

# Quality of Life and Active Aging Through Educational Gerontology in Information Technology and Communication

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**Abstract** This research was conducted through action research; was through training course information technologies to incorporate into the daily life of an older adult use computers. The sample consisted of 20 elderly who participate in a course designed low assumptions of gerontology, which is the science that studies the changes in old age and during aging. The study was justified because most seniors are not prepared to deal with these technologies and as a result many of them are not active in the technological society, this creates feelings of loneliness, fear, ignorance and forgetfulness, among others. In addition, there is a profound shift in values and social attitudes, changes capable of causing a major rift between young people and their ancestors. The aim of this study was to determine the impact of the inclusion of the elderly to today's technological society, through the process of learning technologies in Baja California, México.

**Keywords** Gerontology · Older adults · Communication technologies

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## 1 Introduction

The period of the Digital Era begins in the second half of the twentieth century, were installed abruptly technological tools in the daily lives of people. In this sense, Area Moreira [1] indicates that the demand for mastering the Information Technology and Communication has quickly become a problem, nationally and globally, and that adults who were born in the decade previous generations of the 90s y not know how to use these resources are called 'digital immigrants' being phased out by a system that is perceived naturally by the 'digital natives', composed of young people who interact extensively with reality through technological supports whole.

The right to education should not be limited to age or social status, for the elderly, to exercise this right means a chance to upgrade, social participation and reaffirmation of their potential. For people who are in this stage of life, education can help the development of a culture of aging and enhancing the quality of life, which translates into improved health, welfare and happiness.

Notes Vallejo [2], seniors cannot stay out of the information society and knowledge that every day becomes, evolves and creates new ways of creating and maintaining social relationships and knowledge. Thus the need for the elderly, incorporated into your daily life, the use of the computer as a tool to be attuned to the XXI century increase their active aging, continuously enriching the argument.

Older adults through participation in a process of teaching and learning have the opportunity to learn to use a computer with support of gerontological strategies and a methodology based on the Andragogic model of teaching-learning [3] may develop creativity and practice active aging for better quality of life.

## 2 Overall Objective

Understanding the impact of the incorporation of adults older than 59 years today's technological society, through a process of teaching and learning communication technologies, in the community of Tijuana, Baja California, Mexico.

### 2.1 *Specific Objectives*

Evaluate the results obtained in the teaching-learning of computer use, through the design of a computer course, focused on developing technological skills of older adults, with bases in andragogy and gerontology.

Analyze the experiences and impact of adults who participated in the course to complete the process.

### 3 Research Background

Technological advances presented in recent decades, are evident; daily activities are increasingly linked, mostly with the use of technology [4]. The main objective of the emergence of new technology is to facilitate and improve the activities for which they were designed.

The use of information technology is not only to meet the needs of future generations and the majority of seniors (over 60 years) are not prepared to deal with these technologies and as a result many of them are not active within this technological society, generating feelings of loneliness, fear, ignorance and forgetfulness, among others. In addition, there is a profound shift in values and social attitudes, changes capable of causing a major rift between young people and their ancestors.

Some seniors feel alienated from society, family and friends for not knowing how to use a computer, and not just because of no use, but the computer becomes a social mediator that guarantees a space and virtual presence users within the world community and this represents for the elderly is a huge possibility for social inclusion or exclusion.

The elderly population has experienced remarkable growth in response to numerous factors have combined to support a longer life expectancy, the Naciones Unidas has considered, through various agencies, general policies directly benefit conditions lives of these people. Plans and programs undertaken worldwide by UNESCO in the area of culture and education, and developed by the World Health Organization (WHO), who have placed special emphasis on preventive health benefit of stand a higher quality of life.

Older adults in Mexico are catered for with programs of economic self-sufficiency (pantries and medical consultations), although these do not solve the problem of discrimination and backwardness, many people seniors who have physical and mental strength to be efficient workers, thanks to their experience and wisdom.

A study by Sancho [5] to the Jaume I, Spain University, Adults older graduates who studied at the University for Older determined that these courses promote the welfare of the people involved in them, and as a result, intellectual activities that they perform, strengthen their self-esteem. It also found that the motivation is not altered by the fact of aging, both older students and young people have very high scores for motivation in the study. The other was identified that retirement does not involve the decreased motivation for conducting social and educational activities, so that the fact that retirement is not a factor which reduce the motivation to study.

### **3.1 Gerontology**

Giraldo [6] defines the gerontology, the science dealing with old age and aging in all its dimensions: biological, psychological, sociological, anthropological, economic, political and social.

Cervera and Sainz [7] define social gerontology as the science that most concerned the study of aging from the perspective sociocultural or anthropological partner.

Some factors that influence the development in most adulthood, are subject to individual conditions, family and sociocultural conditions. It is important that the elderly recognize their potential, enabling a more positive perception of the stage that passes, greater acceptance of it; that meet their communication needs and transmission of accumulated experience, this is accomplished with the support of family, friends and potential of educational spaces.

### **3.2 Educational Gerontology**

According to Bartholomew [8], education plays a very important role in human life, education for adults is andragogy with the support of gerontology as a science that deals with the aging people. In converge knowledge of psychology, medicine, education, sociology, and all with the goal of making the experience of aging in a less negative adventure, and why not, even positive.

This science is based on four assumptions, taking into account the adult learner: self-concept, experience, willingness to learn and perspectives and learning orientation. Gerontology is an opportunity and a right of humans to permanently internalized in what to do with their personal fulfillment through a scientific and comprehensive preventive knowledge of their life cycle.

For Diaz Barriga and Hernandez [9], learning not only fulfills a function of biological adaptation, but responds to the need to mean the physical and social world in which he lives. This new way of learning required in the elderly necessarily an active attitude.

Giraldo [10] that 'pleasure, interest in what is done, motivation, depend on the power we have over what we say. Not having to be manipulated, dominated, crushed, leading to passivity, disinterest and, eventually, to a psychic degradation and deadly petrification of personality or develop power over our actions, in our private lives, in our work, in society, and take initiatives in existence, or our personality dies before our physical death'.

Education should serve to form a social ethic that responds to the requirements of development planning; at the individual level should be practical purposes such as providing knowledge, skills, abilities and habits either for insertion into

economic activity, the exercise of a trade, or the compliance with the conditions and transformations of the productive system and everyday life.

Active aging from the point of view of social gerontology allows people to realize their potential for physical, social and mental well-being throughout the life cycle and participate in society according to their needs, desires and capabilities, while that provides protection and safety [11].

Quality of life is a social construct that exists only through the experience of people in their interactions with all elements of their environment, enabling you to meet your expectations and needs. Has different definitions and two dimensions: the objective when discussing health, physical functioning, economic status; and subjective when taking into account the appreciation of feeling good and satisfied.

Retain autonomy and interdependence as you age is a task of the whole society, as aging occurs within society, work, friends, neighbors and family. Because of this interdependence and solidarity between generations are important principles of active aging WHO [12].

## 4 Issues

The social environment surrounding the elderly has changed aggressively in recent decades. Technological advances have brought about a radical change in the forms of production, dissemination and knowledge acquisition.

Current forms of communication and activities are conducted through various technological devices like mobile phones, ATMs, home computers and computerization of most of the commercial and industrial activities, causing new training needs and knowledge on citizens. Intelligent Access and use of this set of technologies require a person with a different level were trained older adults. Interact with menu systems or options, navigate without getting lost through hypertext documents, access e-mail to communicate, receive instant messages via different devices, facing a flood of images, audio and audiovisual sequences, etc., are among other new skills to be mastered anyone to be able to function autonomously in society Marzal [13] digital information.

Studies show that most seniors need help with processes that were created to simplify, not complicate; for this need to be surrounded by family and young people to help them in this task of renewing and those in nursing homes and lack the support of loved ones, are neglected by society (Monzón, Stanislavsky, Urrutia, [14]).

This research indicates that older adults cannot stay out of the information society and knowledge to daily changes. Thus the need for older adults, especially the computer as a tool to be in tune with the demands of the XXI century increase their active aging, continuously enriching the argument.

## 5 Methodological Framework

This model describes action research and reflective action cycles:

Phase 1: a course was designed with the aim of incorporating older adults to use ICT, developing skills in handling computer, based on the characteristics of the andragogía and gerontology.

Phase 2: the course was provided to a group of seniors, opportunity areas were detected, the necessary adjustments were made and finally the lessons learned during this process was collected. The name of the course 'assets Elderly Learning New Technologies'.

Phase 3: After a lapse of three months that ended the course by telephone was conducted a survey in order to identify the impact of the use of computers in everyday life of adults.

Group shows: In the Autonomous University of Baja California, Tijuana Campus, Faculty of Accounting and Administration, took out the course called Active Seniors Learning New Technologies, where participating seniors. Distributed 35 each of the five computer laboratories. Hence a group of 20 adults was selected to conduct this research [15].

## 6 Analysis of Results

The results of the investigation are presented in each of the phases:

Phase 1: the content of the course with practical issues in the area of ICT is design, teaching strategies and learning, where it was considered to be remembered with clarity and for a longer period of time which has been repeated and exercised were applied especially was linked with topics of general interest to seniors, thus ensured that they are active participants in the process.

To know the reason why they decided to participate in the ICT course underwent an interview with each of the participants and in response to the question Why did you decide to participate in the introductory course to tick?: The results indicate that participated for Interest in learning, not to be dependent on others, to communicate, self-improvement, are aware of the need to learn. It is observed that older adults have clear objectives, know what they want to achieve, have a desire for self-improvement. Do not want to be outside current context, are interested in keeping in touch with others and now they want to do through the computer. They recognize the importance of addressing some fears and break barrears between them and computers.

Phase 2: At the end of the course, conducts a survey where one of the questions was how you feel today is the last day of course again? Some of the most significant responses are:

'We integrate into modern life and take us out of isolation giving us opportunities we had no'.

'Today I feel great and motivated to continue, it gave me a lot of security for all the days of my life, because I could enter a new world that made it impossible for me and I learned that nothing is impossible when time is spent what you proposed to us, thank you for thinking of us. Thanks for helping young people to both get this dream come'.

'I'm not afraid to use the PC, I feel safer to go to some of the programs taught in class because I have carefully with practice I got to read the instructions on the PC and taking into account the guidance given to me in using the UABC advisors. Very grateful to the UABC'.

'Happy to finish the course for learning how to use the computer, sad to have finished, the time for me is very little, and hopefully the following courses last a little longer, no matter if they raise the price of it, it is fair and I think everyone would agree, thank you again'.

Phase 3: After 3 months ending on course, was done via phone, a survey of adults who participated in the course, to identify if they use the computer or not, that activities performed in it, and the impact of the use of computers in everyday life of adults. They commented that increased security in themselves, some of them joined the working life, were able to be contacted his distant family and have the opportunity to share images and photos, the possibility for them to see their programs and movies when they can.

Welcome the opportunity to incorporate technological life, now have access to information of interest through the use of a computer to help them in their daily lives.

## **7 Conclusions**

Carrying out research with older adults allowed demystify seniors as passive. Contrary to this after meeting their needs, their fears, live with them, the experience of learning, are characterized as active, willing to learn about ICT, and with great ability to develop their cognitive processes.

The experiences of each of the seniors at the end of the course, demonstrated the importance for this population knowledge of computer use and internet. For not only was possible that they felt able to learn something new-a benefit in itself important, but this learning, hopefully, contribute to the extension and maintenance of cognitive processes during aging, which are fundamental premises Gerontology and active

Similarly it is noteworthy that managed to break the stereotype of fear of using technology as a senior you are, it was shown that making adjustments in forms and assistance in the process, it is possible to develop self-confidence, motivation and interest in access to ICT.

Another important achievement was the coexistence and intergenerational learning, for the opportunity to interact both with older adults and youth who supported, provided an atmosphere to socialize, improve their communication skills and develops appropriate measures to resolve the problems that arose social networks by use of the computer.

The discovery that made use of the network exceeded expectations since realized the type and amount of information they can access, taking the basic tools of network access.

This research helps to ensure that seniors who learn and apply ICT in their daily life will bring many benefits rather than impediments exercise their creativity and develop memory (cognitive level); were given a new tool for interaction and communication with the social environment for intergenerational communication; and they will practice active aging.

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