

PILOTING A VOCATIONAL E-COURSE AT A UK COLLEGE: Developing strategies to support non-native English speaking learners to complete the essay-type questions of their assignments

**Stavroula BIBILA
Istanbul Bilgi University
English Language Programmes
Sisli Istanbul TURKEY**

ABSTRACT

This paper presents a study of practice that was conducted during the piloting of a vocational (health care) e-course at the Distance Learning department of a College of Further and Higher Education in England. The purpose of the study was to establish a course of action aiming to support non-native English speaking learners to successfully complete the essay-type questions of the e-course assignments. The exploratory nature of the study means that in effect the study comprises of two distinct, yet interrelated parts, with the first one looking into how two (2) non-native English speaking learners (participants) used different e-course resources to help them compose their answers. Based on the findings, the second part examines the role of writing frameworks (in the form of email communication between the tutor and the participants) in helping the latter to compose answers that met the assessment criteria in terms of a) content (subject) accuracy, b) length and c) originality. Discussion of the findings includes implications for providing additional English for Speakers of Other Languages (ESOL) support to distance learners, suggestions for further improvements to the e-course and recommendations for further research.

Keywords: Vocational Distance Education; Vocational e-learning; Asynchronous Computer-Mediated Communication (CMC); English for Speakers of Other Languages (ESOL) writing skills; English for Specific Purposes (ESP), English for Academic Purposes (EAP).

INTRODUCTION

In 2007 a team of Distance Learning (DL) tutors at a College of Further & Higher Education (F & HE) were assigned the task of developing a set of paper-based materials for the 'Level 2 - NCFE Safe Handling of Medicines' correspondence course. The next step was to design and offer, via the college's Virtual Learning Environment (VLE), an e-course that would complement the paper materials. We can therefore say, in the words of Bates (2005) quoted in Normand and Littlejohn (2006), that in this case technology was seen as an add-on element to paper-based distance learning models rather than a planned strategic choice (Nicol *et al.* 2004). A common belief held by the DL team members was that the new e-course could be a solution to the problem of learning in isolation from tutors and the lack of interaction between peers that translated for some of our learners into under-achievement (Bibila 2007b).

Learners' underachievement rose for discussion issues of student satisfaction and student retention.

It was noted that almost two-thirds (2/3) of all learners withdrawing each year from the paper-based distance learning course were learners who had been identified during their induction as being in need of extra support with Key Skills (Literacy or English for Speakers of Other Languages - ESOL). Following the expansion of the European Union, and as a result of an inflow of migrant workers, there had been a higher demand for ESOL in the region than in the previous years (EKOS Dec. 2006: 43). This issue highlighted the need of the DL department to start catering for non-native English speaking learners who, in order to complete the 'Level 2 - NCFE Safe Handling of Medicines' course, needed support to answer the essay-type questions¹ of the course assignments (Bibila 2007a).

THEORETICAL BACKGROUND

The approach students take to learning, although it can be consistent, is flexible and it depends upon the nature of the learning task and the students' conceptions of learning in relation to the task (Gibbs 1992).

In the case of the 'Level 2 - NCFE Safe Handling of Medicines' course, and if we are to examine its learning outcomes (see www.ncfc.ac.uk) by using Bloom's (1956) taxonomy of educational objectives, it is becoming apparent that distance learners are only required to demonstrate lower level learning skills. The assumption was therefore that the participants of the study would be engaging in lower level learning processes characterised by memorising and recalling and concerned mainly with reproduction. As Brown (1994:26) writes, "in this level of learning the knowledge acquired is not transformed in any way; indeed, it need not even be understood, it being sufficient to reproduce it for assessment."

The process of reproducing acquired knowledge may seem straightforward for a learner writing in his/her first language (L1) but writing in a second language (L2) can impede the learner's ability to express his/her knowledge. Although the Hayes-Flower's (1980) model is based on research into L1 writing development, it acknowledges the influence a number of external factors can have on the process of writing. For the purpose of this study, and in order to account for more specific contextual issues in relation to the writing environment, the model was adapted as shown in Figure 1. The new model extended the environment in which learning took place to account:

- for the influence of the "composing medium" (i.e. word processor/email) (Hayes 1996) and
- for the effects of writing on a computer (Pennington's 1996).

Grabe and Kaplan's (1996) model was also used to extend the writing environment so that it included the element of "types of tasks" (i.e. structured writing tasks that participants would be completing on an email and as part of their formal assessment for the e-course).

Biesenbach-Lucas and Weasenforth's (2001 online) study further highlighted the importance of accounting for contextual factors when examining the effects of technology in L2 writing. In their investigation on the differences between e-mail writing and writing on a word processor they found that email texts were shorter because they lacked initial contextualisation of information. As they conclude, the answer to the question of "whether email is an appropriate tool for promoting students' abilities" in relation to academic writing, lies with the purpose that academic writing is expected to serve at the first place.

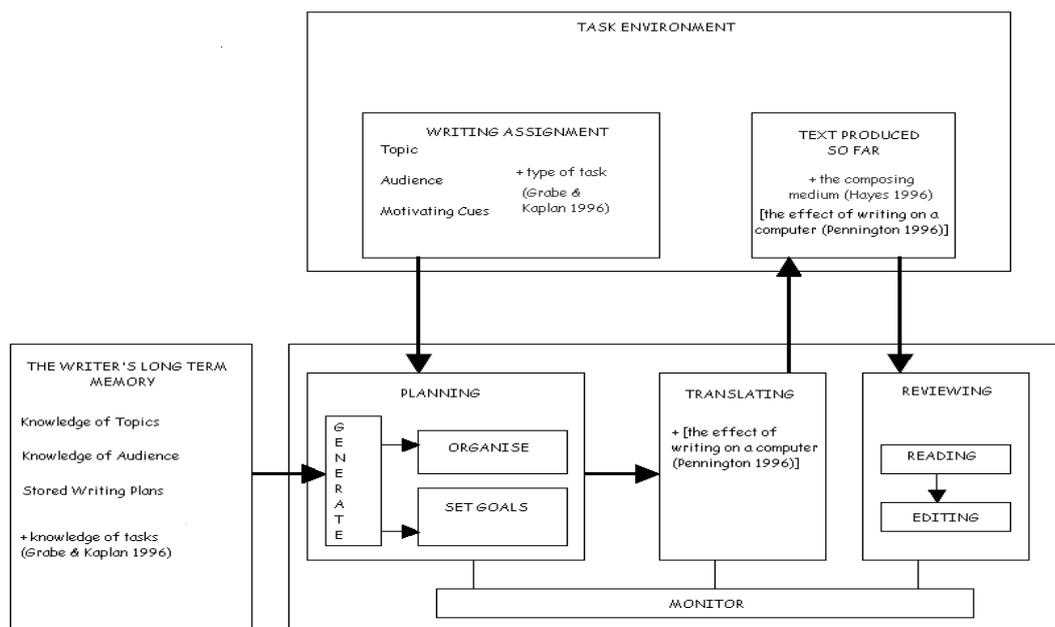


Figure: 1
Hayes & Flower's (1980) model of writing (adapted)

The shift of the focus from the writers towards the reader (DL tutor) and "on the conventions that a piece of writing needs to follow in order to be successfully accepted by its readership" (Muncie 2002 cited in Kim 2005 online) becomes a salient point in the second part of the study where a genre-based view of L2 writing is adopted. Here the participants of the study were seen to be using English for Specific Purposes (ESP) in order to complete a set of writing tasks that required them to demonstrate a) knowledge of particular subjects (i.e. health care topics), b) an understanding of the source texts (i.e. e-course resources) and c) knowledge of the construction of vocational assignments. For this part of the study, an adapted ESP needs analysis table (see figure 2) was used to analyse the answers participants gave *with* and *without* tutor-devised writing frameworks. The writing frameworks (given in the form of emailed comments/questions on which participants based their answers) were seen as part of a "joint construction" (Hyland 2003) writing process. During the stage of "joint construction" the DL tutor and the participants of the study constructed the text together, helping this way the latter to develop control of a particular genre of writing (i.e. vocational assignments). This application of social learning theory to research and education practice prompted us to see the participants as being both vocational and English language learners.

THE STUDY – PART 1

Methodology-Part 1 of the study

As the e-course was not open to enrolments at the time of the study, the study focused on the two (2) non-native English speaking learners who were participating in the piloting. This sampling framework did not present us with any limitations as the aim was to illuminate the study question(s) and the concern was with information richness rather than representativeness (Zizanski *et al.* 1992: p. 234). For the first part of the study, the following two research questions were posed: Q1(a): "Which resources do non-native English speaking learners consult more often *prior to* and *during* answering the essay-type questions of the e-course assignments and is there a relationship between the stage in which learners consult the resources and their final written products"?

Q1(b): "What is the learners' rationale for consulting these resources at the particular stage(s)?"

Data collection – Part 1 of the study

To answer Q1(a) the participants were asked to complete a log-sheet for every essay-type question they tackled from the e-course units 1 & 2. They were instructed to describe the exact process they were going through as they were answering each question, the resources they were using and any justification for what they were doing.

A total of seven (7) log sheets were collected together with the seven (7) final answers participants submitted for formal assessment. More specifically, four (4) sets were collected from participant NB and three (3) from participant CO.

To answer Q1(b), and in gaining an emic view of the participants' perspective on the use of the e-course resources and the process(es) of composing their answers, an individual semi-structured interview (lasting for approximately 20 minutes) was held with each one of the participants. During the interviews participants were presented with their log-sheets and final answers and were invited to talk and justify the procedures they followed in completing each essay-type question.

Data analysis – Part 1 of the study

The log-sheets were analysed individually for each participant and the findings were then compared and contrasted. The following two primary frames were used for analysis: • R1: Resources consulted *prior to* writing the answer and • R2: Resources consulted *during* writing the answer. These two frames were used to categorise the procedures participants reported to have followed in answering their questions. These procedures were then compared against the final answers to see if any patterns emerged, linking the stage of consulting a particular resource and participants' final written product in terms of a) length, b) originality and c) content (subject) accuracy. These three criteria were set according to the NCFE guidelines for course assessors. Finally, the interview data were analysed using a main-stream qualitative method of content analysis based on thematic coding and interpretation. The preliminary analysis was again based on the two primary frames • R1 & • R2. For the content analysis, the coding was based on frequency and the codes of appendix I emerged from the analysis of the transcripts. This approach facilitated us to investigate the topic with an open mind and enhanced the possibilities of discovery (Glasser 1992).

FINDINGS & BRIEF DISCUSSION – PART 1

Q1(a): The use of the e-course resources

At the stage of *prior to composing an answer*, both of the participants used the 'assignment guidelines' and 'learning outcomes' resources more frequently than any other e-course resource. At the *during writing an answers* stage, the most frequently used resources (again for both of the participants) were 'tutor-authored' resources (collectively labelled in this study as 'text resources', i.e. lesson notes, handouts, presentations, etc.). E-course resources that were never used at any stage by either of the participants were peer/learner-authored resources (i.e. discussion fora, chat rooms, wikis). Chart 1 shows collectively (for both of the participants) a count of the most frequently used resources, while Chart 2 shows how participants started to rely more on tutor-authored 'text resources' and dictionaries as they were composing their answers. As participants proceeded with the composition of their answers, the following two observations are worth making: 1) dictionaries presented the largest net increase in usage and 2) participants continued to rely on the 'learning outcomes' resources to compose their answers.

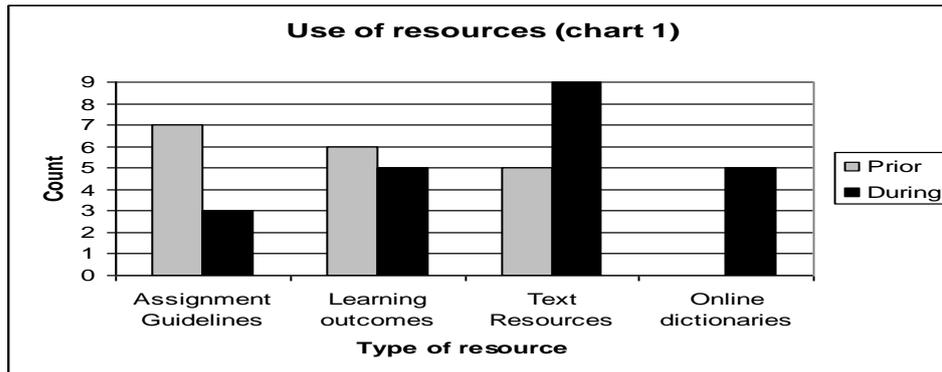


Chart 1 (by resource type). The collective count of resources used prior and during the writing of the seven (7) answers collected.

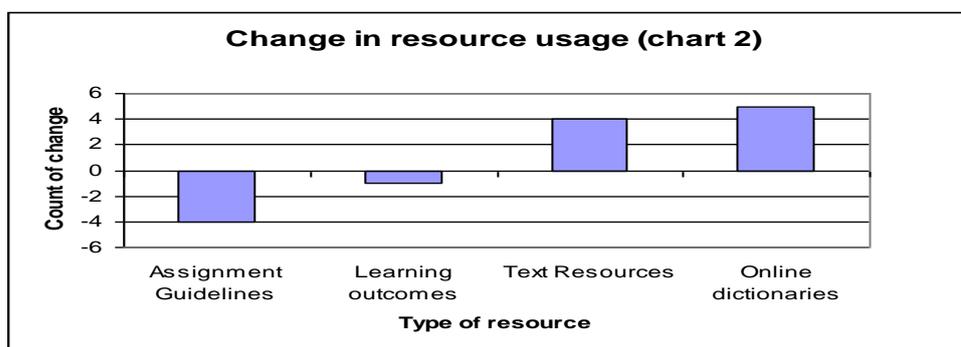


Chart 2 (by resource type). The net change in resource usage from prior, to during the composition of the seven (7) answers collected.

Q1(a): The stage of using the resource(s) & the final written product.

It was noted that when both of the participants relied on tutor-authored 'text resources' during the composition of their answers, they tended to produce texts that they were more inaccurate (included more, but less relevant to the question, information) than when they had consulted tutor-authored 'text resources' prior to composing their answers. This observation was made in a total of four out of the seven (4/7) submitted answers. One of the participants also tended to directly copy/paraphrase passages out of the 'text resources' and as a result, one out of the four (1/4) answers he submitted for assessment was referred for plagiarism (most specifically, the DL tutor commented that the learner had failed to meet the learning outcomes for demonstrating originality and applicability to own practice.)

Q1(b): Participants' rational for consulting the resources

Both of the participants expressed the belief that relying on tutor-authored 'text resources' while answering each question would help them meet the learning outcomes so that they "(...) could pass the course unit (...)". The culture of the paper-based DL course was reflected in the 'assignment guideline' resources and it had played down the role of peer/learner-authored resources. "(...) its not in the assignment guidelines".

The benefits of using features such as the wiki, chat rooms and discussion fora in preparing learners to complete essay-type questions were also dismissed by the participants for the same reason. "the guidelines tell you to read the handouts and lecture notes (...) before you answer every question".

As mentioned in the literature review section, participants were engaging in lower level learning processes characterized by memorizing and recalling. It seems this very task of reproduction may have presented participants with the challenge of ensuring that the content of their answers corresponded to the 'learning outcomes' resources and that their answers also reflected the content of the source texts (i.e. e-course resources). One participant said: "*If my answer doesn't have everything I cannot pass the unit, right?*" It also became apparent that, when the 'learning outcomes' and the 'assignment guidelines' resources did not contain enough information about the expected content of the answer, participants referred to tutor-authored 'text resources' as a guide for content accuracy (i.e. what to include in their answers). We found this to be contradictory in the sense that, although participants relied on tutor-authored 'text resources' for content accuracy, they tended to produce answers that included more irrelevant information.

This finding was explained as one of the effects of using a computer to compose their answers, that is, participants were facilitated to overgenerate '*content and language*' as they moved from the stage of writing more towards the stage of writing differently (Pennington 1996: 131). The above finding also lead us to assume that participants had a difficulty understanding the purpose of their writing and what the assignment questions were asking them to do (i.e. explain, describe, demonstrate, analyse etc.). According to the adapted Hayes & Flower's (1980) model of figure 1, participants had limited stored knowledge of how to complete the different tasks of vocational assignments.

One of the participants was also faced with the challenge of demonstrating newly acquired subject (i.e. health care) knowledge, while concentrating at the same time on the use of the English language. He expressed lack of confidence in his writing skills and the belief that he would be assessed on his use of English. "*I want to get a good grade (...) it looks better when there are no mistakes.*" He also believed that dictionaries helped him to recall words, "*when you know a word (...) but you cant remember it*", while he was writing his answers.

The second of the participants expressed the belief that her answers needed to be 'original' in order to pass the unit. In order to overcome her difficulty with paraphrasing the source text, "*putting it in my own words*", she used online dictionaries for help with synonyms. These two findings relating to the use of dictionaries can also be taken as an explanation to why this resource presented the largest net increase (see chart 2). What we cannot be sure about is whether dictionaries were solely used to help participants "*put in writing ideas and thoughts*" or whether dictionaries were also used to aid reading comprehension.

THE STUDY – PART 2

Methodology-Part 2 of the study

One of the findings that influenced the remaining course of the study was participants' reliance on tutor-authored 'text resources' as a scaffold for content accuracy (i.e. what was the purpose of their writing and what information to include/exclude in their answers). The second part of the study sought to examine the usefulness of tutor-devised writing frameworks. More specifically we wanted to look at the differences between the texts participants composed *with* and *without* a writing framework for content accuracy and so the research question posed was:

Q2: "Are there any *qualitative* and *quantitative* differences in learners' texts when they are composing essay-type answers *with* and *without* tutor-devised frameworks for content accuracy?"

Data collection-Part 2 of the study

In preparation for data analysis, the texts that would be compared were classified in terms of writing purpose (i.e. description, explanation, analysis). Five (5) writing tasks were then prepared, based on essay-type questions found in units 1, 2 & 3 of the e-course (see appendix III for examples of the writing tasks). These writing tasks were then emailed to participants together with a set of comments/questions acting as a scaffold for content accuracy. Participants completed the tasks in a 'one off' email communication and the texts (answers) composed *with* tutor-devised frameworks were collected directly from the main body of participants' emails. The sample of answers composed *without* a framework comprised of texts (answers) that the participants had word processed and submitted for assessment during the first part of the study. In total we had for analysis eight (8) 'explanatory' answers (four from each participant), seven (7) 'descriptive' answers (four from participant NB and three from participant CO) and two (2) case study answers from participant NB.

Data analysis – Part 2 of the study

The data collected were again analysed individually for each of the participants and findings were then compared and contrasted. Based on the initial classification of writing purpose (i.e. description, explanation, analysis), the answers submitted *with* and *without* a framework were analysed using the adapted ESP needs analysis table of Figure 2.

Genre:	Answers submitted for assessment towards a vocational (level 2) qualification.
Target audience:	DL tutors marking the assignment.
Type of genre:	Factual
Type of question (purpose of writing):	Description/procedure, explanation, analysis.
Individual content (originality):	Originality of the answer in relation to the source text - including examples & application of core concepts into practice. (As per NCFE guidelines for assessors).
Subject content:	Content (subject) accuracy in relation to the question (purpose of writing) and to the learning outcomes -information included in the answer. (As per NCFE guidelines for assessors)
Length of the answer:	Total amount of words, in comparison to the source text the question refers to. (Case study excluded)
Length of the answer:	Total amount of words, in comparison to the source text the question refers to. (Case study excluded)
	Lexical forms/diversity: 1. Measuring overall lexical diversity. 2. Measuring specialised lexical diversity
Syntactic complexity: 1. Measuring overall (average) syntactic complexity.	Lexical forms/diversity: 1. Measuring overall lexical diversity. 2. Measuring specialised lexical diversity

Figure. 2
Data analysis tool based on an adapted ESP needs analysis framework for designing ESP writing courses (*Abu-Rizaizah 2005 online*).

Qualitative measures

The *originality* of each text (answer) was established by comparing its language content against the source text(s) of the e-course resource(s) that each question/writing task was referring to. *Content accuracy* was established by examining the content of an answer in relation to a) the NCFE learning outcomes for the particular question/task and b) the purpose of writing as described in the Guidelines for NCFE Assessors document. For these qualitative measures three (3) individual DL tutors analysed the answers using the College's internal moderator's form of appendix IV.

Quantitative measures

The *length of the answer* was determined as a percentage by counting the total number of words included in an answer and comparing it against the total number of words included in the source text(s) the question was referring to, the latter representing 100%. The selection of source text(s) that were considered relevant to the question was guided by the Guidelines for NCFE Assessors document. Because these guidelines did not refer assessors to any specific texts for the case studies, the length of the case study answer that was written with the framework was compared against the answer written without a framework. *Lexical diversity* was calculated by dividing the number of different words (both content and function words) by the total number of different vocabulary items. Similarly, *specialised lexical diversity* was calculated by dividing the number of different specialised vocabulary items² by the total number of words in each answer. Finally, the answers' *syntactic complexity* was calculated by using an index of syntactic complexity (ISC) based on the following formula $ISC(u) = 2 \times n(u, SUB) + 2 \times n(u, WH) + n(u, VF) + n(u, NP)$ ³ accounting for the differences between conjoined and subordinated structures in acknowledging the latter as indicators of more complex writing. (Szmecsanyi 2004 p.1035). The overall (average) syntactic complexity was calculated by dividing the sum of the ISC of all sentences by the total number of sentences contained in an answer.

FINDINGS & BRIEF DISCUSSION – PART 2

Q2: The use of the writing frameworks

The following is a summary of the findings. Appendix V contains a list of tables presenting the results of the quantitative measures (i.e. length, syntactic complexity & lexical diversity).

Descriptive answers

The email questions/comments acting as a writing framework seemed to have prompted participants to give *more original* answers and to use examples taken from their own practice. As a result, these texts were also significantly *longer*. An interesting observation is that the biggest word count increase was noted in the texts of the weaker (in terms of English language skills) participant who, during the interview, expressed a lack of confidence in his language skills. The *content* of the framework-guided answers was more *accurate* for both of the participants as they tended to follow the questions/comments of my emails closely. This process of 'joint text construction' helped participants to describe the exact health care procedures they were requested to write about without adding any irrelevant to the question information. The framework-based answers also tended to be *more complex syntactically* but contained a *less diverse vocabulary* and *specialised vocabulary*.

Explanatory answers

Similarly to the descriptive questions, when participants composed their answers based on the writing frameworks they tended to use a *less diverse vocabulary* and *specialised vocabulary* but to produce more '*original*' answers, again avoiding plagiarism.

The frameworks also seemed to have guided participants to produce answers that were *more accurate* in terms of the purpose of their writing (i.e. explanation) and in terms of the learning outcomes (again they did not include any irrelevant information or repetitive descriptions). For one of the participants this can be seen to have had an effect on the *length* of the answer as she actually *wrote less* when she answered the questions based on the writing framework. She also gave answers in the form of bullet points with short sentences that were syntactically *less complex* than the answers written without the framework. In contrast, the weaker of the participants submitted answers that were syntactically *more complex* when he used the framework. For him, a significant increase in the word count was also noted.

Case study

Here only participant NB submitted a full set of answers. His framework-based answer was less original than the one he composed *without* a framework. This was partly because, as a response to the framework's request to include definitions, he copied those definitions directly out of the e-course 'text resources'. As a result, the lexical and specialised lexical diversity had increased. The inclusion of the definitions also seemed to have helped the participant analyse the case study in a more detailed way, helping him to exceed the learning outcomes for the particular question. Interestingly, the more complex sentences of the framework-based answer were the ones in which the participant expressed his own view on the case study. Overall though, the syntax of the case study that the participant answered *without* a framework was more complex than the framework-based answer, but this is partly because the former answer included passages taken directly from the e-course 'text resources'.

IMPLICATIONS FOR FURTHER ACTION–SUGGESTIONS

The findings of the study suggest that non-native English speaking distance learners need more information about the expected content of their answers. We saw that when participants were guided on the content of their answers, they tended to produce more complex sentences and to avoid plagiarism by producing more original texts. One simple suggestion would therefore be to revise the 'assignment guidelines' resources, at least the ones for the essay-type questions, as the wording "*see learning materials*" did not seem to inform participants of what was expected of them in terms of their writing product.

A second suggestion would be to consider devising and uploading writing frameworks for each one of the essay-type questions. These writing frameworks, and in a similar manner to the emailed questions/comments, could serve the purpose of establishing a 'joint text construction' process and help learners to produce texts that answer each type of question (i.e. 'describe', 'analyse', 'explain', etc.) accurately. A limitation of the study is that it failed to examine whether the process of a 'joint text construction' helped participants to advance to a stage of a more 'independent text construction', raising the question of how DL tutors can support non-native English speaking learners with their writing.

By this I do not mean whether as DL tutors we should now be expected to provide English language instruction, but whether our role should include promoting e-course features such as the Wiki, Fora and Chat rooms. These learner authored resources were reported as 'unused' in the first part of the study partly because the 'assignment guidelines' resources did not invite learners to use such features in preparation for their assessment. Here we need to be aware that the benefits of Computer Mediated Communication (CMC) presented as a possible solution to the under-achievement of some of our distance learners (Bibila 2007b), cannot be enjoyed simply by the inclusion of a number of synchronous and asynchronous communication tools on the e-course's interface.

An interesting interview finding that perhaps deserved more attention was the difficulty one of the participants expressed having with presenting newly acquired knowledge in L2 writing. In the paper-based course learners who had been experiencing difficulties completing the essay-type questions would be assessed over the phone. There has been a lot of talk within the DL department about replacing the 'traditional' phone call with asynchronous CMC tools of the e-course, providing this way non-native English speaking learners with more time and space to 'rehearse' and reflect on their answers (Slaouti 1998 quoted in Motteram 1999 online). As the e-course is currently in its infancy and online teaching and learning is a new experience for both DL tutors and learners, it is important to start developing a culture of enquiry within the DL department. This will facilitate us to examine and establish the role(s) different CMC tools have a) in assessing knowledge via informal postings to Fora/Wikis/Chat rooms and b) in creating knowledge of the 'rules' behind the construction of successful vocational assignments.

L2 reading skills is another area that was overlooked in this study despite indications that participants' poor reading skills may have had an impact on their ability to comprehend the source texts, to locate main ideas and to summarise and paraphrase the 'text resources' documents. One of the participants reported using dictionaries for help with paraphrasing further raising the importance of helping learners to develop effective L2 reading skills. These observations highlight the need to carry out a thorough ESP needs analysis in order to identify the "target" and the "learning" needs (Hutchinson and Waters 1987) of our non-native English speaking learners. Suitable tools for identifying ESP language needs would be questionnaires, interviews and case studies. I personally favour the use of case studies as they can provide insights about actual practices and experiences and can result in action and change in educational practices (Cohen *et al.* 2000: 184).

A further long-term goal would be to offer an online ESOL support course. Although the College is offering free onsite ESOL courses, from the databases it appears that no distance learner has ever enrolled on any of these onsite classes raising the question of whether distance learners would prefer a more flexible approach (Collis & Moonen 2001) to English language support provision. Until the development of an online ESOL course takes place we can bridge the gap by incorporating into our existing e-course interface a set of ESOL support materials and activities.

The reality of the particular vocational course is that it requires learners to acquire a significantly large vocabulary. We saw how online dictionaries presented the largest net increase in usage as participants started composing their answers. A second observation is that participants tended to use a less diverse vocabulary and specialised vocabulary when relying on the writing frameworks to compose their answers, suggesting that they may have relied on tutor-authored 'text resources' for help with vocabulary items. So if we are to go ahead with the idea of devising and uploading writing frameworks, and in order to prevent hindering learners' acquisition of specialized vocabulary, we could also compose and upload lists of 'useful vocabulary' for each of the course units.

This way we can encourage learners to use technical and sub-technical vocabulary items. In order to further promote vocabulary acquisition we could link this specialised vocabulary items to electronic glosses containing images (Chun and Plass 1996; Chun and Plass 1997).

In summarising the study's implications for practice, further action is needed in order to improve the e-course. The study also prompts us to question the extent to which current (onsite) ESOL provision meets the needs of our non-native English speaking learners.

LAST WORDS

In my opinion we need to start looking closer into the specific needs of our non-native English speaking learners. Whether or not the option of the ESOL department offering an online ESP/EAP course in the immediate future is realistically achievable, we have to start considering the option of developing and integrating into our existing e-course interface a number of self-access activities/materials to promote L2 reading/writing skills and vocabulary learning. If we want to support non-native English speaking learners to complete the essay-type questions of their assignments we need to clarify what DL tutors expect learners to produce. This can be achieved by a) revising the 'assignment guidelines' resources and b) providing downloadable writing frameworks that can help learners construct their answers. The different role(s) that CMC tools play on our e-course, both in assessing and creating knowledge, was left unexplored and this is a call that we have to start finding ways to exploit the opportunities and face up to the challenges the use of new technologies in vocational distance education presents us with.

Notes

1. 'Essay-type questions' refer to NCFE assignment questions for which learners are required to write a small paragraph (50 -100 words) as opposed to compose a list of points. It also refers to the two case studies which learners are expected to answer in 200-300 words.
2. In classifying vocabulary, a four-step rating scale was used (Chung & Nation 2003). For the purpose of this study, "specialised" vocabulary refers to the following two groups of words:
 - a. *Medical & Health Care terminology*. Monosemic (Alcaraz 2000 quoted in Perez - Paredes 2005, p. 203) words that are relevant *only* to the field e.g. cytotoxic, psychotropic, subcutaneous etc.)
 - b. *Academic/sub-technical/semi-technical words*. Polysemic words that are *very closely* related to the medical/health care field and are highly context bound. (e.g. indication, substance, compound) The words of this group can either be part of the low or high-frequency word categories (Chung & Nation 2003) carrying the same meaning, but when used in a health care context they are seen as core terminology. These words often appear in distinct *collocations* in the texts of the e-course (e.g. routes/administration, adverse/reaction, drug/interactions etc.)
3. In this formula: u is the unit of linguistic data under analysis (in this case a sentence) and $ISC(u)$ is the Index of Syntactic Complexity of each sentence. $n(u, SUB)$ is the number of occurrences of subordinate conjunctions (e.g. *as, when, that, because etc.*), $n(u, WH)$ is the is the number of occurrences of WH pronouns (e.g. *who, whose, whom, which*), $n(u, VF)$ is the is the number of occurrences of both finite and non-finite verb forms and $n(u, NP)$ is the is the number of occurrences of noun phrases.

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Note: In order to protect participants' anonymity their initials are fictional and their suggested gender may not necessarily represent their real gender.

BIODATA and CONTACT ADDRESSES of AUTHOR



Stavroula BIBILA was a tutor at the college of the study where she designed and piloted the particular e-course with the help of the Distance Learning team. She has since moved to Turkey and she is currently teaching at the English Language Programmes of Istanbul Bilgi University.

Stavroula BIBILA
Istanbul Bilgi University, English Language Programmes
Inönü Cad. No. 6, Kuştepe, 34387 Sisli, Istanbul, TURKEY
Phone+902123116374
Email: stavroula.bibila@bilgi.edu.tr

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As you are answering an essay-type question, please describe every step you are following. Try to write down some of your thoughts about the steps you are following.

QUESTION number:..... 25

R21. (consulting a text resource during answering the question)

- *Read the question and try to remember what I know*
- *Read guidelines and see where the information is.*
- *Read the presentation*
- *I try to write it in my words because it looks better*
- *Read presentation and the question*
- *If I only write down what I understand it maybe wrong*
- *Read the answer and see if correct*

As you are answering an essay-type question, please describe every step you are following. Try to write down some of your thoughts about the steps you are following.

QUESTION number:..... 26 (b)

R1a. (consulting a text resource prior to answering the question)

- *Read the question*
- *Read guidelines but I cant find the information*
- ***Do the quiz (its frustrating)***
- ***Read the learning outcomes as many times to understand what to do***
- ***Print the handout and read it***
- ***Read the question and try and answer it***

APPENDIX II – CODES USED FOR ANALYSING THE INTERVIEW TRANSCRIPTS

Initial codes R:

- (R1) Resources used prior to writing the answer
- a) assignment guidelines resource
 - b) learning outcomes resource
 - c) text resources
- (R2) Resources used during writing the answer
- d) assignment guidelines resource
 - e) learning outcomes resource
 - f) text resources
 - g) online dictionaries

Codes from the transcript analysis:

1. Passing the unit/question.
2. The benefits of consulting resources in (R1) & (R2).
3. The limitations of consulting resources in (R1) & (R2).
4. Meeting tutors expectations:
 - a) Originality of the answer
 - b) Content of the answer
 - c) Source of information
5. Meeting the learning outcomes:
 - a) Originality of the answer
 - b) Content of the answer
 - c) Source of information
6. Following the guidelines for completing a question.
7. Demonstrating correct use of the language:
 - a) Demonstrating new subject knowledge
 - b) Writing ability
 - c) Avoiding mistakes

APPENDIX III – EXAMPLES OF WRITING TASKS

Description

Question B: "*How is intra-ocular medication administered?*" Question B was answered *without* a scaffold for content accuracy.

Emailed Writing Task 2: "*How is intra-aural medication administered?*"

Emailed comments (writing framework): Can you define what the term intra-aural means? (what does intra-aural mean?). How would you administer medication via this route? Just give as many details as you can about the procedure you would follow. (To get extra points you can start your description from the first steps of drug administration routine, e.g. wash hands, etc.)

Explanation

Question C: "*Explain what the term 'controlled drugs' means.*" Question C was answered *without* a scaffold for content accuracy.

Emailed Writing Task 3: "*Explain what the term 'proprietary name' means.*"

Emailed comments (writing framework): For this task it will not be enough to just define the term. You can start your answer with a definition, but try to give some details about drug classifications, names & the use of these names. To explain the term 'proprietary' you will have to make clear all these details.

For example, what is the difference between the 'approved' and the 'proprietary'?

name of a drug? Can you think of an example of a 'proprietary' name? Apart from the term 'proprietary', can you find another term for the name of the drug in your example?

APPENDIX IV – INTERNAL MODERATOR FORM

Name of DL tutor:	Assessment Question number:	Unit number:
CRITERIA	COMMENTS	
	COLUMN	
Has the learner met all the learning outcomes?	YES	NO
Has the learner demonstrated application of theory to practice?	YES	NO
Has the learner demonstrated application of practice to theory?	YES	NO
Has the learner made efforts to exceed the learning outcomes?	YES	NO
Are all criteria for originality met?	YES	NO

APPENDIX V – RESULTS OF QUANTITATIVE MEASURES ANALYSIS

Descriptive answers

Total word count	Question A	Task 1	Question B	Task 2
Participant NB	33 (27.0%)	57 (80.2%)	47 (55.9%)	46 (73%)
Participant OC	45 (36.9%)	48 (67.6%)	62 (73.8%)	Not Subm.
Text source	122 (100%)	71 (100%)	84 (100%)	63 (100%)

Summary of total word counts

Overall lexical diversity	Question A	Task 1	Question B	Task 2
Participant NB	0.75	0.72	0.64	0.62
Participant OC	0.90	0.91	0.79	Not Subm.

Summary of overall lexical diversity

Specialised lexical diversity	Question A	Task 1	Question B	Task 2
Participant NB	0.10	0.08	0.08	0.07
Participant OC	0.12	0.09	0.08	Not Subm.

Summary of specialised lexical diversity

Overall syntactic complexity	Question A	Task 1	Question B	Task 2
Participant NB	9.5	10.3	10.2	10.9
Participant OC	8.6	11.1	9.2	Not Subm.

Summary of overall syntactic complexity

Explanatory answers

Total word count	Question C	Task 3	Question D	Task 4
Participant NB	25 (46%)	31 (124%)	55 (38.4)	73 (53.6%)
Participant OC	48 (88.8%)	22 (88%)	92 (64.3%)	70 (51.4%)
Text source	54 (100%)	25 (100%)	143(100%)	136 (100%)

Summary of total word counts

Overall lexical diversity	Question C	Task 3	Question C	Task 4
Participant NB	0.69	0.63	0.81	0.79
Participant OC	0.73	0.74	1.02	0.92

Summary of overall lexical diversity

Specialised lexical diversity	Question C	Task 3	Question D	Task 4
Participant NB	0.04	0.03	0.17	0.14
Participant OC	0.04	0.04	0.11	0.09

Summary of specialised lexical diversity

Overall syntactic complexity	Question C	Task 3	Question D	Task 4
Participant NB	7.2	7.9	8.6	9.1
Participant OC	10.9	8.5	10.2	7.6

Summary of overall syntactic complexity

Case study answers

Total word count	Case study I	Task 5
Participant NB	118	132

Total word counts

Overall lexical diversity	Case study I	Task 5
Participant NB	0.57	0.66

Summary of overall lexical diversity

Specialised lexical diversity	Case study I	Task 5
Participant NB	0.03	0.09

Summary of specialised lexical diversity

Overall syntactic complexity	Case Study I	Task 5
Participant NB	8.7	9.4

Summary of overall syntactic complexity