

# Internet Use and Gender Differences at the Senior Secondary School Level

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**Abstract** - Present study was aimed to examine the Internet use by male and female senior secondary school students on their Internet use. The research was conducted with two main purposes; firstly, to investigate that gender difference had any effect on their Internet use and secondly, to identify and to find out the differences of any on the Internet use, among male and female senior secondary school student for (i) academic purpose (ii) recreational purpose and (iii) communication purpose. The population of this study consists of 100 senior secondary school students (50 male and 50 female) of District Bandipora (J&k) INDIA and they were selected by a random sampling technique. The instrument used for data collection was the Information Blank developed by the investigator. The data was subjected to statistical analysis by computing Mean, S.D. and test of significance. The results revealed that that there is difference between male and female secondary school students on Internet use for academic purpose. Male students have better use of Internet for academic purpose as compared to female students. On the other hand there is no difference between male and female senior secondary school students on Internet use for recreational and e-mail purposes. Both the groups have found similar in Internet use for recreational and communication purposes.

**Keywords:** Internet use, Gender differences, Senior and Secondary school

## I. INTRODUCTION

Information and communication technology (ICT) is a force that has changed many aspects of the way we live, predominantly on the field of education. The way this field operates today is vastly different from the ways it operated in the past. The impact of ICT across the past two or three decades has been enormous. Information and communication technologies (ICTs) which include digital technologies mostly the Internet have been touted as potentially powerful enabling tools for educational change and reform. The Internet is one of the greatest recent advancement in the world of information technology and has become a useful instrument that has fostered the process of making the world a global village. The Internet provides several opportunities for the academia. It is a mechanism for information dissemination and a medium for collaborative interaction between individuals and their computers without regard for geographic limitation of space. Owston, (1997) stated that the Internet "is a truly open technology", allowing users with any hardware and software to derive the necessary information from the network, independently from the location of data and knowledge bases. Internet has

become the biggest global digital information library, which provides the fastest access to the right kind of information in nano-seconds to end user at any time and at any place in the world. With the advent of Internet, a significant transition can be seen in the academic communities' Internet has become a global source of information resources accessible at anytime by anyone from anywhere in the world. It has converted the whole world into a global information society. It is an international network of networks that is a collection of hundreds of thousands of private and public networks all over the world. In the words of Neil Randall (1996) Internet is "the global network of networks that are all inter communicable. There are rich and varied learning experiences available on the Internet that would have been inconceivable just a short while ago.

The Internet has a range of capabilities that organizations are using to exchange information internally or to communicate externally with other organizations. The primary infrastructure for e-commerce, e-banking, e-business, e-learning and virtual library is provided by the Internet technology. The Internet contains more information than the world's largest libraries (Emeagwali, 2000).

Internet has been widely used for a variety of purposes in several domains. As stated by (Deniz and Coşkun 2004) as an educational tool Internet lets access to inexpensive, global, interactive and intensive computer communication and it also enables the student to improve his/her learning experience. Online users can easily access Internet from a bunch of locations including their homes, workplaces, houses, school, Internet cafes etc. Internet usage in home and work place has grown exponentially (McGorry, 2002.)

The researchers also put forth that (Ceyhan, Ceyhan and Gürcan, 2007; Deniz, 2001, 2007; Deniz and Coşkun, 2004; Tutgun, 2009; Tutgun and Deniz, 2010) most of the students reported to have easy access to computers and Internet. The Internet provides several opportunities for the academia. It is a mechanism for information dissemination and a medium for collaborative interaction between individuals and their computers without regard for geographic limitation of space (Leiner et al., 2000; Singh, 2002). Internet, have made considerable and dramatic impact on contemporary educational practice (Chou, C., et al.2002; Havick, J. 2000; Tsai, C.2001).

Gender differences in Internet usage has remained a matter of concern to researchers are another attractive concern of the research studies (Hupfer & Detlor, 2006). Shaw & Gant (2002) found that no gender differences are detected when participants are involved in various online activities such as synchronous and dyadic chat sessions.

Jackson *et al.* (2001), Nachmias *et al.*, (2000) Schumacher *et al.*, (2001) & Durndell & Haag (2002) does not provide consistent evidence for the presence or otherwise of a gender gap in Internet use across different groups of males and females. Some studies indicate male domination in terms of usage and attitude towards, the Internet. Weiser (2000) observed that there is significant gender difference in Internet usage. Tsai and Lin (2004) found gender differences in perceptions of the Internet among adolescents, males perceived its use as a source of enjoyment or “toy”. Sherman *et al.*, (2000), explored that female adolescents use the Internet to search for information and (Chen & Peng, 2008; Griffiths, Davies, & Chappell, 2004; Lin & Yu, 2008; Odell *et al.*, 2000; Sherman *et al.*, 2000) found more male adolescents use the Internet to play games. Similarly, men surfed the Internet for entertainment or fun more than did women (Dholakia, 2006; Wolin & Korgaonkar, 2003), and male students downloaded music and videos more than did their female counterparts. It has been found that a number of studies revealed certain types of gender differences in various domains of the life. Men and women use the Internet for different purposes.

Odell *et al.*, (2000) the gap in use of the Internet among male and female students has nearly closed, there remain differences in how male and female students use the Internet. Researchers have shown little difference in the amount of time men and women spend online, yet they have consistently found that male and female differ in their reasons for accessing the Internet.

The studies carried out mainly focus on different groups with different areas. The investigator feels that there is a need to conduct a study on Internet use by male and female Senior Secondary School with special reference to Internet use for academics, recreation, communication and social net-working purpose to develop our understanding in this wider area of research.

## II. OBJECTIVES OF THE STUDY

The following objectives have been formulated for the present investigation:

1. To compare the Internet use for Academic purpose by the male and female senior secondary school students.
2. To compare the Internet use for recreational purpose by the male and female senior secondary school students.

3. To compare the Internet use for communication purpose by the male and female senior secondary school students.
4. To compare the Internet use for social net-working purpose by the male and female senior secondary school students.

## III. HYPOTHESES OF THE STUDY

The following hypotheses were formulated for the present study:

1. There will be a significant difference between the mean scores of male and female senior secondary school students on Internet use for Academic purpose.
2. There will be a significant difference between the mean scores of male and female senior secondary school students on Internet use for recreational purpose.
3. There will be a significant difference between the mean scores of male and female senior secondary school students on Internet use for communication purpose.
4. There will be a significant difference between the mean scores of male and female senior secondary school students on Internet use for social net-working purpose.

## IV. METHODOLOGY AND PROCEDURE

### A. Sample

The present study was conducted on a sample of 100 senior secondary school students consisting 50 Male and 50 Female senior secondary school students. The sample was taken randomly from different senior secondary schools of District Srinagar of (J&K). The list of senior secondary schools was obtained from the CEO's office of the said District.

### B. Collection of data

### C. Tools

### D. Information Blank

A Self-constructed information blank was developed by the investigator to appraise the Internet use by male and female senior secondary school students of District Srinagar of (J&K). This Information blank have four sections which are related to Internet use for (i) academic purpose (ii) for recreational purpose (iii) for communication purpose and (iv) for social networking purpose.

### E. Statistical analysis

The data was subjected to statistical analysis by computing Mean, S.D. and test of significance.

**V. ANALYSIS AND INTERPRETATION**

TABLE I SIGNIFICANCE OF MEAN DIFFERENCE BETWEEN MALE AND FEMALE SENIOR SECONDARY SCHOOL STUDENTS ON INTERNET USE FOR ACADEMIC PURPOSE

Group	Total Number	Mean	Standard Deviation	t-value	Level of Significance
Male Senior Sec. School Students	50	17.42	7.21	2.11	0.05 level
Female Senior Sec. School Students	50	14.25	7.92		

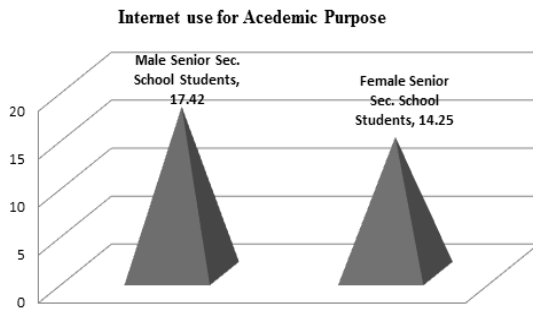


Fig.1 Internet Use by Male and Female Senior Secondary School Students for Academic Purpose

The perusal of Table I, (Fig. 1) reveals the significant mean difference between male and female senior secondary school students on Internet use for academic purpose. The differences have been found to be significant at 0.05 level of confidence. It is further revealed that the mean favours male senior secondary school students, i.e.(M=17.42);which shows that male senior secondary school students shows the better Internet use for academic purposes as compared to female senior secondary school students i.e.(M=14.25). On the basis of above evidence the hypotheses no.1 which reads as, “There will be significant difference between the mean scores of male and female senior secondary school students on Internet use for Academic purpose” stands accepted.

TABLE II SIGNIFICANCE OF MEAN DIFFERENCE BETWEEN MALE AND FEMALE SENIOR SECONDARY SCHOOL STUDENTS ON INTERNET USE FOR RECREATIONAL PURPOSE

Group	Total Number	Mean	Standard Deviation	t-value	Level of Significance
Male Senior Sec. School Students	50	17.21	7.41	0.66	Not Significant
Female Senior Sec. School Students	50	16.24	7.23		

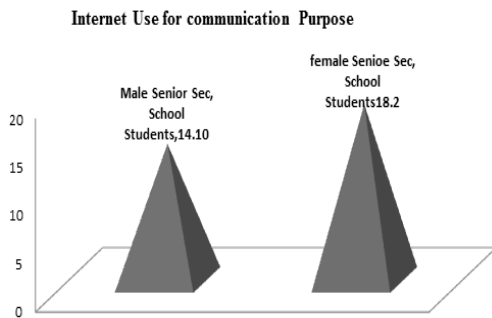


Fig. 2 Internet Use by Male and Female Senior Secondary School Students for Recreational Purposes

The perusal of Table II, (Fig. 2) reveals the significant mean difference between male and female senior secondary school students on Internet use for recreational purposes. The table depicts that there is no significant difference between male and female senior secondary school students on Internet use for recreational purposes. Further, the table reveals that both the groups of senior secondary school students (male and female) have similar Internet use for recreational purposes as compared to the counterparts. On the basis of above evidence, the hypotheses no. 2 which reads as, “There will be significant difference between the mean scores of male and female senior secondary school students on the Internet use for the recreational purposes” stands rejected.

TABLE III SIGNIFICANCE OF MEAN DIFFERENCE BETWEEN MALE AND FEMALE SENIOR SECONDARY SCHOOL STUDENTS ON INTERNET USE FOR COMMUNICATION PURPOSE

Group	Total Number	Mean	Standard Deviation	t-value	Level of Significance
Male Senior Sec. School Students	50	14.10	9.40	2.32	0.05 Level
Female Senior Sec. School Students	50	18.2	8.25		

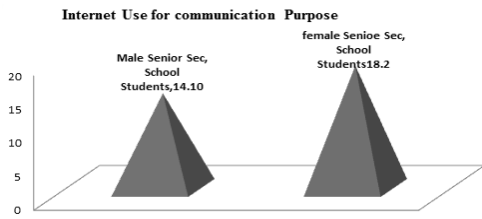


Fig. 3 Internet Use by Male and Female Senior Secondary School Students for Communication Purpose

The perusal of Table III, (Fig. 3) reveals the significant mean difference between male and female senior secondary school students on Internet use for

communication purposes. The differences have been found to be significant at 0.05 level of confidence. It is further revealed that the mean favours female senior secondary school students, i.e.(M=18.2);which shows that female senior secondary school students shows the better Internet use for communication purposes as compared to male senior secondary school students i.e. (M=14.10). On the basis of above evidence the hypotheses no.3 which reads as, “There will be significant difference between the mean scores of male and female senior secondary school students on Internet use for communication purposes” stands accepted.

TABLE IV SIGNIFICANCE OF MEAN DIFFERENCE BETWEEN MALE AND FEMALE SENIOR SECONDARY SCHOOL STUDENTS ON INTERNET USE FOR SOCIAL NET-WORKING PURPOSE

Group	Total Number	Mean	Standard Deviation	t-value	Level of Significance
Male Senior Sec. School Students	50	15.80	8.72	3.40	0.01 level
Female Senior Sec. School Students	50	21.25	7.25		

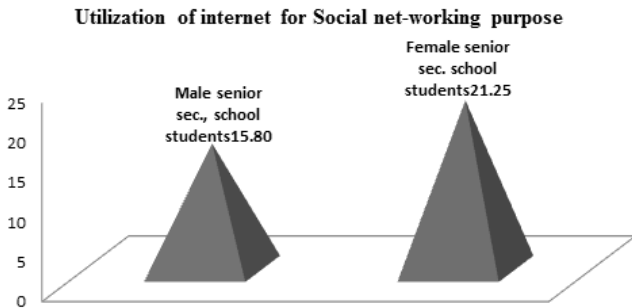


Fig.4 Internet use by male and female senior secondary school sstudents for social net-working purpose

The perusal of Table IV , (Fig. 4) reveals the significant mean difference between male and female senior secondary school students on Internet use for social net-working purpose. The differences have been found to be significant at 0.01 level of confidence. It is further revealed that the mean favours female senior secondary school students, i.e.(M=21.25);which shows that female senior secondary school students shows the better Internet use for social networking purposes as compared to male senior secondary school students i.e.(M=15.80). On the basis of above evidence the hypotheses no.4 which reads as, “There will be significant difference between the mean scores of male and female senior secondary school students on Internet use for Social net-working” stands accepted.

**VI. DISCUSSION AND CONCLUSION**

The purpose of the study was to examine male and female senior secondary school students on their Internet use. The sample for the proposed study consists of 100 s enior secondary school students consisting 50 male and 50 female senior secondary school students. The sample shall be taken randomly from different senior secondary schools District

Srinagar. The data for the proposed study shall be collected with the help of Information Blank developed by investigator himself to ascertain the Internet use by the male and female secondary school students for the academic, recreational, communication and social net-working purposes. On the basis of analysis it was found that there is significant difference between male and female senior secondary school students on Internet use for academic purpose. Mean favours male group which shows that male group of students shows the better Internet use for academic purpose as compared to their counterparts.

According to Kay, 1992: Shashaani, 1997 and Ono and Zovodny, 2003 that males are more likely to use the Internet more often than females. Sanni *et al.*, (2009) observed that there is a gender difference in Internet use. Chen and Yang (2009) male and female students differ not only in their patterns of Internet use, but in how these patterns affect their academic performance. Numerous studies have documented that overall, boy’s use the Internet more frequently, for longer and for a wider variety of uses than girls do (Gross, 2004: Haythronthwaite & Wellman, 2002: Subrahmanyam, Greenfield, Kraut, & Gross, 2001). The analysis further revealed that there is no significant difference between male and female senior secondary school students on Internet use for recreational purpose. Both the groups of senior secondary school students (male & female) have similar Internet use for recreational purposes. Analysis also found that there is significant difference between male and female secondary school students on utilization of Internet for communication purpose. Female group of subjects enhanced Internet use for communication purposes as compared to their counterparts. Hupfer & Detlor (2006) reported that male and female differences in web searching appear to persist such as females are more into e-mail, chat, and search reference materials. Female tended to use the Internet more for

communication, compared to males who use the Internet for entertainment and news information (Fallows, 2005).

According to Yavuz Erdogan (2008) male adolescents reported a higher frequency of web surfing and online games than females. However, females reported a higher frequency of e-mailing. Sherman *et al.*, (2000) further supported the Internet gender gap among students by comparing the usage patterns of male students participated more in surfing, newsgroups and chat groups, while female students reported significantly higher e-mail use. Girls also report using text messaging more frequently than boys (Jennings & Wartella, 2004; Lenhart, Madden, & Hitlin, 2005), and are more likely to be involved in other online social interactions, such as using e-mail, than are boys (Subrahmanyam, *et al.*, 2001). Results also revealed that female group of subjects found better in Internet use for social net-working sites. These results supported by McKenna *et al.*, (2002) who found that Internet use reduces feelings of loneliness by increasing users' social circles and helping them to become less socially anxious. Garbarino & Strahilevitz's (2004) that the females perceived Internet as a tool of maintaining social values. So gender difference influences the utilization of Internet use among the senior secondary school students. Both the genders involved differently in various patterns of Internet use, so far as their academic use, communication purpose, social networking usage and found parallel in recreational use of Internet. Therefore, male and female may differ significantly in their attitudes towards their technological abilities (Hargittai & Shafer, 2006).

## REFERENCES

- [1] P. Atwell, "Beyond the digital divide" [Working paper No. 164], New York: Russell Sage Foundation, 2000.
- [2] E. Ceyhan, A. Ceyhan and A. Gürcan, "Validity and reliability studies of Problematic Internet Usage Scale", *Educational Sciences: Theory & Practice*, Vol. 7, No.1, pp. 387-416, 2007.
- [3] Chen, Su-Yen, Fu and Yang-Chih, "Internet use and academic achievement: gender differences in early adolescence", *Journal of Adolescence*, Vol. 44, pp. 797-812, 2009.
- [4] C. Chou and C. Tsai, "Developing Web based curricula: issues and challenges", *Journal of Curriculum Studies*, Vol. 34, pp.623-636, 2002
- [5] L. Deniz and Y. Coskun, "Internet experiences of student teachers. Marmara University Ataturk Faculty of Education", *Educational Sciences Journal*, Vol. 20, pp. 39-52, 2004
- [6] L. Deniz, "A follow-up study of computer experiences of student school counsellors. Marmara University Ataturk Faculty of Education", *Educational Sciences Journal*, Vol. 13, pp. 87-110, 2001
- [7] L. Deniz, "Prospective class teachers' computer experiences and computer attitudes", *International Journal of Social Sciences*, Vol. 2, No. 2, pp. 116-122, 2007
- [8] R. R. Dholakia, "Gender and IT in the household: Evolving patterns of Internet use in the United States", *The Information Society*, Vol. 22, pp. 231-240, 2006.
- [9] A. Durndell and Z. Haag, "Computer self-efficacy, computer anxiety, attitudes towards the Internet and reported experience with the Internet, by gender, in an east European sample", *Computers in Human Behaviour*, Vol.18, pp. 521-535, 2002.
- [10] J.H. Ellsworth, "Education on the Internet", Indianapolis, Ind. Sams, 1994.
- [11] P. Emeagwali, "Vaulting Nigeria into the Information Age", *The Guardian* on Sunday September 24, 2000. ESCAP "Are ICT Policies Addressing Gender Equality?" (2000) [Online]. Available: <http://www.unescap.org/wid/04/wideresources/11wideactivities/01cctegm/backgroundpaper.Pdf>.
- [12] D. Fallows, "How men and women use the Internet", Washington, DC: Pew Internet & American Life Project, 2005. (2008) [Online]. Available: [http://www.pewInternet.org/pdfs/PIP\\_Women\\_and\\_Men\\_online.pdf](http://www.pewInternet.org/pdfs/PIP_Women_and_Men_online.pdf)
- [13] E. Garbarino and M. Strahilevitz, "Gender differences in the perceived risk of buying online and efforts of receiving a site recommendation", *Journal of Business Research*, Vol.57, pp. 768-775, 2004.
- [14] M. D. Griffiths, M. N. O. Davies and D. Chappell "Online computer gaming: A comparison of adolescent and adult gamers", *Journal of Adolescence*, Vol. 27, pp. 87-96, 2004.
- [15] E. F. Gross, "Adolescent Internet use: What we expect, what teens report?", *Applied Developmental Psychology*, Vol. 25, pp. 633-649, 2004.
- [16] E. Hargittai and S.M. Shafer, "Differences in actual and perceived online skills: The role of gender", *Social Science Quarterly*, Vol. 87, No. 2, pp. 432-448, 2006.
- [17] J. Havick, "The impacts of Internet on a television- based society", *Technology in Society*, Vol. 22, pp. 273-287, 2000.
- [18] C. Haythronthwaite and B. Wellman, *The Internet in everyday life*, In B. Wellman and C. Haythronthwaite *The Internet in everyday life*, pp. 3- 44, M. A. Malden: Blackwell Publishing, 2002.
- [19] M. E. Hupfer and B. Detlor, "Gender and Web information seeking: A self-concept orientation model", *Journal of the American Society for Information Science and Technology*, Vol. 57, No. 8, pp. 1105-1115, 2006.
- [20] L. A. Jackson, K. S Ervin, P. D Gardner and N. Schmitt, "Gender and the Internet: Women communicating and men searching" *Sex Roles*, Vol. 44, pp. 363-379, 2001.
- [21] N. Jennings and E. Wartella, "Technology and the family", In A. L. Vangelisti, Ed., Mahwah and N.J. Erlbaum, *Handbook of Family Communication*, pp. 593-608, 2004.
- [22] R. H. Kay, "Understanding gender differences in computer attitudes", *Journal of Research on Computing Education*, Vol. 25, No. 2, pp. 159-171, 1992.
- [23] B. M. Leiner, V. G. Cerf, D.D. Clark, R. E. Kahn, L. Kleinrock, D. C. Lynch, J. Postel, L. G. Roberts and S. Wolff, "A brief history of Internet", (2000) [Online]. Available: <http://www.isoc.org/Internet/history/brief.shtml>.
- [24] A. Lenhart and M. Madden, "Teens, Privacy & online social networks: How teens manage their online identities and personal information in the age of My Space", Washington, DC, 2007.
- [25] C. H. Lin and S. F. Yu, "Adolescent Internet usage in Taiwan: Exploring gender differences, Adolescence", Vol. 43, pp. 317-331, 2008.
- [26] S. Y. McGorry, "Measuring quality in online programs", *The Internet and Higher Education*, vol 6, No. 2, pp. 159-177, 2003.
- [27] K. Y. A. McKenna, A. S. Green and M. E. J. Gleason, "Relationship formation on the Internet: What's the big attraction?" *Journal of Social Issues*, Vol.58, No.1, pp. 9-31, 2002.
- [28] R. Nachmias, D. Mioduser and A. Shelma, "Internet usage by students in an Israeli high school", *Journal of Educational Computing Research*, Vol. 22, No.1, pp. 55-73, 2000.
- [29] Neil Randall, "Teach the Internet in a week", New Delhi. Prentice Hall of India private limited, 1996.
- [30] Odell, M.Patricia, Korgen, O. Kathleen, Schumacher, Phyllis, Delucchi and Michael, "Internet Use among Female and Male College Students", *CyberPsychology & Behavior*, Vol. 3, pp. 855, Oct.2000.
- [31] H. Ono and M. Zavodny, (). Gender and the Internet. *Social Science Quarterly*, Vol. 84, No. 1, pp. 111-121, 2003.
- [32] R. D. Owston, "The World Wide Web: A Technology to Enhance Teaching and Learning?" *Educational Researcher*, Vol. 26, pp. 27-34, 1997.
- [33] M. Sanni, O. M. Awoloye, A. A.Egbetokun and W. O. Siyanbola, "Harnessing the potentials of Internet technology for research and development among undergraduates in Nigeria: A case study of Obafemi Awolowo University", *International Journal of Computing and ICT Research*, Vol. 3, No. 1, 2009.
- [34] P. Schumacher and J. Morahan-Martin, "Gender, Internet and computer attitudes and experiences", *Computers in Human Behaviour*, Vol. 17, pp. 95-110, 2001.

- [35] L. Shasaani, "Gender differences in computer attitudes and use among college students", *Journal of Educational Research Computing Research*, Vol. 16, pp. 37-51, 1997.
- [36] L. H. Shaw and L. M. Gant, "Users divided? Exploring the gender gap in Internet use", *CyberPsychology & Behaviour*, Vol.5, No. 6, pp. 517-527, 2002.
- [37] R.C. Sherman, C. End, E. Kraan, A. Cole, J. Campbell, Z. Birchmeier and J. Klausner, "The Internet gender gap among college students: forgotten but not gone?", *CyberPsychology & Behaviour*, Vol.3, No. 5, pp. 885-894, 2000.
- [38] Singh AM, "The Internet Strategy for Optimum Utilization in South Africa", *S. Afr. J. Info. Manage*, Vol. 4, 2002
- [39] Steve Jones and Mary Madden 2002. "The Internet goes to college", [Online]. Available: [http://www.pewInternet.org/PPF/r/71/report\\_display.asp](http://www.pewInternet.org/PPF/r/71/report_display.asp), accessed 25 July 2005.
- [40] K. Subrahmanyam, P. Greenfield, R. Kraut and E. Gross, "The impact of computer use on children's and adolescents' development", *Applied Developmental Psychology*, Vol. 22, pp.7-30, 2001.
- [41] C.C. Tsai, "The interpretation construction design model for teaching science and its applications to Internet-based instruction in Taiwan", *International Journal of Education Development* 21:401-415, 2001.
- [42] A. Tutgun and L. Deniz, "Problematic Internet usage among prospective teachers", *International Educational Technology Conference (IETC)*, Vol. 2, pp. 1226, Bogazici University, Istanbul, 2010.
- [43] A. Tutgun, "Problematic Internet Use among Prospective Teachers. Marmara University", *Unpublished Master (M.A.) Thesis*, Istanbul, 2009.
- [44] E. B. Weiser, "Gender Differences in Internet Use Patterns and Internet Application Preferences: A Two-Sample Comparison", *Cyber Psychology Behaviour*, Vol. 3 pp. 167-178, 2000.
- [45] L. Wolin and P. Korgaonkar, "Web advertising: Gender differences in beliefs, attitudes and behavior", *Internet Research*, Vol. 13, No. 5, pp. 375-385, 2003.
- [46] Yavuz Erdogan, Servet Bayram and Levent Deniz, "Factors that influence academic achievement and attitudes in web Based Education", *International Journal of Instruction*, Vol. 1, No. 1, 2008. [Online]. Available: [www.e-iji.net](http://www.e-iji.net)