Disciplinary Writing in an EFL context from Teachers' and Students' Perspectives

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Abstract

Studies have indicated that EFL students have difficulties in coping with the writing assignments in their university courses. Although studies in Writing across the Discipline and English for Academic Purposes have been helpful in this regard, little research has been done from the disciplinary teachers' perspective. This paper reports on a comparative needs analysis study at one English medium university in Lebanon through a survey of disciplinary teacher and student perceptions on the type of writing assignments students do in their university courses, students' language problems and proficiency levels and the sources that help with developing disciplinary writing. Findings show that teachers and students perceive research reports and lecture note-taking done most frequently, teachers perceive less improvement in students' writing over a semester than students do, identify more problems in student disciplinary writing, identify English teachers as the main source of help, but importantly, both teachers and students agree to collaboration between disciplinary and English teachers in raising students' disciplinary writing level. Student and teacher views diverged more than those of students in the disciplines. Implications and recommendations are made for EFL contexts.

Introduction

It is well known that English as a Foreign Language (EFL) students have difficulties in producing required university academic writing tasks (used interchangeably with texts/assignments in this study) (Bacha, 2010; Hyland, 2008; Jordan, 1997; Paltridge, 2004). Even though there have been debates since the 1980's on who should be involved in teaching these tasks, English or disciplinary teachers (e.g. Hyland, 2002; Johns, 1988; Spack, 1988), there is still no definite consensus. It remains one of the most important concerns in tertiary institutions (Adams & Keene, 2000; Belcher, 2006, 2009; Dudley-Evans & St. John, 1998; Jordan, 2002). A breakthrough to address the problem has been through needs analysis studies, as a take off from increasing emphasis on a learner-centered curriculum (Nunan, 1998), in identifying the required tasks in the disciplines that students must accomplish along with the necessary abilities and proficiency levels of the students in various EFL contexts to undergo these tasks. Results from both quantitative and qualitative research methods, such as surveys, interviews, observations, and text analyses, have contributed to a better understanding of disciplinary writing requirements and how best to address these from the stakeholders' viewpoints, the learners and teachers in the context of the present study (e.g. Basturkmen, 1998; Belcher 2006; Leki & Carson, 1994; Zhu, 2004 among others). A strong support of this line of research is expressed by Huang (2010, p.535) in stating that

If we, as curriculum designers, materials writers, and teachers, intend to put the learner at the center of the learning experience, our duty is to offer targeted, varied workshops that meet their individual and discipline-specific needs. An ongoing questioning of learners' needs helps instructors begin their instruction where the learners are and the knowledge gained will enable instructors to prioritize what they teach.

The significance of obtaining these views had already been implied by Leki and Carson (1994) in referring to Horowitz's (1986) reminder that "...what learners believe about what they are learning and about what they need strongly influences their receptiveness to learning". It could also be argued that teachers' perceptions could influence what they teach. However, there is a lack of perceptions from disciplinary teachers', 'guardians' of the tasks that they teach (Huang, 2010; Zhu, 2004). Input from disciplinary teachers and related student input is needed, especially from L1 Arabic contexts where students' difficulties with university academic writing have been reported for over twenty years (Bacha, 2008; Abduhamdia, 1984; Mukattash, 2003; Swales, 1984; Zughol & Hussain, 1985). This paper reports on the writing part of a university wide project at a university in Lebanon on the language needs of students across the disciplines from the teachers' and their students' perspectives.

Literature review

Writing well at tertiary institutions is important for students' progress and achievement as writing is often used to evaluate students' mastery of disciplinary course content (Leki and Carson, 1994). In facing the challenge of helping students to develop their writing, English teachers and specialists report on successful experiences (e.g. Carter, 2007; Dudley-Evans and Swales, 1980; Haynes, 2002; Jones, Turner & Street, 2000; McLeod, Miraglia, Soven, and Thaiss, 2001; Milsaps, 2003). This effort, mainly from the writing across the disciplines, (WAC) approach involves giving students the necessary language skills to write academic discourse of various types. The approach further suggests that students 'learn to write', and 'write to learn' (Zamel, 1994) and that each discipline has required writing texts with which students should become familiar (Archer, 2008; Bacha, 2003; 2008; Cheng, 2006; Harrison, 2001; Hyland, 2007; Jordan, 1997; Johns, 2002,2003; Leki, 2003; McLeod, 2002; Moran, 2002; Prior, 1998; Swales, 1984;1990). Although WAC programs attempt to bridge the gap between English and disciplinary programs through team teaching of disciplinary classes by both the English and disciplinary teachers. they do acknowledge that English and disciplinary teachers have different competencies, and thus the former may not be the ones to teach research papers, laboratory reports and so forth specific to the concerned discipline.

Some further research by language specialists on students' perceptions of what specific writing assignments are done in their university courses as well as on their assessment of the collaborative efforts of the English and disciplinary teachers, either before or after instruction, has helped in recommendations on needed disciplinary writing instruction and sources for improvement (Belcher, 2006; Hyland, 2007; Johns, 2008). Leki & Carson (1997) in comparing the writing tasks done in EAP and disciplinary courses, mention that the former focus on little or no reference by the students to reading selections, while in the disciplines outside readings are important for learning. The implications for the English teachers are that EAP writing courses should prepare students for their disciplinary writing through what they refer to as 'text responsibility' instead of in many instances a reliance on students' background, personal life or ideas for writing content. The purpose of EAP writing courses, they continue, should emphasize 'real' writing needed in the disciplines. In this connection, Belcher (2006, p. 146) refers to Leki's (1993, p. 1) observation that 'reading can be, and in academic settings nearly always is, the basis for writing". In fact, James (2006) reports on how there was transfer of learning from one EAP course, in which content based learning was carried out along with relevant assignments, in the discipline course.

Although English specialists have added to insights into needed disciplinary writing, disciplinary teachers' contributions remain limited. The few studies done, however, show experiences in promoting academic literacy in the disciplines either as case studies (Carpenter & Krest, 2001; Defazio, Jones, Tennant, & Hook, 2010; Leki, 2003) or in describing how students are helped in developing their writing skills through meta-cognitive awareness (e.g. Wong Mei Ha & Storey, 2006). Zamel (1994), in investigating the role of the disciplinary teachers, recounts how although one teacher focused on the 'deficiencies' of the non-native speakers, another viewed the interaction and engagement with course content as a means to help students learn and improve their writing. On the darker side, she reports that some of the teachers find themselves 'strangers in academia' as they face the challenges of a 'new type' of student that has the intelligence and drive of native speakers but need to sharpen their writing tool. She argues that disciplinary teachers take up this challenge and focus on the 'opportunities' that EFL students bring (i.e. intelligence and motivation) and not be discouraged by the 'risks' (i.e. weak writing).

Gardner (2003) details how he used writing assignments and techniques in an elementary statistics course, a management course and a quantitative business analysis course to improve the quality of his students' writing. Contrary to what many students or even some disciplinary teachers might believe, Gardner (2003) goes on to say that 'Writing is important in all disciplines (p.1).' He is aware, however, that the majority of writing done today is not "fiction, poetry or even journalism, but business communication, internal reports, documentation for customers and regulatory agencies, and information for web pages" (p.1). The type of texts has definitely changed to include other modes such as the visual in the form of graphs and charts as Johns (2003) attests to. Gardner (2003) gives a list of writing genres in his courses which includes texts other than the 'traditional essay'. Software documentation, advertisements, laboratory reports, grant proposal, product and medical instructions, project progress reports and the like are some. We know, however, that Gardner's (2003) example is not representative of disciplinary teachers' practices. The question remains as to how can students be helped in developing their disciplinary writing and specifically the 'new' text types that are needed as the disciplines stay current to meet professional standards.

Certainly, since 1986, when Horowitz enjoined EAP instructors to identify the actual writing assignments that professors require, research on disciplinary discourse has shed much light on the target situation for EAP students. However, this research has been conducted by language specialists and has overlooked the joint perspectives of students and teachers in the disciplines. These perspectives may help to understand the present situation and the learning situation better by providing a glimpse into what students can and cannot do, and into what could be done to help them. Huang (2010, p.517) states "Scant research has focused on multiple language skill domains from both the instructors' and students' perspectives..." and goes on to report the study she carried out on the academic language needs of undergraduates and graduates from both the students' and instructors' perspectives across the disciplines, perhaps one of the very few done. The present study contributes to research on the perspectives of disciplinary teachers who have a role to play; indeed, perhaps an even bigger role that is worth investigating further.

Aim and Rationale

In order to obtain information about how best to improve the learning of disciplinary writing at the university in this study, the views of both the stakeholders, the students and their disciplinary teachers are obtained on the required writing assignments, problems, and developmental strategies to improve students' writing. Since views can be partly subjective and sometimes needs may be negotiated between students and teachers, a comparison of the student and teacher views are carried out in order to gain as objective a measure as possible.

In recapitulating the importance of needs analysis (e.g. West, 1994) and some of the historic research done through this approach (e.g. Kroll, 1979) in EAP and ESP, Huang (2010, pp.518-19) makes a strong argument that for any effective learning, the needs of the learners should be accounted for and who best to inform of these but they themselves along with the views of their teachers. Basturkmen (1998) also emphasizes the importance of carrying out needs analysis not only as an investigation into student needs, but also into what programs might lack.

Research Questions:

The study aims to answer the following three research questions.

- 1. What differences are there in perceptions of the writing assignments done
 - a. between students and teachers?
 - b. between students and teachers in the different disciplines?
 - c. among students in the disciplines?
- 2. What differences are there in perceptions of students' writing problems
 - a) between students and teachers?
 - b) among students in the disciplines??
- 3. What differences are there in perceptions as to ways to develop students' writing
 - a) between students and teachers?
 - b) among students in the disciplines??

Method

Research context

The study is conducted in a private middle-sized English medium university, following the American model, in Lebanon. Students in both public (governmental) and private schools are required, besides Arabic, to undergo their education in a second language, English or French (L2) and study a third language (L3) French or English. The L2 and L3 languages are a consequence of the British, US, and French influences in Lebanon mainly over the past century. Thus, the linguistic background of the Lebanese students is a multilingual one upon entrance to the university. Students are placed into the four required academic English courses depending upon their English entrance scores. Along with an English course, students normally take four courses in their discipline in each of the two semesters (15 weeks/ semester) over the academic year.

Design and implementation of the instruments

A pilot survey was administered to 50 students and refined for clarity and time needed for completion, (Hatch & Lazarton, 1991).

Ouestions (mainly close ended but with room for choice and additional comments) were based on a previous study as part of this ongoing research (Bacha, 2008) and the literature in the field and grouped according to three main areas: 1) the writing tasks (survey questions 1-3), the writing problems (survey questions 4-6) and 3) the writing strategies (survey questions 7-9) (see Survey in Appendix A). The survey was then administered to students in the academic English Program (N=500) by their English teachers for fifteen minutes at the end of their classes and directed to consider their answers, where relevant, according to a typical semester. Filling out the questionnaire in the English courses was done to obtain the maximum number of responses and tap participants in the various disciplines since all students take English courses as part of the General University Requirements along with their disciplinary courses. A parallel survey was sent to the disciplinary teachers (N=70) in sealed envelopes with instructions that they be returned to the central office. The teachers' survey questions were rephrased from the teachers' perspectives. Both student and teacher surveys were in English. Ethical considerations were accounted for by informed consent, anonymity and voluntary.

Participants

A total of N=40 (57%) response rate from teachers in the different disciplines and a total of N=257 (64.25%) response rate from students was obtained distributed over the Schools and disciplines as indicated in Table 1. The student and teacher arts samples were from the main undergraduate programs, Education, English, Psychology, and Business, the latter considered part of arts in this study. The student and teacher science sample were from the main undergraduate programs in Computer Science, Biology Pharmacy, and Engineering and Architecture.

Table 1 Frequencies of teacher and student participants according to school and discipline

Participants	School of	School of	School of	School of	Total
	Arts and	Business	Engineering and	Pharmacy	
	Sciences		Architecture		
Students	82	126	37	12	257
Biology	3				
Computer Sc.	38				
Total Science	41				
Education	30				
English	5				
Psychology	6				
Total Arts	41				
Teachers	22	6	9	3	40
Biology	3				
Computer Sc.	3				
Total Sciences	6				
Education	8				
English	6				
Psychology	2				
Total Arts	16				

Total Science Students N = 90Total Science Teachers N = 18

Total Arts Students N = 167Total Arts Teachers N = 22

Data Analysis

The survey data were input into the Statistical Package for Social Sciences (SPSS.v16) and analyzed according to means (M), standard deviations (SD), percent frequencies and comparisons using the non-parametric Mann Whitney Statistical Test for any significant differences unless otherwise indicated. An alpha level of p=< .05 was used to determine significance. Tables showing mean frequencies, standard deviations, significance levels are given within the paper and figures are referred to in Appendix B. Main results are reported. Minor results can be decoded from the multiple numbers at the bottom of each figure to show the various ways students perceive how they learn, the problems they have, and the strategies they use. For example, the sequence 125 should be read 1.2.5. (one, two, five) rather than one hundred and twenty five and should be decoded as '1'refers to 'explanatory sheet', '2' refers to 'model', '3' refers to 'verbal explanation'.

Results

Results are given according to the three research questions based on a comparative analysis of perceptions 1) between students and teachers and 2) among students in the different disciplines. The percentages of some results may not add up to 100% as some students/teachers did not respond and others checked a combination of the items.

Research Question 1: What differences are there in perceptions of the writing assignments done? *Between students and teachers*

Students and teachers responded first to how often, on a four point likert scale: never (1), rarely (2), sometimes (3), a lot (4), the eight writing text types in an average semester were done. Findings, Table 2, show that students perceive doing a greater amount of written tasks but not as many report and note-taking tasks when compared to teacher perceptions. The differences in mean ranks are statistically significant except for lecture and internet note taking. Interestingly, both students and teachers perceive research papers and lecture note-taking being done to a higher extent than the other writing tasks.

Table 2 Mean frequencies of student and teacher perceptions of writing assignments

	Student	S	Teachers		Significant Level
Writing Assignments	(N=257))	(N=40)		Two Tailed
	M	SD	M	SD	
1. Essays	2.96	.79	2.00	.98	P=0.000*
2. Essay tests	2.83	.77	2.22	1.15	P=0.003*
3. Letters	2.10	.91	1.28	.58	P=0.000*
4. Reports	2.26	1.08	2.70	1.17	P=0.045*
5. Research papers	3.02	.87	2.70	.84	P=0.036*
6.Lecture summaries	2.42	.97	1.88	1.11	P=0.002*
7.Lecture note-	3.15	.94	3.03	.98	P=0.435
Taking					
8.Internet note-	2.67	.96	2.32	.94	P=0.074
Taking					

Between students and teachers in the disciplines

Student perceptions indicate higher mean frequencies on most of the writing tasks when compared by discipline to those of their teachers' (Table 3). Again, students and teachers agree that research papers and taking lecture notes are done more than the other assignments. Ten science students additionally commented that they needed to know how to write up computer programs, laboratory experiments, and emails.

Table 3 Mean frequencies of writing assignments by major - teacher and student perceptions

MAJOR: Tota	ıl = N=257	Essays	Essay Tests	Letters	Reports	Research Papers			Internet Note taking
SCIENCE MAJORS									
1.Biology	М		2.67* 1.00*	1.33 1.00	3.67 4.00	4.00* 2.00*			3.0* 2.0*
	SD	S .57 T .00	1.15 .00	.577 .00	.57 .00	.00 1.4	1.52 1.4	.00 .71	1.73 1.4
2 Engineering/ Architecture	M	S 2.73 T 2.17	2.58 2.17	2.22 1.67	2.75 3.17	3.11 3.00		3.02 3.00	2.85 2.33
	SD	S .77 T 1.17	.63 1.69	1.09 .82	1.033 1.67	.79 .63	.86 1.33	.87 1.27	.84 .82

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3 Pharmacy	M	S T		2.8 2.00	2.17 1.00		3.91 3.50		2.00 2.00	2.58 2.00	3.83 3.50	3.08 2.33
	SD	S T	.90 1.16	.71 1.41	.718 .000		.30 .71		.67 .00	.99 .00	.38 .58	.99 .58
4 Computer Science	M	S T	2.61 2.33	2.63 1.67	2.17 1.67		3.33	2.71	2.98 3.00	2.50 1.67	2.93 2.33	2.59 1.67
	SD	S T	.66 1.16	.73 1.16	.892 1.16		1.01 .58		.93 .58	1.11 .58	.93 1,16	.99 .58
ARTS MAJORS												
1. Education	M	S T	3.56 2.50	2.88 3.75	1.67 1.25		1.50 1.50		3.46 3.20	2.56 1.50	3.50 3.60	2.84 2.50
	SD	S T	.58 1.30	.78 .50	.917 .50		.78 1.0		.70 1.1	.87 .58	.76 .55	.68 .55
2 English Language	M	S T	3.80 2.20	3.60 3.20	1.75 1.20		2.20 1.60		3.60 3.17	3.00* 1.40*	3.80 3.67	3.20 2.60
	SD	S T	.44 1.30	.54 1.30	.957 .45		.83 .90		.54 .98	1.00 .55	.44 .512	1.30 1.14
3 Psychology	M	S T	3.0* 1.50*	3.25 3.50	1.50 1.00		2.0 1.0		4.0 2.0	3.00 1.0	3.75 3.50	3.00 2.00
	SD	S T	.81 .71	.95 .71	.57 .00		.811 .00		.00 .00	1.15 .00	.50 .71	.81 1.4
4.Business												
	M	S T		2.90* 1.83*			1.90 2.00		2.79 2.33	2.31 1.33	3.07 2.33	2.54 2.50
	SD	S T	.822 .983	.78 .983	.880 .408		.86 1.00		.90 1.00	.95 .516	.99 1.00	.98 1.00
Arts	М	S T	3.15* 2.00*	3.16* 3.07*		1.76 1.16		1.90* 1.53*		2.72* 1.31*	3.53 3.28	2.90 2.78
Sciences	M	S T		2.67 1.71	1.97 1.34			3.26 * 3.50*	3.02 2.5	2.5 2.43	3.45 2.96	2.88 2.10

S = Student

M = Mean

T = Teacher

SD= Standard Deviation

* p = < .05

Significance is indicated between students and teachers according to each discipline

Students and teachers, secondly, responded to the number of written assignments (reports, research papers essays, etc.) done in an average semester. This question is included as it quantifies the results in the first question. Results further show in Table 4 that a relatively low percentage of students (1.4) and faculty (2.9) indicate having done no written assignments over an average semester. Although more students (67.3%) than teachers (51%) indicate high frequencies of 4-7 assignments, there were no significant differences when mean ranks were compared (p=0.147). One science student mentioned that they do no writing and three arts students mentioned that it depended upon the course.

Table 4 Percent students and teachers according to number of written assignments

Number of Assignments	Students	Teachers
1. None	1.4	2.9
2. 1-3	31.4	45.7
3. 4-7	37.3	25.7
4 Over 7	30.0	25.7

Students and teachers thirdly responded to five items as to the average length of assignments done over a semester. It could be argued that this is a difficult question to answer accurately as different majors require various assignment lengths and thus the validity of the results are in question. However, since ranges of length are given, this was found a valid question. Students are aware that 1,000 words is an average assignment. Results in Table 5 indicate that a high percentage of students and teachers indicate assignments between 300 - 1,500 words are done. Although students' views show a higher percentage for longer written assignments, the mean rank differences between teacher and student perceptions of assignment length were not found to be statistically significant (p=0.440). A small percent of students and teachers state two or other lengths.

 Table 5
 Percent length of written assignments

Word Length of Writing Assignment	Students	Teachers
1. 100-300	13.9	18.2
2. 300-500	38.3	21.2
3. 500-1,500	28.6	42.4
4. Over 1,500	15.3	3.0
5. Other	2.1	15.2
6. 100-300 and other	.7	0
7. 300-500 and other	.7	0
8. All word lengths	.3	0

Among students in the disciplines

Viewing the results by students' disciplines, figures in Table 3 indicate that the non-scientific disciplines show a higher mean frequency in essay writing, but students in all disciplines indicate a high frequency in research papers and note taking. Letter writing is viewed the least done and rarely. Results further show that more research papers and reports are done in education and biology, more reports in pharmacy and biology and more essays and essay tests in education, psychology and English. It is noteworthy that business students perceive doing more essay writing (p=.009), essay tests (p=010) and letters (p=0.005) when compared to the teachers' perceptions, and psychology students perceive doing more research papers (p=0.025). Student means indicate doing more writing assignments than those of the teachers, but differences in mean ranks were not statistically significant when compared to the teachers' views according to the other disciplines.

When student views on length of assignment by discipline are compared using the Kruskal Wallis Statistical Test, there are significant differences (p = <0.001) indicating greater length of assignments for the scientific disciplines over those of the non-scientific. This is surprising as normally scientific writing is more concise than non-scientific writing such as literary writing, at least by published scientific article standards.

Summary of Results on Research Question 1

1.Statistically significant, students indicate high frequencies of assignments but higher essay tests, letters, research papers, and lecture summaries than teachers do but not significantly higher as regards lecture and internet note taking. Students again indicate higher percent frequencies of assignments between the 4-7 range.

Again, students indicated higher percent frequencies of length of assignments than faculty, but results were not significant. It seems that teachers are more reserved in their perceptions in comparison, while students perceive more and longer assignments being done.

2. Students in the arts indicate significantly more essay assignments done than in the science disciplines. All disciplines indicated high frequencies of research papers and note taking, with higher frequencies in education and biology but significantly longer in the sciences.

Research Question 2: What differences are there in perceptions of students' writing problems? *Between students and teachers*

Students and teachers on the fourth question responded to five items from (1) already have a satisfactory level, (2) a great deal, (3) a sufficient amount to deal with the course work, (4) not enough, to (5) none at all. This question is included as it is interesting to see to what extent students consider they improve in their writing as compared to that of their teachers. Results in Table 6 indicate that more students (80.1%) perceive their writing improving over the semester in varying degrees than teachers do (39.4%). The mean rank differences between teacher and student perceptions of writing improvement over the semester are statistically significant (p=<.001).

Degree of Improvement	Students	Teachers
1. Already have a satisfactory Level	12.5	9.1
2. A great deal	31.1	6.1
3. A sufficient amount to deal	35.7	24.2
with the course work		
4. A great deal/sufficient for Course work	.4	0
5. Sufficient/satisfactory level	.4	0
6. Sufficient/not enough	.4	0
7. Not enough	16.1	42.4
8. Not enough/none at all	0	3.0
9. None at all	3.6	15.2

Table 6 Percent improvement in writing assignments

Students and teachers responded to the fifth question by checking as many of the 8 sources that they themselves use when learning how to write from among: (1) explanatory sheet, (2) model, (3) teacher supervision (4) assignment steps, (5) verbal explanation, (6) peer help, (7) internet sources, and (8) other. This is considered an important question since insights could be gained into student learning strategies. Students perceive their discipline writing learning mainly through models as examples (15%), teacher supervision (10%), assignment steps (10%), explanatory notes (6%), internet sources (6%), verbal explanation (4%), and peer help (3%). Students, also, mentioned a combination of methods, but these comprise under 5% of student perceptions (see Figure 1). Results in Figure 2 indicate that 9% of the teachers state that they perceive learning writing in the discipline by verbal explanation alone and another 9% by a combination of sources from the internet and other ways with 5.5% through both verbal explanation and sources from the internet. A small percentage of the teachers perceive a combination of other ways. Mean rank comparisons are significant (p=.023). There does not seem to be one strategy that either students or teachers can pinpoint which possibly indicates that further investigation into developing student writing in the disciplines needs to be addressed.

On the sixth question, students responded to 8 items indicating their writing problems in mechanics, organization, synthesizing information, and summarizing and paraphrasing. The inclusion of this question is relevant since students to produce texts in accordance with discipline conventions need to use 'correct' English. Results in Figure 3 show that a high percentage of students (25%) state that they perceive having no problems; 11% and 12% indicate problems with grammar and organization respectively. Less than 10% of the students mention other problems and/or comments mainly dealing with mechanics, argumentative structure and influence of other languages. A few of the student comments from the survey are mentioned below, and although cannot be said to be representative of the sample, highlight the problems the students have and confirm their mentioned perceptions.

^{&#}x27;I need to write long sentences and I need to translate.'

^{&#}x27;Would never write if given the chance.'

^{&#}x27;I have problems with quotations, logical sentence argumentation, digressions, lack of focus

on specifics, avoiding addressing the question.'

- 'There is an influence of French in my writing.'
- 'I cannot form ideas and write formally.'
- 'No proper vocabulary.'
- 'I have sentence fragments.'

Results in Figure 4 show that teachers state that they view students' writing as weak when compared to the students' views. Only 4% of the teachers indicate no problems in student writing. When mean ranks are compared, differences are statistically significant (p = < 0.001).

Among students in the majors

There are no significant differences when mean ranks of students' perceptions were compared in the disciplines (p=1.00) on questions four, five and six. It seems that students are in agreement concerning writing improvements made over an average semester, learning to write from models and explanations, and facing some problems with grammar and vocabulary.

Summary of Results on Research Question 2

- 1. There seems to be consensus among students in the disciplines that learning to write is through models and explanations, a significant difference when this result is compared to that of teachers. Teachers indicate student learning through teacher explanations and internet sources.
- 2. A higher significant percent frequency of students indicate that their writing improves over an average semester when compared to that of teachers who perceive very little improvement or none at all. Students' views when compared by discipline show that they agree that there is improvement.
- 3.Students view their problems significantly in grammar and organization although a third of the students perceive themselves as having no problems. This finding differs significantly with that of teachers who perceive many problems in students' writing.

Research Question 3: What differences are there in perceptions as to ways to develop students' writing? *Between students and teachers*

Students mentioned from whom they mainly receive help to overcome any problems according to five different ways on the seventh survey question. A major finding indicated in Figure 5 is that 35% of the students state receiving no help and approximately 20% state receiving help from internet and friends giving a total of 55% receiving help from sources other than teachers Further, approximately 22% of the students perceive receiving help from the course teachers and 18% from the English teachers, giving a total of 40% perceiving they receive help from teachers.

Findings in Figure 6 indicate that teachers perceive students receiving help mostly from the English teachers more than the disciplinary teachers. However, a relatively high 22% of the teachers believe that students are not receiving any help at all, while a small percentage indicate other or a combination of ways. When student and teacher views were compared, the differences were significant (p=.007).

Students responded to what sources could help them raise their writing level on question eight. Results, in Figures 7 and 8, indicate a relatively high 20% of the students state that they do not need any help, 19% indicate the English teachers, 14% indicate more help from the teacher of the discipline during office hours and almost 10% mention instruction on an individual basis in the University's Learning Center. A few teachers mention other students, private teacher and use of another language. Other ways and combinations were minimal with almost 4% indicating a combination of the English teacher along with individualized instruction. It seems that the teachers do not favor other students' help nor to give instruction in English during their office hours. Almost 15% perceive the development of students' writing to be the responsibility of the English instructors and a higher percentage of almost 32% to be a combination of the English teachers along with individualized instruction in the university Learning Center. Other ways and combinations are perceived as minimal. These differences are significant (p=.000) between student and teacher perceptions. Teachers significantly see a need for instruction for which the English teachers and the Learning Center should assume responsibility, while the students do not show as high a need for instruction, but mention that it is the responsibility of both the teachers in the discipline and the Students responded to their assumed interest in ways to improve their writing on the ninth question. Results in Figure 9 indicate almost 28% of the students state that they are interested in the collaboration between the English and the disciplinary teachers although almost 25% are not interested in any ways.

Another 20% and 17% are interested in workshops and being part of a writing course in the discipline respectively. Other ways and combinations are minimal with workshops and collaboration being priority. Five students in the arts disciplines mentioned by reading. Results, in Figure 10, indicate a high 31% of teachers stating they are interested in the collaboration between the discipline and English teachers in finding ways to raise students' writing level, and almost 20% in workshops, 10% in being part of a writing course in the discipline , another 10% in both workshops and collaboration. Twelve percent are not interested. Other minimal ways and combination of ways are indicated, but favorable in interest. When student and teacher perceptions were compared, there were no significant differences (p=0.215) indicating that there seems to be some consensus on collaboration between the English and disciplinary teachers.

Among students in the disciplines

The results showed no significant differences (p=1.000) when student perceptions were compared among the disciplines on all three questions 6, 7 and 8.

Summary of Results on Research Question 3

- 1.Students view receiving no help from either the disciplinary or the English teachers; whereas, teachers believe students are receiving help from the English teachers or none at all.
- 2. Students believe that they do not need instruction, but teachers see it to be the responsibility of the English teachers and the Learning Center.
- 3. Students and teachers agree in having disciplinary and English teachers collaborate in raising student writing level.
- 4. There were no significant differences among students when compared by discipline.

Limitations, Implications and Future Research

The survey instrument did not offer students more open type questions for them to express their ideas freely. Questions may have been interpreted differently and, although it is assumed that students were familiar with the jargon in the questions, their responses may not be reflective of the real situation. Triangulation of data such as interviews and analyses of actual student texts/tasks is needed to validate the results. Although the results cannot be generalized, five valuable insightful findings have been gained.

First, students tend to perceive improvement in their writing over a semester more than teachers notice improvement in student writing. This raises issues of expectations and standards, implying the need for disciplinary teachers to raise their students' awareness of their (the students') own writing level and the expected level required in the disciplines. Along with this, research is needed in qualitative assessment and benchmarking writing assignments against grade levels. A second finding and related to the first, is that teachers tend to view student writing as more problematic than students do and tend to identify more than one writing problem and more than one source or strategy for learning how to write in the discipline; whereas, students tend to provide single-category responses on questions about their writing weaknesses and strategies. Teachers seem to be more specific in mentioning their views and tend to summarize their perceptions that apply to most of the students; whereas, students responses indicated a more individualistic view. Again, there is a need to help their students to focus on language issues in addition to the content, either by seeking help from the English teachers or through individual and/or group writing sessions. Since both students and teachers are in agreement that most of the writing done in the disciplines are research papers and lecture note-taking, the question remains who will take on this responsibility.

More investigation needs to be carried out on whether the problems are in their writing skills or in the type of assignment. Although Zamel (1994) reports that 'writing to learn' over time helps in students 'learning to write', an analysis of the writing in the disciplines from the beginning to the end of a course may shed some light on this. These results also have implications for the setting up of clearer learning assessment guidelines. Most students indicate they learn writing in the disciplines through models and teacher explanations through steps, while faculty indicated mostly through verbal explanation. This has implications for the English Program to consider methods in teaching/learning in relation to students' learning styles of writing tasks specific to the disciplines and to involve the discipline teachers in suitable teaching/learning writing methods.

A third insightful finding is that more students perceive help should come first from their teachers in their disciplines than from their English teacher; whereas, more disciplinary teachers believe such help should come from English teachers.

Disciplinary teachers view English teachers, in courses and in the learning center, as the main potential sources of help for improving writing although they tend to be open to collaboration between English and disciplinary teachers as a possible strategy for improving academic writing. If the disciplinary teachers complain that their students weak writing skills is an impediment to learning, perhaps through the 'write to learn' model (Zamel, 1994) these students will 'learn to write'. Johns (2008) further points out that a mutual interest situation of both English and disciplinary teachers working together is a step in the right direction. The debate on who should teach the English and who should teach the content needs to be readdressed perhaps in terms of whether or not the disciplinary teachers are qualified to teach the English writing skills and whether they are willing. The results in this study seem to suggest that they are not on both accounts. That both students and teachers agree to collaboration between the English and disciplinary teachers in raising students' writing leaves much for all teachers to consider. One recommendation would be for all of the stakeholders, students, English and discipline teachers, to cooperate in the process through a writing center team teaching and incorporating some of the readings in the disciplines in the English courses to be used in various writing tasks. Currently, there is no collaboration between discipline and English teachers at the university in this study which may have contributed to the lack of opportunities in addressing any writing problems of the students in their disciplinary courses.

Fourth, although L1 Arabic speakers' texts have been found to be redundant (Mukattash, 2003), which unnecessarily lengthens the written texts, students and teachers do hold similar views on the required writing task length. It was surprising, however, that the science students indicate doing longer written texts than the arts students. It might be that the students' scientific reports/research papers are longer than expert scientific writing such as articles. Needless to say, this warrants more investigation into what is being included in the students' scientific research papers and whether they are being modeled on those of the research community.

Last, both students and teachers believe that students are not receiving help in developing their writing skills in the disciplines, and if they are, it is mostly from models and the internet according to the latter or from the English teachers according to the disciplinary teachers. Although other ways in developing student writing are mentioned, there seems to be a vacuum where very little or possibly no help is being given the students. This has major implications for classroom assessment and writing proficiency expectations both in the disciplines and in the English courses. Both teachers and students view learning centers and individual assistance important. The university could further investigate the feasibility and effectiveness of the latter.

Conclusion

As practitioners and researchers continue to find ways to help EFL students develop their academic writing, more effort should be made to involve the disciplinary teachers. This study attempted to tap disciplinary teachers' views of their students' disciplinary writing and compare these with those of their students in order to obtain a better understanding of the teaching/learning situation. This preliminary needs analysis study has offered some insight into what issues should be addressed for designing an effective curriculum in terms of student academic writing. The differences between students and teachers appear to more marked than among students. This may suggest that if the student views on the problems and strategies as identified in the present study tend to be similar across disciplines, it might be possible to find a common ground in learning needs and thus to justify an English-for-General-Academic-Purposes approach. Or is a more specific English for disciplinary purposes needed which the perceptions of the teachers seem to point to in this study. In order to bear more light on how best to help students develop their writing, disciplinary teachers must be more involved in any research attempt.

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Appendix A – Questionnaire

Dear Student,

It is appreciated that you fill out this questionnaire which is part of research into your writing in your discipline (major) at the university. This questionnaire is filled out on a voluntary basis and the information will be kept confidential and only used for research purposes. Thank you.

(Students were directed to answer the questions below according to an average semester)

*	Mention the School and (discipline) major you are in at the university School:
	Major:

1. According to the following scale, mention how often you are expected to do the writing assignments indicated.

2. Rarely

1. Never

				•		
a.	essay assignments	4	3	2	1	
b.	essay tests	4	3	2	1	
c.	letters	4	3	2	1	
d.	lab and other reports	4	3	2	1	
e.	research papers	4	3	2	1	

3. Sometimes

a. no help at allb. from the internet

c. a great deal from their student friends

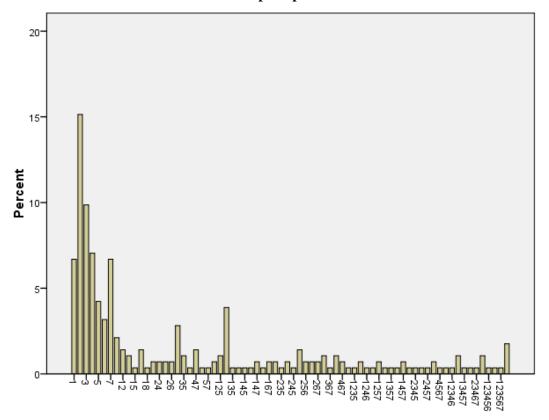
- c. other: specify _____
- 8. What can be done to help you raise your writing level?

(Check as many as appropriate)

- a. more help from course teacher during office hours
- b. have other stronger students help
- c. have the English teachers follow up on the writing problems in the English courses
- d. private teacher
- e. Learning Center activities on an individual basis
- f. use another language to help
- g. no need for instruction
- h. Other: specify _____
- 9. Through what ways are you interested in finding out how to improve your writing? (check as many as appropriate)
 - a. workshop
 - b. being part of a writing course in the major
 - c. having the English and the major teachers collaborate in teaching the necessary writing in the students' major
 - d. not interested
 - e. other: specify _____

Appendix B – Figures 1-10

Figure 1 Percent ways students learn how to write in discipline – student perceptions



- 1. explanatory sheet, 2. model, 3. teacher supervision, 4. assignment steps,
- 5. verbal explanation, 6. peer helps, 7.internet sources, other (8)

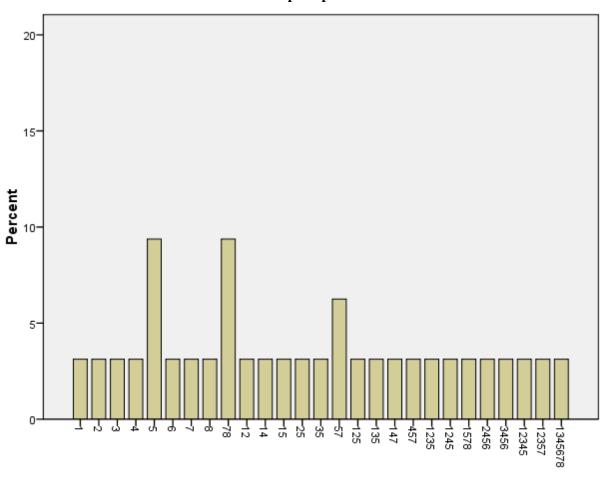


Figure 2 Percent ways students learn how to write in discipline: teacher perceptions

- 1. explanatory sheet, 2. model, 3. teacher supervision, 4. assignment steps,
- 5. verbal explanation, 6. peer helps, 7.internet sources, other (8)

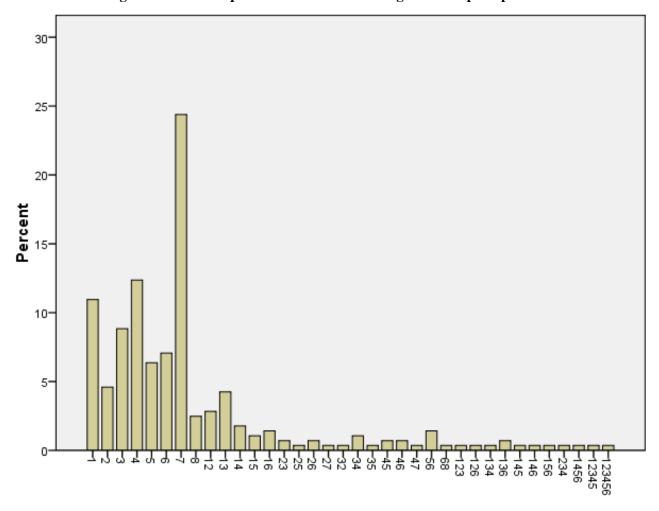


Figure 3: Percent problems in student writing: student perceptions

- 1. grammar, 2. punctuation, 3. spelling, 4. organization,
- 5. synthesis of information, 6. paraphrasing, summarizing,
- 7. no problems, 8. other

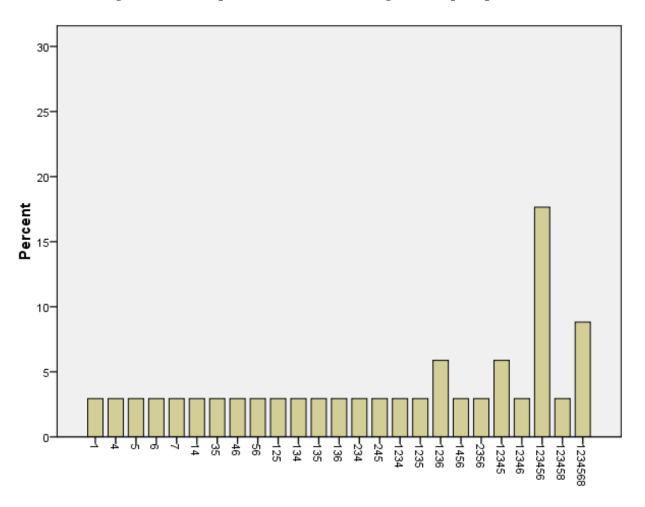


Figure 4: Percent problems in student writing: teacher perceptions

- 1. grammar, 2. punctuation, 3. spelling, 4. organization,
- 5. synthesis of information, 6. paraphrasing, summarizing,
- 7. no problems

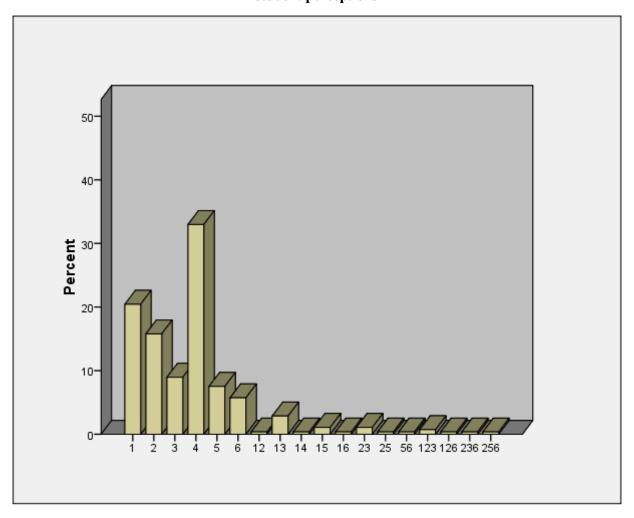
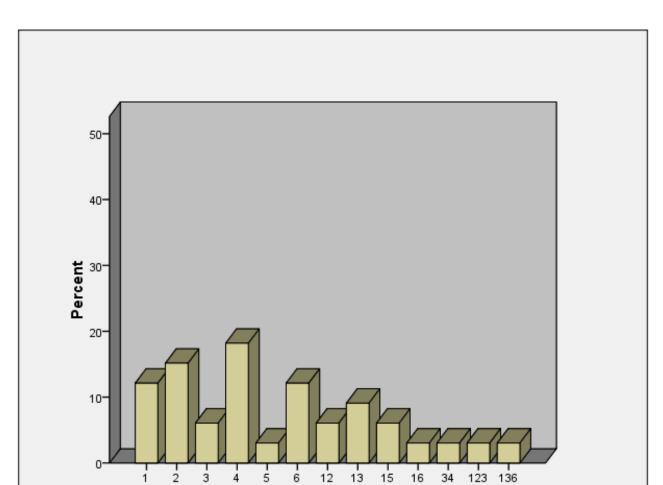


Figure 5: Percent receiving help with writing problems: student perceptions

- 1. teacher of course, 2. English teacher, 3. student friends,
- 4. No help, 5. internet, 6. other



13

15

16

34

123 136

Figure 6: Percent receiving help with writing problems: teacher perceptions

1.teacher of course, 2. English teacher, 3. student friends,

4. No help, 5. internet, 6. other

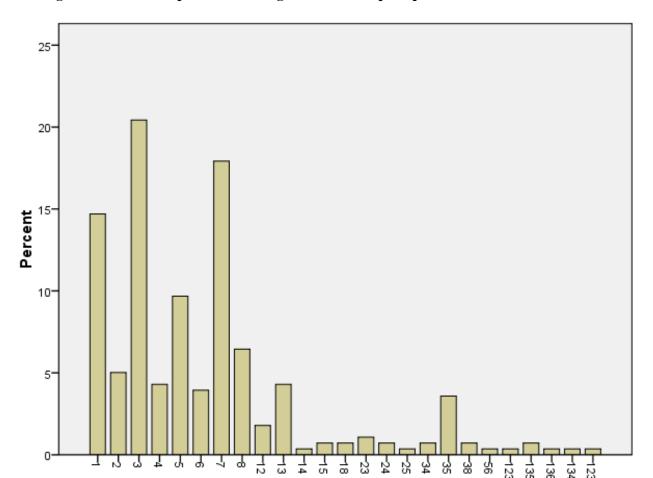


Figure 7 Percent help to raise writing level: student perceptions

- 1. teacher office hours, 2. strong students' help, .
- 3. English teachers, 4. private teacher,
- 5. learning center individualized instruction,
- 6. another language, 7. no need for instruction, 8. other

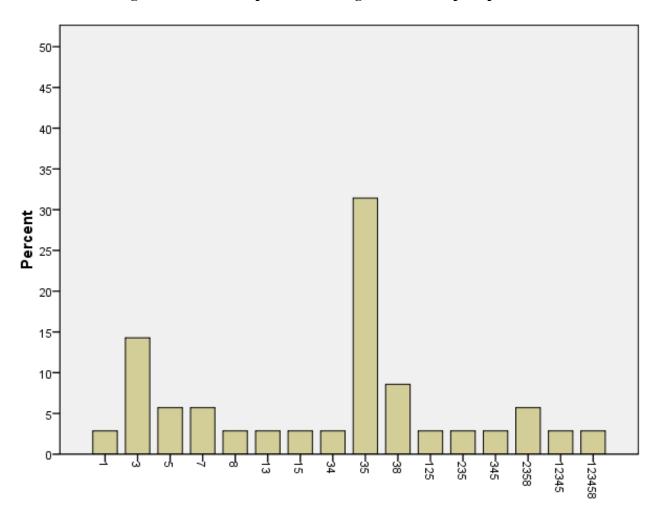


Figure 8 Percent help to raise writing level: teacher perceptions

- 1. teacher office hours, 2. strong student help,
- 3. English teachers, 4. private teacher,
- 5. learning center individualized instruction,
- 6. another language, 7. no need for instruction, 8. other

40-35-30-15-10-5-10-5-10-12 3 4 5 12 13 23 24 123 231 1234

Figure 9 Percent interested in ways to improve students' writing: student perceptions

 $1. workshop, \ 2. \ writing \ course \ in \ discipline, \ 3. \ English/discipline \ teacher \\ collaboration, \ 4. \ not \ interested, \ 5. \ other$

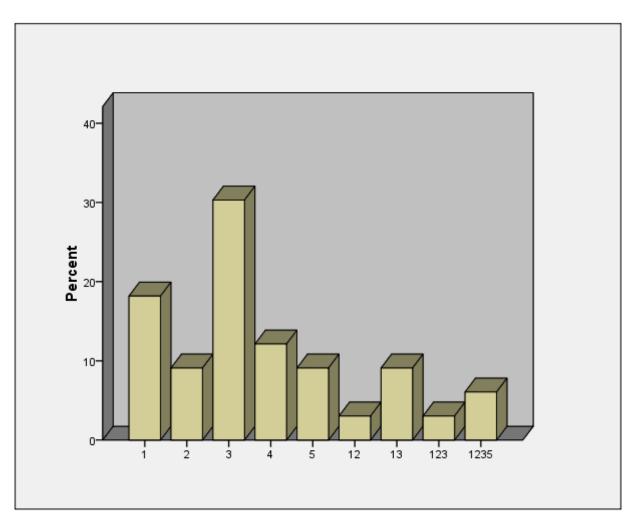


Figure 10 Percent interested in ways to improve students' writing: teacher perceptions

- 1. workshop, 2. writing course in discipline, 3. English/major teacher collaboration,
- 4. not interested, 5. other