

English for Academic Purposes in Israel: Perceptions of E-Learning from the Perspectives of Learners and Teachers

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Abstract. This exploratory study investigates, from the perspectives of learners and teachers, how e-learning is implemented in the domain of English for Academic Purposes (EAP), particularly in the teaching of reading and writing skills in universities and colleges in Israel. The study adapts Ben Shneiderman's [1] view that learner-centered measures should be used to evaluate educational progress. The study was conducted in a natural setting, using a grounded approach and qualitative interpretation of data. Teachers who used e-learning responded to open-ended questions about their practices. Their students responded to open-ended questions which explored their perceptions of learning outcomes in academic language courses. To elicit in-depth reflection, volunteer students and teachers were interviewed. The findings may lay the groundwork for future studies exploring how e-learning affects students' learning strategies, teacher/student relationships, the very nature of the classroom, to name but a few theoretical and pedagogical issues encountered.

Keywords: EAP, perceived learning outcomes, e-learning, blended learning.

1 Introduction

"The sage on the stage is becoming the guide on the side, and collaboration is replacing competition." [2 p.vi]

In recent years institutions of higher education (HE) in Israel have been using learning technologies in delivering courses, not only in the sciences but also in the humanities and social sciences. Fast changing technology enabling construction of intra/interuniversity portals has enhanced widespread use of web-supported instruction and e-learning, but this transformation has also raised issues related to the quality, efficiency and flexible nature of such instruction. A study of how one major university in Israel has implemented blended learning across disciplines [3] has provided insights into the process of moving toward campus-wide web-supported courses. The researchers found that lecturers adopted the technology readily but that the pedagogical range of implemented activities was still limited. The current work focuses on how e-learning is being implemented in the domain of English for Academic Purposes (EAP), as taught at several universities and colleges in Israel.

Ben Shneiderman's informative essay, "The New Education," [1] provides teachers with a philosophy for how to take full advantage of what he calls the new technology. According to Shneiderman, e-learning that takes into account the four stages of human activity, collect-relate-create-donate, facilitates active learning and inquiry-based learning, two of the important principles upheld by many educators. In applying these ideas to language learning through technology, Debski [4 p.39] advocates "...learning environments in which students can easily exercise their creativity, collaborate on projects of interest, engage in goal-driven activity, and combine learning a language with reflection about language and learning strategies."

With these views in mind, we explored the experiences of learners and teachers engaged in e-learning in a variety of EAP programs focusing on reading and writing skills. Undergraduate students in Israel's six universities and numerous colleges must attain advanced level English reading skills (and in some institutions, writing skills) since much of the reading material is in English, though instruction is in Hebrew. Some students are exempt from EAP courses based on their English scores on university entrance examinations; others have a year to complete required EAP courses which bring them to exemption level. English is taught as a required foreign language in primary school from grade three. Thus, English plays a major role in HE and also in Israeli society and the business community. English is a second language for native Hebrew speakers and a third for native Arabic and Russian speakers.

In this study we do not aim to evaluate learning outcomes or the efficiency of teaching methods or practices but rather to describe the paths that have been taken by different institutions and individual teachers and learners in their engagement with e-learning environments and to relate some of the reflections of these participants.

How is E-learning Defined in this Study? What are its Aims? For this study, we included a variety of computer-supported activities which we defined as e-learning:

- using the Internet in class or at home
- sending email communications to teachers and among students
- working on computer-based tasks related to course content in a lab or learning center
- accessing course materials, announcements, homework assignments in web-supported courses through a university portal

According to Nachmias and his coworkers [3 p.375], in their description of the Virtual TAU project at Tel Aviv University in Israel, "The project aimed to initiate and stimulate a process by which more faculty members will gradually use the Internet to enrich prevailing learning processes and make instruction more efficient and flexible." We would like to adapt these aims to EAP course goals and include any e-learning activity (such as listed above) used to enhance the learning of reading and writing skills in an academic program.

In addition, though the current study does not aim to evaluate e-learning practices or outcomes, for data analysis, we found it helpful to keep in mind the four benefit components defined by Cohen and Nachmias [5 pp.84-86] in their quantitative model of cost effectiveness for web-supported academic instruction. The benefit components are: "improving instruction quality, improving affective aspects, increasing efficiency of teaching and learning processes, and facilitating knowledge management."

1.1 The Study

This study was conducted in a natural setting using students and teachers participating in English courses required for exemption level in various undergraduate degree programs. A grounded approach to data collection was used. The data was collected through self-reporting questionnaires and semi-structured interviews and analyzed qualitatively [6]. This approach enabled us to explore the perceptions of teachers and learners engaged in e-learning activities which are integrated into their EAP courses.

1.2 The Research Questions

From the perspectives of teachers and learners, how is e-learning being implemented in EAP courses in universities and colleges in Israel?

- What progress in reading and writing in English do students perceive they have made as a result of their use of e-learning in EAP courses?
- What other outcomes do students perceive as a result of their e-learning experiences in EAP courses?
- What are teachers' perceptions about e-learning in their language courses for academic purposes?

2 Method

The Sample. There were 100 undergraduate students from various disciplines (e.g., biology, physics, computer science, Middle East studies, education, art) in the study, all participants in intermediate and advanced level EAP courses taught by six teachers at a major university in Israel. In addition, three teachers from other universities and colleges participated by either responding to questionnaires or undergoing interviews. One of these teachers taught EAP (advanced level), one taught French for Academic Purposes, and one taught business English in an academic program and teacher training for Spanish teachers (advanced level). All courses included various e-learning components, as listed above, used in different ways and in varying degrees. It is beyond the scope of this study to describe the specific objectives of each course. However, all English courses were one-semester non-credit required courses in academic programs focusing on reading and/or writing skills, whereas courses in French and Spanish offered credit.

Data Collection and Procedures. The Student Questionnaire (SQ): To explore the students' perceptions about their e-learning experiences, we used the modified version below of a previously designed instrument [7], consisting of two open-ended questions: *What areas of writing and/or reading in English do you feel you have made progress in, with the use of e-learning? Are you aware of any other outcomes related to your use of e-learning (aside from your improvement in English)? YES / NO Whatever your response, please explain.*

The SQ was administered toward the end of one semester or after the course ended (spring/summer, 2006). As students were given the option of responding in Hebrew or English, translations were made when necessary. All the students were consenting

participants. To explore teacher perceptions about their e-learning practices, we administered a questionnaire (TQ) consisting of 15 open-ended questions toward the end of the semester or after the course ended. We conducted semi-structured interviews with three teachers who used e-learning extensively in their EAP courses. The same questions were used as in the TQ, but at points during the interviews, spontaneous dialogues between the interviewer and the teacher developed. Interviews were tape-recorded and transcribed. We conducted two interviews with students who volunteered to further reflect on their experiences with e-learning. They were selected on the basis of their responses to the SQ. Notes were taken during the interviews.

Data Analysis. Procedures in descriptive analysis were used for analyzing the responses to questions 1 and 2 of the SQ, where each declared outcome was counted as a response unit. Content analysis was performed on all the responses. Content analysis of the responses to the TQ and the student and teacher interviews was also performed.

3 Findings and Discussion

3.1 Implementation of E-Learning in HE

We present a description of how e-learning is being implemented in EAP courses in Israel based on content analysis of teacher interviews and questionnaires. Most of the universities and many colleges use the same web shell, Highlearn, for web-supported courses. Despite one collaborative effort, the Meital Project, we found much diversity within institutions and among them. For example, only the Open University offers a choice of EAP on-line (distance learning) or in a traditional setting. The other institutions observed in this study offer a variety of EAP courses which include some type of e-learning elements and can be categorized as follows:

Blended Learning: Combination of Online or Distributed Learning and Traditional Face-to-Face (F2F) Instruction [8 Ch.1]. In blended learning courses, students meet teachers regularly, but not exclusively, in a learning center or lab. E-learning is an essential part of the course both during and outside of class. During class, they enter the course website on the university portal and often work in pairs. The two teachers interviewed who have adopted this approach report: "We've been doing it for so long, we can't imagine teaching any other way." They expect their students to continue working after class, asynchronously, and to communicate with each other or with the teacher while doing homework, forums, and projects. Interaction using email and responses in forums is vital to activate writing skills, and they are evaluated on this aspect of learning along with other course components. The communicative ingredient is a vital aspect of e-learning environments which may be a viable alternative to more traditional approaches, especially in large classes which is the trend in HE in Israel because of budget constraints.

Blended Learning in Smart Classrooms. Some courses take place in traditional classrooms equipped with a computer and large screen allowing teachers to integrate e-learning with traditional approaches. Such courses often have their own website, though this is not required as the Internet can be accessed directly. In a graduate

Business English course, for example, different websites are examined synchronously and discussed, activating reading and oral skills. One teacher and her students explore a company website described in an article read by students. Class polls using course websites are held on issues related to articles read for homework. At a conference on "Integrating web-enhanced learning into EFL/ESP courses at the university level" (The Hebrew University, 2006), teachers expressed a desire for more smart classrooms since this setup gives autonomy and flexibility and is less costly than labs.

Traditional Classrooms with Occasional E-learning Experiences. Most of the teachers in this study hold their classes in a traditional F2F learning environment with occasional visits to a learning center or lab where they introduce students to the virtual elements in their course. In the lab at one university, students enter the course website and read selected internet texts as enrichment and background information for texts to be read at home or do grammar exercises and other structured tasks to reinforce classroom learning. Students are encouraged but not required to access the course website at home or during self-access time in the center. However, we found that unless teachers assign specific homework tasks to be done asynchronously, and then relate to them in class, students tend to use the course websites very rarely.

Thus, teachers have much leeway in implementing e-learning activities.

3.2 Student Perceptions

In response to open-ended question 1 of the SQ – What areas of writing and/or reading in English do you feel you have made progress in, with the use of e-learning? 87 students out of 100 described areas of progress. Only 16 perceived no progress; 3 of these reported that they had not used the computer so they could not relate to the question. In response to question 2 – Are you aware of any other outcomes related to your use of e-learning (aside from your improvement in English)? – 73 students out of 100 answered positively; 26 answered negatively; 3 of these students reported that they had not used the computer and 1 did not respond. When asked about the nature of the other outcomes (Whatever your response, please explain.), students described a variety of perceived outcomes gained from their experiences with e-learning.

The Categories. Data reduction and sorting yielded a variety of categories of outcomes derived from the responses to question 1 of the SQ. However, not all of the responses related to aspects of reading/writing in English since some students did not distinguish between what they perceived to have learned in reading/writing skills in English and other outcomes gained from their e-learning experiences. Thus, in Fig. 1 we present the categories relating to improvement in English, while in Fig. 2, we present the categories of other outcomes based on responses derived from both questions 1 and 2. We now present the highlights of the findings:

Improvements in reading/writing in English: As seen in Fig.1, the largest number of response units (23) was in the category "General Reading Improvement" but many of these responses reflected students' awareness of various aspects of reading (e.g., fluency, speed, scanning, understanding of text structure). The categories of "Vocabulary Enrichment" (18) and "Grammar" (18) also revealed students' awareness of different language components. Only 9 responses related to improvement in

Categories from Q1 (Total: 76)	Aspects
General reading improvement (23)	Fluency and speed, scanning/understanding text structure, answering questions, understanding without dictionaries, using reference material to improve understanding
Improved writing (9)	Expressing oneself in English, spelling, formulating sentences, summarizing
Vocabulary enrichment (18)	Using Babylon and other dictionaries, technical English for other fields of study
Grammar (18)	
General English improvement (8)	

Fig. 1. Student perceptions of improvement in reading and writing English in response to Q1

Categories (Total: 162)	Q 1	Q2	Aspects
General knowledge	4	31	Knowledge about the world
Communication, Interpersonal collaboration	11	11	e-mail contact with teacher and students, transmitting information, forums, working in pairs, conversations in class
Independent learning		4	
Real life needs		12	Writing CV, info. about U.S. universities, news, bank accounts, information about university courses
Using the internet as a tool	14	17	Getting information from home, background info, quick access, clear, can hear speech, flexibility of time, place and methods, teacher directed searches
Transfer of skills to other fields	5	5	Other languages, academic texts
Using on-line dictionaries	3	3	
Reinforcement	3	5	Practice, getting homework
Listening comprehension improved	2		
Course information on-line	4		Important for absentees
Allows for feedback	2		
Affective attributes/motivation	8	10	Self-confidence, no fear of criticism, enjoyment, less boring
Help with homework	8		

Fig. 2. Student perceptions of other outcomes derived from Q1 and Q2

writing, implying that students' e-learning experiences often lacked this important skill as expressed by two students: "We need more feedback for writing" and "We had to answer multiple choice questions so we could not improve our writing."

Other outcomes: As seen in Fig. 2 above, the categories relating to other outcomes were more varied and numerous. Furthermore, the total number of positive response units relating to other outcomes (162) by far outnumbered the positive response units (76) relating to reading/writing improvements (Fig.1). This interesting finding implies that e-learning may be affecting our students in more diverse ways than expected. The two largest categories were "General Knowledge" (35) and "Internet as Tool" (31). Students identified many benefits gained from their e-learning experiences as seen from the following quote: "Using the computer you reach all kinds of sites—even if you were not intending to look at them. So you read material you never thought you would read. In addition, it is much easier to learn on the computer because the search is easier and quicker...I learned a lot from the computer even though I didn't mean to learn—and my education improved without meaning to."

In contrast, one of the smallest categories, "Independent Learning" (4) is of special interest since this is one example of many student learning outcomes that are the focus of HE [9]. Also, this is the only category that emerged exclusively from responses to the second question in the SQ. In her interview, a student described how she used e-learning to teach herself German in her spare time: "Reading and listening to the German at the same time helped me become familiar with the words. E-learning helped me to study independently."

An important category we called "Communication/Collaboration" (22) reflected the benefits gained from students communicating with teachers and with each other through e-mail, forums, and working in pairs in class or at the library. One student, a Chinese speaker, described in her interview that her partner in the e-learning sessions helped her by translating technical instructions from Hebrew to English. She also said, "E-learning brings us closer to the teacher; it closes the distance." Another student said, "...email helped me to be in contact with the teacher since I sometimes had questions to ask and clarifications..."

Many responses clustered into a category we called "Affective Attributes" (18). Some students felt that e-learning was a positive experience in general; others expressed a gain of self-confidence, loss of fear of criticism, enjoyment, and the feeling of being less bored while studying. Some of the students took intensive summer courses and were grateful that e-learning made their studies more interesting.

An interesting category "Transfer of Language Skills to other Fields of Study" (10) revealed that students applied what they gained from their e-learning experiences to other areas of study, including their own. For example, one student said that she could deal with academic texts better. Another said, "On the net there are a lot of sources in English in every field, as well as in my specific field of study: nursing. I often use these sources in English—so that I combine 2 goals: improving my knowledge of English as well as learning something connected to my field of study."

The category we called "Real Life Needs" (12) is particularly interesting since the responses related to practical, concrete benefits gained such as learning to write CVs, getting information about U.S. universities and courses, reading the news and others.

The remaining categories consisted of fewer responses but were interesting nonetheless. Each of these categories, "Reinforcement of Learning," "Course Information On-line," "Allows for Feedback," "Using On-line Dictionary" and "Help with Homework," reflects support for learning which students perceive they are getting as a result of their e-learning experiences.

Negative outcomes: When analyzing the negative responses to SQ2, we saw that ten of the students gave no explanation for why they had not perceived any other outcomes as a result of e-learning. However, some said that they were already familiar with e-learning techniques and the Internet and therefore did not learn anything new. Others said they preferred traditional methods, the printed page, books and "a teacher on stage!"

3.3 Teacher Perceptions

Analysis of the data in the teachers' interviews and questionnaires revealed much corroboration with students' reports about their e-learning experiences, but different themes also emerged. In addition, despite their common views on many issues,

teachers did not always share the same approach to e-learning. Due to limitations of space, however, we can only present a few illustrations of these various issues.

Regarding collaboration and communication through e-mails and forums, the role of teacher as guide, and increased interest and efficiency, teachers felt that these were important ingredients in their courses, which corroborated what many students had reported. As one teacher stated, "I think there is a lot more contact with the students...very soon you have a dialogue going which is only possible through the electronic medium..." Another teacher noted that her students "found it exciting knowing we were going to the Learning Center as a class to work on the computer together and do something different." In a teacher training course, students engaged in creative collaboration to design a new teaching tool by posting and getting feedback on the course website.

Teachers also generally agreed that e-learning made academic studies more authentic and relevant, in particular when using the Internet as a tool or resource, which is reminiscent of what many students described as their other outcomes. In the words of two teachers: [e-learning] "Bumps us into the 21st century" and "Takes English learning out of the textbook into the Internet and the real world."

All but one teacher agreed that e-learning should be integrated into the traditional classroom to some extent. One teacher (French for academic purposes) felt that students should engage in e-learning only outside the classroom by doing homework and practicing tests instead of taking up class time. This tells us that some teachers may still maintain that real learning goes on in the classroom in a teacher-centered environment.

One theme that was highly emphasized in teachers' self-reports was the need to encourage more student responsibility for their own learning. Teachers do this by posting homework, announcements and course materials on websites, expecting students to "do the work" even if they have been absent from class. One teacher describes this as her way of extending the classroom so that students play a more active role. Students could ask her questions by email any time of day and get immediate responses so that learning was going on all the time, on a one-to-one basis, not just during group meetings where students were often too shy to speak up or reveal their problems.

Some themes that emerged from the teachers' data dealt with the teacher's responsibility/role and related difficulties. Teachers felt that greater demands are placed on those who work with e-learning. They have to be more flexible and aware of different electronic resources; they need technical ability to maintain websites, develop their materials and train teachers. All this not only leads to more work for the teacher but to occasional resistance from those who prefer not to engage in e-learning.

4 Conclusion

This study has provided a picture, though partial, of how e-learning is being implemented in various institutions of HE in Israel based on teacher and learner perceptions. It has also explored student learning outcomes in the context of e-learning activities in EAP courses as perceived by the learners themselves. One conclusion we can draw is that in the domain of EAP, blended learning is evolving as

a means of enriching prevailing learning processes and making instruction more efficient and flexible. Indeed, the teachers in this study have reported that e-learning allows for more efficient and flexible instruction. They have voiced the view that it is creating more interest in learning among students and a closer relationship between teacher and student, despite the trend toward larger classes.

The learners themselves have implied similar views in their description of the wide range of outcomes they perceived to have gained from e-learning, e.g., reading improvement, vocabulary enrichment, grammar; self-confidence, using the Internet as a tool for studies beyond English, communication and collaboration with fellow students and teachers. These outcomes are examples of cognitive and affective attributes and abilities described by Frye [9 p.6] which can be "a measure of how their experiences have supported their development as individuals." According to Frye, "...student learning outcomes constitute useful measures of quality ... They are consistent with the stated missions of higher education." (p.5).

We also see the connection between some of these outcomes and Debski's [4] view of language learning through technology cited in the introduction. Both learners and teachers have acknowledged that e-learning allows for collaboration among students, goal-driven activities and reflection as in the following student response: "I believe that it's very important to use different ways to learn English."

As we look towards making the most of the new technology, we return to Shneiderman's [1] four stages: collect-relate-create-donate. We have witnessed student perceptions that the collection of information is greatly enhanced by the technology. Students have also made clear that communication with teachers and students – relate – is an important use of technology which enhances their learning. Teachers and students have reported on the use of e-learning to create collaborative projects and presentations. Students have found creative ways to transfer their learning to other fields of study; the involved teacher can find innovative ways to use the technology and create a broader learning environment to meet the needs of the 21st century. However, this study implies that the potential for creative use has not been fully realized. To some extent then, we see the first three of Shneiderman's four activities reflected in student and teacher responses. It is the fourth activity, donate, that has still not made an appearance. What use can students make of their new skills to donate to the community in which they live? How can teachers instill in their students this sense of responsible scholarship? Shneiderman sees this goal as an outgrowth of a technology that serves human needs. Further studies on the e-learning tasks themselves would contribute to our understanding of how we might foster such an approach and train teachers to realize the potential that e-learning offers.

We also acknowledge the negative responses toward e-learning expressed by some students. In some cases, they were due to a lack of exposure to e-learning but in other instances, students expressed preferences for traditional methods, the printed page, learning from a book and were also bothered by technical problems. Some teachers also resist e-learning for similar reasons. Individual teaching and learning preferences should be acknowledged and respected; e-learning should not be imposed on everyone. Further research, however, on what specifically creates resistance among some teachers and students might help reduce negative attitudes in the future.

Three dominant themes emerged from this exploratory study: the need for teacher flexibility, the encouragement of learner responsibility, and communication between

teacher and student as well as students among themselves. Thus, for those who wish to become "the guide on the side" and foster collaboration rather than competition in educational settings, e-learning certainly has the potential for achieving these goals.

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