CHAPTER ONE

INTRODUCTION

Background to the Study

In extolling the educational worth of computers in general, Papert (1981) stated, "Computers will change work and play, but the most important change will not come through what the computers can do for us, but through their effect on how people learn" (p. 99).

Papert's claim found support among many researchers who investigated the impact of word processors on writing. Cochrane-Smith (1991) concluded that the word processor is capable of influencing the ways in which students learn to write while Greenleaf (1992) likened computers to agents of change, capable of influencing students' writing processes, products and writing contexts. Hawisher & Pemberton (1991) noted that the introduction of computers into their writing class brought about a contextual change that affected the total environment of the class. Snyder (1993) studied the impact of computers on writing context, process and product and concluded that it may be "the intrinsic value of the capabilities the technology offers the writer that is sufficient to bring about an improvement in writing quality" (p. 19). Surveys on attitudes showed that student attitudes towards writing changed for the better when word processors were introduced into the writing class (Hawisher, 1989; Daiute, 1985; Snyder, 1993).

These researchers' claims are worthy of note because of the optimism they reflect regarding the power of the computer, notably, the word processor, in fostering learning and change in the writing class. As teachers, we are constantly on the lookout
for new ideas and improved methods of teaching and the promise of the computer as a writing tool is certainly something worth considering.

Basically, the word processor makes the writing task less laborious than writing with conventional tools like the pen-and-paper. The word processor takes the drudgery out of writing and rewriting. More importantly, the word processor has been found to be largely responsible for the improved quality of written products. In a meta-analysis of 32 studies related to the use of word processors in the writing class, Bangert-Drowns (1993) found that the use of word processors enhanced writing quality in two thirds of the studies reviewed. Although findings on the impact of the word processor on writing quality remains inconclusive, what is important to us teachers, is that the enhancement of writing quality in texts written with the word processor has been primarily attributed to its facilitative nature.

Researchers have attributed the enhanced quality of computer-written texts to the unlimited re-editing possibilities of the word processor, which facilitated redrafting, adding, deleting and rearranging without the need to recopy (Womble, 1985; Daiute, 1986; Jones & Tetroe, 1987; Snyder, 1990; Bangert-Drowns, 1993; Owston, 1996). The word processor has been found to be most useful for activities like editing, revising and recopying. Snyder (1993) explained that the word processor eliminated the writer's need to recopy and this stimulated more thinking or planning. With time saved in recopying, more composing and revising took place, leading to improvements, both in quality and quantity.

Besides its positive impact on text quality, what the word processor can offer its user seems like a possible solution to the writing difficulties faced by many students. The word processor, which allows texts to be manipulated easily, appear to be useful in situations where students have to write multiple drafts. The physical act of writing
with traditional tools like the pen-and-paper or typewriter can be tedious, especially to younger students. Poor and illegible handwriting is another problem to contend with when using the pen to write. Problems arise when students are required to write multiple drafts or rewrite because of mistakes. Often, students have to re-write the entire essay in order to produce a neat copy to be handed in to the teacher. Recopying often causes frustration among students. As a result, some students resort to writing the minimum. Schwartz (1982) found that students write less so that there is less to recopy while revisions, if any, tend to be limited to surface changes such as spelling and word-level changes. This is not surprising because these students know that the more they write, the more there is to rewrite. In fact, most students would be frustrated if they have to recopy entire texts due to one or two mistakes. Some students said they would "... rather leave the mistakes there" (Womble, 1984, p. 36). And, for many students, rewriting a text is so laborious that the first draft is also the final copy (Papert, 1980).

This problem of student frustration should not be taken lightly as the effort of rewriting may have serious repercussions on the students’ perception of writing. It can also be a serious impediment to revising (Daiute, 1986) and counter-productive as well (Pennington, 1993). This brings us to one key question: Can the technology of a word processor reduce the frustrations of students and alter their perceptions towards writing?

As teachers and writing instructors, we have seen writing constraints that are both physical and psychological. If only we can discover the “right tool”, the “right method” or the “right software” for the job, the belief seems to go, then the myriad problems of writing and writing instruction can be solved. If indeed, the word processor can influence writing and writing instruction as some researchers claimed,
we need to find out how. We need answers to some key questions: How may the word processor affect our teaching methods, our teaching styles and our teaching responsibilities? More importantly, we need to find out what happens to text quality when this technological tool is used for writing. The question at the bottom-line is: Can students write better with the word processor?

The present study attempts to provide possible answers to these questions. To achieve this objective, the study compares writing with the word processor and writing with the conventional pen-and-paper. It looks closely at how a selected secondary school student write a total of six argumentative essays, three with the word processor and three with the pen-and-paper and attempts to determine whether the word processor has any influence on her writing behaviour and quality of the essays written. The word processing programme used was Microsoft Word Version 7.0 (see Chapter 3, p. 27 for a description of its features).

Statement of the Problem

Much has been said about the beneficial effects of writing with the word processor (see Background to the Study, p. 1). Since word processors offer apparent advantages to both the student writer and the writing instructor, the question now is not whether word processors should or should not be introduced into our writing classroom, but rather how word processors could be used to aid in the teaching and learning of writing. This calls for a thorough probe into how the word processor could affect the writing process. Texts written with the aid of the word processor must also be assessed to see if this electronic writing tool has any positive effects on their quality.
In the contexts of education in Malaysia, the implementation of the Smart Schools Project has caused Computer Assisted Language Learning (CALL) to become an important component of classroom pedagogy. Computers are being introduced into the classrooms at a rapid rate. Consequently, teachers need to train students to use computers, not so much for exercises and drills but more for flexible self-expression and creative writing. How exactly can this be done? How does one integrate the use of computers into an already crowded curriculum? These questions, and possibly more, might arise when teachers are confronted with the task of having to integrate computers into writing instruction. More importantly, there is hope that the word processor, which allows texts to be manipulated easily, could offer some relief to students who have to write multiple drafts in the process writing approach and reduce the frustrations of students who have to recopy entire essays by hand. However, without empirical studies, one can only speculate that the word processor can positively affect writing or perhaps help solve some of the problems faced by students in writing.

Purpose of the Study

The purpose of this study is to find out whether the word processor has any influence on the writing behaviour of a secondary school student and if so, how? More importantly, it intends to find out whether writing with the word processor can contribute positively to the quality of argumentative essays as reported by Snyder (1992). Snyder explained "the easy movement capability exclusive to word processing enables the writer to connect one idea with the next and to reframe these ideas to the central thesis in a tighter way" (p. 42). The present study builds upon Snyder's finding by assigning the subject the task of writing six argumentative essays, three with the
word processor and three with the pen-and-paper. It aims to find out whether there are differences in the argumentative essays written with the word processor and those written with the pen-and-paper in terms of text productivity (writing output), text complexity (syntactic complexity), text precision (grammatical and mechanical accuracy) and overall quality, measured on a 5-point holistic scale.

Research Questions

The aim of the study is to gather information on the writing behaviour of the subject when writing with the word processor and to investigate the relationship between the writing tool and quality of essays. In essence, this study seeks to find answers to the following research questions:

1. Does the use of the word processor affect the writing behaviour of the subject?
2. Are there differences in the essays written with the pen-and-paper to those written with the word processor in terms of text productivity, text complexity and text precision?
3. Does the use of the word processor affect the holistic ratings of the written products?

Significance of the Study.

Although researchers and writing instructors have made interesting claims about the changes that word processors bring to writing contexts, processes and products (see Background to the Study, p. 1), we still need to find out whether the benefits that others have gained from using the word processor would apply to our own students as well. We also need to look at the reality of writing with the word processor in order to understand the nature of its influence on students' writing
processes and products. The findings of this study can contribute to a better understanding of the impact of this revolutionary tool on writing at the school level itself. As the word processor has been known to alter the individual's writing style, it follows therefore, that teaching strategies and methods must also be reviewed. Therefore, by looking closely at the relationship between the writing tool and writing behaviour, teachers may gain insights into how the word processor could affect writing and by extension, writing instruction. More importantly, the study will show whether writing with the word processor would affect the quality of the written products - the final goal of all writing. All these are important first-hand information that teachers need in order to make good use of a machine like the computer to aid them in their teaching. Whether a computer becomes a wonderful teaching tool or a major classroom disruption and a waste of resources, depends very much on the teachers!

Definition of terms

Influence

"Influence" is defined as "the power to produce an effect by indirect means" (Roget's II: The New Thesaurus, 1980). In this study, the influence of the word processor refers to the capabilities of the word processor in causing differences in the writing behaviours and quality of essays.

Word Processor

A computer application for writing, editing, revising, formatting, and printing texts. It is a word processing programme used with a microcomputer, linked to a visual display unit, a file storage device, a printer and a mouse.
Writing process

The writing process in the present study refers to the entire process and the behaviours involved in the production of text, beginning from the time the writing assignment is received and ending when the writer has finished the work and no longer desires, needs, or is able to make further changes. In short, the writing process encompasses the behaviours that occur during the entire writing process.

Writing behaviour

Writing behaviour in this case, is defined as the observable physical writing strategies and habits of composing exhibited by the writer during the writing process.

Writing quality

The quality of the essays in this study is defined in terms of the following measures: text productivity (writing output), text complexity (syntactic complexity), text precision (grammatical and mechanical accuracy) and holistic assessment.

Argumentative Essays

Operationally defined as writing which seeks to put forward a point of view on the reader, the argumentative essay is often described as a persuasive essay. Its aim is to persuade and convince the reader, using sound propositions and logical supporting evidence. Arguments involve "organising abstract ideas into coherent, rational sequences, in sustained chunks of ....writing" (Dixon & Stratta 1982, p. 52).