

Web-based English for Computer Science: Students' Evaluation of Course Effectiveness

Mostefa Meddour

Department of Foreign Languages

Division of English

University of Biskra, Algeria

Abstract

The recent expansion of web-based education as a promising practice marks the shift from the traditional teacher-centred to a learner-centred classroom. As English for specific purposes (ESP) is a learner-centred approach, web-based instruction ably serves its principles of autonomous learning, independent decision-making, time and space flexibility, and the changing role of teachers from instructors to facilitators. Thus, evaluating the success of web-based instruction in an ESP context is worthy of enquiry. Students' course evaluation has become a vital source of data for teachers to make judgments on course delivery and determine the value of their instruction. This paper seeks to gauge the effectiveness of a web-delivered ESP course to 42 Master students of Computer Science at Biskra University. It also aims to determine the extent of the instructor's accomplishment in bridging the objectives of the course to meet the needs of the learners. To do so, a summative evaluation checklist was utilized as a research instrument. The findings revealed that the engagement in different online practices besides the teacher's feedback received students' approval. However, students disclosed their dissatisfaction of the artificial interaction of the web-delivered instruction, which seems to fail to prepare them for academic and professional challenges.

Keywords: English for Computer Science, students' evaluation, web-based ESP course

Cite as: Meddour, M. (2015). Web-based English for Computer Science: Students' Evaluation of Course Effectiveness. *Arab World English Journal*, 8 (3).

DOI: <https://dx.doi.org/10.24093/awej/vol6no3.4>

Introduction

Students' evaluation of programme effectiveness has become a vital source of data for teachers to make judgments on course management and determine the success or failure of their instruction. The students' ratings, even though they are not the only indicators of teaching effectiveness, are appropriate instruments to gauge the value of the course and the extent of the instructor's accomplishment in achieving the learning objectives. As ESP is considered a learner-centred approach, the contribution of the learner to make decisions on various levels of the course has become expected. Among these decisions is determining the effectiveness of integrating technology-based instruction in ESP learning to match course objectives to learners' needs. This paper seeks to gauge the effectiveness of a web-delivered ESP course to Computer Science students. It also aims to probe the instructor's achievement in coping with the learners' deficiencies and meeting their learning needs.

ESP web-based education: features

Web-based instruction has appeared to be a new promising learning platform in ESP that characterises the shift from the teacher-centred classroom to a learner-centred environment (Pacheco, 2005). The pedagogical features of web-based education encourage ESP teachers and practitioners to offer more interaction, autonomy, motivation and knowledge construction.

The web as an instructional media is proved to be an "inexhaustible source of comprehensive information" (Chuchalin and Danilova, 2005, p. 130) that offers a range of features for ESP learners, including authenticity, study skills, autonomy, and empowerment.

Authenticity

Following Luzon (Qtd in Pueyo, 2009), the Internet contains a wide range of ESP-related authentic materials which cover downloadable and retrievable academic lectures and papers, specialty documents, professional workshops' reports, dictionaries, encyclopaedias, and terminology reference books. Hence, it offers ESP learners opportunities to communicate and publish for an authentic audience (Luzon Qtd in Pueyo, 2009, p. 17).

Study Skills

Web-based instruction provides learners with the necessary literacy that is needed for academic and professional achievement in terms of mastery of study skills (reading, writing, researching, speaking, discussing, etc). Macia *et al* (2009) recommended a number of strategies that assist ESP learners develop the four language skills via web-based instruction.

First, authentic reading can be accomplished using online field-related texts, in addition to dictionaries, encyclopaedias, and glossary lists for explanation of technical terminology. Online writing offers the opportunity to publish written productions to be revised and evaluated. As far as listening is concerned, the web offers learners a variety of learning resources that expose learners to different varieties and accents of English in different study and work situations. Speaking skills can be practised online, as well through interactive tools such as chat rooms and conferencing.

Autonomy

ESP web courses encourage learners to learn on their own pace and have more control, responsibility, and self-reflection on the learning process. Macia *et al.* (2009, p. 71) suggested a number of tools for promoting autonomy in web-based instruction, including setting individual

objectives, constructing language information via personal selection of online activities and language resources, having a private electronic portfolio with a personal log to access and save their written and oral productions.

Empowerment

Empowering learners and teachers to be more productive, responsible, and motivated are among the premises and promises of online instruction. Hence, ESP courses should include purposeful tasks that enhance learners' academic and occupational skills. They also need to promote independence, decision-making and ongoing learning.

ESP Course Evaluation

Programme evaluation in ESP instruction examines the extent of meeting learners' target goals and makes relevant inferences about instructional components. The significant role of Needs Analysis (NA) in the evaluation process lies in sensing learners' objectives and needs at early stages of the course and setting out appropriate measurements to fulfil them. Furthermore, ESP course evaluation regards NA as the essential prior procedure that must be conducted to justify the existence of all the course elements. Setting up clear and precise needs and objectives right from the beginning eases the burden of thorough evaluation for the instructors and other partners in the ESP enterprise.

Hutchinson and Waters (1987, p. 152) consider evaluation in ESP as "the starting point for any necessary revisions of the course, and may also help to guide the design of other similar courses" that may serve to achieve the desired academic or professional / occupational requirements. Consequently, any pitfall in the course that learners may signal in the evaluation is often referred to as a weakness in the course design.

Similarly, Momeni and Rasekh (2012) view ESP course evaluation as a must-have phase that takes both summative and formative form and is carried out to make critical decisions on "curriculum changes, documenting events, measuring cost effectiveness, estimating the needs for a teaching staff, identifying unintended outcomes and clarifying the objectives" (220). Evaluation, hence, exists to attain productive feedback that leads to a well-revised course aimed at coping with certain learning tasks.

Research context and method

The ESP web-based course that students of Computer Science at Biskra University had followed aimed to develop learners' academic communicative skills. The course was organised into two terms of instruction that ended up with a summative evaluation which is intended to check students' rating of the level of the course success or failure and "provide feedback for programme improvement" (Bailey 2009, p. 707), in addition to their evaluation of the teaching effectiveness. As Lodico, Spaulding & Voegtle (2006, p. 18) state, "summative data focus on determining whether a programme's goals were met". In the current ESP programme evaluation, the researcher applied the "objective-based approach" which measures the extent to which the course objectives are met.

E-learning and web-based instruction in particular have become increasingly important in education. However, its effectiveness has not been empirically proved in a wide scale because "these innovative approaches to training have been limited by the shortage of scientifically credible evaluation" (Atwell, 2006, p. 7). Therefore, the present web-based Computing English course evaluation offers a contribution to improving the standards and qualities of e-learning, to

gauge its usefulness in achieving learning outcomes and improving student engagement in the process of teaching and learning.

42 students participated in the course evaluation through an evaluation checklist that consists of two parts. The first part covers aspects of the course related mainly to the instructor's teaching approach, the assignments, learning materials, lessons and activities, course objectives and tests. The second part evaluates the web assignments in terms of their design, level of difficulty, their fitness of purpose in terms of meeting the course objectives and students' needs, and their usefulness to their leaning. It also probes the students' frequency of web-assignments' accomplishment.

Results and discussion

In this summative evaluation, students were asked to complete the form by assigning each statement a number that corresponds to their opinion. The first part evaluates the instructor, learning materials, lessons and activities, objectives and tests.

Evaluating the instructor

The ESP instructor/teacher has been a matter of controversy in the literature due to the question of who is best qualified to teach ESP: the EFL teacher or the specialist teacher of the discipline. Although s/he is required to be a specialist in students' field, his/her primary goal is to ensure communicative competence in the target situation (Riabtseva and Arestova, 2006). The objective of this checklist item is to measure students' satisfaction with the teacher's instructional behaviour and the extent s/he succeeded in meeting their expectations. The results are summarised in table 1.

Table 1. Students' evaluation of the instructor

Statements	Strongly agree	Agree	Unsure	Disagree	Strongly disagree	No answer
1. Instructor is knowledgeable about the subject	14	24	04	00	00	/
	33.33%	57.14%	09.52%	00%	00%	/
2. Instructor encourages participation	23	15	04	00	00	/
	54.76%	35.71%	09.52%	00%	00%	/

3. Instructor is enthusiastic about teaching	17	20	05	00	00	/
	40.47%	47.61%	11.90%	00%	00%	/

Table 1 demonstrates students' ratings of the various instructional ingredients that are directly bound to the instructor's teaching behaviour. To begin with, out of 42 participants, 24 (57.14%) agree that the instructor is knowledgeable about the subject, 14 participants (33.33%) strongly agree, and 4 are unsure (9.52%) about the statement. Having over half of the participants considering the teacher knowledgeable about the subject (Computing English) confirms the assumption which claims that ESP teacher needs a reasonable understanding of the students' specialist area (Dudley-Evans and St John, 1998).

As far as encouraging participation is concerned, the majority of students agree that their ESP teacher motivates them to demonstrate effective involvement during classroom practice. This reflects the instructor's perception of ESP practice which considers participation as one of the essential "predictors of academic achievement" (Willms 2003) and a "productive work habit" (Turner and Patrick, 2004). Participation bridges students' thinking to teachers' strategies of instruction to sustain meaningful communication. By doing so, the ESP teacher achieves one of the stated objectives of ESP practice, which is the practical use of language in students' academic or professional environment.

The last item in the evaluation rates the instructor's enthusiasm towards teaching. Table 1 shows that 17 students (40.47%) strongly agree that their ESP teacher is enthusiastic about teaching. 20 students (47.61%) agree with the statement and 5 other students (11.90%) are unsure of their opinion. These statistics suggest that enthusiasm while teaching creates a stimulating environment for effective learning.

In an ESP context, enthusiasm and motivation are crucial. Barrantes (2009, p. 131) believes that "the teacher can increase motivation by bringing to class enjoyable, meaningful materials and attractive activities in which those materials may be used". Therefore, the ESP teacher needs to be highly enthusiastic especially when dealing with content knowledge subjects in which the learner knows the content and the teacher "is often more a consultant than a teller, giving advice, suggesting alternatives and allowing the learner to make informed decisions" (Dudley-Evans and St John, 1998, p. 189).

Evaluating learning materials

In an ESP context, the role of learning material is fundamental since it is bound to the students' academic or professional content area, requiring instructors to exercise care when selecting appropriate materials. ESP instructors are hereafter required to integrate "language skills, structures, functions and vocabulary that will be needed by the members of a chosen target group in their professional and vocational environment" (Vičić, 2011, p. 108); therefore, it is necessary for them to be acquainted with and interested in the students' field of expertise in order to make material selection an easy and comfortable practice.

In the present rating form, Computer Science students are asked to evaluate the course learning materials, mainly web-based materials in terms of the features shown in the table below.

Table 2. Students' Evaluation of the Learning Materials

Statements	Strongly agree	Agree	Unsure	Disagree	Strongly disagree	N.A
1. The instructor uses a variety of learning materials, internet materials in particular	09	15	07	06	02	03
	21.42%	35.71%	16.66%	14.28%	04.76%	07.14%
2. The learning materials fit the course objectives	11	20	08	01	00	02
	26.19%	47.61%	19.04%	02.38%	00%	04.76%
3. The materials help me engage effectively in the course	12	23	03	03	00	01
	28.57%	54.76%	07.14%	07.14%	00%	02.38%

Table 2 indicates that most students agreed with the statements related to the role of the learning materials in assisting them to cope with the course requirements. Statistically, over half of the students reported the variety of materials used in the course which reflects the concern of the instructor to cover a wide range of content knowledge to avoid monotony and keep the course dynamic.

The present programme integrates both web-based materials and textbook-based materials. The internet-adopted materials range from authentic listening extracts to WebPages reading texts. The amalgamation of authenticity and specificity of materials stimulates learners to make sense of learning and simulates the real world in the classroom (Baghban and Pandian, 2011). Therefore, authenticity generates not only genuine communicative context but also sense of learning and engagement.

As far as the suitability of the learning materials to the course objectives is concerned, students in the evaluation form confirmed this fitness of purpose. Setting objectives for the course gives a guided vision of instruction for both the teacher and the learner to identify priorities and make relevant decisions (Graves, 2000). Teachers should be cautious when deciding on the selection of appropriate materials that fit the course objectives since it clarifies the purpose of instruction.

As a result of the variety of materials used for the course and their fitness to the objectives, students stated that they learn better due to the selection of appropriate materials, especially when they build a meaningful link between students' real world and the communicative purpose of language learning.

The last item in the evaluation of the learning materials is effective engagement in the course. What table 2 displays is that a total of 35 students (83.33%) out of 42 agreed or strongly agreed with the statement reporting the relationship between effective engagement and the selected learning materials for the course. Effective classroom engagement is often seen in students' rate of participation, assignment completion, interaction, and most importantly learning achievement. With the assistance of relevant materials, students may demonstrate their classroom engagement in many ways, as an indication of the "purposeful learning" that ESP teaching aims to achieve.

Evaluating lessons and activities

The learning materials, or more properly "material development" (Graves, 2000, p. 161) constitute the set of lessons and activities which provide the instructional exposure to the range of study and practice package. The evaluation of lessons and activities' statements are adopted from the absolute and variable characteristics of ESP which are suggested by Hutchinson and Waters (1998). Table 3 shows the results.

Table 3. Students' evaluation of lessons and activities

Statements	Strongly agree	Agree	Unsure	Disagree	Strongly disagree	N.A
1. Lessons and activities are related in content to my discipline	20	14	05	00	01	02
	47.61%	33.33%	11.90%	00%	02.38%	04.76%
2. Lessons and activities prepare me to use English in academic and workplace settings	08	16	09	08	01	00
	19.04%	38.09%	21.42%	19.04%	02.38%	00%
3. The language used in the lessons (grammar, vocabulary, and skills) is	16	20	06	00	00	00
	38.09%	47.61%	14.28%	00%	00%	00%

related to my discipline						
--------------------------	--	--	--	--	--	--

What is remarkable in table 3 is the agreement of students with the first and the last statements and their disparity on the second statement.

Concerning the relationship of the lessons and activities to students' discipline, the table indicates students' agreement with the statement. The appropriateness of the content to the learners' subject-specific area is one of the most prominent characteristics of ESP instruction. As an implementation of this principle, the teacher selected a range of lessons and activities which cover skills and knowledge depicting discipline-bound themes such as computer applications, database, website design, artificial intelligence, etc. This is a strategy to motivate students to effectively demonstrate involvement in both lessons and activities through interacting with the teacher and peers via sharing their already existing knowledge of the subject.

As far as the statement probing the idea assuming that ESP prepares learners for academic and professional world is concerned, the table 3 shows that only 8 students (19.04%) strongly agree with the statement, 16 students (38.09%) agree, 9 students (21.42%) are unsure, 8 students disagree (19.04) and 1 (02.38%) student strongly disagrees. This is perhaps due to the status of English in the students' study and job domain, which is considered as a foreign language with limited practical uses in the real world compared to French and Arabic, which are the working languages in the Algerian academic and professional contexts.

However, the majority of students agreed with the statement declaring the fitness of the language features of the course, namely grammar, vocabulary and skills to the learners' discipline. Statistically speaking, the table shows a total of 36 students (85.71%) out of 42 who stated that the linguistic features they are exposed to during instruction reflect the nature of computer science, which is regarded as an area with a technical jargon, functional language and discourse.

Evaluating objectives

The attainment of objectives checks objectives' clarity and specificity. The results can be seen in table 4:

Table 4. Students' evaluation of the course objectives

Statements	Strongly agree	Agree	Unsure	Disagree	Strongly disagree	N.A
1. The course objectives are clearly identified	14	09	16	02	00	01
	33.33%	21.42%	38.09%	04.76%	00%	02.38%
2. The course objectives	21	09	06	02	02	02

are very specific	50%	21.42%	14.28%	04.76%	04.76%	07.14%
3. My learning objectives	03	11	15	12	00	01
are entirely achieved	07.14%	26.19%	35.71%	28.57%	00%	02.38%

Out of 42 students, a sum of 23 of them (54.76%) agree that the course' objectives are clear, 16 (38.09%) are uncertain, 2 students disagree and 2 others are of no answer. It seems that half of the students find the course objectives well-defined in the sense that they help them constitute a straightforward vision of learning and guide them towards their target needs.

When it comes to the specificity of objectives, over half of the students confirmed that the objectives are specific. Specific objectives make teaching and learning "useful and comprehensible" (Brown, 1995, cited in Graves, 2000, p. 87) and above all they make the ESP course 'objective-oriented'. It is worth mentioning that the objectives of the current ESP course revolve around preparing learners to apply the knowledge, skills and competencies in the academic arena and in the workplace. The last item in the evaluation of the objectives examines the students' attainment of their learning objectives during the first term of the ESP course. 15 students (35.71%) are undecided about the fulfilment of their objectives at this point of the course because of the short period of teaching and learning. Learners often need to wait till the end of the instruction to confirm achievement of the course objectives.

Evaluating tests

Testing in ESP is often viewed as a "feedback and an aid to learning" (Dudley-Evans and St John, 1998, p. 210) rather than measuring the performance in terms of scores.

In the present evaluation form, students are asked to evaluate the proficiency tests difficulty level, the content, and the grading scale. Table 5 shows the findings.

Table 5. Students' evaluation of tests

Statements	Strongly agree	Agree	Unsure	Disagree	Strongly disagree	N.A
1. The level of tests was just right.	12	14	09	03	02	02
	28.57%	33.33%	21.42%	07.14%	04.76%	04.76%
2. The tests covered all the	15	20	02	04	00	01

learning points	35.71%	47.61%	04.76%	09.52%	00%	02.38%
3. The tests' grading scale is acceptable	18	09	14	00	00	01
	42.85%	21.42%	33.33%	00%	00%	02.38%
4. The grades are convincing	20	10	06	03	00	03
	47.61%	23.80%	14.28%	07.14%	00%	07.14%

According to the table 5, most students (sum of 26, representing 61.90%) agree that the tests' level was handy and acceptable. 9 (21.42%) students are unsure, and 5 of them (11.90%) disagree or strongly disagree with the statement. The tests were composed of items that have been dealt with and practised in class and online via web assignments to carry out similar tasks.

The good test content often covers the learning points that students have dealt with during the course so that they feel comfortable when responding to the questions. So, the present item in evaluating tests probes students' attitudes towards the match existing between the content of tests and the taught items. As it is shown in table 5, 35 students in total (83.33%) reported their satisfaction with tests' content. Meanwhile, 4 students (09.52%) didn't agree with the statement.

As far as the grading scale is concerned, 18 students (42.85%) strongly agreed that it is satisfactory, 9 students (21.42%) agreed, while 14 students (33.33%) reported their uncertainty of the appropriateness of the grading scale. Table 5 shows that the majority of students (30 students out of 42) are satisfied with their tests' scores.

Evaluating web assignments' design

Web assignments, which are "the possible alternative for the traditional pen and paper methods" (Demirci, 2010, p. 159), are integrated in the web-based instruction as a fundamental ingredient that increases students' engagement with the course via the interactivity element provided by the web applications. Students receive their homework at once with the ability to log in and log out whenever they like without feeling the pressure of having the assignment done on paper and being seen by peers and corrected by the teacher.

Research on evaluating the effectiveness of web/ online assignments in improving students' performance (Hodge, Richadson & York, 2009) suggests that they effectively provide individualised feedback on students' performance and motivate them to perform better than in traditional homework.

In this section of the evaluation form, we survey students' attitudes and opinions on the appropriateness and effectiveness of web assignments in meeting their needs. Table 6 reports on students' agreement and disagreement with some statements about the layout of the assignments.

Table 6. Students' evaluation of web assignments

Statements	Strongly agree	Agree	unsure	Disagree	Strongly disagree	N.A
1. Web assignments are clearly written and properly instructed.	14	22	04	00	00	02
	33.33%	52.38%	9.52%	00%	00%	4.76%
2. Web assignments are the right level of difficulty for the course.	08	15	12	04	00	03
	19.04%	35.71%	28.57%	9.52%	00%	7.14%
3. Activities and web-delivered assignments help me learn the material.	08	19	09	02	01	02
	19.04%	45.23%	21.42%	4.76%	2.38%	4.76%
4. Web assignments given for class serve the objectives of the course.	13	21	04	01	00	03
	30.95%	50%	9.52%	2.38%	00%	7.14%
5. Web assignments have motivated me to develop the needed language skills for the course.	13	18	08	01	00	02
	30.95%	42.85%	19.04%	2.38%	00%	4.76%
6. Web assignments meet my learning needs.	06	16	17	02	00	02
	14.28%	38.09%	40.47%	4.76%	00%	4.76%

7. Web assignments make learning dynamic.	08	21	09	01	00	03
	19.04%	50%	21.42%	2.38%	00%	7.14%

Out of 42 students, 14 (33.33%) strongly agree that the assignments were clear, 22 (52.38%) agree with the statement; however, 4 respondents (9.52%) are not sure and 2 (4.76%) had no opinion. The majority of respondents (sum of 36) who declared that the web assignments are clearly written and instructed indicate that the teacher pays careful attention to the general layout of the assignments for successful accomplishment. Therefore, web assignments are of potential value if they are “easy to use, carefully planned and integrated seamlessly with course material, and supported by the instructors and teaching assistants.” (Arasasinghama, Martorell, and McIntire, 2011 as cited in Weimer, 2013).

Assignments that fail to reflect the level of the course or learners present a challenge. The statistics in table 6 suggest that the participants who consider the assignments neither easy nor difficult constitute the majority of respondents (23). Ensuring the right difficulty level for assignments encourages learners to achieve. Therefore the instructor needs to be careful so that assignments are carefully designed with the course objectives in mind. Perhaps challenging assignments might account for 12 respondents opting for the “unsure” item in the evaluation form.

The other function of the assignments is to help students learn the material through accomplishing them. A sum of 27 respondents (64.28%) strongly agree or agree that the web-assignments help them learn the material. 9 participants (21.42%) are unsure, 3 respondents strongly disagree or disagree with the given statement and 2 of them gave no answer. What these statistics suggest is the fact that assignments can help learners understand the material through further practice. When it comes to ESP teaching, the principle of “learner-centred” is clearly demonstrated in the web-assignments in which students are self-oriented and independent in responding to the questions and taking advantage of the internet application to deepen their understating of the material. So, learning online through assignments helps ESP learners become lifelong autonomous learners.

Evaluating web assignments' accomplishment

Assignments, whether traditional or online, have been somewhat contentious for many learners due to the effort and time they require, in addition to the anxiety and pressure they engender. The negative attitude of learners towards assignments is featured in their non-completion of homework and their feelings of being overloaded. Hence, students generally are not ‘fond’ of homework, unless it will be graded and considered as a part of their achievement average. The table below shows students' frequency of assignments' accomplishment.

Table 7. Students' evaluation of web-assignments accomplishment

Statements	Always	Often	Sometimes	Rarely	Never	N.A
1. How often do you	22	10	06	03	00	01

check the online assignments?	52.38%	23.80%	14.28%	07.14%	00%	02.38%
2. How often do you accomplish the assignments?	17	12	09	02	02	00
	40.47%	28.57%	21.42%	04.76%	04.76%	00%
3. How often do you copy the answers from a classmate?	02	09	06	05	20	00
	04.76%	21.42%	14.28%	11.90%	47.61%	00%
4. How often do you enjoy doing the assignments?	08	07	11	09	05	02
	19.04%	16.66%	26.19%	21.42%	11.90%	04.76%
5. How often do you find the assignments useful and relevant to the course?	14	13	11	03	01	00
	33.33%	30.95%	26.19%	07.14%	02.38%	00%
6. How often do you receive feedback from the teacher?	17	06	09	01	06	03
	40.47%	14.28%	21.42%	02.38%	14.28%	07.14%
7. How often do you use the Internet tools to accomplish the assignments?	08	09	10	09	04	02
	19.04%	21.42%	23.80%	21.42%	09.52%	04.76%

Every time the assignment was posted to students via class e-mail, the instructor ensured that they needed to check it and accomplish it. Table 7 reveals that over half of respondents (52.83%) reported that they always check the assignments, 23.80% often do so, while 6 respondents (14.28%) claimed that they sometimes check the web-assignments, and finally 7.14% of respondents asserted that they rarely check them. No one said that s/he never checks the assignments. This implies that students are notably interested in doing the assignments as a requirement of the course and for the purpose of receiving feedback. Yet, half of the participants did not check the posting of the assignments on a regular basis which could denote lack of interest, unfamiliarity with the method, and the non-positive attitude towards the task.

When it comes to the accomplishment of homework, although half of respondents claimed that they always check the assignments, only 17 students (40.47%) always accomplish them. 12 students (28.57%) reported that they often do so and 9 students (21.42%) expressed their irregularity in doing their assignments. 4 students rarely or never do them. This casts doubts on the capacity of web-assignments in motivating students to do their homework as a requirement of the course. Although it was anticipated that most students will show enthusiasm towards web-assignments, it appears homework remains unappealing for learners, whether in traditional manner or online, since it leads to anxiety towards possible negative feedback. Yet, the 40% of respondents who stated they regularly check and accomplish the assignments represents the number of students who always accomplish the assignments, suggesting they find them appealing and effective in widening their knowledge.

As in traditional assignments, many students tend to copy aspects of the assignments from classmates who have already done them. This is considered as cheating, which is reported to be one of the disadvantages of online assignments, since there is no 'human' control over the process of completion. In this item of the evaluation form, the researcher aims to check students' autonomy in learning. As table 7 shows, 20 students (47.61%) out of 42 claimed that they never copy their answers from others; however, 9 respondents said that they often do so. Theoretically speaking, web applications and tools ease and practically promote the process of learning and make it independent in terms of self-pacing and progress; therefore, most respondents claim autonomous accomplishment of web-assignments. Students who often or sometimes copy the keys of homework activities are usually uninterested in the course itself, and what matters to them is the teachers' approval. A possible reason for copying the answers is their inability to cope with the activities due to their low proficiency level.

In the present ESP course, the web assignments checked students' commitment, comprehension, graded them and monitored their progress through feedback.

For the aforementioned reasons, table 7 indicates that students vary in their responses concerning their enjoyment when doing the assignments. 8 students (19.04%) said that they always enjoy doing the assignments; however, 5 students (11.90%) never find pleasure in doing them. Yet, 11 students (26.19%) report sometimes appreciating the benefits of the assignments and enjoy completing them. Such lack of motivation could be due in part to insufficient encouragement on the part of the instructor.

As far as the relevance and usefulness of the web-assignments to the course is concerned, the majority of respondents replied positively; 14 students (33.33%) always find them relevant, 13 students (30.95%) often do, and 11 students (26.19%) sometimes find the assignments useful. Unquestionably, the online assignments have significant benefits for they allow further practice of the lesson materials, widen learners' knowledge and foster their skills. The homework given for learners in the present study was to consolidate their comprehension through a number of

questions, accompanied with relevant web links to assist them. This helps to link ESP learners' English to their study discipline in a meaningful way. Therefore, the majority of learners who confirmed the relevance of the web-assignments to the course supported the assumptions claiming that they are gaining popularity in many learning settings and institutions.

One of the advantages of web-assignment is its immediate feedback, especially if the system of correction is technically elaborated for the 'trial and error' strategy that permits a chance for more than one attempt; however, in the present assignments the feedback is done both online via e-mail and in class through remedial sessions for target skills. Statistically, a sum of 23 respondents (54%) declared that they always/often receive feedback from the teacher, and only 7 respondents (16.66%) said that they never/rarely receive it. The feedback sessions aimed to target weaknesses of learners and provide remedial practice or attach relevant web links of similar objectives. Learners who claimed to receive no feedback were those who did not regularly attend the course or check feedback via email.

The last item evaluates the reliance on Internet tools (encyclopaedias, web pages, blogs and Chatrooms, etc.) to complete assignments. Out of 42 students, 8 (19.04%) always use them and 9 (21.42%) often do so. However, 9 students (21.42%) rarely use these tools to accomplish their assignments and 4 students (09.52%) never use them. 10 students (23.80%) sometimes rely on internet tools to look for keys to the exercises. This disparity in opinions reflects students' different attitudes towards the utility and helpfulness of the internet tools in successful completion of assignments. Some students find it useful to seek knowledge related to the homework questions by searching the web for similar content; while others tend to rely on the course information and make appropriate inferences to cope with the queries of the assignments. As some may feel overwhelmed by the abundance of information on the web, the teacher often attaches useful links to similar content of the questions such as tutorials, videos, and web pages.

As can be seen from the above, the evaluation of the assignments' design and accomplishments revealed mainly positive attitudes of Computer Science learners towards the web assignments due to the "high-quality and interactive materials and activities" (Sims-Mohammed and Wooddell, 2012, p. 49) needed for individual completion of tasks and instant feedback.

Conclusion

Despite its limitation and single rating dimension, students' evaluation of the course effectiveness has always been a valuable source to rate the instruction they receive. In this study of the evaluation of web-based ESP instruction for Computer Science students, it emerged that a well-planned course has encouraged students to engage effectively in the different class and online practices. Moreover, the feedback that students received was appreciated, since it allowed them to adjust their learning strategies. Autonomous learning has also been employed by the majority of respondents. One of the unanticipated attitudes towards this course is its failure to practically prepare them for real world challenges because of the overwhelming dominance of French and Arabic in their discipline. Hence, some students learn English for computing as a requirement to attain the degree, not as a course they need for their real life (academic or professional) purposes

About the Author:

Mostefa Meddour holds a PH.D degree in Applied linguistics from Biskra University, Algeria. He is currently teaching undergraduate and Master students of English at the Department of Foreign Languages, Division of English studies. He is interested in academic writing, ESP program evaluation, needs analysis and language skills.

References

- Atwell, G. (ed.). (2006). *Evaluating E-learning: A Guide to the Evaluation of E-learning*. Bremen, Germany. Perspektiven-Offset-Druck. Retrieved April 18, 2013 from http://www.pontydysgu.org/wp-content/uploads/2007/11/eva_europe_vol2_prefinal.pdf
- Baghban, Z. Z. V., and Pandian, A. (2011). A Review on the Effectiveness of Using Authentic Materials in ESP Courses. *ESP World*, 31(10), 1-12. Retrieved December 21, 2012 from http://www.esp-world.info/Articles_31/Authenticity_Effectiveness.pdf
- Bailey, K. M. (2009). Issues in Language Teacher Evaluation. In Long, M. H., and Doughty, C. J. (eds). (2009). *The Handbook of Language Teaching*. UK. Blackwell Publishing Ltd.
- Barrantes, L. G. M. (2009). *A Brief View of the ESP Approach*. Universidad Nacional Costa Rica. Letras 64. Retrieved December 26, 2012 from www.revistas.una.ac.cr/index.php/letras/article/download
- Chuchalin, A. I. & Danilova, E. A. (2005). The Breakthrough of the Internet to Empower ESP Teaching. *Global Journal of English language. Educ.*, 9(2), 129-136. Retrieved June 15, 2013 from <http://www.wiete.com.au/journals/GJEE/Publish/vol9no2/ChuchalinDanilova.pdf>
- Demirci, N. (2010). The Effect of Web-Based Homework on University Students' Physics Achievements. *The Turkish Online Journal of Educational Technology (TOJET)*, 9(4), 156-161. Retrieved March 03, 2013 from www.tojet.net/articles/v9i4/9415.pdf
- Dudley-Evans, T., & St John, M.J. (1998). *Developments of English for Specific Purposes: A Multi-Disciplinary Approach*. Cambridge: Cambridge University Press.
- Graves, K. (2000). *Designing Language Courses: A Guide for Teachers*. Canada. Heinle.
- Hodge, A., Richardson, J. C., & York, C. S. (2009). The Impact of a Web-based Homework Tool in University Algebra Courses on Student Learning and Strategies. *MERLOT Journal of Online Learning and Teaching*, 5(4), 618-62. Retrieved January 13, 2013 from http://jolt.merlot.org/vol5no4/hodge_1209.pdf
- Hutchinson, T., & Waters, A. (1983). Creativity in ESP Materials or Hello I am a Blood Cell. In Waters, A. (ed.). *Issues in ESP*. Great Britain. Pergamon Press Ltd and Lancaster University.
- Lodico. M. G, Spaulding. D. T., & Voegtle. K. H. (2006). *Methods in Educational Research: from Theory to Practice*. San Fransisco. USA. Jossey-Bass. A Wiley Imprint
- Macia, E. A., Ramos, C. R. & Cervera, A, S. (2009). Designing a Virtual Learning Environment for EAP Students: *Quantum LEAP* (Learning English for academic purposes). In Puyo, I. G., Foz. C. G, Siso. M. J. & Luzón. M. J. (eds.). *Teaching Academic and Professional English Online*. Bern. Peter Lang AG, International Academic Publishers
- Momeni, M, and Rasekh, A. E. (2012). Investigating Class Coherence and its Effect on EAP Course Evaluation: A Case Study of MA Students of Geography and Tourism. *Journal of*

- Education and Social Research*. 2 (2), 219-236. Retrieved April 19, 2013 from http://www.mcser.org/images/stories/JESRJOURNAL/Jesr_May_2012/abbass_eslami_rahsekh-investigating%20class%20coherence.pdf
- Pacheco, A. Q. (2005). Web-based Learning (WBL): A Challenge for Foreign Language Teachers. *Actualidades Investigativas en Educacion*, 5(2). Costa Rica : Universidad de Costa Rica, Instituto de Investigación en Educación.
- Pueyo. I. G., Foz. C. G, Siso. M. J & Luzón. M. J. (2009). (eds). *Teaching Academic and Professional English Online*. Bern. Peter Lang AG, International Academic Publishers.
- Riabtseva, E.V., & Arestova, A. A. (2006). Some Problems of Teaching English for Special Purposes for Students of Technical Specialities at University Level. *Вестник ТГТУ*, 12(1), 196-204. Retrieved December 22, 2012 from www.tstu.ru/en/tgtu/science/st/pdf/.../ryabceva.pdf
- Sims-Mohammed and Wooddell (2012). A Preliminary Review of Undergraduate Student Interest and Perceptions about Taking Online, Web-Based Sociology Courses. *International Journal of Business, Humanities and Technology*, 2(2), 48-55. USA. Centre for Promoting Ideas. Retrieved March 03, 2013 from http://www.academia.edu/1763944/A_Preliminary_Review_of_Undergraduate_Student_Interest_and_Perceptions_about_Taking_Online_Web-based_Sociology_Courses
- Turner, J. C., & Patrick, H. (2004). Motivational Influences on Students' Participation in Classroom Learning Activities. *Teacher's College Record*, 106(9), 1759-1785. Columbia, USA. Teachers college, Columbia University. Retrieved April 19, 2013 from: http://portfolio.project.tcnj.edu/summer2008/Kinney/Articles/gordonk-Motivaltion_Influences_on_Learning-4054108108.pdf
- Vičič, P. (2011). Preparing Materials for ESP Teaching. *Inter Alia* 2(5), 107-120. Retrieved December 21, 2012 from www.sdutsj.edus.si/InterAlia/2011/Vicic.pdf
- Weimer, M. (2013). Online Homework System Can Boost Students Achievement. Faculty Focus. Retrieved March 03, 2013 from www.facultyfocus.com/articles/instructional-design/online-homework-systems-can-boost-student-achievement
- Willms, J. D. (2003). *Students' Engagement at School: A Sense of Belonging and Participation*. USA. Organisation for Economic Co-Operation and Development (OECD).