

# Technology and Later Adulthood

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## Research Problem

By the year 2030 it is predicted that 45 percent of the adult population in the United States will be over the age of 60. Increased emphasis on aging in place (older adults remaining in their home as they age) will lead to greater numbers of older adults living alone, which can promote social isolation a feelings of loneliness (Rebola & Jones, 2011).

### Research Question

What s the relationship between information and communication technology (ICT) and quality of life in later adulthood.

### Hypothesis

Based on current literature and Family Ecological Theory, the researcher predicted that older adult users of ICT would have better quality of life than older adult non-users.

## Purpose of Study

The purpose of this study was threefold:

1. To identify the benefits of ICT use on the quality of life in older adults by comparing users and non-users.
2. To develop a reliable survey instrument to measure these differences.
3. To raise the awareness of those who work with older adults on the benefits of ICT use for quality of life in older adults.

## Theoretical Framework

### Family Ecological Theory

There are four basic systems of environment that influence Individual development: the macrosystem, exosystem, mesosystem, and micro-system (Smith, Hamon, Ingoldsby, & Miller, 2009).

This theory would predict that the use of technology by older adults to stay connected to family and friends would alleviate feelings of isolation and loneliness.

## Literature Review

◆ Arning and Ziefle (2008) examined the need for tools to assess computer proficiency in older adults. Instruments for young users of ICT (information and communication technologies) were not applicable to older adult users.

◆ Feist ,Parker, Howard, and Hugo (2010) examined the attitudes of technology use by older adults in rural Australia to stay connected to their community.

◆ Rebola and Jones (2011) found that aging in place could ease future burden on the healthcare system and boost quality of life and independence in older adults; however, this can lead to loneliness and social isolation. These two significant factors can contribute to depression, decline, and early death.

◆ Selwyn (2004) stated that use of ICT was reputed to be a requirement for living in the “information age”. The use of ICT will allow older adults to “reconnect or improve their connection with the outside world and enjoy a higher quality of life” (p.370).

◆ Wang, Rau, and Salvendy (2011) observed the challenge to provide appropriate ICT products for older adults. Common limitations of older adults, such as vision and hearing that should be considered when designing technological devices.



## Method

### Participants

◆ 49 users and 10 non users from northwestern Wisconsin senior center & assisted living facility

### Research Design

◆ Non-random survey research ◆ Cross-sectional ◆ Purposive sampling design

### Procedure

◆ Administered surveys to older adults (55 years and older) at two Wisconsin facilities

### Data Analysis Plan

Statistical Package for the Social Sciences (SPSS), Cross-tabulations, frequencies, mean-comparisons, reliability analysis: Cronbach’s Alpha

Table 1

### Cross Tabulations

	YNO	TOL	FIP	TWF	STF	SWC	MFR	ETU	AIC	TTC	UEP	FSP
<b>User</b>												
Mean	1.53	2.45	3.53	3.61	3.47	2.51	2.90	2.51	2.02	3.94	3.10	
SD	1.04	1.31	1.57	1.62	1.57	1.34	1.37	1.28	1.21	1.28	1.62	
Range	4	4	1	4	4	4	4	4	4	4	4	
<b>NonUser</b>												
Mean	2.6	2.4	2.8	2.6	4.5	2.6	4	2.9	2.4	2.1	2.6	
SD	1.78	1.35	1.23	0.97	5.91	1.71	0.94	0.74	1.35	0.88	1.71	
Range	4	3	4	4	4	4	3	2	4	2	4	

### Independent Variable

YNO - user or non-user

### Dependent Variable

TOL - I believe that I am too old to use ICT

FIP - I feel isolated from other people without using ICT

TWF- I use or would use ICT to stay in touch with family

STF- I use or would use ICT to stay in touch with friends

SWC- I use or would use ICT to stay connect with society; world & community news

MFR- I would use ICT or use more frequently if I had more financial resources

ETU- I would use ICT or use more frequently if they were easier to use

AIC- I would use ICT if I had access to instructional classes

TTC - I would use ICT or use more frequently if I had transportation to a location that had computers to use

UEP - I use ICT or would use for entertainment purposes

FSP - I use ICT or would use for shopping purposes

### Demographic Variables

AGE - age GEN - gender

## Results Summary

We found mixed support for the hypothesis within the mean comparisons. Although we found that users felt more strongly TWF (*I use or would use ICT to stay in touch with family*) and STF (*I use or would use ICT to stay in touch with friends*) there was little difference found between users and non-users when it came to isolation, FIP (*I feel isolated from other people without using ICT*). The non-users more strongly agreed that they would stay connected to the world at large, SWC (*I use or would use ICT to stay connected with society; world and community news*). These results demonstrate that within this sample group, the older adults appeared to not have an issue with isolation; however, they would use ICT to stay connected with others.

## Implications

### Practitioners

◆ Results would greatly benefit older adults when used by directors of senior facilities. Users and non-users who felt too old to learn would find enhanced quality of life when encouraged to engage in a creative and positive learning environment the use of ICT.

◆ To possibly work through the self-imposed age barrier, lessons could be taught one-on-one or in small groups, and possibly peer-facilitated.

### Future Research

◆ We recommend asking questions about the relationship between individual living arrangements and the use of ICT to combat isolation.

◆ In addition, pulling questions from the Geriatric Depression Scale (GDS) would give greater depth and understanding to the aspect of loneliness and isolation of older adults.

◆ Future samples should be larger in size, random, and include more diversity in terms demographic variables such as gender, race, education, and income level with a more-equal distribution of male and females.

◆ Adding qualitative interviews would assist in discovering the true lived experience of ICT use, to be able to clarify questions and responses

## Conclusion

◆ Family Ecological theory demonstrates the importance of family in the life of an individual. Continued connection with family can be key in the quality of life of those in late adulthood; however, this is often difficult to maintain in today's highly mobile society.

◆ The introduction of ICT to non-users as well as the stated benefits and enjoyment available with the use of ICT would improve the quality of life of the lonely and isolated individuals in late adulthood.

◆ The family unit remains the backbone of a community. Continued connection within the family will promote greater quality of life for the members within the family as well as stronger, healthier communities.

**Communication is not only the essence of being human, but also a vital property of life.**

- John A. Piece