secondly the research on cooperative learning and writing with computers. The third section deals with computers use as motivation in the writing process.

2.1. New Roles of Teachers of Writing in the Technology Age

The major thrust of the paper arose from two important issues: educational use of technology and computer-based writing classroom. Way, Laurie and Seymour (2008) argue that the number of students using computers in their everyday school life is increasing. According to their writing activities, one of the major applications of computers is the use of word processing programs. With regard to technology, national surveys of states departments of education and schools (Burder 1984; U.S.A. Congress 1988) indicated that the use of computers and other technology items such as VCRS, televisions, networks, and telecommunications has significantly increased over the past decade. Other research studies (Becker 1991) showed that giving the students the chance to play with computers and technology has enabled them to accomplish communicative and language skills more than their peers who are not learning with computers. Technology and computers play an increasingly significant role in reshaping and changing culture and people's consciousness in using these tools (Goldberg; Russell; & Cook 2003). Therefore, the educational system (Banks 1994) has the responsibility to work strenuously so that it can keep pace with technology. The main purpose of his notion is to prepare young learners to live a balanced life by using technology and computers that enable them to apply their knowledge to learn problems-solving skills. Classroom technology has significance for both teachers and students. On the other hand, technology will play a role in redefining the teacher's preparation for their job. Teachers, in the age of technology, must realize that their role in the instructional process with computers is minimized and the students' role is increased. They are also responsible for the development of new instructional strategies that come in accordance with the use of technology in the classroom. The strategies are: critical thinking, problem solving, and experimentation learning by discovery and learning by trial and error. The teachers' role is predominantly significant in giving the students guidelines of how to use technology; whereas, the students' main role is to carry out the assigned activities. Henceforth, educators and school teachers must accept the change in the teachers' and students' roles in the modern learning process with instructional technology revolution. Technologists must cooperate with excellent educational leaders who are accessible to college students who will become classroom teachers and provide them with the best knowledge about technology and its applications in classroom. New educational institutions shall be involved to direct teachers and educators not only to accept

the instructional technology change, but to use and implement it in the teaching and learning process, as well.

2.2. Cooperative Learning and Writing Using Computers

Cooperative learning in a computer- based writing classroom is a significant issue that the paper is emphasizing. Instructional technology is one of the most effective mediums that can bring cooperative learning into classroom. The importance of cooperative learning stems from the fact that it constitutes the power that motivates learners to apply different skills such as problem solving, critical thinking, and learning by trial and error. For example, a group of students who are working on a writing project using computer can share and discuss ideas about the target topic. The cooperative learning is required through all the stages of the writing process. Each member in the team is supposed to present some new ideas in the prewriting stage (i.e. brainstorming) and type a certain part of the text in the writing stage. In revision and editing, each member is assigned to carry out certain writing skills or mechanics such as punctuation, spelling, linking words, coherence, and cohesion.

2.3. Computers Use as Motivation in the Writing Process

Reinking and Watkins (1995) found out students were more engaged in learning when they were working in groups and using technology. They increased attention to technical aspects of their writing when computer programs were used as the writing tools. Luehrmann (1994) argues that writing a text with computer programs is easier to teach and learn. A survey which was conducted by Belden and Stewart (2007) to examine the American people's opinion on the importance of using computers in writing revealed that the respondents believe that using computers and technologies "have a positive impact on teaching children to write well" (p. 24). According to Collier (1993), students using word processing program made two thirds more substitutions and reordered their sentences twice as often as students not using word processors. For example, in the brain storming process, students start giving ideas, typing them and displaying the outcomes on a computer monitor. The way the ideas are displayed motivates the students to become involved in the oral discussion by making comments, for example, on their peers' ideas in the brainstorming stage, and later during the writing process while they are proposing changes and suggestions during the editing and revising process. Another important advantage of writing with computers is that students can learn written discussion through sending E-mail messages. Lake (1987) suggests that students can make a more complicated form of discussion when they are working on creative writing skills with computers. She proposes that students can perform tele-writing tasks by using computer telecommunication programs. Students can send E- mail messages to each other's or to their teacher during all the writing stages. They can send messages that include their comments on the pieces of the creative writing. The teacher via E-mail gives feedback immediately. Students have to respond and make the necessary adjustments. Some studies noted that

computers play a major role in motivating students to write, especially novice and reluctant writers. Yackanicz (2000) found that students were more willing to engage in and sustain writing activities when they used the computer. The students, according to her findings, wrote more often, for longer periods of time, and produced more writing when they used a computer instead of paper-and-pencil.

Goldberg et al. (2003) indicated that the process of producing and revising text on computers is more integrated. Students begin writing their initial ideas and modify them before they complete an entire draft of their composition. Students can abandon writing their ideas any time during the writing process to start the revision process. Then they can pursue writing and generating new ideas. In this way, the process of revision begins earlier in the writing process while students are still in the ideas generating process. Thus, they can move back and forth between generating ideas and revising them before they finalize their first draft. Other studies Allison (1999), examined the effect of computers on various aspects of students' final written products. Students who participated in a computer technology writing tasks showed improvement in their attitudes toward writing. The students demonstrated an increase in their high-order thinking skills in their writing. Grejda and Hannafin (1992) in a study of 66 sixth graders who were writing on their classroom computers and used word-processors produced documents with fewer errors as compared to students who wrote their work on paper. Some experimental studies by Zhang (2000) concluded that computer writing helped students better concentrate on ideas instead of concentrating on the technicalities of writing. Trageton (2003) showed that the students writing by using computers in primary grades were achieving better on both handwriting and text quality. A survey by Way et al. (2008) showed that 68% of American students and 69% of Hispanic students think that technologies and computers help to improve their writing significantly.

3. Methodology

3.1. Structure of the Writing Classroom

In this proposed project, we have twenty students in the tenth grade and five computers. The students are divided into four groups; there are four students who are clustering around one computer. They are all familiar with word processing and key boarding skills. The students are in charge of producing a form of creative writing. There is no specific topic of the writing activity assigned to the students. The students in each group are required to choose a topic for the creative writing activity. The teacher in this proposed project does not tell his students what to write. Rather, he creates for them the helpful writing atmosphere that provides them with the context for discussion and procedures or "hooks" for getting them involved in the writing process.

There will be six two-hour sessions. In the first session, they are supposed to choose a topic and search for information, browsing in the Internet and Netscape programs. Additional conventional resources like the library and the

teacher himself can be used to find further data about the topic they will choose. The classroom writing teacher needs to warn his students against plagiarism during the research period for their writing topics. In the second session, they start the prewriting process. They type the clustering ideas they have got on the computers using the word processing skills of *Microsoft Office Word Program*. These ideas can be presented in the form of outline, a web, or a tree. Students discuss their ideas in each group. Suggestions for further ideas can be proposed and adopted if they are working.

In the third and fourth sessions, the students are supposed to start the writing stage. The fifth session is devoted for revision/editing, and the sixth one is for evaluation and publishing.

3.2 Some computer programs that can be used in the writing Process:

3.2.1. FrEdWriter

It is a word processor with higher qualities than many commercial products. The major technical feature of this program is that it enables its users to print from within the program itself. With the use of this program in the writing process, the writers are able to get the document printed on the screen first so that they can check for the formatting errors. Therefore, it is very helpful in saving much time and paper.

3.2.2. MultiScribe

A word processor has special writing features. With this program, a writer can retain full word processing capabilities while simultaneously selecting different type styles in a range of sizes. Additionally, the writer can see on the screen what he can get on the printer.

3.2.3. KidTalk/Master Type's Writer

Besides being a word processing program, it is a Talking Tool. It has the ability to say what the student writes. The added dimension of voice is very interesting for children writers as it makes their words actually come alive.

3.2.4. KidWriter/Story Maker/ Bank Street Story Book

These are three computer programs that enable children to write their own illustrated stories. Students can create pictures or scenes that accompany the events of the story. Thus, these programs help students become good writers and illustrators.

3.2.5. Sensible Grammar

It is not a word processor program. It neither teaches grammar nor checks spelling. It is, in fact, a proofreader that is used on word processed writing. Its main use is to check for punctuation and misused phrases. If there is an error in punctuation, the program sends a message to the screen and allows the writer to insert a marker in the text for later correction. Obviously, it does not offer

alternative punctuation marks. When a phrasal error is found, it sends a message and provides the writer with alternative phrases as suggestions for replacement.

3.2.6. GhostWrite

Writers can receive a grade level estimate of the reading level of their writing and graphs of the sentence length. The program can check unity and coherence and check the meanings of most currently used words. It also provides the writers with a list of each written word and the number of times it is used. Finally, it has an option that identifies all “to be” verbs, prepositions, nominalizations (verbs used as nouns) and subordinating and coordinating conjunctions.

3.2.7. Writer’s Helper

This program is not a word processor, either. It is a series of 22 programs that move students from prewriting to drafting, revising, editing, and finally publishing. The program is recommended for secondary and college students to help them plan what to write and to revise what they have written.

4. Procedure

The teacher who is working with these students on his project needs to think of what steps of the writing process he/she intends to focus on. The easiest technique that I recommend is to break the process of writing into the following stages: prewriting, writing, revising, editing, evaluating, and publishing. Students can describe their accomplishments at each stage by creating a writing process log which includes each day and the writing accomplishments.

4.1 - Prewriting (Planning)

There are two sessions; the first one is for choosing the topic and exploring the ideas, while the second one is for brainstorming the ideas. The students are expected to choose a topic for their writing project. Once the topic is chosen and agreed upon, the students start the process of exploring ideas. Teacher may motivate his students to search for ideas using the NetScape program, referring to the library using classroom conventional tools, or forming seminar groups to share and discuss ideas about the topic. The students can fit informally into discussion groups, not necessarily inside the classroom. The sessions can be in the computer lab or in the library. The main reason for recommending teachers to encourage students to form such informal discussion seminars for the writing topic is to ensure the fact that the writing process shall start before the writing class begins. Both teachers and students shall understand that writing starts any time and any where. Additionally, getting the students to participate in informal discussion groups for the writing process outside the classroom and prior to the writing session is promoting students’ readiness and willingness to write. We actually, as educators, are responsible for developing positive attitudes and habits towards the writing process. When the students agree on a topic and feel that they are interested in writing about it, they may develop the habit of reading

by referring to different resources that provide them with information they feel they lack. When the students have made good search for ideas relevant to the topic they have already chosen, they can set in the computer lab and start the prewriting strategies.

There is a variety of different prewriting strategies the teacher may select to do with his students. They range from brainstorming to making webs and drawing trees. The teacher must provide students with an analysis whereby cognitive strategies are employed, which Bereiter and Scardamalia (1987) (cited in American Education 1991, P. 38) referred to as procedural facilitations. According to them, prewriting (planning) stage is broken down into five processes: generating a new idea, elaborating on an idea, identifying goals, and putting ideas onto cohesive goal. With computers, the teacher can help his students improve these cognitive strategies by creating a brainstorming file and providing his students with guidelines about how they can generate ideas. The directions can be stated as follows:

- 1- List all the ideas that are related to your topic. Don't worry about the space and the order of your ideas because the computer word processing program will help you move the text around as ideas grow larger.
- 2- Elaborate on your ideas by writing one to two lines on each.
- 3- Put ideas that belong together in groups (categorizing of ideas).
- 4- Save the ideas and what you wrote about them with the name of your group. Students can produce their ideas by applying OUTLINE PROGRAM (Agenda-ClarisWorks), or IMAGINATION (MAPPING PROGRAM). Each group is asked now to save what they have already written in a file and quit by going to FILE and dragging down to EXIT.

Cooperative learning strategies are also recommended in the prewriting stage. Each student in the group is responsible for creating some ideas and typing them on the computer. All the group members are encouraged to work cooperatively and respect the spirit of teamwork.

Conversational and oral strategies are also included in the brainstorming process. There shall be discussions among groups' members of their ideas during the time they are typing them on the computer monitor. A discussion among all the members of the class is also strongly recommended. The teacher may allocate 10-15 minutes to get two groups or more of students present their projects generated ideas on an overhead projector. Each member of the class is motivated to make comments on his peers' ideas. He may propose new ideas or suggest certain adjustments about, for example, the way of organizing and categorizing the ideas.

E-mail communication is recommended in the prewriting stage. The teacher may arrange the class in the way that each two groups are in charge of sending E-mail that includes the suggestions and comments on other group's ideas. The following ways are suggested to do such kind of E-mail communication:

Through *Network Sharing Program* which enables each group to view the writing of the other group, then they can write their comments on the screen and send it immediately.

By using IRC or any direct chatting programs, the two parties can talk to each other on the computer. What is typed is viewed on the spot and comments can be written and discussed.

By using regular e-mail systems, students can copy and past what they have written on word processing programs to the target e-mail program and send to the intended party. When the other party receives the list of ideas on their e-mail, they can type their comments including the original message and e-mail it back.

Now students can go to the Writing Process Log in the specific file and type what they accomplished on the first day.

4.2. Writing (Drafting): (The second and third session)

As the students have finished brainstorming of their ideas and have discussed them orally or through E-mail, they are assumed to have sufficient data that provides them with the writing fluency. Added to that, the computer itself is an instrument that encourages students' writing fluency as they write, delete and insert ideas easily. The writer, with his computer, is allowed to play around with old ideas to make them sound better. Once he gets the ideas, he thinks that they are the best he can save them permanently.

The teacher has to remind the student that writing process by using computer is also a cooperative learning activity. Therefore, the teacher motivates each member in the group to write a specific part of the writing activity. It is the teacher's responsibility to make sure that the less capable students are given a good chance to work on the assigned writing activity and use the computer program properly. While the students are involved in the writing process with their computers, the teacher is going around to make sure that his students are using the word processing skills suitably such as: opening a new file, using the keyboarding skills well, choosing the font and the style, using saving, closing, printing and quitting commands.

Finally, when each group finishes writing one or two thirds of the writing activity, the teacher may ask the students to stop for about 10 minutes to share what they have already accomplished with the rest of the class. He may require one or two groups to show a sample of their writing on the overhead projector. Then he can create an atmosphere of discussion in which students share ideas and make comments on the piece of the writing activity shown on the overhead projector. Finally, students can add graphics to word processing document, either by inserting a document from FILE-LIBRARY, SCRAPBOOK, or ClarisWorks drawing tools. For example, they may add or draw a graphic that shows a classroom teacher using the computer, or they can draw a picture for a school boy who looks smart and happy as he is using technology.

4.3. Revising and editing.

The writer's true intention is to produce a written text that is communicatively efficient. With computer word-processing program, suggestions are easy to make; text is moved around, and new ideas are added and/or deleted. The cursor zips around; delete, insert copy, cut and paste functions are available and easy to use. Lacitigriola; McKeveny; and Balagthy (1987) point out the students have developed positive attitudes about writing skills when using microcomputers. Using word processing programs has eliminated the painful experience of rewriting, recopying, and retyping. They are helping students efficiently in their writing because they provide an environment of writing where revision is encouraged and easily accomplished.

With the use of microcomputers in the writing process, revision for students no longer belongs to superficial tasks such as misspelling and punctuation problems; it rather extends to tasks such as cohesion and coherence problems.

For editing and revising, students can use spreadsheet programs to create a writing evaluation sheet. We recommend its use to be in the following way: first, the members of the writing group revise/edit their work. When they finish, they sign or write a very brief note in the space provided. Second, when they think that their writing is fine and they have corrected the errors and have done the appropriate adjustments, they can give it to another group to work on revising/editing it for the second time. When group two finishes revising it, they can sign it or write their notes in the place specified for them. After the two groups (the writers and the editors/revisers) feel that the piece of writing is fine and they cannot find further suggestions, they can give it to their teacher or another adult to revise it. The teacher or the adult can set with its writers and discuss the errors and adjustments with them. Then, when the teacher or the adult finishes revising the writing product and discussing the necessary adjustments with the group, he can sign in the space provided to him on the evaluation sheet. The key use of this sheet is to give students an opportunity to practice editing before the writing product is printed. We recommend the teacher to require his students to edit in one of the following ways:

First, specifying what groups will work together on the editing/revising process (i.e. Group "A" works with Group "B", and Group "C" works with "D").

Second, when the students revise/edit the piece of writing through telecommunication, they may complain from the fact that there is no enough room to write their comments and notes. Therefore, we recommend that the teacher shall get his students to type the work out double-or triple spaced to enable their peers write their comments between the spaces, or the students can give numbers to the lines so that their peers can refer to the number of line when they intend to make suggestions or comments. For example, the peers who are involved in the editing/revising for the other group members can write a comment like the following one:

They can type: "By referring to line # 12, second paragraph, a comma must be placed after the (X) word, or in line # 15, the word (X) is misused. It should be replaced by (X) word."

Third, as students are editing the activity in groups (four students in each group), the teacher may ask one student to edit for capitals, another for spelling (using "a spelling checker") and punctuation; a third for choice of words and grammar, and forth for ideas organization, coherence and cohesion.

Fourth, the group members read through their text. If they cannot find any mistakes, they give it to another group to check it over. It can also be sent through E-mail (tele-writing) to their peers in another group. They can also establish TALK-WHO\ MORE PROGRAM (UNIX) to talk, discuss and receive feedback and comments that they can see them live on the computer monitor.

Finally, we recommend that the students to work on revising/editing on two items at a time when they use the evaluation sheet. If both the writer and the reviser think they have got a fine copy, they need to prepare themselves to sit with their teacher or another adult to go over it.

After the revising/editing process has continued for a while, we recommend that the teacher to take a sample of the students' revision and present it on a "data show" to demonstrate to his students how the revising/editing process is going in his class. The teacher can now point out verbally his own comments on students' strengths and weaknesses of the revising and editing phase. Then, he can provide his students with some instructions and guide lines that help them revise/edit more efficiently. The teacher with the word processing checklist is observing how each group is executing the commands such as: deleting letters/ sentences, moving a paragraph, using bold type/italics/underlined, saving, printing, and etc.

4.4. Evaluation

There are two major ways of evaluating a writing product; computer evaluation and manual evaluation (by teacher and students). With computer evaluation, teachers can make use of programs that analyze the text for different purposes. Phillips (2007) and Dilkli (2006) in Way, et al. (2008) indicated that the electronic essay evaluation has received increases attention in recent time. Some programs are capable of finding errors that belong to word or phrase combinations. Other programs provide the students with prompts to enter the appropriate text through a series of leading questions that may ask the student to rewrite or add a certain part to his writing piece. With manual evaluation, there are three kinds: first, the teacher can evaluate his students' proper use of a word processing program by using a checklist of Microsoft Office Word. Second, another checklist can be used by the teacher to evaluate the mechanisms of writing. Third, the students themselves can use the two lists to evaluate each other's work.

4.5. Publishing

The student project can be published in many different ways like a school journal, Bulletin board displays, anthologies, parents' letters, school news paper, and stories sent over modems.

5. Conclusions

The proposed project in this paper suggests fundamental shifts in the roles of the students and teachers in the writing classroom as they are using computers as a main tool for the writing process. The teacher's role in the writing process with computers is minimized and the student's role is increased. The teacher's role is limited to providing the students with the appropriate writing atmosphere and the directions and guidelines of using technology, while the students do the biggest part of the writing activity. The students choose their writing topic, search for data and information using different resources like NetScape and internet programs or traditional tools like library, brainstorm the ideas and discuss them in groups, type the writing activity on the computer program using the different skills of word processing and graphic programs, revise and edit their work and finally evaluate and publish the product. Writing with computers, as proposed in this project, is also helpful for students in the sense that they can develop other language skills like oral discussion. Tele writing and communication through computers E-Mail programs are highly recommended in the project. Using computer as a writing tool is intended to develop positive attitudes towards writing. It is hoped that the use of computer in the writing classroom will reduce the painful experiences of rewriting, recopying and retyping.

The project is helpful for teachers. It provides them with good knowledge about applications, functions, and features of different computer programs that they can use with their students in the writing class. The computer programs like: spelling checker, ghost writer, writer's helper and MultiScribe have a wide range of features and functions that help the students develop and improve their writing process. Furthermore, the project is presenting for teachers a new set of learning strategies for teaching writing. The strategies like cooperative learning, learning by discovery, the skill of oral discussion and tele-writing discussion must be congruent with the application and use of technology and computers in the classroom. Finally, the project provides the teachers with new forms of electronic templates that they can use to evaluate their students' electronic writing.

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