

Relationship between Information & Communication Technology and Quality of Work-Life; A Study of Faculty Members of Zahedan University

Dr. Arbabisarjou, Azizollah, PhD, Assistant Professor,
Faculty Member, Zahedan University of Medical Sciences, Zahedan, Iran
Azizoullah_arbabi@yahoo.com

Dr. Allameh, Seyyed Mohsen, PhD, Assistant Professor,
School of Official Affairs and Economics, Department of Management,
University of Isfahan, Isfahan, Iran
dr_allame@yahoo.com

Dr. Farhang, Aboulghassim, PhD. (Corresponding Author), Assistant Professor,
School of Educational Sciences and Psychology, University of Sistan and Baluchestan, Zahedan, Iran
aboulghasemfarhang@yahoo.com

Abstract: Information and Communication Technology (ICT) is now common place in the university environment. ICT is an indispensable part of the contemporary world. The field of education has certainly been affected by the penetrating influence of ICT worldwide and in particular developed countries; ICT has made an impact on the quality and quantity of teaching, learning, and research in the traditional and/or distance education institutions using it. ICT enhances teaching and learning through its dynamic, interactive, flexible, and engaging content. It provides real opportunities for individualized instruction. Furthermore, ICT has the potential to accelerate, enrich, and deepen skills; to motivate and engage students in learning; to help relate school experiences to work practices; to help create economic viability for tomorrow's workers; contributes to radical changes in school; to strengthen teaching, and to provide opportunities for connection between the school and the world. But little research has addressed the impacts of ICT on the Quality of Work-Life (QWL) particularly on the work-life experiences in the university. Some researchers confirmed that ICT have negative impacts on QWL: Work becomes more intense, workers are displaced, surveillance increases, workers bargaining power declines, and workers skills become devalued. This paper will report on these issues from an initial analysis of baseline data gathered from a survey of faculty members in Zahedan universities. Findings showed that there is not a significant relationship between ICT using and QWL of faculty members.

[Azizollah Arbabisarjou, Sayyed Mohsen Allameh, Aboughassim Farhang. **Relationship between Information & Communication Technology and Quality of Work-Life; A Study of Faculty Members of Zahedan University.** *Life Sci J* 2012;9(4):3322-3331] (ISSN:1097-8135). <http://www.lifesciencesite.com>. 491

Key words: Information & communication Technology (ICT), Quality of work-Life (QWL), Faculty members

Introduction

ICT is increasingly into context of peoples every day life .ICT has the potential to improve the quality of life by providing new tools for improving access to information and knowledge management as sharing (Omona ,W. & Ikoja ,R. 2006).Technologies are expected to have a major impact on human life(UNESCO ,2000). Computers are increasingly widespread, influencing many aspects of our social and work lives, as well as many leisure activities. As more tasks involve human-computer skills and knowledge have become more positively correlated with both occupational and personal success. This means that all of community and human problems may solve better and easier through ICT. Technology is great key that social, cultural, political values have been changed (Isman, 2004).

Technology mainly refers to the new wave of ICT, including Internet-based communication

and transaction systems, mobile devices, computer integrated telephony, groupware, workflow, multimedia, etc. Flexibility and technology are supposed to shape major trends in the evolution of quality of work and quality of life in the upcoming "information society" or "knowledge society" Kwache, P; (2007). ICT stands for information and technology and refers in principle to all technologies used for processing information and communicating .In most educational circles, it means computer technology, multimedia, and networking, especially the Internet. Some educators use the term "technology" or "information technology "instead; however, this appears to be changing to include ICT. The scope of ICT is dynamic and continuously changes with the creation of new technologies. At one time, technology referred only to hardware, now it includes software techniques as well (Voogt and

kneszek, 2008). Ebadi (2005) defined “ICT as a collection of techniques, and tools to help us in reserving, processing, retrieving and receiving information. Penetration of the new ICTs in the universities and higher education centers has changed teacher-student interaction. Evolution and application of ICTs especially Internet lead to change all of traditional learning-teaching patterns from kindergartner to university. Internet, e-mail, interactive games and other virtual environments are more a natural and intrinsic part of people lives. In the present digital era, the development in various aspects of computer technology has reached beyond our imagination and expectations. The rapid spread of computer and technologies throughout white-collar work has forced social scientists to consider the impact of these technologies on the people who use them directly and on the workforce, economy and educational settings (Rob kling, 1989). Nowadays, ICT has focused on in vast context of educational systems in all processes (from inputs to outputs) and its aim is to facilitate and promote the quality of learning in the human. Therefore, this technology must employ accurately in teaching-learning process in all fields to proper and optimum application of procedures, methods and teaching strategies for promotion of teaching – learning quality in educational settings”. The universal potential for each nation's development lies in its human capital. Regardless of status in the current world economy, regardless of natural resources or financial capital available, and regardless of world positioning in the domains of ideas and innovation, there is a global understanding that nations become and remain strong through effective education systems that develop human capital – and in this era of globalization, through education systems that benchmark well worldwide. Increasingly, jurisdictions adopt standards for IT or ICT in schools and universities, particularly standards for ICT skills to be mastered by students and educators. ICTs skills standards are important defining achievement expectations for students and defining expected capabilities of educators. As the world becomes increasingly digital, and we experience the globalization of education, the importance of these standards increases. Standards help to ensure that students complete their education prepared for the world of work and prepared to be contributing citizens, and standards help to ensure that teachers and school leaders are capable of taking advantage of IT to provide competitive education services (J. Voogt and G. Knezek, 2008). ICTs skills are necessary to use ICTs and learning technologies to improve

learning, teaching, and school leadership. In the United States, Standards for students has developed by the International Society For Technology in Education (ISTE) specify foundation IT skills as well as skills necessary to learn effectively and live productively in an increasingly digital world (ISTE, 2002a,b).

Some factors are affecting achievement of ICT potentials including:

1. Access to hardware, software, and communication resources, and
2. A classroom teacher who understands how to facilitate student learning through application of these resources. He/she must be skilled and expert in facilitation of technology-supported learning because he/she assumes responsibility for establishing the classroom environment and preparing the learning opportunities that facilitate student use of technology to research, learn, communicate, make decisions, and develop knowledge products. Therefore, all classroom teachers are prepared to provide their students with these learning opportunities. Both professional development programs for classroom teachers and preparation programs for future teachers must provide these standards-based, technology-rich experiences (J. Voogt, G. Knezek, 2008).

Investment in ICT potentially has positive transformative effects on organizations (Mahmood & Mann, 1993) and societies (Carlaw, Lipsey, & Webb 2007; Lipsey, Carlaw, & Bekar, 2005). With evolution of technologies, the communications and interactions methods have changed too and a new term as non-simultaneous communication has innovated which realized through Internet and World Wide Web (WWW) which thereby, education has transformed extensively that we named them “distance learning”, “distance teaching”, “electronic teaching” and “electronic learning”. Educational system has to move parallel to rapid change in using of ICT. ICT may displace jobs (Hector, 2003), change the structure of work (Rice & Gattikar, 2001), and threaten workers well-being (e.g., head, 2003). Researchers have trends to know whether the changes created by ICTs are ultimately good for workers (head, 2003; Levy & Murane, 2004). In an age very much characterized by information technology (IT), there is a growing need to understand the ways in which ICTs affect human lives. In present, the axis of all technological development and activities are human resources. Then, it is a public belief that economic and educational development of a nation is depended on using ICT by human resources. Among today organizations, universities and higher

education centers have pivotal role in improvement and development of personal and social lives. Universities are settings that number humans are working in them and have interaction with each other. If so, therefore these humans, who are working in the universities, have to become skillful and competent for completing their tasks. The employment conditions and existent climate in the universities affect quality of life (QOL) and QWL, organizational commitment, university effectiveness and achievement to its mission. Enhancing QWL and QOL have long been majors explicit and implicit life-style and policy goal for individuals, communities, nations, and the world (Costanza et al, 2007). A group of workforces that is greatly affected in QWL as a result of dynamic changes in work environment is IT (Guna, S. R., Maimunah, I. 2008). Lau, Wong, Chan and Law (2001) operationalized QWL as the favorable working environment that supports and promotes satisfaction by providing employees with rewards, job security, and career growth opportunities. Indirectly the definition indicates that an individual who is not satisfied with reward may be satisfied with the job security and to some extent would enjoy the career opportunity provided by the organization for their personal as well as professional growth.

The recent definition by Serey (2006) on QWL is quite conclusive and best meet contemporary work environment. The definition is related to meaningful and satisfying work. Some definitions indicate that QWL is a multi-dimensional construct, made up a number of interrelated factors that need careful consideration to conceptualize and measure. It is associated with job satisfaction, job involvement, motivation, productivity, health, safety and well-being, job security, competence development and balance work and non-work life as is conceptualized by European Foundation for the Improvement of Living conditions (2002). Surprisingly, however, little research has been preformed directly investigating the impact of ICT on workers well-being and QWL (Salanova, C. E., & Martin, 2004). In an age very much characterized by ICTs, there is a growing need to understand they ways in which ICTs change and affect human lives. With respects to the great efforts made in society to integrate ICTs into people's every day's lives, we regard it as necessary and important to take a closer look at ICTs in the faculty members lives. Some researchers have been by communication scholars about effects of ICTs on Organization (for a review, See Rice & Gattiker, 2001) and worker well-being and QWL (Cheney, Zorn, Planap, &

Lair, In press). However, there is a gap in our literature focusing on the effects of ICTs and its implementation on QWL. The focus of this study is relationship between ICTs on QWL in Faculty members and uses it in the work place. Our research question will be: Do Faculty members know or perceive that that QWL is improving or deteriorating as a result use or application of ICT in the work place? Then our foremost purpose with our work is studying the relationship between ICTs and QWL of faculty members.

Literature Review

It is difficult to find coherent and consistent theories in support for the study of such complex phenomenon as faculty members ICTs Use in their lives and every day work. There are many, different and to large extent contradictory ways of approaching the use of ICTs. In several small empirical studies it has been apparent that ICTs – rather that being interpreted as instrumental, functional and efficient – is understood as sensuous, experimental and perceptual (Skog & Soderlund, 1999). This is most clearly expressed in different forms of virtual environments where people meet, communicate and interact – where technology often is used in order to challenge the ordinary and the familiarity of everyday life. Focusing everyday life encourages the rich and manifold understanding of people's relationship to IT (Lie S, 1996). Faculty members have always had the pivotal role in the universities, thereby their university accreditation almost based on quality and quantity of faculty members and evaluated by them. Change in position and situation of faculty members have had significant impact on the structure of higher education centers. While they have easily access to teaching-learning resources, universities roles has changed. Teachers are no longer resource for lesson presentation in the classes, therefore, it is necessary that their new roles must be redefine based on using advanced ICT that it helps to promote teaching-learning process. Faculty members' tasks are categorized as following:

1. Curriculum planning, content selection and the method of material presentation.
2. Teaching: verbal presentation of materials to students.
3. Learning and directing the group discussion, they provide discussion and dialogue about planned materials and subjects.
4. Evaluation: planning and implementing of tests for evaluation of student learning. Extension of ICT affects of all four tasks in faculty members. With changes in ICT, Tasks of faculty members, kind of performance and the work situation will

change and in turn, criteria for evaluation will change. The effects of ICTS changes on universities may be more than other social institutions, therefore for having good accountability to needs and new challenges, universities have to find new responsibilities. Universities have to maintain their role as "Science Center" in new globe. For realizing these issues, the universities and higher education centers have to an active role in science production and its disseminating the science by using ICTs. No doubt, ICTs as powerful instrument will applied for increasing quality of higher education with maintaining economic aspects (Ghoorchian et al, 2005). The use of ICTs as teaching-learning tools is now rapidly expanding into education. (Liaw et al., 2006). ICTs have a range of important effects and impacts on the quality of life and work life through a number of means, some direct and some indirect (Tarafdar et al, 2007). Head (2003) has reported that ICTs use in contemporary organizations as inhumane and ultimately ineffective. He argues that manufacturing companies have ingrained practice of attempting to reduce reliance on skilled workers. ICTs may also complement worker skills, such as when an expert system becomes a "system for experts".

ICTs may increase the demand for some skills, such as computer programming as well as the need for expert thinking and complex communication (levy & Murnrne, 2004).

Negative Effects of ICT on QWL

ICTs enable increased monitoring and surveillance-especially real-time monitoring, versus after-the fact monitoring (head, 2003). Managers have for many years used after-the fact monitoring, such as investigating post-hoc the quantity of work completed or customers s satisfaction with worker service. Hence, contemporary technology enables real-time monitoring that makes monitoring easier, more comprehensive, and more intrusive. Some critics have argued that improved monitoring technologies have resulted in work intensification and accompanying pressure and stress (Green, 2004). Similarly, researchers have identified "Technostress" as consequence of ICT use and implementation (Tarafdar et al, 2007). Head (2003) argues that ICTS work in three ways:

1. They Substitute for skills.
2. They allocate and measure work that it leads to Task compression, where several tasks are brought together and performed by a single worker, and task separation.

3. They monitor work. In Sum, ICTs may diminish QWL by increasing surveillance of workers, devaluing and making less use of workers skills, intensifying work pressures, and reducing workers power.

Gattiker & Howg (1990) have performed a research about IT and QWL, they have argued that will simplify and deskill jobs, thereby reducing the QWL.

Positive Effects of ICT on QWL

Also, there is little research to confirm positive effects of ICT on QWL. Just, there is a reason to believe that ICTs may improve QWL in some cases. Axtell et al (2002) in their research have shown that when ICT creates more complex jobs, employees' job satisfaction increases.

ICTs facilitate the use of high involvement work practices (HIWPs), such as self-managed teams, employee involvement in decisions, multi-skilling workers, and flattening of hierarchies (Gollan, Davis, & Hamberger, 2005; Guthrie, 2001). ICTs enable HIWP by enabling workers to have access to information for decision-making and on-line training, but also because HIWP by are part of strategy of output flexibility and responsiveness to customers which is itself made possible by ICTs (Head, 2003).

T. Zorn, Jr et al (2008) found that respondents who were affected by ICTs were more satisfied with their work roles and pay than those less affected. They explored that the work had become more pressured and more closely supervised by ICTs. Also, they explored that the more time people work on computers at home, they more perceive that they experience pressure in their work, increased pressure and remote work. In addition, those who spend more time working on computers at home have less satisfaction with workload and security.

More fine-grained analysis of the data is needed to tease out relationships among ICT use and QWL impacts. Green, F (2001, 2004), found that employees most affected by technology, saw their work as becoming more intense. Rob kling (1989) argued that some effects of technological change depended on when the technology was introduced. Improvements in mental health systems were larger for earlier introductions of the technology. Larger decreases in job variety and job challenge and small decreases in positive attitudes toward computers were observed in offices that introduced technology earlier. Also, he reported that technology decreased job satisfaction less and increased mental health more, decreased positive attitudes toward computer less.

Osterlund K. and K. Robson (2009) did a research about "The impact of ICTs on work-life experiences among university teaching assistants and their results suggested that there are some problems encountered in utilizing email in teaching work among teaching assistants. It seems that because they have little teaching experience and least secure teaching roles, relatively low prestige might render these workers more vulnerable to negative outcomes from email such as overwork, unpaid time, stress, disrespect and emotional labor. Their results suggested that difficulties at the nexus of teaching/pedagogy and ICTs may be commonplace, and have a profile that varies across the different academic disciplines.

Schiller (2003) carried out a research about "Working with ICT: Perceptions of Australian principals. He found that most of principals (93.5) percent used computer at home with 86.6 percent of all principals computers connected to the schools network. 45 percent of principals have used Laptop computer at work. The main use for both their work and home computers was in word processing, sending and receiving e-mail and accessing the world Wide Web(WWW), whereas construction of spreadsheets, databases, and presentations(such as PowerPoint) was either "never" or "occasionally" used, either at home or at work. A research has done as titled; World Wide Web as a Means for developing of collaborative learning and teaching application by Tian(2001).He found that WEB is a valuable technology for facilitating of teaching development through Internet. Also, Brown (2001) in his research showed that Internet has positive effects on scientific creativity and productivity. Jaber (1999) has performed a research as titled "Intelligent teaching with computer-assisted". He has concluded that intelligent teaching computer-assisted is preferred to traditional methods and it has led in increasing students' motivation. Showakhi (2003) found that Internet is used increasingly by faculty members, demand for Internet application is increasing and Internet utilization has penetrated in universities to the teaching environment (Lazings.1998). Little research has been done directly investigating the impact of ICT on faculty members' QOL and QWL (Salanova & Murnane, 2004). Some researchers have been by communication scholars about effects of ICTs on Organization (for a review, See Rice & Gattiker, 2001) and worker well-being and QWL (Cheney, Zorn, Planap, & Lair, in press). However, there is a gap in our literature focusing on the effects of ICTs and its implementation on QWL. The focus of this study is the effects of ICTs on

QWL in Faculty members and uses it in the work place. Our research questions will be:

Do Faculty members know or perceive that that QWL is improving or deteriorating as a result Use or application of ICT in the work place?

Is there a relationship between ICTS utilization and QWL?

Then our foremost purpose with our work is studying the effects of ICTs on the QWL of faculty members.

Purpose

In order to answer the formulated research questions, the purposes of this study were to determine relationship between ICTs utilization and QWL and whether ICTs affected QWL in faculty members.

Implicitly, the research will determine whether are relationship between ICTs utilization and demographic variables (Gender, age, education area, academic paper, teaching experience, and official position).

Research and hypotheses

With regard of research purposes, a descriptive-correlation study was used to determine the relationship between ICTs using and QWL. The population under investigation included faculty members in Zahedan universities who participated in our research during spring 2009. The sample was selected by classified randomized sampling proportional to the volume of 123 individuals.

A questionnaire with three sections was designed, which included demographic data, ICTs (Computer skills and Internet skills) and QWL questionnaire.

ICTs items included three- part: first part contained seven items about computer, second part contained six items and third part contained thirteen items about advantages and disadvantages for ICT. The questionnaire included a competency rating scale to determine perceived skills in use of ICT so that all participants could rate themselves on competencies such as use of word processing, Internet search engine, scanning a photo, using multimedia, prepare power point presentation. Questionnaire of QWL contained 23 items based on Likert five-point scale (5= strongly agree and 1= strongly disagree). The reliability of the Questionnaire for the components of ICT using and for QWL Questionnaire was determined as 0.91 and 0.82, respectively, by using Alpha Cronbach coefficient. Also, the face and content validity of questionnaires were determined by the opinions of experts and professors in ICT and Management. Data were analyzed at descriptive statistics (frequency, percentage, and mean) and inferential

statistics (correlation Coefficient, variance analysis, and independent t-test) through SPSS statistical processes.

Results

Results showed that 70 percent of respondents were male and the most of respondents were 35-45 and the least of them above 45. Faculty members spend a lot of time working on their computer with 59.4 percent spending more than 20 hours per week and 25 percent spending between 5-10 hours on their office computer and about 70 percent indicating that they spend more than 10 hours per week on their home computer.

Although 39.6 percent indicated that they had International Computer Driving License (ICDL) skills. ICDL is divided into seven modules: Basic concepts of IT, Using the computer, File Management, word processing, spreadsheets, Databases, Presentations and Information & Communication (Dixie & Wesson, 2001). ICDL skills and about 54 percent had a good computer competency for filing, word processing, power point, and data saving. Faculty members saved students files, printed versions of attached files, who should take responsibility for filing them, and where to locate them for appropriate and easy access.

The findings showed that 46 percent of faculty members used internet more than 20 hours weekly and 23 percent used 5-10 hours weekly. Also, findings cleared that 92 percent entered data in Statistics software such as SPSS and Excel, while 40 percent used SPSS for data analyzing and 65 percent used excel for data analyzing. Many faculty members, 70 percent indicated that they used computerized equipments such as scanner, printer, digital camera or videolyzer and digital TV. In response to the question "How has learned about ICT skills (computer and internet skills)?" About 55 percent of faculty members stated that they have learned through self-training program and about 30 percent have learned during their education in the university. 40 percent of faculty members used Video conference for thesis viva and 30 percent of them used it for virtual classes. Accordingly, the application of ICT makes institutions more efficient and productive, thereby engendering a variety of tools to enhance and facilitate teachers' pedagogical activities. For instance, e-learning is becoming one of the most common means of using ICT to provide education to students both on and off campus by means of online teaching offered via web-based systems (Yusuf, 2005; Mutula, 2003).

Hypotheses 1 there is the significant relationship between components of ICT using and QWL of the faculty members.

Table 1 Results from correlation coefficient of components of ICT using and QWL of the faculty members

Analyzing of the results from the hypotheses indicated that the significant correlation coefficient between the ICT and the rate of QWL was not significant at the level of $P \leq 0.05$. The rate of correlation between two variables was $r = 0.016$. Analyzing of the results from the hypotheses indicated that the correlation coefficient between the Using of computer, Internet use, Law of copy write and Multimedia and QWL faculty members was not significant at the level of $P \leq 0.05$.

Table 2 Regression for predicting QWL of ICT using

Analyzing of the results from regression table showed Using of Computer, members. Finding showed there was not positive and significant relationship Internet, Copy write and Multimedia have little role in predicting QWL faculty between Computer, Internet, Copy write and Multimedia and QWL of faculty members. Hypotheses2- there is the significant difference between components of ICT using the faculty members in terms of demographic traits.

Table 3 F for ICT using faculty members in terms of demographic traits

According to the obtained results, the considered F did not show significant difference among the means of the rate of ICT using of the faculty members in Zahedan universities in terms of age, the teaching experience, field of academic and official post ($P \leq 0.05$). In other words, the rate of ICT using of the faculty members was equal in terms of age, field of academic, teaching experience and official post.

Table 4 T-test for ICT using in term of demographic traits

According to the obtained results, the considered t- test didnot show significant difference among the means of the rate of ICT using the faculty members of Zahedan universities in terms of degree and gender ($P \leq 0.05$). In other words, the rate of ICT using of the faculty members was equal in terms of degree and gender. Hypotheses3- there is the significant difference between QWL the faculty members in terms of demographic traits.

Table(5) F for QWL faculty member in term of demographic traits

According to the obtained results, the considered F did not show significant difference among the means of the rate of QWL the faculty members of Zahedan universities in terms of age, the teaching experience and field of academic ($P \leq 0.05$). In other words, the rate of QWL of the faculty members was equal in terms of age, field of academic and teaching experience. According to the results, the considered F shows a significant difference among the means of the rate of QWL of the faculty members of Zahedan universities in terms of official post ($P \leq 0.05$). In other words, the rate of QWL the members of faculty were not equal to their scientific degree.

Table (6) T-test for QWL faculty member in term of demographic traits

According to the obtained results, the considered t- test didn't show significant difference among the means of the rate of QWL the faculty Members in Zahedan universities in terms of degree and gender ($P \leq 0.05$). In other words, the rate of QWL of the faculty members was equal in terms of degree and gender.

Discussion

One of the most important findings from this study is that faculty members spend a great deal of the working on their computer. Faculty members spend a lot of time working on their computer with 59.4 percent spending more than 20 hours per week and 25 percent spending between 5-10 hours on their office computer and about 70 percent indicating that they spend more than 10 hours per week on their home computer. According to Schiller (2003) use of computer by principals were lowered than findings of this study. Increasing use of information and communication technology (ICT) means opportunities to cope with the trends demanding more flexible persons and organizations. ICT may give citizen to access to services almost 24 hours a day and offers thereby new opportunities for organizing and living every day life.(Albirini, A. 2006).Although 39.6 percent indicated that they had ICDL skills. And about 54 percent had a good computer competency only for filing, word processing, power point, and data saving. Faculty members saved students files, printed versions of attached files, who should take responsibility for filing them, and where to locate them for appropriate and easy access.

The findings showed that 46 percent of faculty members used internet more than 20 hours weekly and 23 percent used 5-10 hours weekly. Ninety three percent of government staff had access to internet in the work place in August 2006. (Statistics New Zealand, 2007) Also, findings cleared that 92 percent entered data in Statistics soft ware such as SPSS And Excel ,while 40 percent used SPSS for data analyzing and 65 percent used excel for data analyzing. Data clearly demonstrated considerable variations in level of use of ICT. Some faculty members used only printer (%80). Many faculty members, 65 percent indicated that they used computerized equipments such as scanner, r, digital camera or videolyzer and digital TV.

The results of schiller (2003) showed that 35 percent of principals in his research have indicated never having used a digital camera or scanner. In response to the question" How has learned about ICT skills (computer and internet skills)"?

About 55 percent of faculty members stated that they have learned through self-training program and about 30 percent have learned during their education in the university. 70 percent of faculty members indicated that they have learned either through self-training program or education in their universities.

40 percent of faculty members used Video-conference for thesis viva and 30

Percent of them used it for Virtual classes. The results indicated that the significant correlation coefficient between the ICT and the rate of QWL was not significant ($P \leq 0.05$). May be, the reasons for lack of relationship between ICT and Qwl are: Low internet use due high engagement of faculty members in teaching and other official affairs, Low ICT facilities and culture using of ICT in these areas, and ICTs have not institutionalized well yet, therefore attitudes of faculty members with high and low status toward internet and ICT use is same. Also, the results indicated that the correlation coefficient between the Using of computer, Internet use, Law of copy write and Multimedia and QWL faculty members was not significant at ($P \leq 0.05$). There was not significant difference among the means of the rate of ICT using of the faculty members in terms of age, gender field of education, teaching experience and official status ($P \leq 0.05$). In other words, the rate of ICT using of the faculty members was equal in terms of age, field of academic, teaching experience and official post. The results demonstrated that using of Computer, Internet use, Copy write and Multimedia have little role in predicting QWL faculty members. Finding

showed there was not positive and significant relationship between Computer, Internet, Copy write and Multimedia and QWL of faculty members. Whereas ICT enhances teaching and learning through its dynamic, interactive, flexible, and engaging content. It provides real opportunities for individualized instruction. Furthermore, information and communication technology has the potential to accelerate, enrich, and deepen skills; to motivate and engage students in learning; to help relate school experiences to work practices; to help create economic viability for tomorrow's workers; contributes to radical changes in school; to strengthen teaching, and to provide opportunities for connection between the school and the world. The pervasiveness of ICT has brought about rapid technological, social, political, and economic transformation, which has eventuated in a network society organized around ICT (Yusuf, 2005).

Also, there was not significant difference among the means of the rate of QWL the faculty members of Zahedan universities in terms of age, the teaching experience and field of academic ($P \leq 0.05$). In other words, the rate of QWL of the faculty members was equal in terms of age, field of academic and teaching experience. About lack of relationship age, gender and ICTs, it could say that existence of poverty, cultural frustration, deficit in economical-cultural supplies, racial prejudices, negative attitude toward using of ICT, maintenance of existence status, full time engagement in teaching process even many of them are going to other cities and universities for teaching and finally, lack of trust in buying through internet. According to the results, the considered F shows a significant difference among the means of the rate of QWL of the faculty members of Zahedan universities in terms of official post ($P \leq 0.05$). In other words, the rate of QWL the members of faculty were not equal to their scientific degree. It said that they have not access to high speed internet, lack of trends to use ICTs in research-educational activities, low trends to update their information through internet and they liked to maintain traditional educational system, Low mastery in English to search in different websites and upgrade their knowledge's.

Limitations

Several limitations are inherent within this study despite efforts to guard against threats internal, external, and statistical conclusion validity. The first limitation is the study doesn't encompass the entire faculty members in Zahedan Universities and does not investigate other faculty members in other cities of Iran that may offer different findings based on their setting. Second, this study is centred on the Zahedan universities and doesn't consider other universities.

Third, beliefs, attitudes, and decisions are dynamic, therefore in this cross-sectional study may not fully capture the usage of ICT. Hence, the results of this study should be viewed as only preliminary evidence of the factors that influence ICTs utilization for improving QWL in faculty members. Furthermore, there is a necessity for further investigation and studies about effects and relationship between ICTs utilization and QWL to more robustly support the conclusion for this study.

Further research

The results of this study could be strengthened by including longitudinal data. This study focused on the relationship between ICT and QWL. Further researches suggest in other settings, universities and populations which using ICTs in their lives and workplaces. Organizational factors such as organizational and faculty members' culture, top-level management support, availability of resources and structures may also be factors influencing the ICTs usage and utilization in the work-lives of faculty members.

Table 1-Results from correlation coefficient of components of ICT using and QWL of the faculty members

variable	frequency	r	Sig.
ICT & QWL			
Using of Computer and QWL	123	0.016	0.86
Internet and QWL	123	0.05	0.58
Law of copy write and QWL	123	0.12	0.014
Multimedia and QWL	123	0.034	0.71
	123	0.166	0.068

Table 2-Regression for predicting QWL of ICT using

Variables	T value	B	Standard deviation	Significant level
Constant	10.88	62.65	5.757	0.000
Using of Computer	-0.91	-0.22	0.238	0.928
Internet	0.821	0.286	0.35	0.413
Copy write	-0.40	-	0.54	0.688
		0.217		
Multimedia	1.965	1.537	0.78	0.052

Table 3-F for ICT using faculty members in terms of demographic traits

Variables	df	F	Significant level
Age	93	0.501	0.607
Teaching experience	91	1.32	0.267
Field	117	0.26	0.772
Official post	87	0.57	0.64

Table4- T-test for ICT using in term of demographic traits

Variables	df	t	Significant level
Degree	102	1.2	0.23
Gender	102	1.6	0.113

Table 5. F for QWL faculty member in term of demographic traits

Variables	df	F	Significant level
Age	93	1.32	0.267
Teaching Experience	91	0.587	0.673
Field	87	2.04	0.114
Official Post	117	3.86	0.024

Table 6 T-test for QWL faculty member in term of demographic traits

Variables	df	t	Significant level
Degree	102	-0.718	0.474
Gender	102	0.495	0.622

References

- Albirini, A. (2006). Cultural Perceptions: The Missing Element in the Implementation of ICT in Developing countries. *International Journal of Education and Development using ICT- 2*(1).
- Axtell, C., Wall, T., Stride, C., Pepper, K., Clegg, C., Gardner, P., et al. (2002). "Familiarity breeds content: The Impact of Exposure to Change on employee openness and well-being. *Journal of Occupational and Organizational Psychology*, 75, 217-231.
- Brown, T. (2001). "The worlds a click away: Retrieved from www.Technowlogia
- Carlaw, K. I., Lipsey, R. G., & Webb, R. (2007). *The past, present, and future of the ICT revolution*. Ottawa, Canada: Industry Canada.
- Cheney, G., Zorn, T. E., Planalp, S., & Lair, D. (In press). Meaningful work and personal/social well-being: Organizational Communication engages the meaning of Work. *Communication yearbook*, 32.
- Costanza et al (2007). "An integrative approach to quality of life measurement, research, and policy". *Surv. Percept. Integr. Envir. Soc.*, 1, 1-5, 2007.
- Dixie, C. H. & Wesson, J. L. (2001) " Introductory IT at a Tertiary Level-Is ICDL the Answer? *ACM Category*, K.3.2.
- Ebadi, R. (2006) "Information technology in Education". Tehran, Iran, Agah Publications.
- Gattiker, U. E. & Howg, L. Wayne (1990) "Information Technology and Quality of Work Life: Comparing Users with Non-Users." *Journal of Business and Psychology* 5, No 2, winter.
- Gollan, P. J., Davis, E., & Hamberger, J. (2005) "High Performance Work Systems: Guest editors note. *Asia Pacific Journal of Human Resources*, 43(1), 6-9.
- Ghorchian et al (2005) *Iranian Encyclopedia of Higher Education*, second edition, Ministry of sciences, researches and technology.
- Green, F. (2001) " It is has been a hard day's night: The Concentration and intensification of work in late -twentieth century Britain. *British Journal Of Industrial Relations*, 39, 53-50
- Green, F. (2004) Why has work effort become more intense? *Industrial Relations*, 43, 709-741.
- Guna S. R. , & Maimunah Ismail (2008) "Constructs of Quality of Work Life": A perspective of Information and Technology professionals". *European Journal of Social Sciences* 7, No. 1. PP: 50-70.
- Guthrie, J. P. (2001) "High-involvement work practices, Turnover, and Productivity: Evidence from New Zealand .*Academy of Management Journal*, 44(1), 180-190.
- Head, S. (2003) .*The new ruthless economy :Work and Power in the digital age*. New York: Oxford University Press.
- Hector, C. (2003) Information technology use and employment change in New Zealand industries. *New Zealand Journal of industrial Relations*. 28 (3), 212-228.
- International Society for Technology in Education (ISTE) NETS Project. (2000a). *National Educational Technology Standards for Teachers*. Eugene, OR: ISTE
- International Society for Technology in Education (ISTE) NETS Project. (2000b). *National Educational Technology Standards for Teachers*. Eugene, OR: ISTE
- Isman, Aytekin (2004) " Attitudes of students towards Internet" .*Turkish Onlie Journal of distance Education (TOJDE)*, , Vol.5, No.4.
- Itegeboje, A., & Okubote, A. (2002) Internet. A programmatic aid to education and research. In C. O. Uwandia, H. O. D. Longe, & A. D. Akinde (Eds), *Deployment of telemetric systems: Trends, techniques and tools* (PP. 144-145). *Proceedings of the 16th National conference of Computer Association of Nigeria (COAN)*. Jos, Nigeria. ICT@UNIJOS.
- J. Voogt, G. Knezek (Eds) (2008) *International handbook of Information Technology in primary and secondary Education*. Spring Science, Business Media, 2008.
- Jaberi, Ali (1999) "Intelligent Teaching, Computer-Assisted". Thesis of MS, Tehran, University of Tarbiat Modderess, School of Technology and Engineering.
- Kling, R. (1989). " Computerization, Productivity, and Quality of Work-Life". *Communication of ACM*. Feb 1989, Vol 32, No.2. PP: 220-235.
- Kwache, P. Zakawa (2007). "The Imperatives of Information and Technology for Teachers in Nigeria Higher Education". *MERLOT, Journal of Online Learning and teaching*, Vol. 3, No. 4.
- Lau, T., Y. H., Wong, K. F., Chan, and M., Law, Information Technology and the work environment-dose it change the Way people interact at w.; *Human Systems Management*, 20(3), pp.267-280.

27. Levy, F., & Murnane, R. J. (2004) the new division of Labor: How Computers are creating the next Job market? Princeton, NJ: Princeton University Press.
28. Lie, M., Sorensen, K. (1996). Making Technology our Own: domesticating Technology into Everyday life. Oslo: Scandinavian University Press.
29. Lipsey, R.G., Carlaw, K.I., & Bekar, C. (2005) Economic transformations: General purpose technologies and long-term economic growth. Oxford: Oxford University Press
30. Mahmood, M.A., & Mann, G.J. (1993) Measuring The Organizational Impact of Information Technology investment: An exploratory Study: Journal of Management Information Systems, 10(1), 97-122
31. Mutula, S. M. (2003). Assessment of African's Telematics, Policy and Regulatory Infrastructure: Potential for E-learning.
32. Omona, W. & Robert Ikoja, R. (2006) Application of information and technology (ICT) in health information access and dissemination in Uganda – odongo ; Journal of leadership and information science 2006;38;45
33. OsterLund, Katherine & Robson, Karen. (2009) "The impact of ICT on work-life experiences among university teaching assistants". Computers & Education, 52, PP: 432-437.
34. Rice, R.E., & Gattiker, U.E. (2001). New media and Organizational Structuring. In F. M. Jablin & L.L. Putnam (Eds), The New handbook of organizational Communication (PP. 544-584). Thousand Oaks, CA: sage.
35. Salanova, M., Cifre, E., & Martin, P. (2004) Information Technology Implementation styles and their relation with workers subjective well-being. International Journal of Operations & Production Management, 24(1/2), 42-54.
36. Schiller, John. (2003) "Working with ICT: Perceptions of Australian Principals". Journal of Educational Administration, V 41, No. 2, 2003
37. Serey, T.T. (2006) "Choosing a Robust Quality of Work Life". Business Forum, 22(2), PP. 7-10.
38. Showakhi, A. R. (2003) "Survey of Productivity development of teaching Technology in Teacher Education Centers in Isfahan, Isfahan.
39. Skog, D. & Soderlund, M. (1999) "Advanced Gestaltungsstechnik-denvirtuella gestaltninges karakter konsekvenser . Umea: Institution for Informatik.
40. Tarafdar, M. Tu, Q., Ragu-Nathan, B.S., & Ragu-Nathan, T.S. (2007). The Impact of Technostress on role stress and productivity. Journal of management Information Systems, 24(1) 301-328.
41. Theodore E. Zorn, Jr. Chris Hector John (2008) "Perceived Effects of ICT adoption On Quality of Work Life: An Exploratory Study."
42. Thomas, L.G., & Knezek, D.G. (2002) Standards for Technology-supported Learning environments. The state Education Standard 6(1), pp: 1-7.
43. Tian, Sh. (2001) "World Wide Web: A means for developing of Collaborative Learning and Teaching Application ." Journal of Education, Vol 27, No. 1, PP: 74-84.
44. UNESCO (2000) the Dakar Framework for Action, UNESCO, France.
45. Voogt, Joke & Kneszek, Gerald" International Information Technology in primary and secondary Education , Springer Science, 2008.
46. Yusuf, M. (2005) Information and Communication Technology and Education: Analyzing the Nigerian national policy for information Technology. International Education Journal 6(3), 316-321.
47. Kling, R. (1999) "what is social informatics and why does it matter? D-Lib Magazine, 5(1). www.stats.govt.nz
48. Walter Omona and Robert Ikoja – odongo (2006). Application of information and technology (ICT) in health information access and dissemination in Uganda, Walter Omona and Robert Ikoja – odongo. Journal of leadership and information science, 38;45

11/10/2012