ABSTRACT

Research has shown that writing can help students learn better. Writing and reasoning shift students from the emphasis of their work on finding the “right” answer to an exploration of how the problems work in ways that encourage them to apply, extend, and adapt their strategies to new situations. For this reason, UGRU curriculum was modified to integrate writing in all subjects not only in the English classroom. But, looking at the problems apparent in our students’ writing, there is a clear evidence about the fact that our students need more writing and more communications skills. Students themselves do not necessarily recognize writing as critical to their success. In fact, it is the dream of every teacher to see his/her students act lively in the classroom in the frame of a healthy learning environment. This research was conducted in the IT classrooms to help students understand that the writing center is a place where they can go anytime to seek help with their writing and therefore improve their work. Results showed that improving writing does not only help students to learn how to spell words correctly and correct the grammar, but it also prepares them to be aware of the important role of writing to promote the development of critical thinking and communication skills.

INTRODUCTION

Writing takes teaching beyond the traditional lecture format, and can promote an active learning environment in our classrooms. Experts also recognize that writing is a valuable way to promote the development of critical thinking and communication skills among students.

Simply we can say that writing means learning and we must understand that writing is not just a generalized mechanical skill learned once. Since our students are coming from high schools already knowing that each problem presented is for them to find an answer to it, UGRU curriculum was modified to integrate writing all subjects. This process is called Writing Across Curriculum (WAC). “Research has shown the 4th year students who had experienced WAC courses felt more secure about their writing and actually wrote better (based on a variety of tests) than those who had no exposure to the program” [3]. We come then to the fact that applying WAC on our students is a good way of showing them how they can merge their subject knowledge using structured English sentences. In-class writing assignments, Memos, and reports are ways of how we can integrate writing into our courses [1]. Therefore, students should not only focus on finding the right answer but also analyzing the findings, making recommendations and presenting justifications. These last do not only enhance students' general writing ability, but also increase both the understanding of contents while learning the specific vocabulary of the disciplines. [2]

As recognized, students seem to have trouble analyzing problems as they have to use their writing skills. It is certain that students need to learn the skills today which may be necessary later in their lives as they proceed with their academic and social opportunities. Our students will have significant advantage when they compete for and retain jobs because they have had this experience through expressing their knowledge and potential in writing.

WHY INCLUDE WRITING IN COURSES?

“When we ask our students to write we are encouraging them to engage actively with the subject matter in our disciplines: to see patterns, connect ideas, make meanings – in other words, to learn” [3].

As the teacher is devoted to helping students learn, students care about learning and want to improve. Further more, practicing writing results in improving student’s writing and therefore promotes both critical thinking and learning.
Writing to learn is learning to think

Since thinking is a critical part of meaning construction, classrooms that actively foster meaning construction through reading and writing will produce better thinkers [5]. Therefore writing should be an integral part of all content areas the same as reading for students to demonstrate their response to knowledge taught, concept attainment, and understanding through writing.

As a result, students will more likely to become active learners who read effectively, question texts, make connections, reason cogently and able to show their teachers that they can do these things. The use of various writing activities creates better learners in our classroom.

BASIC PRINCIPLES OF WAC

Since writing promotes thinking then the WAC was integrated into the UGRU courses to accommodate the following basic principles:

1. Writing is the responsibility of the entire academic community.
2. Writing must be integrated across departmental boundaries.
3. Writing instruction must be continuous during all four years of undergraduate education.
4. Writing promotes learning.
5. Only by practicing the conventions of an academic discipline will students begin to communicate effectively within that discipline. [6]
6. Student writing in—and confidence in writing in—improves with practice, especially when assignments build-in process and furnish opportunities for revision. [7]

WAC OBJECTIVES

Most student writers tend to concentrate on developing ideas in an essay and may overlook the more concrete pragmatic aspects of the writing process. But even an essay with good ideas, in any subject area not necessary the English course, will be ineffective if its sentences are vague and imprecise or its words convey an inappropriate tone and level of diction [8]. If we want our students to get the proficiency of writing, they must be offered practice and instruction in a great variety of academic settings. Many of the problems we notice in students’ writing result from not having enough practice addressing them [9]. For these reasons, the WAC was implemented in UGRU to meet the objectives below:

• Broadening the scope of student writing beyond the limits of English department.
• Increasing students’ ability to solve problems.
• Increasing students’ ability to examine ideas carefully and support them with evidence.
• Increasing students’ ability to integrate and produce information.

METHODOLOGY

Procedure

With the new IT curriculum, students are dealing with tasks. The tasks contain scenarios describing the problem and then some questions related to the scenarios. In the questions part, students are asked to find their answers using Microsoft office software and then write memos or reports after analyzing the results found. Sometimes they are also asked to make recommendations and justify them. Our students need more than one semester or even one year of a college-level composition course in order to correct the serious deficiencies in their writing. Since analyzing data, making recommendations, and writing justifications require more English skills, then many students struggle in these parts and finish by not completing them.

This research consists on helping students to recognize the benefits of the writing center on their writing related to the IT subject.

To conduct this research, 4 ICT2 sections were chosen:

• 2 sections were evaluated (experimental group 1 (EG1), and experimental group 2 (EG2)): students in these groups were referred to the writing center after handing back their homework and quiz graded. They had to go to check their memos/reports (writing part only).
• 2 sections were not evaluated (control group 1 (CG1), and control group 2 (CG2)): students in these groups are given their homework and quiz graded and the teacher just gives the one sample of the answer to the whole class.

Material Used

Five different types of materials were given to students for this research:

1. Business Vocabulary list: to help students get familiar with business terminology needed later on to solve their tasks.
2. The Oil Task: considered as the Non Timed Task 1.
3. The SUDCO Company Task: was considered as the Timed Task 1.
4. A Student Self Assessment form: to assess students’ confidence in writing before and after the study.
5. A follow up sheet: signed by the writing teachers to make sure students went to the writing center and got help with their writing.

The Oil Task and the SUDCO Company Task requires students to complete an Excel file with some functions, formulas, and charts then write a memo or report to analyze the results found.

How The Material Was Used

As a classroom IT teachers, we have noticed that some of our students have very low level of English spoken and written. After accomplishing Timed Task 1, we realized that students are facing a lot of difficulties in terms of writing. They can’t write complete meaningful sentences. So we decided to refer some students (EG1 and EG2) to the writing center to get help with their writing (check their memos and reports regarding the spelling, Grammar, and data analysis) while with the other groups. The study was done over by sessions as follows:

Day1, Saturday, February 25th, 2006: students from all groups formed groups of four where one of them is the leader. The Business Vocabulary List was circulated to all students. They worked together to find the meaning of the words in English and Arabic and type it in the related columns.

Day2, Monday, February 27th, 2006: students from all groups shared the outcome of their work with the whole class. The Oil Task was then distributed to students to scan. They had to identify the business words in the scenario. Students worked all together to discuss their findings and voted for their meanings. Students were asked then to carefully read the scenario and outline the necessary functions, formulas and data required to create charts. As part of the task, students had to write a memo explaining the outcome of the completed spreadsheet and analyzing the data. This part was assigned as homework to students to do in the class.

The study started from day 3 and after:

Day3, Saturday, March 11th, 2006: students were handed back their homework graded.

EG1 and EG2: all students were asked to take their memos written to be checked by the writing center teachers. The follow up sheet was distributed to students to write their names and ID numbers. Students were asked to bring the sheet signed by the writing center teachers who offered help.

CG1 and CG2: all students were given a sample (best students memo/report) to look at and were asked to correct their work.

Day4, Monday, March 13th, 2006: students forming EG1 and EG2 handed in the checked Memo to be graded and the follow up sheet signed. (Not all students were able to get help and bring the form signed and this is explained in the difficulties section).

The best memos were chosen as samples and were displayed to all students in the class to show the progress. These students’ work was appreciated and their progress was admired.

The second material, SUDCO Company Task, was then given to students as Timed Task 1 (quiz). It also asked students to write a report to analyze the data they completed in an Excel spreadsheet and then comment on it.
Day 5, Saturday, March 18th, 2006: teachers handed in the quiz graded. For the second time, students forming EG1 and EG2 only were asked to go visit the writing center and get their SUDCO Company Task’s report checked.

The same process done with the first task was repeated again with the second one.

The self assessment form was distributed to the Experimental groups 1 and 2 before and after the study to see how students feel about certain areas related to writing in their IT class.

**Methods used to motivate students to go visit the center**

Many methods can be used to motivate students to do the work. It is the teacher’s responsibility to choose the corresponding methods to the level of students he/she has. Even at the college level, many professors have given gifts such as books, chocolate, certificates, verbal praise, extra marks, and so on for good performance as a way to increase students’ motivation.

Students who do not yet have powerful intrinsic motivation to learn can be helped by extrinsic motivators in the form of rewards. The rewards can (and should) be small and configured to the level of the students [10]. In this research, to inspire students’ desire to go to the writing center to seek help with their writing, a power point presentation with some encouraging animated pictures was prepared. The presentation was broadcasted to the whole class and students seemed to enjoy it.

Presenting the presentation to students did not really work as expected. Therefore, a reward method took place: four marks were added to each student’s timed task1 who visited the writing center and brought back the signed form (the follow up sheet signed by the writing teacher who helped the student). This worked better than the presentation as the number of students who visited the writing center increased considerably.

**RESULTS AND DISCUSSION**

Since not all students could get help with their writing then results showed improvement to some extent. The two figures below show a comparison between the number of students who went to the center and received help from the writing teachers, the number of students who went to the center but did not receive help, and the number of students who did not go at all for the first time when the Non Timed Task1 (homework1) was assigned to them and the second time when and the Timed Task 1 (Quiz1) was assigned to them.

**Fig 1: Summary of students who were referred to the writing center after their Non Timed Task 1**

<table>
<thead>
<tr>
<th>Groups</th>
<th>Total Number of students</th>
<th>Number of students who went to the center and received help</th>
<th>Number of students who went to the center but didn’t receive help</th>
<th>Number of students who didn’t go to the center</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EG1</strong></td>
<td>18</td>
<td>6</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td><strong>EG2</strong></td>
<td>20</td>
<td>7</td>
<td>3</td>
<td>10</td>
</tr>
</tbody>
</table>

From Figure 1, we can see that 10 students from each group went to the center for help whereas 8 students from EG1 and 10 students from EG2 were not interested to go for help and this is when the IT teachers thought about using the motivating methods mentioned in the section above to encourage more students to go. Some students also went but didn’t get help (4 for EG1 and 3 for EG2) because of the problems described later in this paper.
Fig 2: Summary of students who visited the center for Timed Task 1

<table>
<thead>
<tr>
<th>Groups</th>
<th>Total Number of students</th>
<th>Number of students who went to the center and received help</th>
<th>Number of students who went to the center but didn’t receive help</th>
<th>Number of students who didn’t go to the center</th>
</tr>
</thead>
<tbody>
<tr>
<td>EG1</td>
<td>18</td>
<td>14</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>EG2</td>
<td>20</td>
<td>12</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

From Figure 2, it is visible that after the motivating methods were used, and since students saw their peers progress in writing after visiting the center for the first time, more students were interested to go and get help from the writing center. 14 out of 18 students from EG1 and 12 out of 20 from EG2 could get help with their writing which is a high number. Only 5 out of 38 students (both EG1 and EG2) did not go to the center.

Comparison between students’ responses to the Self Assessment form before and after the research:

A Self Assessment Form that contains 12 items was used to measure students learning and writing abilities level before and after the study. It was used to measures how the writing center could help students improve their subject knowledge and writing skills. From all the 12 items, only 4 are mostly relevant to writing and the results are as follows:

Question 1: I know how to use MS word translator to find the meaning of any difficult word.

![Fig 3: Usage of MS Word Translator](image)

From figure 3, we can see that students already know how to use MS Word Translator as this was part of the ICT1 course. Therefore the answers remained almost the same before and after the study.
Question 2: I know how to use MS Word Thesaurus to find extra related words.

**Fig 4: Usage of MS Word Thesaurus**

In the figure above, it is noticeable that many students were not sure about the meaning of Thesaurus and how to use it to find meanings of difficult words. Before the study, 18 out of 35 students responded with agreement and 17 students out of 35 responded with either uncertain (Neutral) or disagreement. Since students were referred by their IT teachers to the writing center to get help with their writing, they have learned how they can use the thesaurus in MS Word to look up words. This is explained by the fact that the numbers changed after the study was carried out as 30 out of 35 now showed agreement and only 8 showed disagreements.

Question 3: I recognize objectives in tasks easily.

**Fig 5: Recognition of Objectives**

Recognizing the objectives of the tasks involves some reading strategies students constructed from their ICT1 course. Coming to ICT2, students already have some knowledge about how to find the requirements of each ICT task in terms of software needed or functions and formulas required. Since the focus of the research was to help students improve their writing and learn how to analyze data in a better way, students reading abilities didn’t show a major improvement before and after the study.

Therefore, from the figure, we can see that the number of students who feel confident about recognizing objectives of tasks given to them, before and after the study, remains almost the same (22 out of 35 before and 24 after). We are still having 9 students who are neutral and 2 who contrasted the idea after the study was carried out.
Question 4: I know how to write a Memo or Report.

Fig 6: Writing Memo or Report

Figure 6 shows that many students changed their opinion about knowing how to write memos and reports after the study. 19 students out of 35 agreed that they know how to write memos and reports but after the study was done, more students felt very confident about writing and this is clear from the increased number of students to 33 out of 35. Only one student answered with disagreement which shows a big improvement overall.

DIFFICULTIES AROSE AND HOW THEY WERE ADDRESSED

Students are expected to “function competently in the role of professional-in-training” [11] while solving assignments and quizzes. This role means focusing on issues or problems outlined in the assignment, and using, not ignoring, the knowledge and methodology being taught in the course to address those issues/problems. Since our students still don’t understand their role and responsibilities correctly, many difficulties arose while conducting this research:

Difficulty 1: Not many students took the matter seriously to approach the writing center in order to improve their writing and learning.

Solution: Many rewards methods were used by the IT teachers. The methods were described above.

Difficulty 2: The communication between the class teacher and the writing center teachers was done through Emails which generated some confusion on what to help students with at the beginning.

Solution: An effective formatted Memo/Report for each assignment was provided to the writing center teachers as a guideline for them to know what to help students with.

Difficulty 3: The number of teachers allocated in the writing center was not enough for the number of the evaluated students. Therefore, some students didn’t find teachers available to help them.

Solution: Encouraging students to go again to the writing center in different times.

Difficulty 4: A message was sent by one of the writing center teachers complaining about one student who went to the writing center expecting to get her memo/report written by the writing center teacher.

Solution: The IT class teacher explained the assignment again to that student and asked her to take only the written memo or report it to the writing center teachers to check it for her.

Difficulty 5: Some students were not convinced with the idea of going to the writing center for help.

Solution: Students were exposed in the IT class to some writing samples done by their peers before and after visiting the writing center to show their progress.
SUMMARY AND CONCLUSION

Writing across the curriculum is an educational movement based on the ground, which means that students learn critical thinking better when they are actively engaged in the subject matter of a course through writing. When students use writing as a means of solving problems in various classes, they, at the same time, learn the material and become better writers.

Writing should not be confined to first-year writing classes; we live in the world of language, and students should be encouraged to engage in expressive, academic, and professional writing and speaking in all of their classes [12].

As experienced, adding writing assignments is difficult since students will often resist anything they perceive as not being directly related to course content and they resist the idea of writing outside the classroom hours in order to be followed and checked during the next class. Fortunately after adding writing to both ICT1 and ICT2 courses, teachers have discovered that writing assignments bring great benefits to students.

Results showed that Students learn something significant by doing it. They realized that the writing center is a place for them to go to anytime to get help with their writing. They also found, at the end, that writing is an interesting method to analyze and find solutions or recommendations to a problem.

We have also realized the strengths and talents of our students. From their work, it was obvious that they understood some areas of writing and analysis.

In the future, Students are more likely to perform satisfactorily what is asked of them following the time deadline and the instructions provided in their writings.

FUTURE PLANS TO ADDRESS DIFFICULTIES AROSE:

1. A meeting at the beginning of the semester could be arranged between writing center teachers and IT teachers in UGRU to:
   a) Explain the objectives of the assignments that will be given to students throughout the semester.
   b) Provide the writing center teachers with models of these assignments.
   c) Provide the writing center teachers with a clear vision on what to help IT students in UGRU with.
   d) Develop IT teachers with skills to teach writing.

2. Some advertisements for the writing center should be boosted:
   a) A power point presentation and leaflets could be designed to advertise the writing center and encourage students to visit it.
   b) A visit to the writing center during the Orientation week could be arranged for students to go with their IT teachers.

3. Daily allocation of certain hours to accommodate IT students’ needs with their writing while taking courses in UGRU.

4. The number of the writing center teachers could be increased to accommodate all dropping-in students.

5. Extension of the daily working hours in the writing center.

6. Peer tutors with higher English levels could be assigned to the writing center.

7. Rewards can be given to the peer tutors at the end of the semester or after completion of a certain number of hours of service (such as offering a bonus to their final payment).
REFERENCES


