

AN EXPLORATORY STUDY OF JORDANIAN EFL STUDENTS' PERCEPTIONS OF THEIR USE OF THE INTERNET

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Abstract

This questionnaire study investigates 210 Jordanian English as a foreign language (EFL) students' perceptions of their use of the Internet for both general purposes (e.g., e-mail, chat, aimless browsing, games, and music) and EFL learning purposes (e.g., practicing various language skills, vocabulary, and structure through instructional software). The findings revealed that 47% of the sample reported using browsers to view documents, while slightly smaller percentages reported using the Internet for personal purposes, mailing lists and discussion groups, and e-mail. Furthermore, the majority of the respondents reported *never* or *rarely* using the Internet for any EFL learning purposes, except for about 58% and 52% who reported using it for developing speaking skills through chat and locating authentic texts, respectively. The findings further revealed a weak correlation between the students' use of the Internet for general and EFL learning purposes. Class level, but not gender, was found to significantly affect the students' use of the Internet.

Introduction and background

In recent years, there has been evident support for the use of technologies, such as the computer and Internet, in teaching and learning in general and in teaching languages in particular (cf., among many others, White, 1999; Fernandez, 2001; Ayres, 2002; Nesselhauf and Tschichold, 2002; Egbert, Paulus, and Nakamichi, 2002; Robert, 2002; Fenfang, 2003; Linder, 2004; Almekhlafi, 2006). Raimes (1983) claims that language teaching is a paradigm which sees language as communication; emphasizes real language use; promotes a student-centered classroom; encourages real language acquisition instead of just learning a set of grammatical rules; develops humanistic, interpersonal approaches; and takes into account the nature of the learner, the learning process, and the learning environment. The Internet has the potential to play

an important role in each of these areas, for, according to Berge and Collins (1995), unlike that designed especially for textbooks, the language used on the Internet is predominantly authentic, not to mention that the Internet potentially fosters the shift from the traditional teacher-centered classroom to the much desired student-centered classroom.

However, although instructional technology has been expected to play a significant role in revolutionizing the way teachers teach, learners learn, and schools deliver education, a gap was found between the claims made for information and communications technologies (ICTs) and their actual impact on education (Saettler, 1999; Mumtaz, 2000; Cuban, 2001; Warschauer, 2001). Nevertheless, some researchers (cf., for example, Kent and McNergney, 1999; McFarlane, Harrison, Somekh, Scrimshaw, Harrison, and Lewin, 2000; Resnick, 2002) believe that fairly new technologies (e.g., the Internet and WAP phones) are different from older ones (e.g., blackboards, books, and television) in that they have become more powerful, faster, and more user-friendly, not to mention the fact that the Internet allows students and teachers to access a large amount of potentially useful information whenever and wherever the Internet is available.

Despite the numerous potential advantages of using the Internet in language teaching, there has been a sense of failure to put it to proper use, which has been attributed to factors the most important of which are the conditions of schools, time constraints, shortage of software, lack of knowledge and experience in the use of instructional technology, lack of access to computers, insufficient funding, and lack of training (for a detailed account, see the publications of the British Educational Communications and Technology Agency - BECTA, 2004-2007).

There is a shortage in Internet use in the Jordanian classroom, which may account for anecdotal accounts of dissatisfaction among both teachers and students. Over the last few years, Jordan has implemented measures to improve the quality of education, one of which is an ambitious project that seeks to provide a computer for each student and to establish a network that connects all schools and universities to facilitate teaching and research. Implemented with the active support and participation of the private sector, the project also provides computer training for teachers.

At the tertiary level, all Jordanian universities require that students study two to four computer courses in all undergraduate programs. At Yarmouk University, from which the present sample was drawn, students are required to study two computer courses offered by the

Department of Computer Sciences (viz., CS100 and CS 101) to fulfill the university and college requirements for graduation. These courses aim at enabling the students to use the computer for personal purposes since the descriptions of both courses do not include any reference to using the computer for academic purposes.

Objectives and significance of the study

This study aims at investigating Jordanian EFL students' perceptions of their Internet use for both general (e.g., e-mail, chat, aimless browsing, games, and music) and EFL learning (e.g., practicing various language skills, vocabulary, and structure through instructional software) purposes and the potential effect of gender and class level on these perceptions. In order to achieve the objectives of the study, the following research questions are addressed:

1. What are Jordanian EFL students' perceptions of their level of general Internet use?
2. What are Jordanian EFL students' perceptions of their level of Internet use for EFL learning purposes?
3. What is the potential relationship between the students' use of the Internet for general and EFL purposes?
4. Are there significant differences in the students' use of the Internet which can be attributed to the variables of gender and class level?

It is worth noting that the division between general and EFL learning purposes used in this research is neither clear-cut nor totally discernible. The Internet provides opportunities for those who want to learn a foreign language in general and English in particular with a variety of input which exceeds the resources available in the traditional classroom. However, there is a substantial overlap between the various uses of the Internet, for the World Wide Web allows language learners access to a huge amount of authentic target-language input which enables them to engage in authentic listening, reading and writing tasks and exchanges with both native speakers and other learners of the language. For instance, a person who is writing an email to a pen-pal or a friend abroad is engaged not only in a communicative act but also in an authentic writing task (Janda, 1995).

Even though more evidence seems to support the use of new technologies in the foreign language classroom, many claims still need to be backed up by hard empirical evidence. Little

research has been published about students' perceptions of language learning in a technology-rich environment in third world countries of which Jordan is one. Most of the previous research has been done in the United States, Australia and Europe, which outlines the grave need for local research, for with the numerous computer-related educational reforms in the Jordanian educational context, a study of this nature is doubly important.

The findings of this study are expected to provide valuable information to supplement the literature about Internet use in the Third World, represented here by Jordan. This study may also provide a potential point of reference in quantitative literature and establish grounds for further research in the Jordanian ICT context.

Previous research

A good body of research has been done on the effects of using the Internet in the foreign language classroom. Anecdotal evidence from teachers worldwide seems to indicate that the Web can be a stimulating asset to the foreign language classroom. Teachers have reported using the Web for gathering information (Schofield, 2003), for accessing authentic language materials (Kelly, Kelly, Offner, and Vorland, 2002), for stimulating communicative exercises (LeLoup and Ponterio, 2000), and as a medium of student publishing (Davidson and Schofield, 2002).

Studies on the effectiveness of using the Internet in the foreign language classroom (for example, Frizzler, 1995; González-Bueno, 1998; Yu, Ju, and Yu, 2002) revealed improvement brought about by the students' exposure to authentic language. For example, Yu *et al.* (2002) provided empirical evidence for the usefulness of e-mail as an aid to promote students' cognitive growth pertaining to computer knowledge and skills.

Much empirical research has revealed gender differences in experience with and attitudes towards computer use (Bimber, 2000; End, Kraan, Cole, Campbell, Birchmeier, Klausner, and Sherman, 2000; Sherman, End, Kraan, Cole, Campbell, Birchmeier, and Klausner, 2000; Dorup, 2004). Dorup (2004), for example, has found that most Danish undergraduate medical students have home computers, albeit more so for male than female students, and use email and the Internet regularly. Male students were also found to have more favorable attitudes towards academic computer use of computers than their female counterparts, which is consistent with earlier reports (cf., for example, Kay, 1992; Williams, Ogletree, Woodburn, and Raffeld, 1993;

Shashaani, 1997; Schumacher and Morahan-Martin, 2001) that females are more likely to have negative attitudes towards computer and Internet use than their male counterparts. Williams et al (1993:515) claim that

research data repeatedly indicate that males show more favorable attitudes toward computers, perceive that computers will be a career asset, and demonstrate greater interest, participation and competence in computing tasks than females.

Previous research has invariably suggested that the Internet has been a male domain since its beginnings in the 1970's (King, Grinter, and Pickering, 1997; Morahan-Martin, 1998). Nevertheless, more recent empirical evidence seems to suggest that males and females are becoming more similar in self-perceptions of familiarity with computer technology. Along the same vein, Odell, Korgen, Schumacher, and Delucchi (2000) found that although the gender gap in time spent online had disappeared, differences still existed in the way male and female undergraduate students used the Internet. Males used the Internet significantly more to check news, play games, and listen to or copy music while females used the Internet more for e-mail and school research. Similarly, Clegg and Trayhurn (2000) reported that unlike male undergraduate students who use the computer for playing electronic games, female undergraduate students tend to use computers more for secretarial or administrative work. More controversial still, Lazonder, Biemans, and Wopereis (2000) and Bataineh and Baniabdelrahman (2006) found no significant differences among their subjects which could be attributed to gender.

Research conducted on users' age and experience may relate to the variable of class level in the present study which, to the researchers' best knowledge, was investigated in only one earlier study (Bataineh and Baniabdelrahman, 2006). Bataineh and Baniabdelrahman reported that class level has a significant effect on Jordanian students' perceptions of their computer literacy. However, whereas evidence abound on the differences which may be attributed to gender and experience (cf. Haider and Frensch, 1999a; 1999b; Lazonder *et al*, 2000; Bruner and Kumar, 2000; Anandarajan, Simmers, and Igarria, 2000), findings regarding age differences in Internet use are somewhat mixed. For example, while Kraut, Mukhopadhyay, Szypula, Kiesler, and Scherlis (1998) reported that Internet usage is higher among older persons, Ramayah and Jantan (2003) found younger students more likely to use these facilities.

Design of the study

The population of the study consisted of all the EFL students at the Department of Curriculum and Instruction and the Department English at Yarmouk University (Irbid, Jordan) in the second semester of the academic year 2003/2004. The sample of the study consisted of 210 (56 male and 154 female EFL students of whom 49 were first-, 50 second-, 40 third-, and 71 fourth-year students) who volunteered for participation in the study in response to an invitation posted by the researchers on the bulletin boards at the two departments. The researchers limited participation to students in the undergraduate programs of *English* or *English Field Teacher* to ensure that only EFL students participated in the study. The anonymity of the respondents was established by specifically asking them not to write their names on the questionnaire copies.

Based on their collective experience and a review of the literature, the present researchers designed a questionnaire the validity of which was established by a jury of four EFL professors, three EFL supervisors, and five English language teachers. The questionnaire in its final form consisted of two demographic questions, eight items which cover the students' use of the Internet for general purposes, and eight items which covered their use of the Internet for EFL learning purposes.

The reliability of the questionnaire was established using test-retest on twenty-one EFL students who were excluded from the sample, with a twenty-day interval between the two administrations of the questionnaire. Chronbach alpha was calculated and found to equal 81.7%.

After establishing the validity and reliability of the questionnaire, it was distributed hand-to-hand to the participants. Of the 280 copies distributed, 210 copies were returned to the researchers, yielding a response rate of 75%.

Findings and discussion

In this section, the findings are presented and discussed according to the four research questions posed in the study. The first and second questions are discussed together after the presentation of tables 1 and 2, while the third and fourth questions are discussed independently after that.

To answer the first question, which investigates the students' perceptions of their level of general Internet use, eight questionnaire items were used. The students' responses are presented in Table 1.

Table 1

Numbers and Percentages of EFL Students' Responses Concerning the Use of Internet for General Purposes

Item No.	Item	Never		Rarely		Occasionally		Frequently		Always	
		n	%	n	%	n	%	n	%	n	%
1	<i>Electronic-mail (e-mail)</i>	72	34.29	54	25.71	27	12.86	24	11.43	33	15.71
2	<i>Mailing lists or discussion groups</i>	51	24.29	57	27.14	33	15.71	33	15.71	36	17.14
3	<i>World Wide Web (WWW)</i>	93	44.29	84	40.00	9	4.29	18	8.57	15	7.14
4	<i>Browsers to view documents (e.g. Netscape)</i>	39	18.57	72	34.29	24	11.43	42	20.00	33	15.71
5	<i>File Transfer Protocol (FTP)</i>	120	57.14	51	24.29	11	5.24	15	7.14	13	6.19
6	<i>Remote computing (TELNET)</i>	123	58.57	57	27.14	15	7.14	15	7.14	0	00
7	<i>Web Course Tools (WebCT)</i>	106	50.48	45	21.43	34	16.19	13	6.19	12	5.71
8	<i>Personal purposes such as chat, communication, or entertainment</i>	30	14.29	69	32.86	38	18.10	49	23.33	24	11.43

The findings suggest that about 36% of the respondents *frequently* or *always* use browsers to view documents; 35% use the Internet for personal purposes; 33% use mailing lists and discussion groups; and 27% use electronic mail. Smaller percentages of 16%, 13%, 12%, and 7% were reported for the use the World Wide Web (WWW), File Transfer Protocol (FTP), Web Course Tools (WebCTs), and remote computing, respectively.

The findings also show that 86%, 84%, and 81% of the respondents reported *never* or *rarely* using remote computing, the WWW, and FTP, respectively, while 72%, 60%, 53%, 51%, and 47% reported *never* or *rarely* using WebCTs, e-mail, browsers to view documents, mailing lists and discussion groups, and the computer for personal purposes, respectively.

To answer the second research question, which investigates the students' perceptions of their level of Internet use for EFL learning purposes, eight questionnaire items were used. Table 2 presents the numbers and percentages of the students' responses.

Table 2
Numbers and Percentages of the Students' Responses Concerning the Use of the Internet for EFL Learning Purposes

Item No.	Item	Never		Rarely		Occasionally		Frequently		Always	
		n	%	n	%	n	%	n	%	n	%
1	<i>Locating authentic materials and texts</i>	24	11.43	77	36.66	23	10.95	58	27.62	28	13.33
2	<i>Developing search skills as a group problem- solving activity</i>	72	34.29	94	44.76	5	2.38	18	8.57	21	10.00

Item No.	Item	Never		Rarely		Occasionally		Frequently		Always	
		n	%	n	%	n	%	n	%	n	%
3	<i>Developing reading skills and vocabulary via extensive reading of Internet materials</i>	44	20.95	84	40.00	39	18.57	20	9.52	23	10.95
4	<i>Developing writing skills through writing reports</i>	12	5.71	115	54.76	20	9.52	35	16.67	28	13.33
5	<i>Developing academic research skills</i>	74	35.24	85	40.48	31	14.76	8	3.81	12	5.71
6	<i>Using the library</i>	100	47.62	63	30.00	9	4.29	16	7.62	22	10.48
7	<i>Developing speaking skills through chatting with native speakers</i>	17	8.10	72	34.29	52	24.76	44	20.95	25	11.90
8	<i>Developing listening skills through chatting with native speakers</i>	76	36.19	81	38.75	35	16.67	7	3.33	11	5.24

Table 2 shows that more than 65% of the respondents reported *never* or *rarely* using the Internet for any EFL learning purposes, except for locating authentic materials and texts (41%), developing speaking skills through chat (33%), and developing writing skills through writing reports (30%). In general, the findings indicate that using the Internet for EFL learning purposes is fairly weak.

The researchers attribute the findings, as shown in tables 1 and 2 above, to a host of factors. The content of the computer courses (viz., CS 100 and CS 101 the respondents study as requirements for graduation) is oriented towards enabling the students to use the computer for personal purposes. The descriptions of both courses do not include any reference to using the computer for academic purposes. Furthermore, no reference is made to Internet-related topics, which may explain the students' reports of inability to use the Internet for general or academic purposes. This may also explain the students' reports of unfamiliarity with Internet sites with academic content, since they reportedly do not receive any formal training in either area.

Table 3 presents the figures pertaining to the third research question which investigates the relationship between the students' general Internet use and that for EFL purposes.

Table 3
Pearson Correlation Coefficient Matrix between the Students' General Internet Use and Internet Use for EFL Purposes

<i>Variables</i>	<i>Use of the Internet for General Purposes</i>	<i>Use of the Internet for EFL Purposes</i>
<i>Use of the Internet for General Purposes</i>	1.00	0.12
<i>Sig.</i>	-----	0.09
<i>n</i>	210	210
<i>Use of the Internet for EFL Purposes</i>		1.00
<i>Sig.</i>		-----
<i>n</i>		210

Table 3 shows that there is a weak insignificant correlation between the students' use of the Internet for general and EFL purposes ($r=0.12$, $p=0.09$). Despite claims that the Internet is a good communication medium, a good learning tool, a more convenient forum for EFL students than language laboratories, and a great tool for self-study, not to mention the students' advantageous English proficiency which facilitates their use of the Internet, the findings reveal that the respondents are a little or not at all frequent users of the Internet. The findings also reveal an infrequent use of the Internet for EFL purposes, which may be attributed to a host of factors, the most important of which are the following:

1. There are no computers in the classroom.
2. Computer laboratories are often difficult to reserve, and the available ones may not be located near the classrooms.
3. Instructors do not make the Internet assignments part of students' class work.
4. Students do not have university e-mail accounts.
5. Students have to pay for Internet print-outs in the university library (although they pay an Internet fee with tuition at the beginning of every semester).
6. The two required computer courses (viz., CS 100 and CS 101) are not adequate to prepare proficient users of the Internet, especially if one kept in mind the predominantly theoretical nature of the content of these courses.
7. Most students are not aware of useful educational Internet sites.
8. The amount of information on the Internet can be overwhelming, not to mention that a lot of this information is inaccurate at a time when most students lack the experience to sift through it.

Three types of Internet access can be used in EFL activities: e-mail and mailing lists, news groups, and the WWW. The findings reveal that the respondents rarely use these

resources, which may be attributed to their lack of awareness of the advantages of the Internet. This observation has been further supported by the respondents' reports of their weak use of the Internet for EFL learning purposes.

To answer the fourth research question, which is concerned with whether or not there are any significant differences in the students' Internet use for general and EFL learning purposes which can be attributed to gender and class level, a Multivariate Analysis of Variance (MANOVA) was used. The results are presented in tables 4 and 5, below.

Table 4
Means and Standard Deviations of the Students' Use of the Internet for General and EFL Purposes

<i>Dependent Variable</i>	<i>Class Level</i>	<i>n</i>	<i>Mean</i>	<i>SD</i>
<i>Internet Use for General Purposes</i>	1	49	15.13	9.83
	2	50	12.66	9.65
	3	40	18.60	9.42
	4	71	17.38	10.99
<i>Internet Use for EFL Purposes</i>	1	49	14.83	9.73
	2	50	15.08	7.82
	3	40	17.68	9.07
	4	71	16.44	9.54

Table 5
MANOVA Test Criteria and Exact F Statistics for the Effect of Gender and Class Level

<i>Independent Variables</i>	<i>Statistic</i>	<i>Value</i>	<i>F-Value</i>	<i>Num DF</i>	<i>Den DF</i>	<i>Pr>F</i>
<i>Gender</i>	Wilks' Lambda	0.96	2.19	4	200	0.07
<i>Class Level</i>	Wilks' Lambda	0.85	2.72	12	529.44	0.001**

** Significant at $\alpha = 0.05$

The findings do not reveal any significant effect of gender on the respondents' use of the Internet for general and EFL learning purposes (Wilks' Lambda= 0.96, $F(4, 200) = 2.19$; $P = 0.07$). Even though this result is not consistent with reports of gender differences in previous research (cf., for example, End *et al.*, 2000; Sherman *et al.*, 2000), it is in line with research reports that the gender gap is narrowing (cf., for example, Odell *et al.*, 2000) or disappearing altogether (cf., for example, Lazonder *et al.*, 2000; Bataineh and Baniabdelrahman, 2006). It may be further explained in light of the fact that male and female students at Yarmouk University study the same courses under the same conditions.

In contrast, the results of the Multivariate Analysis of Variance (MANOVA) between groups design reveal a significant effect for the variable of the class level on the students' use

of the Internet for general and EFL learning purposes (Wilks' Lambda=0.85, F (12, 529.44)=2.72; P<0.001). This is fairly consistent with previous reports (cf., for example, Bataineh and Baniabdelrahman, 2006). This result may also be consistent with the reports (cf., for example, Anandarajan *et al.*, 2000; Lazonder *et al.*, 2000) that experience (viz., extended exposure to computers matched in this study with class level) does make a difference in Internet skills and activities.

Table 6 presents the findings of the multi-comparisons of the students' responses according to the variable of class level.

Table 6
Tukey Test of Multi-Comparisons of Class Level

<i>Internet Use for General Purposes</i>			<i>Internet Use for EFL Purposes</i>			
<i>Class Level</i>	<i>Mean Difference</i>	<i>95% Confidence Interval</i>	<i>Mean Difference</i>	<i>95% Confidence Interval</i>	<i>Mean Difference</i>	<i>95% Confidence Interval</i>
1	2	2.47	-2.86	7.80	-0.25	-5.03 4.53
1	3	-3.47	-9.11	2.17	-2.85	-7.91 2.22
1	4	-2.25	-7.19	2.67	-1.61	-6.03 2.82
2	3	-5.94	11.50	-0.38*	-2.60	-7.59 2.40
2	4	-4.72	-9.56	0.12	-1.36	-5.70 2.99
3	4	1.22	-3.96	6.40	1.24	-3.42 5.89

** Significant at $\alpha = 0.05$

As shown in Table 6, Tukey test of multi-comparisons reveals significant differences between the mean scores of second- and third-year EFL students in favor of the latter group. Third-year students were found to perceive themselves as more frequent users of the Internet for general purposes than their second-year counterparts. As for the use of the Internet for EFL purposes, the results do not reveal any significant differences that can be attributed to class level.

Limitations of the study

As with all research, this study has certain limitations. The fact that the students were queried about their perceptions of their Internet use may pose a two-fold limitation in this research. To begin with, the data are based on self-reports, and the researchers do not have any means to confirm that the students indeed use the Internet as frequently as they perceive themselves to do. Secondly, perceptions are never static, and a study of this nature may not capture the whole picture, which is why its findings should be viewed as exploratory and preliminary.

The fact that this study does not investigate how computer access impacts Internet use constitutes an additional limitation. Variables such as home computer ownership, university computer access, and Internet use as measured by overall use, location of use, and recency of use are areas for future investigations.

Conclusions, recommendations, and implications

Although the literature reveals an emphasis on the role of the Internet in the educational process and the significant effect of its use on students' achievement, no studies have been conducted in Jordan on EFL students' perceptions of using the Internet for general and EFL learning purposes. Thus, since the present findings may be insufficient to provide adequate insights into the potential application of the Internet in EFL learning in Jordan, further research using more variables and additional instruments may prove valuable towards this end.

Since the use of technology has to be driven by pedagogy, teachers should be urged to assume more responsibility in using the Internet to enhance the quality of teaching and learning. Teacher training programs should include compulsory ICT training for teachers to acquire optimum levels of knowledge and skills bearing in mind the following considerations:

1. emphasizing applications rather than theoretical accounts of how to use ICT,
2. broadening awareness of a wide range of ICT resources, with less emphasis on word processing and more on resources (e.g., the Internet and e-mail) which are currently underused, and
3. presenting ICT as a tool for lifelong learning for both instructors and students and encouraging students' use of ICT through out-of-class activities and assignments.

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APPENDIX

The Questionnaire

Demographic Information

Class level

- First year
- Second year
- Third year
- Fourth year

Gender

- a. Male
- b. Female

A. How often do you use the following Internet services?

Please place a (✓) in the column that corresponds to your level of use of the following Internet services.

Level of Use of the Internet

No.	Item	Never	Almost Never	Rarely	Occasionally	Frequently	Always
1	<i>E-mail: Electronic-mail</i>						
2	<i>Mailing lists or discussion groups</i>						
3	<i>World Wide Web (WWW)</i>						
4	<i>Browsers to view documents (e.g. Netscape)</i>						
5	<i>File Transfer Protocol (FTP)</i>						
6	<i>Remote computing (TELNET)</i>						
7	<i>Web Course Tools (WebCT)</i>						

8. How frequently do you use the Internet for personal purposes such as chatting or entertainment?

Never	Almost Never	Rarely	Occasionally	Frequently	Always

B. How often do you use the Internet for each of the following EFL learning purposes?

No.	Item	Never	Rarely	Occasionally	Frequently	Always
9	<i>Locating authentic materials and texts</i>					
10	<i>Developing search skills as a group problem-solving activity</i>					
11	<i>Developing reading skills and vocabulary via extensive reading of Internet materials</i>					
12	<i>Developing writing skills through writing reports</i>					
13	<i>Developing academic research skills</i>					

<i>No.</i>	<i>Item</i>	<i>Never</i>	<i>Rarely</i>	<i>Occasionally</i>	<i>Frequently</i>	<i>Always</i>
14	<i>Using the library</i>					
15	<i>Developing speaking skills through chatting with native speakers</i>					
16	<i>Developing listening skills through chatting with native speakers</i>					

*Thank you.
The Researchers*