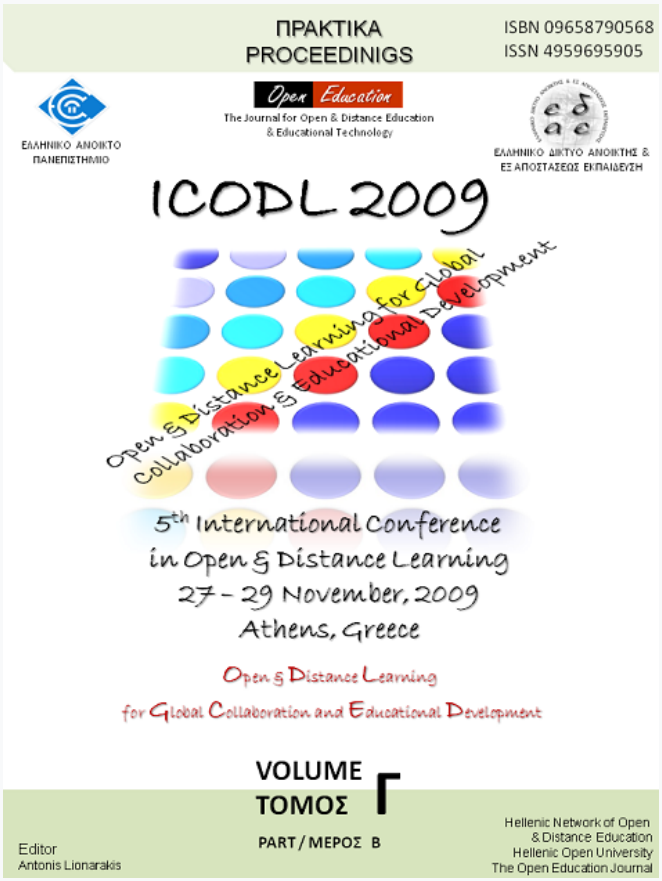
Διεθνές Συνέδριο για την Ανοικτή & εξ Αποστάσεως Εκπαίδευση

Τόμ. 5, Αρ. 3Β (2009)

Open and Distance Education for Global Collaboration & Educational Development



Virtual Learning and Students Perception- A Research Study

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doi: 10.12681/icodl.430

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Abstract

The purpose of present study was to assess the E-learning in teaching learning process at higher education level. The study was descriptive in nature and therefore survey method was selected for the collection of data. To achieve the purpose a questionnaire of 35 questions for 200 students and 10 teachers of Virtual University of Pakistan was constructed. After reviewing the related literature, the questionnaire was designed and was filled up by students and teachers of Virtual University of Pakistan. The main important issues which were focused in the study were, interactive media, diagnostic tools, learning trends, role of teacher, impact of technology, professional growth of teachers, collaborative teaching and online conferences. The collection of data was analyzed by calculating the percentage and mean score of responses on each question of items of the questions. The major results of the study were as:
a) long-term concepts must be developed first b) A close cooperation with lecturers in teaching methods, media designers and computer scientists is absolutely necessary c) The technical development of the software and hardware must be considered d) solutions must be expanded and modified constantly.
Keywords- Interactive Media, Acoustic, Restrain, World Wide Web

I. INTRODUCTION

One of the basic functions of education is preparation of students for life. This function in 21st century may be participation in an information rich society, where knowledge is regarded as the main source for socio-cultural and politico-economical development of countries and/or nations. Information rich societies are developed and dominating and they are controlling the information throughout the world. Information encompasses and relies on the use of different channels of communication, presently called information and communication technologies and would be incorporating better pedagogical methods to cope with such emerging situations (Hussain, 2005).

II. ELEMENTS OF INTERACTION

1- Presence of Individuals.
2- Presence of some action or incident between them.
3- Impact on the intrinsic or extrinsic condition of the individuals. (Tagga, 2007, p.77)

Teaching is much more hard than most faculty are willing to acknowledge. Teaching and learning should always go together, effective learning is the product of

effective teaching. In real meaning, learning is the goal of effective teaching. Someone has not taught unless someone else has learned. After a few years of teaching, many teachers realize that students discover too little of what they teach. The question here arises "what are the reasons (problems) that the teachers are failed to teach and students to learn? (Hussain, 2005).

III. E-LEARNING AND TEACHING

If you are a teacher and you ask questions in class, assign and check homework, or hold class or group discussions, then you already teach interactively. Basically, then , interactive teaching is just giving students something to do, getting back what they have done and then assimilating it yourself, so that you can decide what would be the best to do next. (Branson, 1991, p.241)) In new interactive teaching and learning, we find the role of electronic and print media.

IV. E-LEARNING MEDIA

Interactive media refers to media that allows for active participation by the recipient, hence interactivity. Traditional information theory would describe interactive media as those media that establish two-way communication. In media theory, interactive media are discussed along their cultural implications. The field of Human Computer Interaction deals with aspects of interactivity and design in digital media. Other areas that deal with interactive media are new media art, interactive advertising and video game production. Attewell, J. 2005, p.65) While much traditional analog electronic media and print media qualifies as interactive media, the term is sometimes misunderstood as exclusive to digital media. The significant increase in possibilities for interactivity (especially over vast distances) brought by the internet boosted the availability of digital interactive media. Still, e.g. language in face-to-face communication would formally belong to the category of interactive media. Attewell, J. 2005, p.152) Interactive media are often designed by information designers. As all media they rely on communication. In the case of e.g. computer games this is visual, acoustic, and hap tic communication between the user (player) and the game. In Mobile telephony, the communication happens between two people and is purely acoustic at the first glance. Yet, according to media theory the cultural implications of the medium have to be taken into account. Thus, aspects like constant availability, customization of the mobile phone and Short Message Service are also part of the interactive medium called Mobile telephony. Media restrain from being translated to technological entities. (Hussain, 2005). Any form of interface between the end user/audience and the medium may be considered interactive. Interactive media is not limited to electronic media or digital media. Board games, pop-up books, game books, flip books and constellation wheels are all examples of printed interactive media. Books with a simple table of contents or index may be considered interactive due to the non-linear control mechanism in the medium, but are usually considered non-interactive since the majority of the user experience is non-interactive sequential reading. (Branson, 1991, p.241) Various delivery platforms and technologies have been employed in distance education, including correspondence courses; television (usually - but not always - through public broadcasting stations); audio, video, and computer conferencing;

radio; Web-based computer technologies; and, satellite-based technologies (Dixon, 1996; Witherspoon, 1996). Moore classified interface in online knowledge as fitting into three possible categories: learner to substance, learner to apprentice, and mentor to learner Palloff and Pratt stated that the "keys to the learning process are the interactions among students themselves, the interaction between faculty and students, and the collaboration in learning that results from these interactions" (1999,5).

VII. RESEARCH DESIGN

A descriptive study was conducted to convey the role of interactive media to improve the teaching and learning process. The survey method of descriptive research was opted for this study. Due to the shortage of time, the researcher approached the main campus of Virtual University of Pakistan at Lahore. The population was so large that the researcher gathered information from 200 students and 50 teachers randomly taken as sample from the different departments of Virtual University of Pakistan. The study was descriptive in nature therefore, survey method was thought appropriate. The researcher used the research questionnaire as the tool of research for data collection.

Following are the tables 1&2 for the data analysis:

Table 1. ANALYSIS OF DATA COLLECTED FROM THE STUDENTS OF VIRTUAL. UNIVERSITY OF PAKISTAN THROUGH ONLINE QUESTIONNAIRE

Sno.	Statement of Question	SA	%	A	%	UND	%	DA	%	SDA	%	Mean Score
1	Interactive media assists in self-evaluation and professional development.	47	23.5	141	70.5	4	2	7	3.5	1	0.5	4.13
2	Interactive media enables student to locate and use suggested resources	68	34.0	116	58	8	4	4	2.0	2	1.0	4.19
3	Online courses are an inexpensive option for universities.	64	32.0	84	42.0	17	8.5	26	13.0	5	2.5	3.82
4	Interactive media enhances students' range of knowledge and skills.	89	44.5	88	44.0	12	6	7	3.5	1	0.5	4.24
5	World Wide Web (WWW) makes the learning more accessible.	138	69.0	59	29.5	1	0.5	2	1.0	0	0.0	4.67
6	World Wide Web promotes improved learning.	109	54.5	76	38.0	7	3.5	6	3.0	0	0.0	4.41
7	World Wide Web reduces per unit cost of education.	72	36.0	88	44.0	17	8.5	22	11.0	1	0.5	4.04
8	World Wide Web develops online educational experiences.	83	41.5	106	53.0	6	3.0	3	1.5	2	1.0	4.24
9	Web is a tool to help students gain an education without being on campus.	90	45.0	92	46.0	6	3.0	11	5.5	1	0.5	4.30
10	Mobile telephony allows new skills or knowledge to be immediately applied.	20	10.0	98	49.0	49	24.5	26	13.0	7	3.5	3.49

11	Using Interactive media, learners can access reference materials, or instruction when needed.	77	38.5	104	52.0	9	4.5	9	4.5	0	0.0	4.23
12	Interactive media Provides access to experts.	43	21.5	114	57.0	18	9.0	23	11.5	2	1.0	3.87
13	Mobile media make instruction, reference material, job aids more effective.	33	16.5	88	44.0	41	20.5	28	14.0	7	3.5	4.24
14	Using mobile, a community of practice can contribute to a forum or threaded discussion.	18	9.0	108	54.0	41	20.5	28	14.0	3	1.5	3.52
15	Interactive games engage users for hours in pursuit of a goal.	23	11.5	85	42.5	40	20.0	42	21.0	7	3.5	3.33
16	Interactive games provide immediate and contextualized feedback.	10	5.0	97	48.5	47	23.5	38	19.0	4	2.0	3.30
17	Interactive games encourage creative expression, problem solving in complex situations, and experiential/active learning.	27	13.5	118	59.0	27	13.5	21	10.5	2	1.0	3.66
18	Interactive games provide an environment in which one solves problems, accomplishes tasks.	25	12.5	116	58.0	33	16.5	19	9.5	2	1.0	3.64
19	Interactive media increases productivity in education.	61	30.5	127	63.5	4	2.0	5	2.5	2	1.0	4.19
20	Interactive media functions as a substitute for teachers.	29	14.5	72	36.0	23	11.5	57	28.5	18	9.0	3.17
21	Interactive media reduces inequalities between students/pupils	40	20.0	110	55.0	32	16.0	15	7.5	1	0.5	3.84
22	Interactive media has the potential to transform learning in and beyond the classroom.	42	21.0	125	62.5	10	5.0	14	7.0	5	2.5	3.87
23	Through internet, students can access enormous amounts of information quickly.	129	64.5	61	30.5	3	1.5	3	1.5	0	0.0	4.52
24	Interactive media helps the students to work at their own pace.	81	40.5	108	54.0	2	1.0	4	2.0	1	0.5	4.26
25	Interactive media is a source of guidance for you to improve your learning.	73	36.5	114	57.0	4	2.0	3	1.5	1	0.5	4.20
26	Internet is good source of interaction between teachers and students.	59	29.5	84	42.0	14	7.0	29	14.5	10	5.0	3.71
27	Assignments can be well presented and submitted through new interactive media.	70	35.0	109	54.5	7	3.5	8	4.0	2	1.0	4.13
28	Through internet, students can access quality material irrespective of their geographical location.	95	47.5	87	43.5	7	3.5	5	2.5	2	1.0	4.28

29	Audio Visual aids should be interactive media based only.	18	9.0	73	36.5	65	32.5	38	19.0	1	0.5	3.27
30	Learning will be faster through new interactive media.	55	27.5	123	61.5	8	4.0	10	5.0	1	0.5	4.06
31	Students can interact with peers and experts outside the classroom, town, and/or country.	52	26.0	122	61.0	11	5.5	6	3.0	2	1.0	3.98
32	Digital Libraries are important in gathering informations	83	41.5	96	48.0	10	5.0	6	3.0	0	0.0	4.21
33	Digital libraries make the student a reader as well as a publisher.	39	19.5	90	45.0	47	23.5	21	10.5	0	0.0	3.69
34	In Media-based learning (through new interactive system) teachers' value may down.	17	8.5	56	28.0	18	9.0	76	38.0	29	14.5	2.72
35	Digital libraries may bring important changes in advancing informal learning.	50	25.0	115	57.5	26	13.0	5	2.5	0	0.0	3.99

Table 2. ANALYSIS OF DATA COLLECTED FROM THE TEACHERS OF VIRTUAL LEARNING. UNIVERSITY OF PAKISTAN THROUGH ONLINE QUESTIONNAIRE

Sno.	Table.2 Statement of Question	SA	%	A	%	UND	%	DA	%	SDA	%	Mean Score
1	Interactive media allows the teacher to focus on process rather than product.	2	1.0	3	1.5	2	1.0	3	1.5	0	0.0	3.4
2	Diagnostic tools (interactive media) allow the teacher to identify learning trends and problems.	3	1.5	7	3.5	0	0.0	0	0.0	0	0.0	4.3
3	The role of the teacher can be diminished where more and more material is offered.	1	0.5	1	0.5	1	0.5	6	3.0	1	0.5	2.5
4	Interactive technology will have an impact on how we teach in the future.	3	1.5	7	3.5	0	0.0	0	0.0	0	0.0	4.3
5	Teaching through interactive media helps in improving Professional Growth.	2	1.0	7	3.5	0	0.0	1	0.5	0	0.0	4.0
6	Collaborative teaching/learning can occur via internet conferencing.	1	0.5	9	4.5	0	0.0	0	0.0	0	0.0	4.1
7	Online conferences provide an overall academic framework to guide the learners.	1	0.5	7	3.5	1	0.5	1	0.5	0	0.0	3.8
8	Teacher can present the material in more interesting and attractive way.	5	2.5	5	2.5	0	0.0	0	0.0	0	0.0	4.5
9	Interactive media help the teachers diagnose the learning problem of students and help them to overcome.	1	0.5	8	4.0	1	0.5	0	0.0	0	0.0	4.0
10	Teacher may get rid of their routine work.	0	0.0	4	2.0	1	0.5	5	2.5	0	0.0	2.9

III. SUMMARY

As the area for the study was "Role of interactive media in teaching learning process at higher education level."

The main objectives of the study were; (i) To enable the students to participate in a media revolution, overwhelmingly affecting the way they think about and use interactive media. (ii) To give responsiveness to the students about working in groups for cooperative and collaborative learning. (iii) To acquaint the teachers to present the material in more interesting and attractive way. (iv) To direct the students toward cooperative as well as collaborative learning activities. (v) To help the teachers in preparing learning material for students, rather teaching in conventional situations. (vi)To give teachers and the learners the awareness about the interactive media who, are depending only upon conventional system teaching and learning. (vii) To help the policy makers to introduce and the Government to implement the interactive media-based system of teaching and learning at higher education level. (viii) To improve the quality of education.

For the purpose of this study, related literature was also studied and after that it was decided to proceed further through questionnaire. Data was collected from the sample of 100 students and 10 teachers. Information collected through questionnaires and was examined on statistical basis. Results and findings were examined and keeping in view, some necessary recommendations were also made. Results were provided in the form of numerical data.

IX. RESULTS OF QUESTIONNAIRE FILLED UP BY THE STUDENTS OF VIRTUAL UNIVERSITY OF PAKISTAN

1. Majority of the respondents 94% agreed that interactive media assists in self-evaluation and professional development (Table.1).
2. Majority of the respondents 92% agreed that interactive media enables student to locate and use suggested resources (Table.1).
3. Majority of the respondents 74% agreed that online courses are an inexpensive option for universities (Table 1).
4. Majority of the respondents 98.5% agreed that interactive media enhances students' range of knowledge and skills (Table 1).
5. Majority of the respondents 69% agreed that World Wide Web (WWW) makes the learning more accessible (Table 1).
6. Majority of the respondents 92.5% agreed that World Wide Web promotes improved learning (Table 4.1.6).
7. Majority of the respondents 80% agreed that World Wide Web reduces per unit cost of education (Table 1).
8. Majority of the respondents 94.5% agreed that World Wide Web develops online educational experiences (Table 1).
9. Majority of the respondents 91% agreed that web is a tool to help students gain an education without being on campus (Table 1).

10. Majority of the respondents 50% agreed that mobile telephony allows new skills or knowledge to be immediately applied (Table 1).
11. Majority of the respondents 90.5% agreed that using interactive media, learners can access reference materials or instruction when needed (Table 1).
12. Majority of the respondents 78.5% agreed that interactive media provides access to experts (Table 1).
13. Majority of the respondents 60.5% agreed that mobile media make instruction, reference material, job aids more effective (Table 1).
14. Majority of the respondents 63% agreed that using mobile, a community of practice can contribute to a forum or threaded discussion (Table 1).
15. Majority of the respondents 54% agreed that interactive games engage users for hours in pursuit of a goal (Table 1).
16. Majority of the respondents 54% agreed that interactive games provide immediate and contextualized feedback (Table 1).
17. Majority of the respondents 72.5% agreed that interactive games encourage creative expression, problem solving in complex situations, and experiential/active learning (Table 1).
18. Majority of the respondents 70.5% agreed that interactive games provide an environment in which one solves problems, accomplishes tasks (Table 1).
19. Majority of the respondents 94% agreed that interactive media increases productivity in education (Table 1).
20. Majority of the respondents 50.5% agreed that interactive media functions as a substitute for teachers (Table 1).
21. Majority of the respondents 75% agreed that interactive media reduces inequalities between students/pupils (Table 1).
22. Majority of the respondents 83.5% agreed that interactive media has the potential to transform learning in and beyond the classroom (Table 1).
23. Majority of the respondents 95% agreed that through internet, students can access enormous amounts of information quickly (Table 1).
24. Majority of the respondents 94.5% agreed interactive media helps the students to work at their own pace (Table 1).
25. Majority of the respondents 93.5% agreed interactive media is a source of guidance for you to improve your learning (Table 1).
26. Majority of the respondents 71.5% agreed that internet is good source of interaction between teachers and students (Table 1).
27. Majority of the respondents 89.5% agreed that assignments can be well presented and submitted through new interactive media (Table 1).
28. Majority of the respondents 91% agreed that through internet, students can access quality material irrespective of their geographical location (Table 1).
29. Majority of the respondents 45.5% agreed that Audio Visual aids should be interactive media-based only (Table 1).
30. Majority of the respondents 89% agreed that learning will be faster through new interactive media (Table 1).
31. Majority of the respondents 87% agreed that students can interact with peers and experts outside the classroom, town, and/or country (Table 1).

32. Majority of the respondents 89.5% agreed that digital libraries play an important role in gathering information on learning (Table 1).
33. Majority of the respondents 64.5% agreed that digital libraries make the student a reader as well as a publisher (Table 1).
34. Majority of the respondents 52.5% disagreed that in media-based learning (through new interactive system) teachers' value may down (Table 1).
35. Majority of the respondents 82.5% agreed that digital libraries may bring important changes in advancing informal learning (Table 1).

X. RESULTS OF QUESTIONNAIRE FILLED UP BY THE TEACHERS OF VIRTUAL UNIVERSITY OF PAKISTAN

1. Majority of the respondents 50% agreed that interactive media allows the teacher to focus on process rather than product (Table 2).
2. 100% of the respondents agreed that diagnostic tools (interactive media) allow the teacher to identify learning trends and problems (Table 2).
3. Majority of the respondents 70% disagreed that role of the teacher can be diminished where more and more material is offered (Table 2).
4. 100% of the respondents agreed that interactive technology will have an impact on how we teach in the future (Table 2).
5. Majority of the respondents 90% agreed teaching through interactive media helps in improving professional growth (Table 2).
6. 100% of the respondents agreed that collaborative teaching/learning can occur via internet conferencing (Table 2).
7. Majority of the respondents 80% agreed that online conferences provide an overall academic framework to guide the learners (Table 2).
8. 100% of the respondents agreed that teacher can present the material in more interesting and attractive way (Table 2).
9. Majority of the respondents 90% agreed that help the teachers diagnose the learning problem of students and help them to overcome (Table 2).
10. Majority of the respondents 50% disagreed that teachers may get rid of their routine work (Table 2).

XI. CONCLUSIONS

- Media of all type gives enhanced improvements in teaching learning. New interactive media has introduced a new world of technology that is a bit difficult to execute all over the world especially in developing countries like Pakistan. No doubt, teaching learning through new interactive media is very effective and produces better results but the question arises how to make it implemented.
- What is to be observed in many places, one may not forget that the development is just at the beginning? Many questions are needed be clarified yet. Where are the differences between knowledge shift with new interactive media and the conventional teaching learning process? Which teaching learning theory is to be preferred? Can be obtained a better success in learning with new interactive media?

The quality increase of the teaching with new interactive media is not simply "measurable". Reliable studies are still missing.

- It will take some time, until all advantages of the new interactive media will be visible. However, it is quite obvious that new interactive media represents an advantage with many complex topics in relation to the classical and traditional methods. Though, the danger is a cognitive overloading that expects too much of the learner. The researcher began this article by saying that the interactive media has captured the imagination and interest in learners and teachers everywhere. But the days of frivolous experimentation in higher education institutes have long passed. Before we introduce any new technology into our classrooms we must be able to justify its contribution. The public expects no less from us.
- The researcher examined the interactive media's contribution from the perspective of these questions: Does the interactive media increase access to education? Does it promote improved learning? Does it contain the costs of education? The researcher saw that a promising case exists for the interactive media in all three areas. The case is rooted largely in how learners and teachers are actually using the interactive media today. Many of these uses are merely extensions of what is already being done with more established media. This is not surprising, because with any new technology, we tend to think it in terms of the frame of reference with which we are most familiar (e.g., the automobile was first thought of as a "horseless carriage"). No doubt further research and development on the application of the interactive media to teaching and learning is needed. Nonetheless, in the meantime, it merits serious consideration as we search for ways to revitalize and enhance what we do in our institutions.
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XII. RECOMMENDATIONS

For a successful introduction of interactive media in teaching learning, it is of a paramount importance to set the right course at the beginning.

Long-term concepts are needed be developed first, which keep up a correspondence with the educational requirements.

The technical development of the software and hardware must be considered; solutions should be expanded and modified persistently.

A close teamwork with lecturers in teaching methods, media designers and computer scientists is enormously necessary in order to produce demanding studies offers and consequences.

It is important to consider some measures, for which field studies opportunities will be created.

Highly expert faculty is required to be recruited to improve the quality of education through this modern media.

The novice of the day is to be mentally prepared from the beginning of his educational field so that he could easily accept new trends of the modern era.

Bibliography

Leung, L. (2003). *Impacts of the net-generation attributes, seductive properties of the internet, and gratifications-obtained on internet use*. Telematics and Informatics 20(2): 107-129

Dixon, (1996).Virtual *College: A Quick Guide to How You Can Get the Degree You Want with Computer, TV, Video, and Other Technologies. Princeton*, N.J.: Peterson's.XIII.

Attewell, J. (2005). *Mobile Technologies and Learning*. Technology Enhanced Learning Research Centre. Shaftesbury: Blackmore Ltd.

Dede, C. (1996). *The Evolution of Distance Education: Emerging Technologies and Distributed Learning*. American Journal of Distance Education 10(2).

Vans, J. C., & Wideman, H. H. (1995). Enhancing economics education with on-line interactive tutorials. *The Annual Educom conference*, Portland.

Hussain, I. (2005). *A Study of Emerging Technologies and their Impact on Teaching Learning Process*. Un-published Ph.D thesis, Islamabad: Allama Iqbal Open University, Pakistan.

Merill, T. (2005). *Social Interactions*. Lahore: Urdu Bazar.

Rashid, M. (2001). *Trends and Issues in Distance Education (Course Code 3703)*, Islamabad: Allama Iqbal Open University.

Tagga, A. (2007). *Modern Sociology*. Lahore: Tagga & Sons Publishers.

WEB SITES ACCESSED

http://www.gamestudies.org (Accessed on July 16, 2008)
http://www.iat.unc.edu/dle/dle.html (Accessed on July 16, 2008)
http://edweb.sdsu.edu/people/bdodge/CTPTG-Bib.html (Accessed on 18 July, 2008)
http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6W4X- (Accessed on July 18, 2008)
Blackboard Inc. www.blackboard.com (Accessed on July 18, 2008)
http://en.wikipedia.org/wiki/Internet_forum (Accessed on July 25, 2008)
www.sciencedierect.com/science?_ob (Accessed on July 25, 2008)
en.wikipedia.org/wiki/Mobile phone (Accessed on July 25, 2008)
http://en.wikipedia.org/wiki/Mobile_learning (Accessed on July 25, 2008)
http://www.m-learning.org (Accessed on July 29, 2008)
http://e-articles.info/e/a/title/Advantages-and-Disadvantages-of-Mobile-Learning (Accessed on July 30, 2008)
http://www.uww.edu/icit/olr/instr/teachingonline/Online_Games_and_Qui.html (Accessed on August 2, 2008)
http://www.uww.edu/icit/olr/instr/teachingonline/olr_asset_layout_2_19513_20753.html (Accessed on August 2, 2008)
http://www.uww.edu/icit/olr/instr/teachingonline/index.html (Accessed on August 3, 2008)
http://edu.online network educational resources.htm
(Accessed on August 5, 2008)