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A Resource Guide for Designing and Facilitating Computer Classes for Older Adults

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Disclaimer

A RESOURCE GUIDE FOR DESIGNING AND FACILITATING COMPUTER CLASSES FOR OLDER ADULTS

by

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ABSTRACT

A Resource Guide for Designing and Facilitating Computer Classes for Older Adults

Many older adults are motivated to learn about computers and other new technology; however, they do face obstacles that can prevent or discourage them from pursuing this endeavor. They are just as capable of learning about computers as younger people; they just need encouragement, resources, and programs that are designed and facilitated to meet their needs. The reason these programs are needed and should be available is because they can be very beneficial to their mental health and their community involvement. This resource guide provides information on: (a) benefits of technology, (b) addressing obstacles, (c) motivating factors, (d) tips for setting up computer laboratories, (e) sample lesson plans with PowerPoint slides and handouts included.

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INTRODUCTION

The increase in the population of older adults and the increasing speed of technological development seem to be two prevalent trends which affect society today (Timmermann, 1998). Therefore, educators of older adults need to learn about the challenges and opportunities that face these learners and discover ways to accommodate their needs. Many older adults still feel they are too old to learn, or experience fear that they will do something wrong and even be embarrassed; all of these factors can keep many of them from seeking the knowledge of technology.

Statement of the Problem

According to Chaffin and Harlow (2005), as adults age, they can become shut off from the rest of society for many different reasons, such as: (a) retirement, (b) move into a retirement community, (c) children and other family members live far away, and (d) the loss of a spouse; the use of technology may help them feel less isolated. According to McConatha (2002, as cited in Chaffin & Harlow), in the design of programs for older adults who may face these problems, there are ways to enhance communication and help aging adults keep in better contact with family and friends.

Purpose of the Project

The purpose of this project was to develop a manual that can be used to plan and design computer classes for older adults. This manual provides information on ways to

set up a computer laboratory and sample lesson plans, and it also includes information on special needs that may need to considered for some older adults.

Chapter Summary

It is this author's position that the use of technology can enhance the quality of life for many older adults, both physically and mentally. In order to do so, their fears and physical barriers must be addressed to develop meaningful learning experiences for these older adults. In Chapter 2, the Review of Literature, background research is introduced that supports the need for more programs developed to teach older adults how to use technology. The author explores learning theories that would work best in the design of computer classes and how best to apply them in the development of the curriculum.

Chapter 2

REVIEW OF LITERATURE

The purpose of this project was to develop a field guide for the development and teaching of basic computer classes to older adults. Technology and computers change at such a speed that it is hard to keep up with them, and that alone can be most intimidating to someone who does not even understand the basic concepts of a computer. In this review of literature, the author examines the benefits to older adults as well the obstacles that they face when they begin to learn about computers. In addition, the author addresses learning theories and methods that work best for teaching older adults basic computer skills.

Benefits of Technology

Purdie and Boulton-Lewis (2003) stated, "the ability to remain physically, mentally, and socially active is dependent, in part upon continued participation in learning and education" (p. 130). Several authors (Ardelt, 2000; Dench & Regan, 2000; Glendenning, 1997; Walker, 1998; all cited in Purdie & Boulton- Lewis) found that, as people age, education seems to have an impact on the their: (a) health, (b) ability to stay more self-reliant, (c) ability to have more control over their lives, and (d) openness to the use of technology and scientific advances.

Self-Sufficiency

According to Wolf (1998), lack of self-sufficiency in an older adult's life has been demonstrated to make him or her more prone to illness and other such passive behaviors;

therefore, it is important that one have the ability to stay in control of one's own life. For this reason, continued education throughout adulthood is important and should provide the needed motivation to pursue endless learning experiences. Schaie (1990, as quoted in Wolf) stated, "It's possible that healthy individuals who maintain an active intellectual life will show little or no loss of intellectual abilities even into their eighties and beyond" (p. 19).

Communication

Fox (2001, as cited in Stark-Wroblewski, Edelbaum, & Ryan, 2007) conducted a survey of senior citizens and their use of email. He found that over half of the participants had improved relationships with family members and were able to interact with them more frequently because of email. Fox did not find any notable health differences between users and nonusers of email that would prevent older citizens who chose to learn email from doing so. In fact, in this study as well as previous studies (e.g., Lai, Arthur, & Chau, 2004; Wright & Query 2004; both cited in Stark-Wroblewski et al.), it has been shown consistently that use of email and the Internet really does provide numerous psychosocial benefits, such as fewer feelings of isolation.

Gusi, Praetor, Forte, Gomez, and Gonzalez-Guerrero (2008) conducted a study to show the benefits of health education websites for elderly people; the researchers observed the importance of friendships to the participants and the benefits that they provided the elderly, such as "a form of distraction, help, company, raises their spirits, and so on" (p. 454). Also, it was observed that more than half of the participants claimed that it was difficult to make simple plans to meet with their friends, mostly because of: (a) transportation, (b) distance, and (c) accessibility.

Challenges and Barriers

Chaffin and Harlow (2005) reported that ageism can be one of many challenges that senior citizens face when they try to learn new things later in life. Ageism is the stereotyping of older adults; it calls attention to failing health and mental deficiencies among the elderly. If this is the way that members of society view older citizens, they begin to see themselves in this way and, eventually, learning opportunities will become markedly less available as they age. Purdie and Boulton-Lewis (2003, as cited in Chaffin & Harlow) found that society is beginning to change in regard to the idea that, as one ages, he or she can continue still to lead meaningful productive lives and be able to contribute to family and community.

Also, Dixon (2000, as citied in Purdie & Boulton-Lewis, 2003) found that much of the literature on gerontology has taken a *loss* approach, rather than a *gain* approach, in terms of older adults and continued education. With this type of thinking, older adults are left with very few educational opportunities, and many are unsure where they should seek the help they may need. According to Purdie and Boulton-Lewis, seniors should learn about technology, since this society is increasingly technology driven (e.g., banking services).

Obstacles

According to Cameron (2000), it has been found that, aside from cognitive and motivational reasons, technophobia is one reason why older adults may not be interested in learning about new technologies. They have the fear that they may hit the wrong key and make an error that they cannot fix, or break the computer, and may be afraid to give out any personal information online.

While ageism and stereotyping have kept the learning opportunities very limited for older adults, there are legitimate barriers that adults face as they age. According to Purdie and Boulton-Lewis (2003), "there were a large number of physical problems mostly related to age, including those of reduced mobility, illness, and degenerating sight and hearing" (p. 136). In this same study, people described cognitive barriers such as: (a) "not absorbing things so well" (p. 136), (b) "don't need to know," (c) "it's too late," and (d) "not worth the effort" (p. 137).

In Rosenthal's (2008) study, numerous obstacles which women faced when they began their pursuit of learning about computers, and how they overcame them, were identified. The women who participated in the study were given a list of the following obstacles and asked to rate them from 1 to 5 on a Likert scale, with 1 being of Least importance and 5 being the Most important.

> Experienced personal anxiety or stress.
> Lacked access to a computer.
> Experienced limited self confidence.
> Lacked personal support.
> Experienced poor eye-hand coordination.
> Had trouble with the typing.
> Experienced eye fatigue.
> Lacked a training manual.
> Lacked technical support from the computer company.
> Found the rapid technology changes too difficult for me. (p. 616)

Anxiety, stress, and lack of self-confidence were the two primary obstacles that the majority of the women experienced; 48% reported that they felt anxious and stressed, while more than 36% reported lack of self-confidence. The next item that 25% of the women claimed to be a major obstacle was the lack of personal support.

Motivation

According to Rosenthal (2008), with the ever increasing resources that technology provides, more people perceive the need to provide these benefits to older adults. As the population of baby boomers ages, so does the need for technology education; baby boomers are unlike their children and grandchildren who have grown up with computers being a natural part of their lives. This has left many older adults intimidated by the use of technology and not sure how to seek help when they decide they would like to learn more about computers and discover how it can better enhance their daily lives. Rosenthal identified the motivational factors for older adults to learn computers as well the obstacles they may face and how they can overcome them.

Motivating Factors

Rosenthal (2008) used a three part survey to attempt to understand the dynamics in the motivation for the women in this study to pursue computer literacy; the average age was 67.3 years. The first part of the study was an attempt to better understand the factors which motivated these women to learn about computers. They were given a list of 12 items to rate on a Likert scale from 1 to 5, 1 being of Least importance and 5 being the Most important motivational factor. These items were:

1. I wanted to communicate with family and friends.
2. I was challenged by something new and wanted to try it,
3. I wanted to keep up with the rest of the world.
4. I wanted to get health information and/or services.
5. I wanted to locate more entertainment options.
6. I received my computer as a gift.
7. I wanted to shop for goods and/or services.
8. I wanted to use it for word processing and/or spreadsheets.
9. I wanted to use it to keep records.
10. I wanted to use it to do my taxes.
11. I wanted to search for information of various topics

12. It was a work requirement. (p. 614)

After the first part of the survey, mean scores were calculated which showed that, of the 12 items the participants were asked to rate, 6 items were most important in their motivation to learn computers (Rosenthal, 2008). The 6 items that were shown to be the most significant motivating factors were: (a) search for information, (b) learn something new, (c) keep up with the rest of the world, (d) communicate with family and friends, (e) the use of word processing and spreadsheet programs, and (f) health information.

As reported by Rosenthal (2008), of the 42 respondents, 83% felt that the ability to search for information was the most important motivating factor, and 73% considered searches for health information a large motivating factor. The need and use of the computer to communicate with family and friends supported previous findings (Adler, 2002; Fox, 2004; National Telecommunications and Information Administration [NTIA], 2002; all cited in Rosenthal) that this is an enormous motivating factor for older adults to learn about computers; in this study, 81% stated this as a motivating factor.

The ability to search for new information and a need to learn something new were the top two motivating factors for the women in Rosenthal's (2008) study; they wanted to pursue computer education to enhance their everyday life and to become more independent and self-sufficient. Rosenthal's findings supported those from previous studies (Adler, 2002; Fox, 2004; NTIA, 2002; all cited in Rosenthal) where communication with family and friends through computer technology has gained a great deal of attention.

Motivational Theories

One of the top motivating factors reported by Rosenthal's (2008) participants was the ability to learn something new. This factor reinforced Knowles' (1984) fifth assumption; adult learners are motivated to learn. If adults feel that they are not that interested in a subject, they may learn only what is necessary to complete a given task; however, if a subject is of great interest, adult learners will be more motivated to learn as much as possible about the subject.

According to Elias and Merriam (1995), motivation is intrinsic; it is a humanistic behavior, and it is not provided by the facilitator, but rather by the individual. This is especially true of adult learners who are in educational settings because they want to be there, in most cases; it is not because they are required to be there. This is especially true for older adults who choose to learn about new technology.

Learning Differences

Manheimer, Snodgrass and Moskow-Mckenzie (1995) discussed how some theorists believe there is a difference in learning between younger adults vs. older adults. According to Knowles (1980, as cited in Manheimer et al.), the difference between learning for a child and that of an adult is the experience an adult brings to his or her learning. If this is the case, then an older adult, who has so much more experience than a younger adult, may need to be addressed differently when being taught.

According to Tomporowski (2003, as cited in Chaffin & Harlow, 2005), older adults tend to be a little slower in the acquisition of new skills, but they are just as capable as younger learners in their ability to effectively learn new skills. With continued encouragement throughout the learning process, Chaffin and Harlow (2005)

found that older adults were able to pick up and learn new skills. It may have taken them a little longer to grasp a new concept, but after a certain amount of time, the members of both groups showed the same competencies

Cameron (2000) cited Witkins use of the Group Embedded Figure Test (1971), which is used to explain the cognitive learning differences between younger and older adults, specifically the differences between field-dependency as opposed to field-independency. Coventry (1989, as quoted in Cameron) stated,

> That field-dependent people react to situations as a whole without analyzing it, responding on the basis of what it does rather than what they do with it. On the other hand, field-independent people keep the individual parts of a situation separate from one another, ignoring these parts which are irrelevant to the task. (p. 8)

This research showed that older adults are more field-independent learners, as opposed to being much more field-dependent during young adulthood. Therefore, older adults need to know how a particular task that they may learn on the computer will benefit them rather than to look at the experience as a whole.

Learning Theories and Models

According to Purdie and Boulton-Lewis (2003), much of the research on adult learning has come from a cognitive theory approach with an emphasize on motivation and memory. In this researcher's opinion, there are several learning theories that are most effective in order to teach and design basic computer programs for older adult learners. Older adults need motivation, whether it is external or internal, because, although the use of computers can enhance their lives, many do not find it necessary to pursue computer education. Also, they must be able to eventually become self-directed

to fully acquire the knowledge of new technology; this requires them to build their confidence level enough that they are able to work on their own.

Andragogy

According to Knowles (1984), when he taught a summer session in 1967 on adult learning, he was approached by a Yugoslavian educator who stated "Malcolm, you are preaching and practicing andragogy" (p. 6). He had not previously heard the word, but he began to use the term to describe his learning theories. The term, andragogy, is defined as "the art and science of helping adults learn" (p. 6). Knowles maintained that his learning theory is based on a set of five assumptions.

1. The adult is more self-directed in his or her learning as opposed to education and learning being based on dependency. This is because as a person matures, he or she becomes independent and are able to take responsibility for their actins.
2. The second assumption is that adult learners have more life experiences that they bring with them to the education process, and these experiences bring value to this process.
3. As adults mature, their education is influenced by a person's social roles, such as family, work, and community. It is not necessary for an adult to be told by the educator what must be done.
4. Adult learning is based more on problem solving as opposed to specific subjects. This means adults are more likely to seek knowledge to solve a problem, such as learning a new skill as way to further their career.

5. There is motivation to learn. These are the topics in which an adult is most interested and feels the need to seek more knowledge in order to enhance the quality of his or her life.

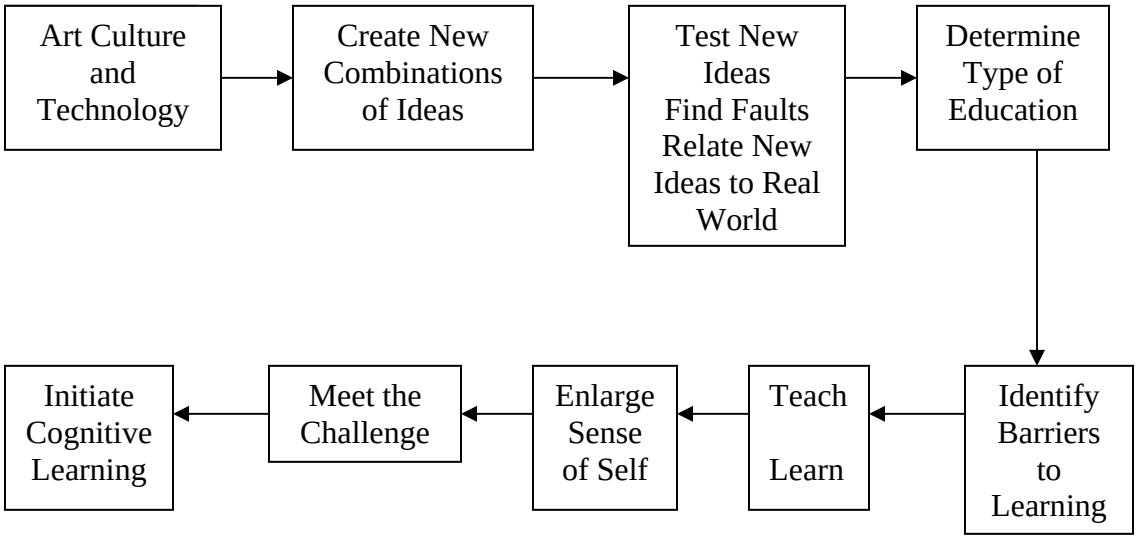
Motivation is such an important part of Knowle's (1974, as cited in Peters, Jarvis, & Assoc., 1991) assumptions because it directly relates to self-direction, which in turn relates to adult learners and their instructors. When an instructor does not have to provide motivation, he or she is free to teach and help students either in a one on one situation or in a group setting.

> In short, whether they focus on the content or the process of learning, learner controlled modes of instruction have the dual benefits of avoiding the imposition on learners of unwelcome direction and fostering motivation in learners who have been responsible for selecting or shaping their own direction. (Peters et al., 1991, p. 55)

Cognitive Learning Theory

Chaffin and Harlow (2005) designed a unique cognitive learning model for older adults who wish to learn about technology, as shown in Figure 1.

Figure 1. Learner and technology.



Chaffin and Harlow begin their model of learning for older adults with art, culture, and technology. They suggested "it is a process of cognitive change that begins with their own art and culture, includes the efforts of the person teaching computer technology, and ends with the ability to e-mail, word process, and surf the Internet" (p. 306).

Dewey (1980, as cited in Chaffin & Harlow, 2005) suggested that, as people think about their life experiences; this is a type of art. Also, Chaffin and Harlow cited Beisgen and Kraitchman (2003) and stated, "art is a bridge across generations. Sharing one another's art, stories, song, dance, and music is a way to connect the generations within families and communities" (p. 308). Technology can provide the canvas for the elderly to share a story or to journal their histories by using e-mail, word processing programs, and chat rooms.

According to Chaffin and Harlow (2005), older adults can benefit culturally by using computers. It can take them from being socially isolated to a whole new culture of communication and connection with the outside world.

Harlow and Cummings (2003, as cited in Chaffing & Harlow, 2005) reported that learning is based on three levels; the first is survival learning. During this stage of learning, the learners feel overwhelmed and will need a great deal more support and guidance to move past the survival level. The second stage is adjustment learning; learners have not taken responsibility for their learning experiences, and they rely heavily on prompts from the educator. The final stage is discovery learning; during this stage, learners take responsibility for their learning; this stage is commonly observed in most adult learners. However, adult learners can be in any one of the above stages; it is the responsibility of the facilitator to evaluate where that person may be in their learning.

Self-Directed Learning

The self-directed learning model is most closely related to the cognitive motivation processes and dimensions, and it is based on collaborative constructivist theory, according to Garrison (1997, as cited in Merriam & Caffarella, 1999). The three dimensions in the self-directed learning model are: (a) self-management, (b) self-monitoring, and (c) self-motivation.

The self-management dimension, according to Garrison (1997), "is concerned with task control issues. It focuses on the social and behavioral implementation of learning intentions, that is, the external activities associated with the learning process" (p. 21). The self-management dimension is concerned with the goals of the learner, and how he or she manages the process of learning with the support and external learning resources. These processes must be evaluated continually to serve the self-directed learner.

Self-monitoring is the second dimension in Garrison's (1997) model, and it "addresses the cognitive and metacognitive processes: monitoring the repertoire of learning strategies as well as an awareness of an ability to think about our thinking (plan his and modify (plan and modify thinking according to the learning task/goal)" (p. 22). Self-monitoring means to take responsibility for what is being learned, and why it is being learned; although this is an internal process, external feedback is helpful.

Self-motivation is the final dimension in the Garrison (1997) model, and it plays a notable role in the learning process, changing between initial motivation, which is required to begin the learning process, and task motivation, which is required to continue the learning process. There is still a need for more research in regard to the link between

motivation and cognitive learning. Howe (1983, as quoted in Garrison) stated "we do know quite enough to be certain that motivational factors have enormous practical influences on the kinds of cognitive activities that underlie human learning" (p. 145).

Teaching Methods

Dunnet (1998) found that repetitive teaching methods worked best for the senior citizens in his study. Each class began with review from prior classes and course objectives; in the second half of the class, new material was covered. The students appreciated the review at the beginning of each class, since most reported in the survey that memory from one class to the next was one of the difficulties that they had experienced. Another reason the students needed the review at the beginning of each class was because they did not have textbooks, and many did not have computers to use in between classes.

Type I and Type II Applications

When considering what to teach, the older adult's needs should be considered. Maddux, Johnson and Willis (1997, as cited in Chaffin & Harlow, 2005) described two different types of computer applications that should be considered in the teaching of older adults, the first being Type I applications. These types of applications are: (a) practice software, (b) drill software, and (c) tutorials; they are much more controlled and repetitive than the Type II applications. They allow for older adult learners to become more used to the computer with little room for error which, in turn, will give them more confidence and motivation to move onto more challenging applications. The more challenging applications are described as Type II, such as: (a) Word, (b) Excel,

(c) Digital photo software, (d) emails, and (e) the Internet. While, eventually older adults can learn these types of applications, they are more complicated, especially for someone who has never used a computer. This is due to increased room for error, which can be frustrating and discouraging if they were to begin with these applications.

Some methods that seem to work best in the teaching of older adults, according to Chaffin and Harlow (2005), are drill and practice, which is included in the Type I applications. Also, they also have found that, in teaching older adults who have never used a computer, it may help to describe certain terms in a context in which they can better relate. Also step-by-step directions will help learners, such as directions with a picture of the computer screen; this allows them to see what they should see when they practice on their own personal computer.

MacLeod and Morrison (1998, as cited in Urata, 2004) conducted a study with the use of two different types of manuals for learning an email system; one was a narrative manual, and the other was a detailed step-by-step manual with pictures. The author found that the group who used the step-by-step manual seemed to make fewer keystroke errors, which in turn boosted their confidence levels.

Learning Materials

In his study, Dunnett (1998) found learning materials were important for older adults. Both the participants and the teacher felt that the availability of a textbook of some sort would have been most helpful. The problem was the cost of books, and the detailed information seemed too advanced for beginner users. Urata (2004) found that, with the use of a word processing program and a printer, students can create their own step-by-step manual, which can be just as effective, if not more so, to teach older adults.

According to Beisgen and Kraitchman (2003, as cited in Chaffin & Harlow 2005), many other computer teachers use games, such as solitaire, to help older learners to practice clicking and dragging the mouse. This is a necessary practice, since older adults have never used a computer, and even though this skill may seem very common place to younger adults and children, it is not such an easy concept for the elderly to grasp.

Encouragement

Beisgen and Kraitchman (2003, as cited in Chaffin & Harlow 2005) have suggested seven ways of encouraging older adults through their learning process.

1. Provide plenty of one-on-one attention.
2. Include the learner's previous experience with knowledge.
3. Do not include fast-paced drills.
4. Provide opportunity to accomplish something during each class.
5. Present information a little at a time, and be sure to cover the same material several times.
6. Offer plenty of opportunities to repeat and practice material.
7. Always use positive reinforcement.

Cahoon (1998) reported that, when he teaches adults how to use the Internet, he begins by demonstrating the new skill, and then he has each student perform the new skill. Some students will make mistakes; he does not see this as a failure; instead, mistakes are looked upon as another teaching tool. The participant is then asked to describe the problem and the error message, if applicable. This is the perfect time for the student to: (a) fix an error on his or her own, (b) learn a new concept, and (c) move a little closer to conquering fears of computers.

Learning Accommodations

As the aging population continues to grow so rapidly, so does the need for better accommodations in the use of computers and technology as well as the physical barriers

that older adults experience. Purdie and Boulton-Lewis (2005) found that the three biggest physical barriers that older adults face when they try to learn computers are: (a) vision, (b) hearing, and (c) motor skills.

Visually Impaired

According to Chaffin and Harlow (2005), accommodations for visually impaired older adults now consist of: (a) larger monitors, (b) anti-glare-guard screens, and (c) magnifiers (e.g., Microsoft Office provides a Magnifier as a built in option). Font sizes can be changed, and icons can be moved around or deleted to make it less confusing. These are just a few of the accommodations that are available to help seniors overcome the visual barriers when trying to learn about computers.

Hearing Impaired

Hearing impairment does not seem to be as much of a barrier to learning computers as visual impairment, although it is still important to let the user know certain cues or prompts that occur. Several researchers (Cohen & Falls, 1997; Gunderson, 1997; both cited in Chaffin & Harlow, 2005) found that there is software that has been developed to let the user know there is sound by the use of visual indicators. Also, there are voice input and output systems, which can be used to help analyze and capture speech.

Physically Impaired

Dragging and clicking the mouse is a very common complaint for older adults who may have arthritis or other loss of mobility conditions as they age. According to Chaffin and Harlow (2005), there are various hardware options for these users that can make it possible for them to learn and use computers; these include larger keyboards,

which require a lighter touch, and a mouse with a roller ball so clicking is no longer a problem. In addition, the speed for clicking the mouse can be changed without the purchase of any special hardware.

Conclusions

Dunnett (1998) conducted a study in regard to seniors who learned technology. He found that most participants in his study claimed learning computers was difficult, but no more difficult than they had expected. With careful planning and curriculum design, the learning process for older adults can be made even less difficult and increase student enthusiasm and motivation for continued learning, whether it be further technology learning or something else that can help them live their best possible life.

Timmermann (1998) stated, "Knowledge of the computer and the Internet is an empowering experience for the older adults, for it keeps them connected to today's society and future as well" (p. 69). It only makes sense that, if this technology can be brought to groups of people who would otherwise not have this opportunity, it could be life changing, and is that not what education is all about?

Chapter Summary

As U.S. society becomes more and more technology driven, it only makes sense that without the most basic computer skills, a large number of people will be left behind and miss out on the many benefits that only technology can provide. As educators in the age of technology, it would seem that more research should be conducted to find ways to reach older adults and accommodate their learning needs in order to teach them how to use computers. Cameron (2000) stated, "this requires that we become more aware of older peoples' potential to learn and to choose appropriate methodologies to maximize

learning" (p. 6). In Chapter 3, the author describes the method used to develop a resource guide for teaching older adults to use computers.

Chapter 3

METHOD

The purpose of this project will be to develop a field guide as a resource for educators who work with and design computer classes for older adults and senior citizens. The author became aware of the need for this type of guide when asked to design and develop a basic computer classes for older adults; while many older adults are motivated to learn about computers they face some obstacles that are unique to this age group, such as: (a) fear, (b) physical restraints, and (c) lack of support. The main objective of this project is to provide a resource, which will be a guide to: (a) better understand the needs for this group of citizens, (b) set up computer labs or classrooms, (c) and design curriculum.

Target Audience

This project will be designed as a tool for activity directors in retirement communities, and directors in senior community centers for use in the development of computer programs for older adults and senior citizens. Also, this guide may also be used by non-profit organizations and small business owners who would like to provide computer training to older adults.

Organization of Resource Guide

The goal of this project is to help guide educators and directors of senior programs in the design and development of computer classes for older adults. It provides information on: (a) benefits of technology, (b) addressing obstacles,

(c) motivating factors, (d) tips for setting up computer laboratories, (e) sample lesson plans with PowerPoint presentations and handouts included. The lesson plans that were chosen for this resource guide demonstrate that older adults are capable and interested in learning more than just the very basic computer skills such as emailing and searching the internet.

Peer Assessment

The author asked four colleagues to review the resource guide, and each was asked to submit informal feedback. The author sought their recommendations for changes and improvements to make this guide more user friendly. Their feedback and suggestions are discussed in Chapter 5.

Chapter Summary

This author has seen the need first hand for more programs and classes designed and developed especially for older adults and senior citizens. The review of literature revealed evidence to demonstrate the need and benefits these types of programs can provide to this group of adults to better enhance their lives. Presented in Chapter 4 is an easy to understand resource guide to assist in the design of basic computer classes for older adult learners. This guide addresses the: (a) benefits, (b) obstacles, and (c) motivating factors that older adults may face when learning basic computer skills, as well as the issues which should be considered when designing and facilitating classes. Also included in this resource guide are tips for setting up computer laboratories, as well as sample lesson plans with PowerPoint slides and handouts.

Chapter 4

RESULTS

Introduction

The following chapter includes the resource guide developed for use in designing and facilitating computer classes for older adults. This guide serves to help educators better understand the obstacles and needs older adults have when learning about computers and new technology. This guide includes sample lesson plans, as well as PowerPoint slides and handouts to go along with the lessons.

A Resource Guide for Designing and Facilitating Basic Computer Classes for Older Adults

By Joan Fields

Benefits of Technology

Studies have shown that older adults who continue to participate in educational opportunities show little or no loss of intellectual abilities.

Self-sufficiency – Adults who are shown to have little or not control over their lives have proven to be more prone to illnesses. Learning about computers can lead to greater self-sufficiency, since many things can be done using a computer; such as shopping, banking, and seeking medical information.

Communication – Using the Internet for email can lead to better communication with family and friends and eliminate or reduce feelings of isolation.

Addressing Obstacles

- Anxiety and stress – Teaching learners the basic concepts of computers may prevent some of these feelings.
- Access to a computer – Have resources available at locations that make computers available to the public, such as libraries and community centers.
- Limited self confidence – Begin by teaching basic computer skills that can be mastered easily.
- Security issues – Be sure to address security issues before teaching learners about the Internet. This can be accomplished by demonstrating how to spot a secure site, learning about virus protection, and what type of emails to be aware of when using their new email accounts.
- Lack of personal support – Plan time during class for questions; some learners may not have family and friends they can turn to when they encounter problems.
- Poor eye-hand coordination – Encourage practice in using the mouse; playing solitaire can be beneficial for this purpose.
- Trouble with typing – Let them know typing is not completely necessary when learning about computers.
- Lack of a training manual – Designing handouts with print screens can be helpful when training manuals are not available.
- Lack of technical support from the computer company – Provide suggested resources such as community college laboratories or libraries.

- Rapid technology changes difficult – Educating learners with basic computer knowledge will help them to better understand what new technologies will be useful and worth pursuing.

As educators plan and design classes for older adults it is important to be aware of the obstacles that can discourage them from learning about computers and new technologies. Addressing these obstacles when designing classes may help educators prevent or be prepared to deal with these issues.

Motivating Factors

It is important for learners to be self-motivated to seek computer education. While many times in the beginning, the reason can be based on curiosity about computers. It then becomes important for educators to continually demonstrate the benefits of technology.

- **Email**
- **Banking**
- **Shopping**
- **Seeking Information**
- **Paying Bills**
- **Digital Photography**
- **Digital Music**
- **Skyping**
- **Entertainment**
- **Games**

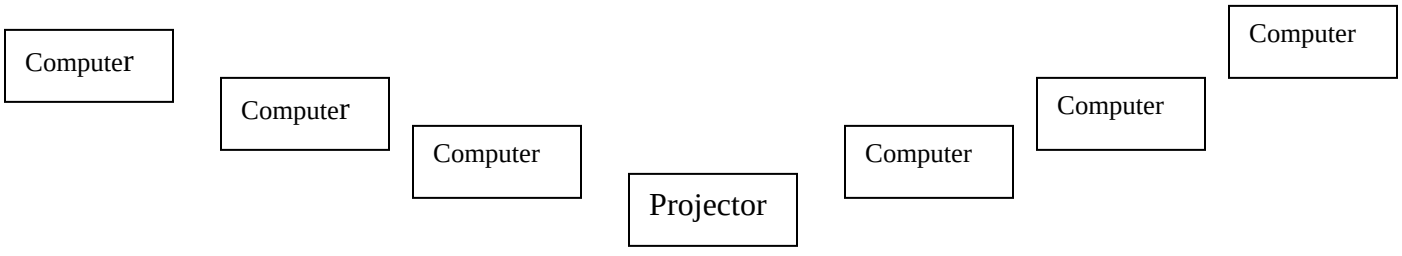
Tips for Setting up Computer Labs

A computer lab does not have to have the most state of the art equipment; it also does not have to have more than five computers. When teaching basic computer classes most learners will require some one on one teaching; this will be very difficult if there are more than five students in a class.

Some basic equipment and requirements:

- **Computers with CD burners and USB ports**
- **Monitors**
- **Keyboards**
- **Mice**
- **Printer**
- **Projector**
- **Internet Connection**

A U-shape configuration can work best for this type of class, so there is room to walk around the students. Another benefit to this configuration is that students are all facing the front the room so they will be able to follow along during PowerPoint presentations.



Sample Lesson Plans

These sample lesson plans include PowerPoint slides which can work well to demonstrate a new skill while allowing time for questions before the hands-on session. A hand out will also be included with the sample lesson plan, the purpose of the hand out will be to guide learners through the hands on task as well as provide a guide for practicing on their own time.

Computer Maintenance – Teaching basic computer maintenance to older adults helps them to gain confidence and a better understanding of computers and how they can prevent some basic problems.

iTunes – Many older adults feel digital music can be too complicated for them to learn; this lesson plan can show them it is possible.

COMPUTER MAINTENANCE

Lesson Plan
PowerPoint Slides
Handouts

LESSON PLAN / COMPUTER MAINTENANCE

Date: 11-01-08
Class Level: Beginning
Length of Lesson: 1 hr 15 min.

Subject: Computer Maintenance

Materials Needed: Projector, computers, handouts

Lesson Objective: Students will be able to perform and understand basic computer maintenance and preventative tasks.

Assumptions: Students are capable of using the mouse and keyboard, as well as basic Windows functions.

Discussion **Time**
10 min.

Purpose: Discuss previous lesson and current lesson.

Presentation / Pre-teach: Provide time to answer or discuss questions students may have encountered when practicing the previous lesson. Introduce the expectations of the new lesson for the current class.

Presentation **Time**
20 min.

Purpose: To allow students to see what screens will be used in the lesson.

Hands on Practice **Time**
30 min.

Purpose: This allows students to practice their new skill and perform previously demonstrated tasks.

Final Discussion **Time**
15 min.

Purpose: Allow students to ask questions or discuss problems they may have encountered while doing the hands on activity.

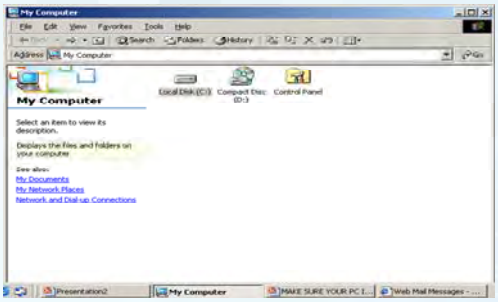
PowerPoint Slides - Computer Maintenance

Computer Maintenance

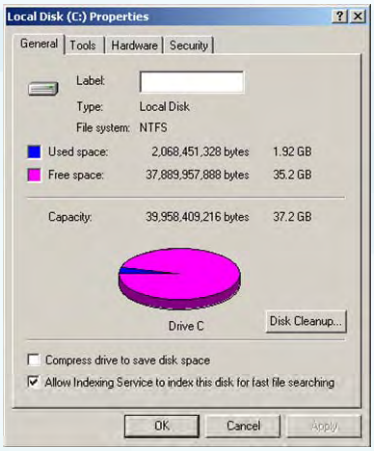
By Joan Fields

MY COMPUTER

- Hardware and controls on your computer.
- Double click on My Computer Icon
- Right click on Local Disk (C:)



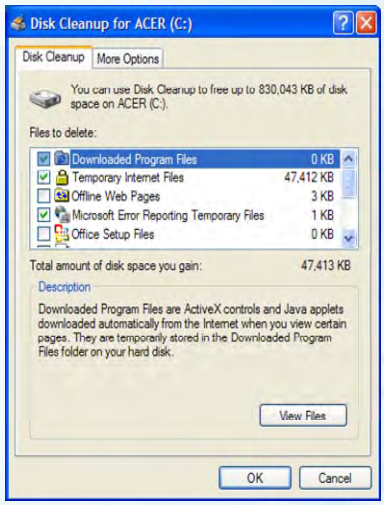
PROPERTIES



- Disk Space
- Option to make more space on your hard drive.

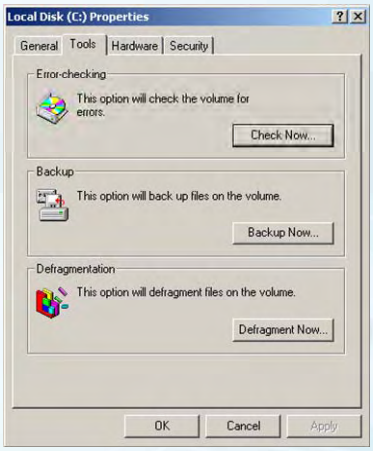
Disk Cleanup

- Will give you options to delete files from the hard drive that may not be used.
- More Options can be located in your computer settings.



Tools

- This screen allows for prevention and computer maintenance.

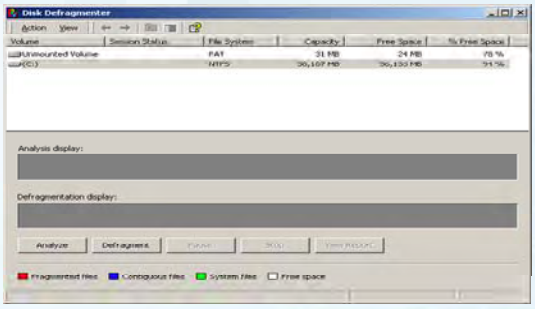


Check Disc

- This may ask you if you would like to schedule a disk check.
- It will usually happen the next time you sign on to your computer.

Defragmenter

- Defragmenting is very important routine maintenance of your computer.
- This will move files and make more room on your hard drive.

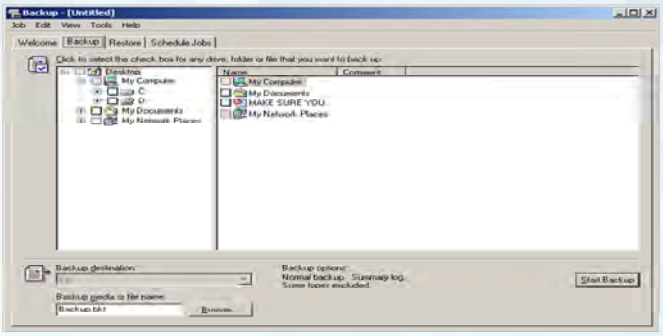


Backup Wizard

- Backing up your computer
- This screen also will allow you to restore your computer in case the hardware has been resurfaced.

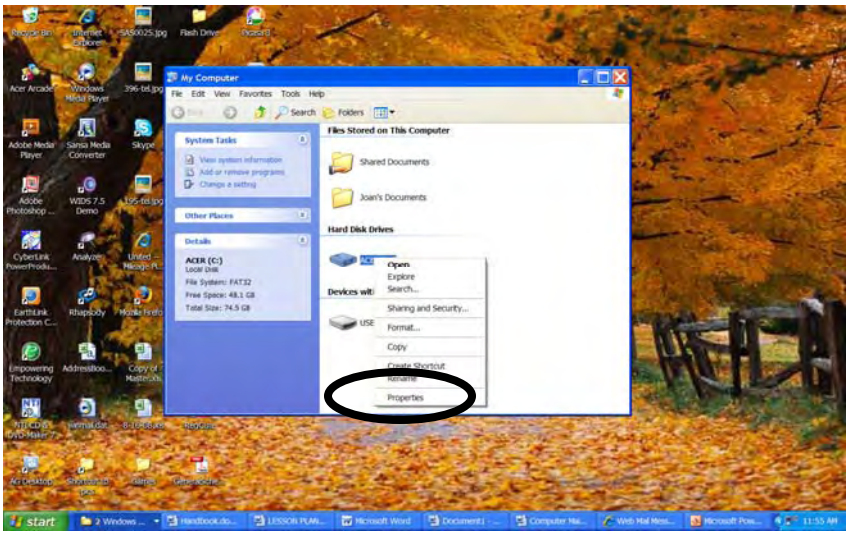
Backup

- Which drive do you want to backup?
- You can use a disk, CD, DVD, or USB Drive.

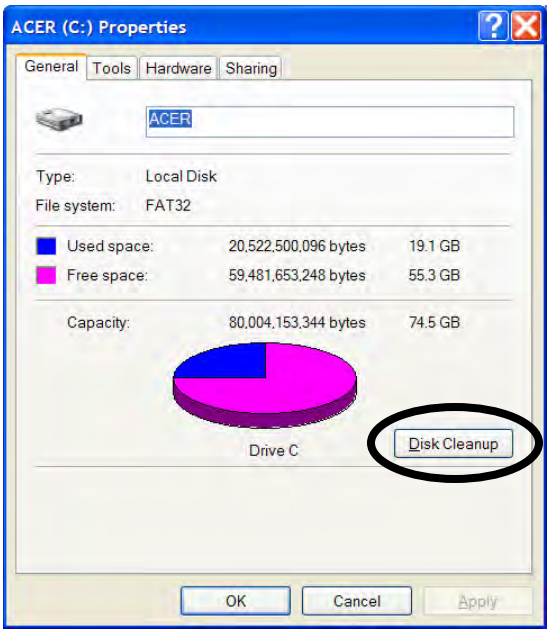


Hand out – Computer Maintenance

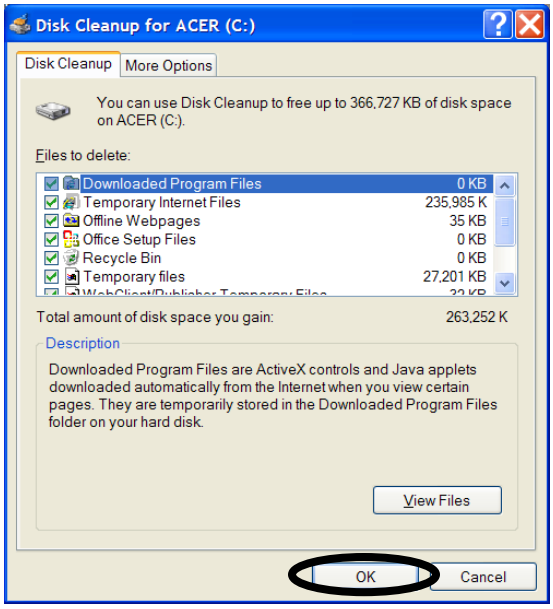
Go to Start Menu or My Computer icon, click on **My Computer** then Right click **Hard Disk Drive (C:).** You should see a drop down menu, and click on **Properties.**



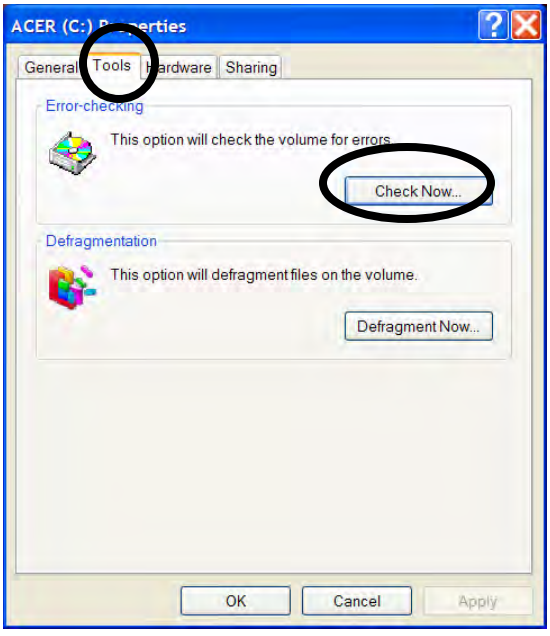
You will then see the hard drive **Properties** window. This first window will show the basic properties of your hard drive. **Disk Cleanup** will be the first step in performing computer maintenance.



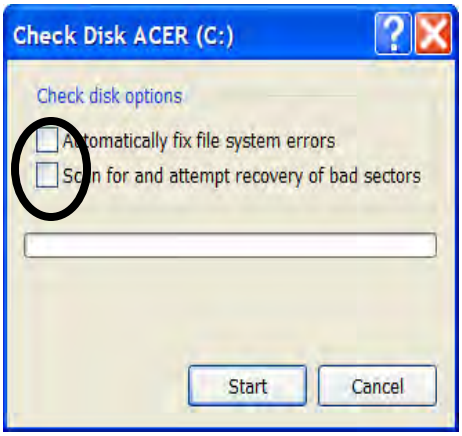
Disk cleanup this window will show you which files can be deleted off of your hard drive to free up more disk space. Click **OK** to delete the suggested files.

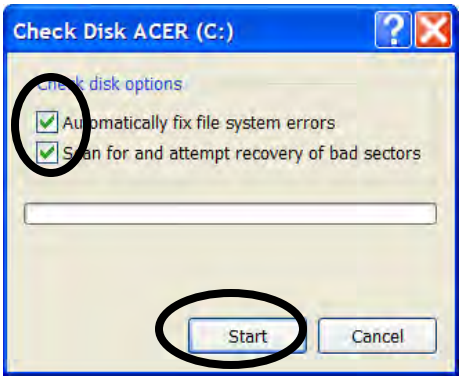


The next step will be to click on the **Tools** tab. This tab will allow you to schedule a disk check and defragmentation of your hard drive. Click on the **Check Now** button.

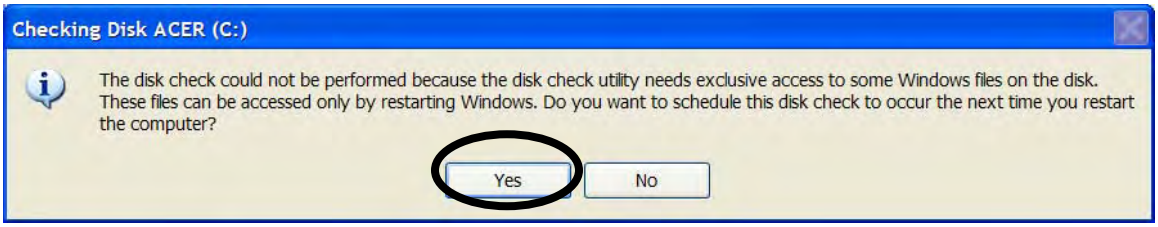


You will then see this screen; you should click on each box to add a check mark. The next time your computer is turned on it will automatically do a complete check of your hard drive.

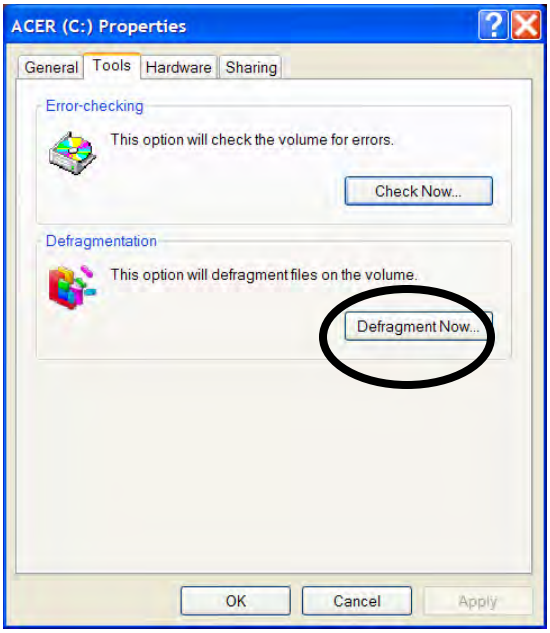




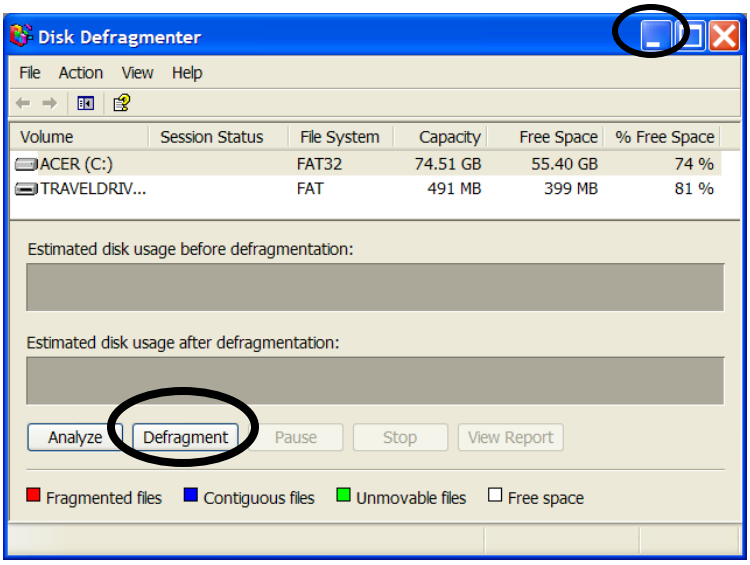
After clicking the check mark boxes, click on the **Start** button, you will then receive a message stating that the disk check could not be performed at this time that it will occur the next time your computer is turned on. Click the **Yes** button.



The next step will be to click the **Defragment Now** button.



The next window will then give the option to defragment your hard drive. Click the **Defragment** button.



It will then begin to perform the defragmentation of your hard drive, and you can minimize the window and perform other tasks while this is happening.

iTunes

Lesson Plan
PowerPoint Slides
Handouts

LESSON PLAN / iTunes

Date: 11-01-08
Class Level: Intermediate
Length of Lesson: 1 hr 15 min.

Subject: Digital Music

Materials Needed: Projector, computers, handouts, iPod

Lesson Objective: Students will be able to download music and sync their iPod.

Assumptions: Students are capable using the mouse and keyboard, as well as basic Windows functions.

Discussion **Time**
10 min.

Purpose: Discuss previous lesson and current lesson.

Presentation / Pre-teach: Allow time to answer or discuss questions students may have encountered when practicing the previous lesson. Introduce the expectations of the new lesson for the current class.

Presentation **Time**
20 min.

Purpose: To allow students to see what screens will be used in the lesson.

Hands on Practice **Time**
30 min.

Purpose: This allows students to practice their new skill and perform previously demonstrated task.

Final Discussion **Time**
15 min.

Purpose: Allow time for students to ask questions that may have come up during Hands on Activity. This is a good time for the instructor to discuss and encourage students to continue to practice their new skill.

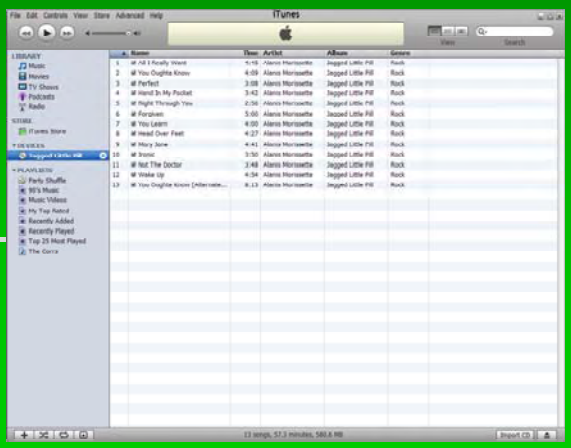
PowerPoint Slides - iTunes

iTunes

By Joan Fields

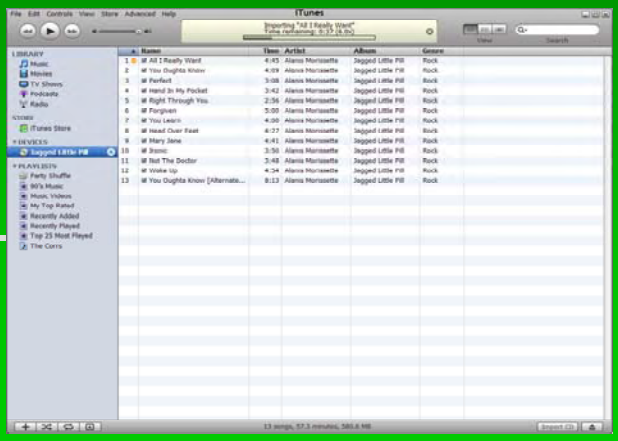
Copy CD

- Click Import CD



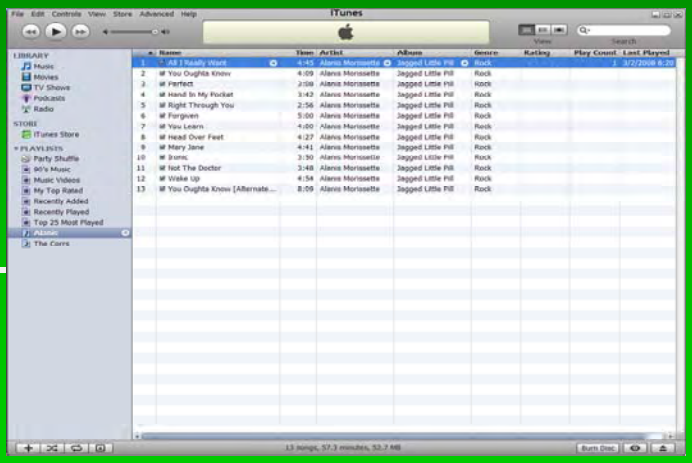
Import CD

- You will be able to see status bar at the top of the screen.



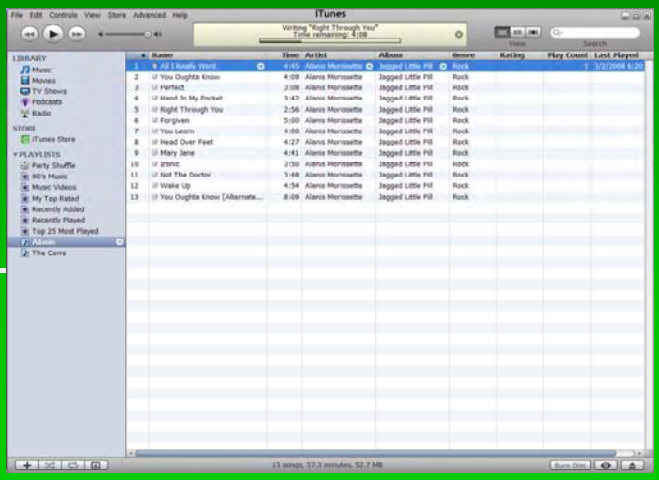
Burn Disc

- Click Burn Disc at bottom of screen.



Burning to Disc

- Check status bar at top of screen.

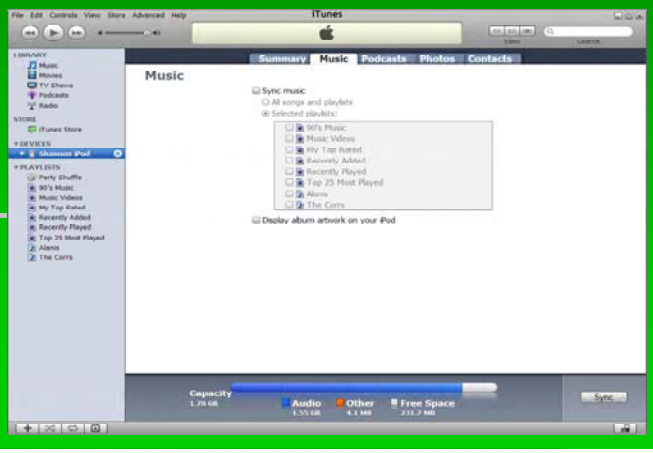


iPod

- Summary screen appears when iPod is connected.

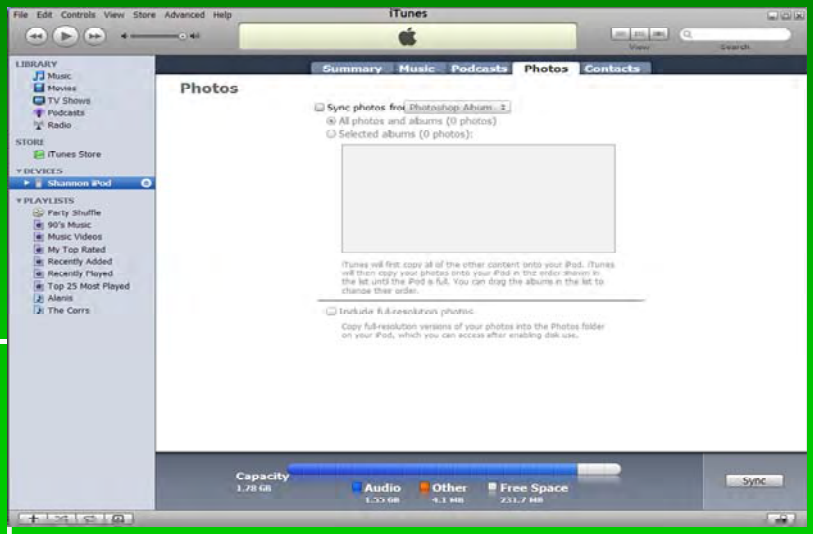
Sync Screen

- Sync – this allows you to choose which songs you would like downloaded on you iPod.

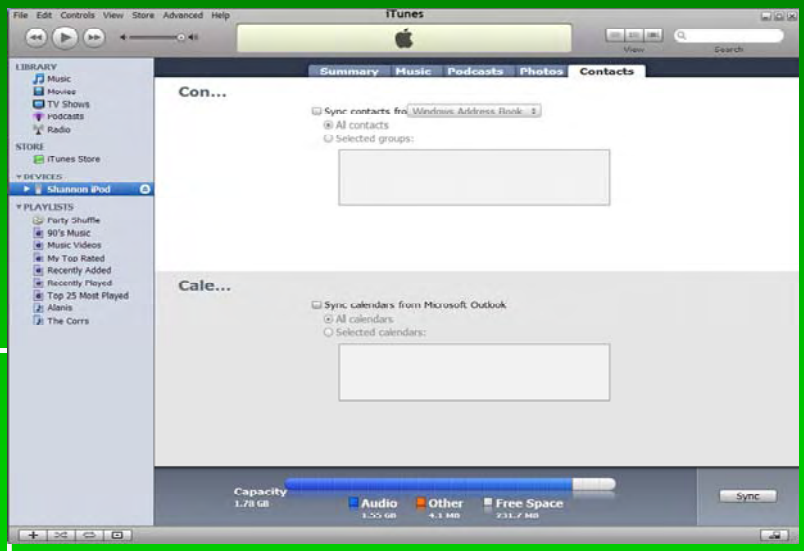


Podcasts

Photos

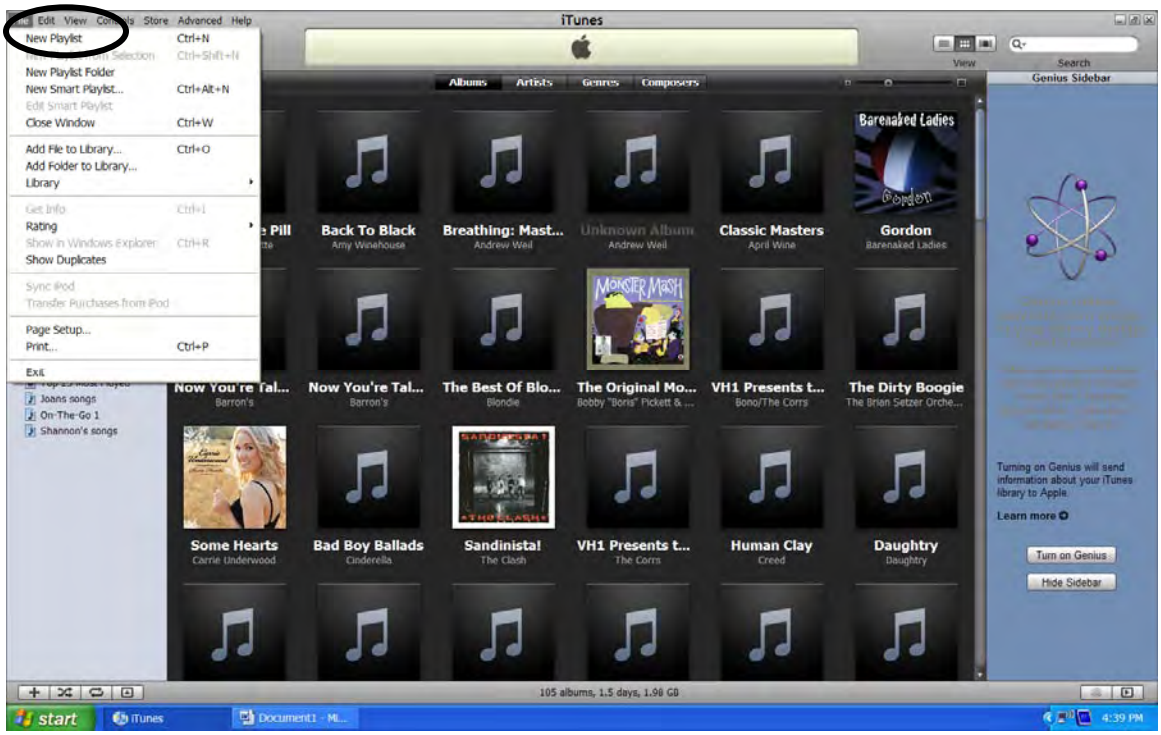


Contacts

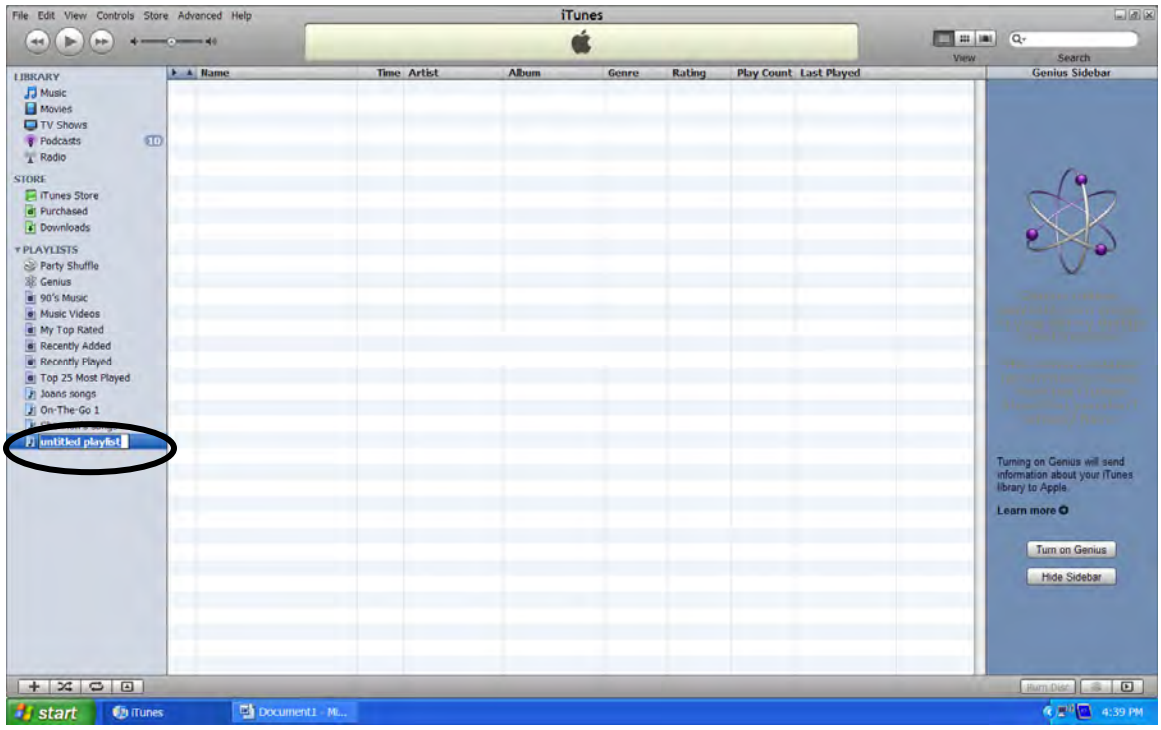


Hand out - iTunes

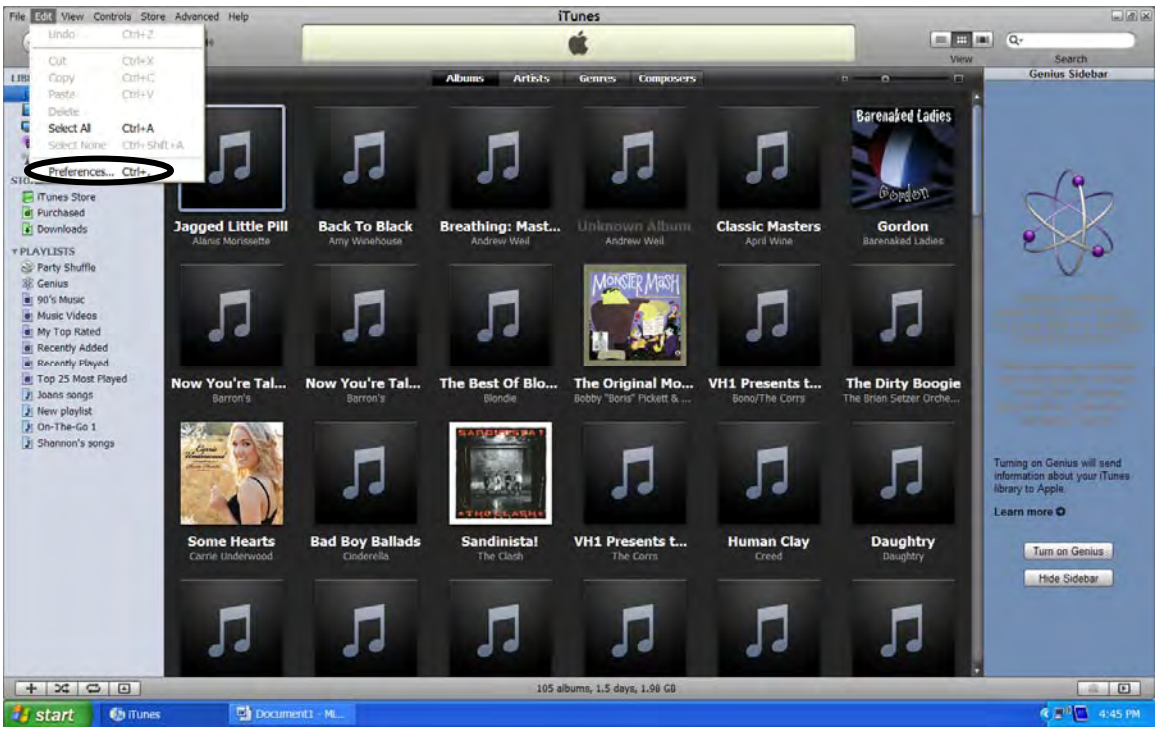
iTunes home – music library grid view



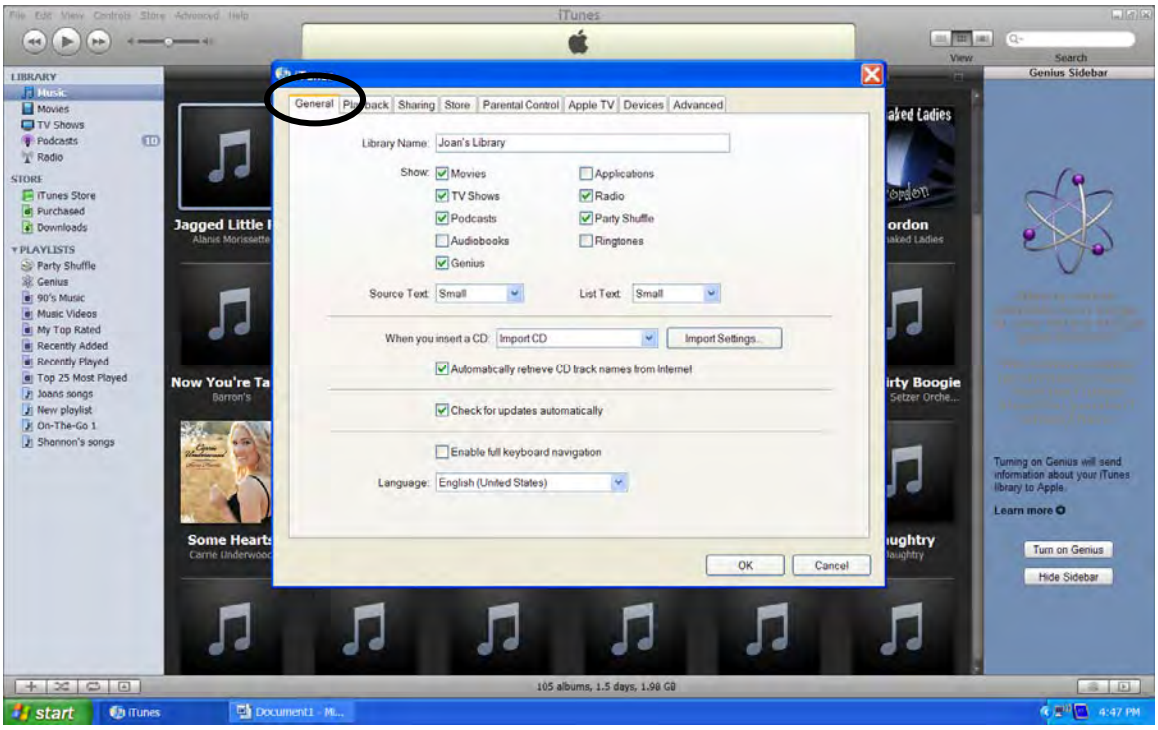
Add a new playlist.



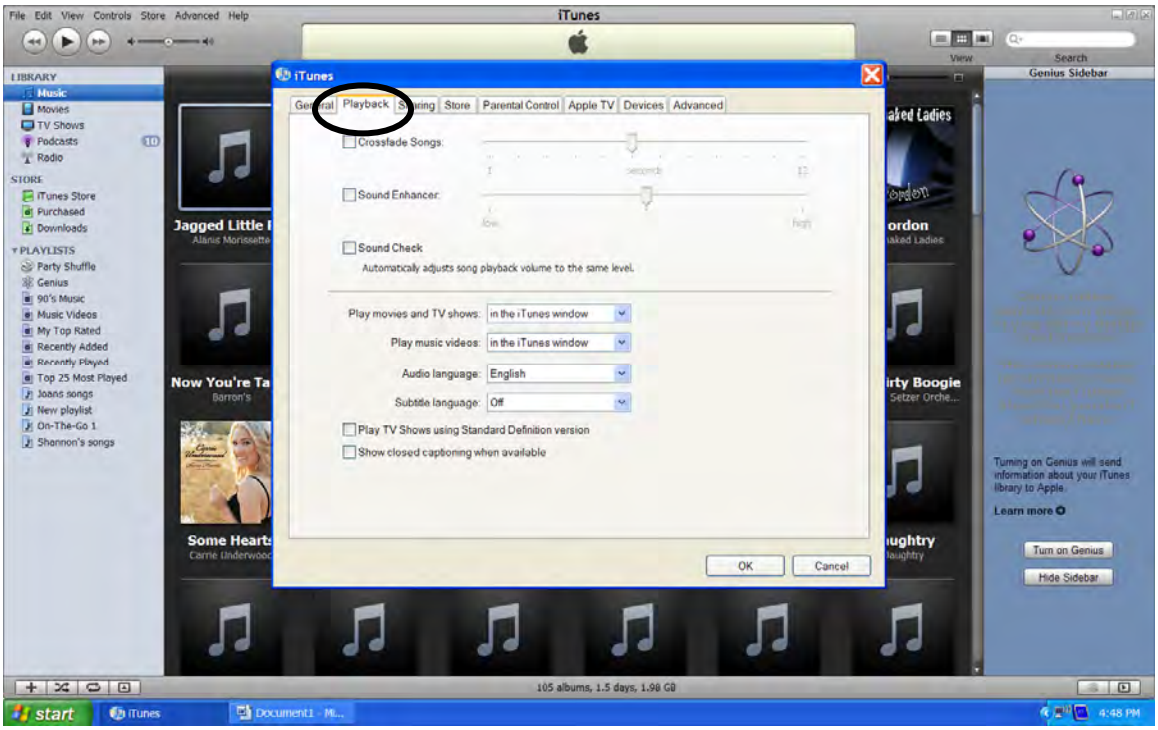
Name your playlist.



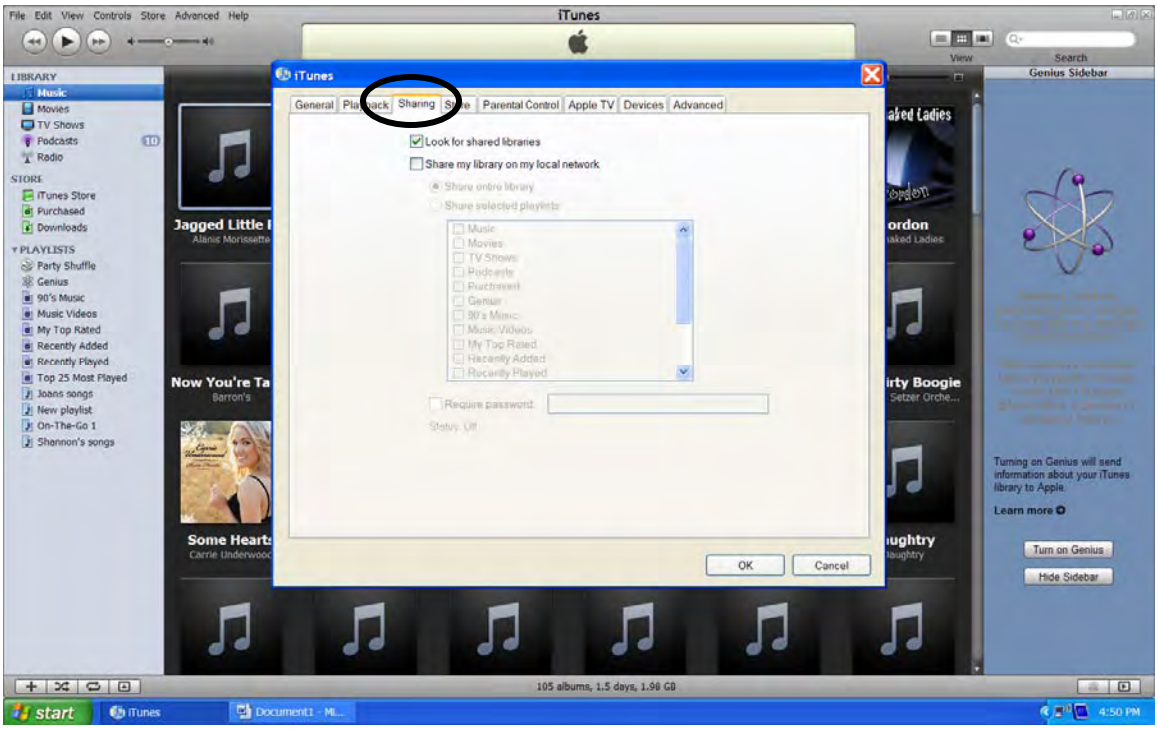
Preferences – changing settings.



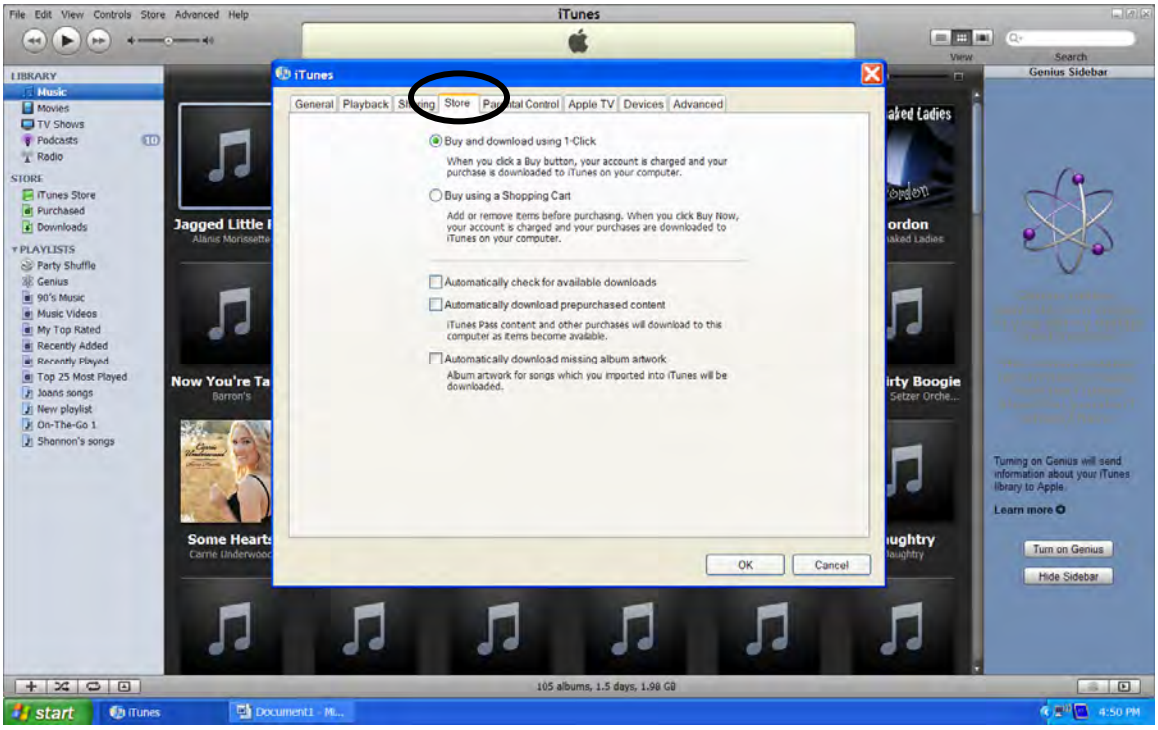
Choose which type of library displays you prefer; this will depend on the type of iPod you have.



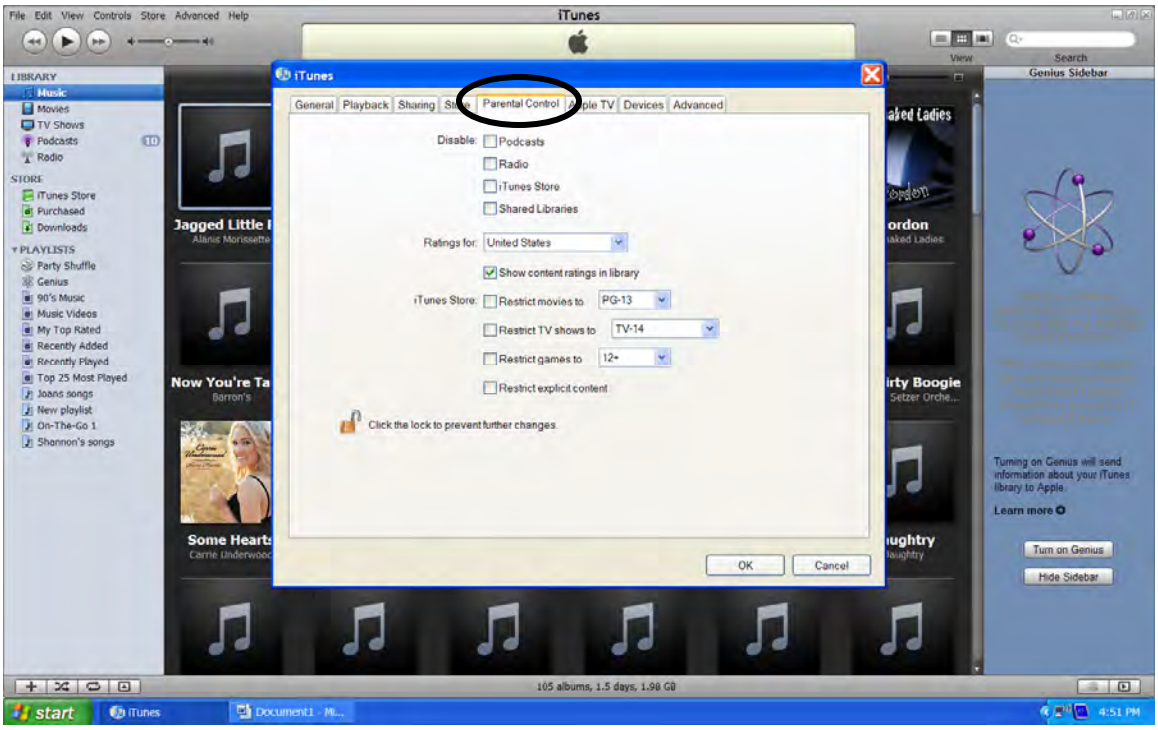
Choose your sound preferences when listening to music through iTunes.



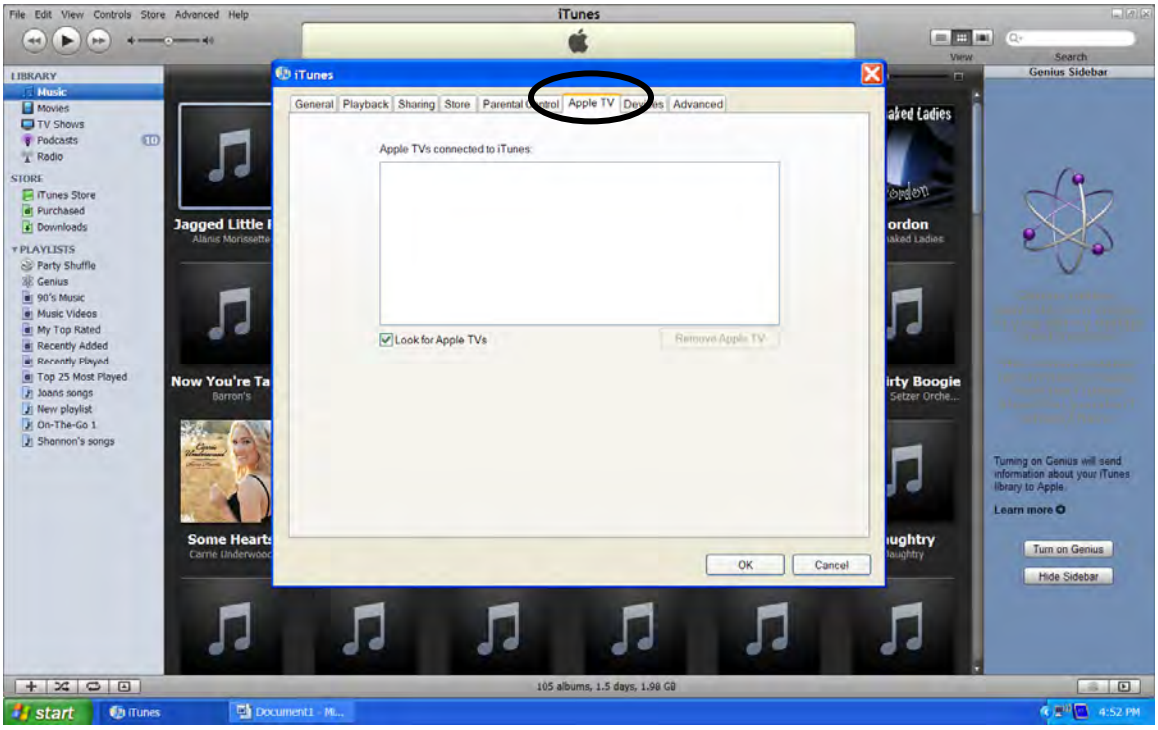
Sharing files throughout a network.



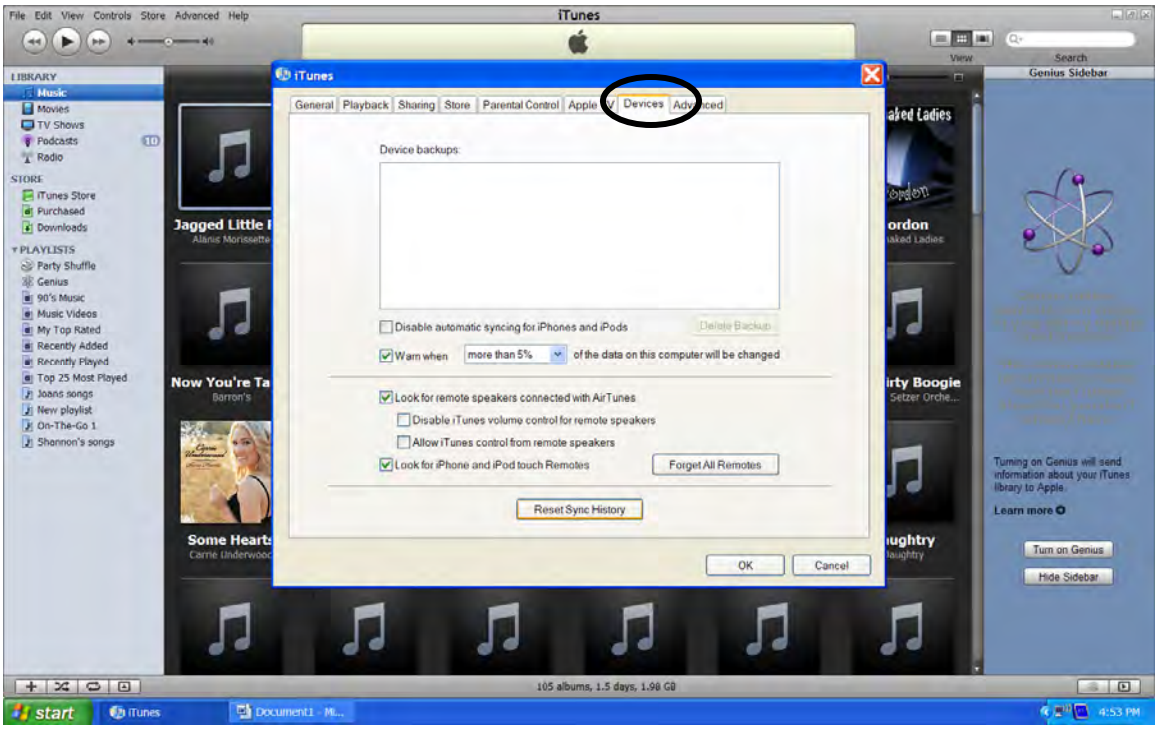
Setting preferences for your iTunes store and downloads.



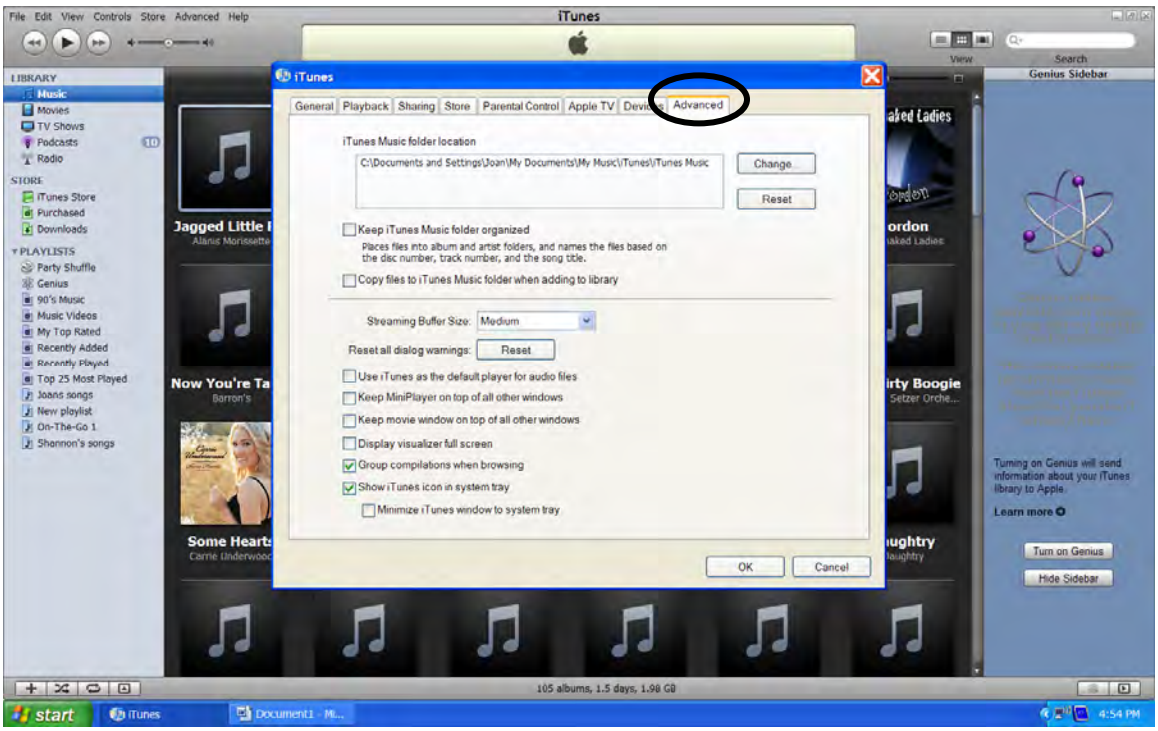
Setting restrictions and guides when sharing a computer with children.



Detecting settings for Apple TVs.

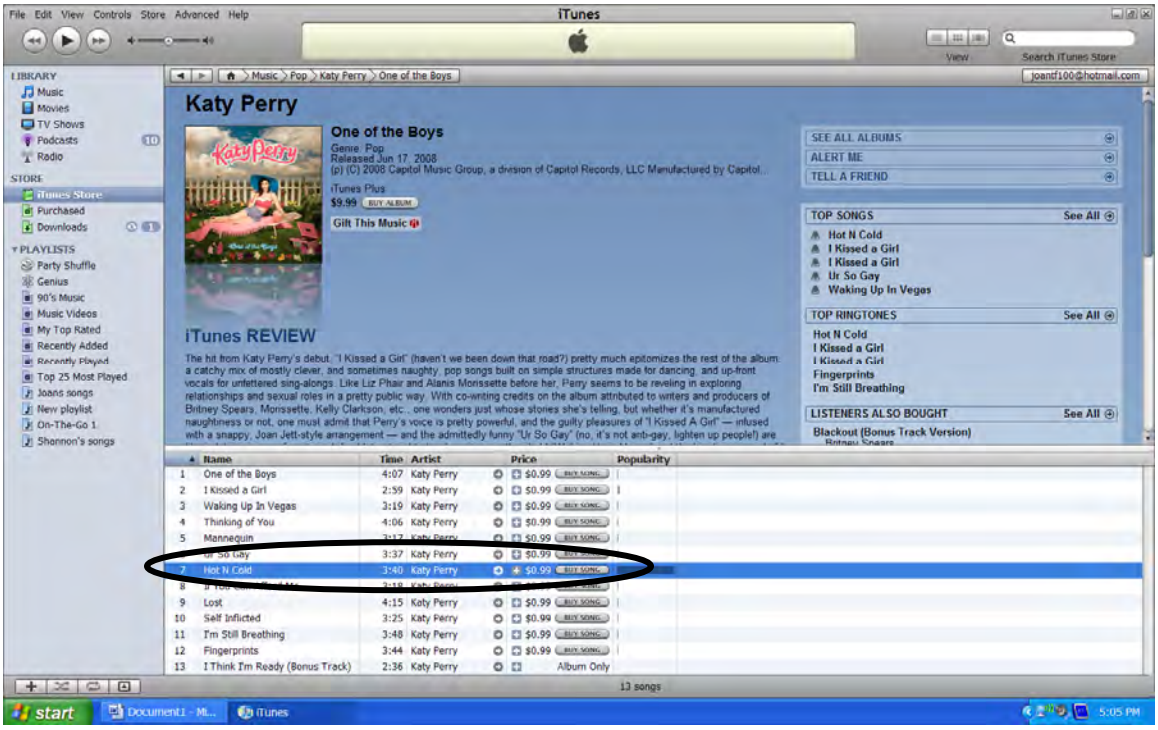


Setting up automatic detection and syncing for devices.

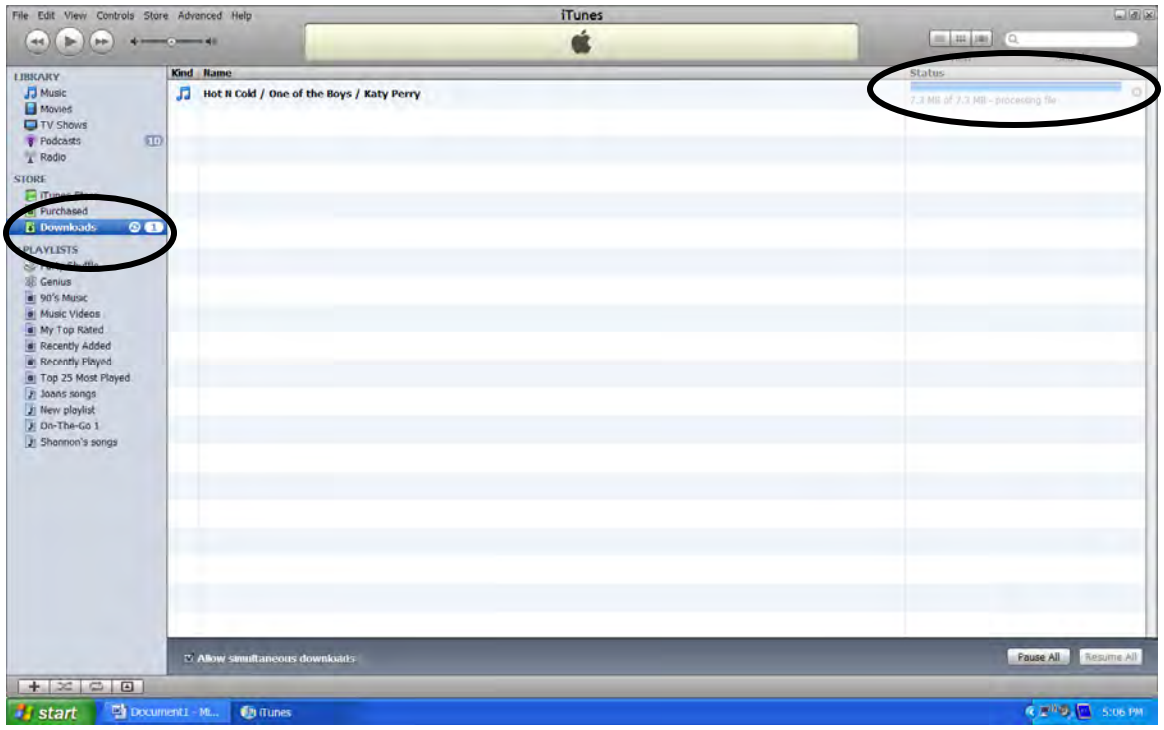


More advanced settings when using iTunes.

iTunes Store

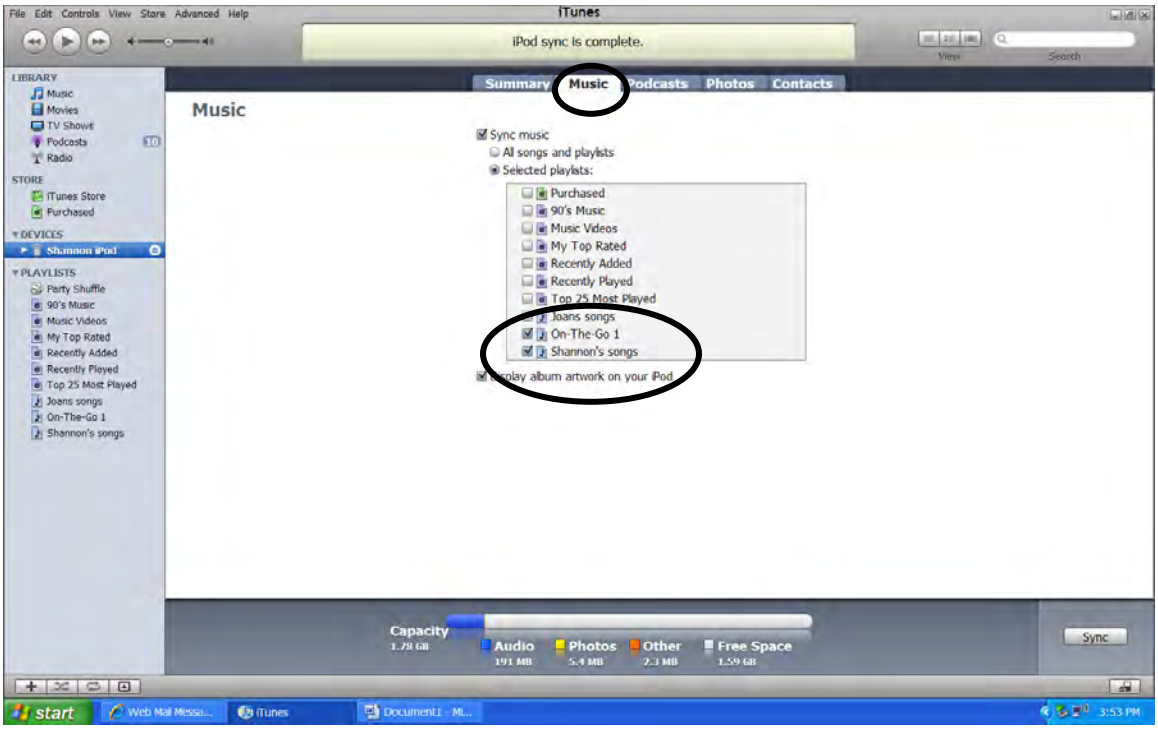


Buy a song.

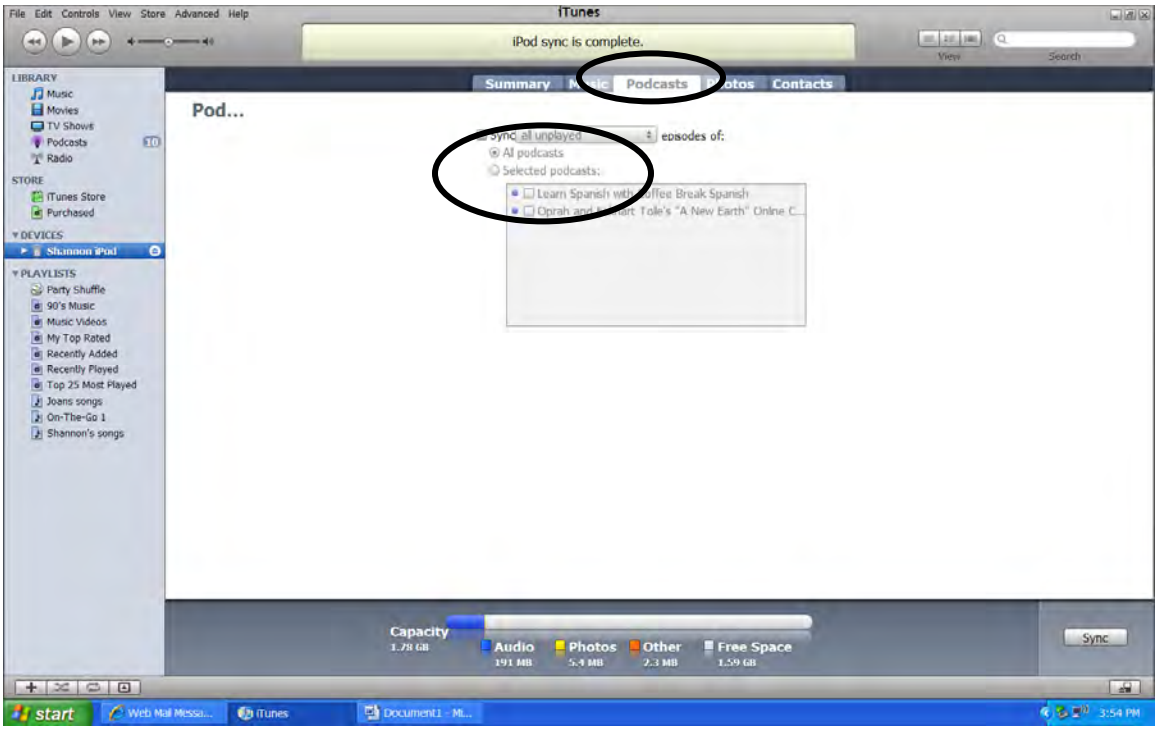


Check download selection (left side of screen) to check download status.

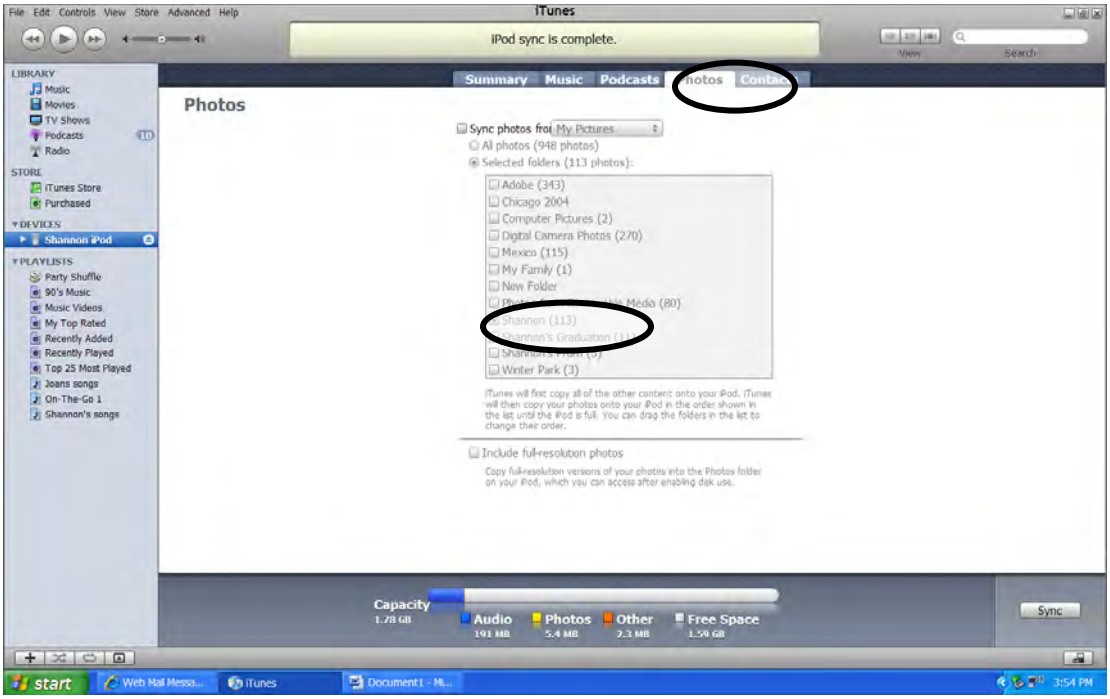
When an iPod device is connected, this is the summary screen: shows available space.



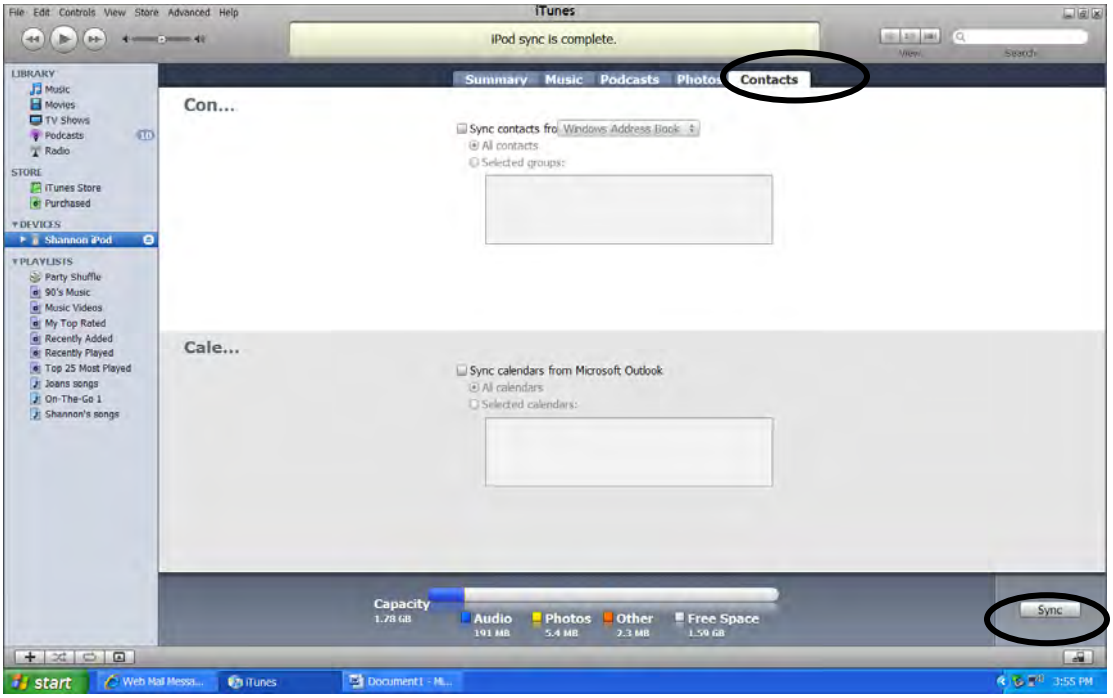
Music tab – allows the selection of folders that you choose to sync with your iPod.



Podcast tab – allows the selection of folders that you choose to sync with your iPod.



Photos tab – allows the selection of folders that you choose to sync with your iPod. The photo folder can be set up similar to playlist folders so only chosen photos will sync to your iPod.



Contacts tab – allows the selection of folders that you choose to sync with your iPod. The final step is to click the **Sync** button after all folders have been chosen.

Chapter Summary

This resource guide can be useful in the development of computer education programs for older adults. It addresses the benefits of learning to use computers, as well as the obstacles that many older adults face when making a decision about learning new technologies. The resource guide includes two sample lesson plans; the first is on computer maintenance. These lessons are designed to give learners confidence that they are capable of fixing some basic computer problems and performing tasks that can prevent future problems. The second lesson plan is for iTunes. This lesson plan can demonstrate how even some of the more complicated tasks can be learned. Both lesson plans are accompanied by PowerPoint slides and handouts. PowerPoint slides and handouts can be useful in demonstrating the new skill while the students follow along. The handout is also useful for learners to take home and reference when they are practicing new tasks on their own.

A resource guide for educators to use when designing and facilitating basic computer classes for adult learners was presented in Chapter 4. Included in this resource guide are: (a) benefits of technology, (b) addressing obstacles, (c) motivating factors, (d) tips for setting up computer laboratories, and (e) sample lesson plans. In Chapter 5, the author includes a discussion of the completed project.

Chapter 5

DISCUSSION

The purpose of this project was to create a resource guide for designing and facilitating basic computer classes for older adults. Teaching older adults about computers has been shown to improve health, promote self-reliance, and encourage more control over their lives. There is also a great deal of health-related information available on the Internet. Using the Internet to email has been proven to improve communication with family and friends, since as we age we may not be as capable of getting around so easily. This project provides resources to show the many benefits and motivating factors for older adults who wish to learn about computers and ultimately enhance their daily lives.

Contribution of this Project

Learning basic computer skills can greatly enhance the lives of older adults. It can help reduce feelings of isolation, improve communication with family and friends, and increase feelings of independence. Many of these learners may struggle when they do make the decision to learn about computers, and many are not sure where to turn to get the support and help they need. Some of these struggles relate to: (a) stress and anxiety, (b) computer access, (c) self confidence, (d) lack of support, and (e) physical limitations.

When educators who work with older adults can begin to understand and address the needs and challenges these learners face as they age, they are better able to design and

facilitate classes for them. The resource guide can aid educators who work with older adults to be better aware of their learning needs.

Limitations

The resource guide addressed designing and facilitating basic computer classes for older adults. It did not address physical disabilities that commonly afflict adults as they age. There are many different types of tools and specialized equipment designed to meet the needs of older adults with disabilities. While this resource guide does address setting up computer laboratories for older adults, it does not include detailed resources that can be beneficial to working with older adults who may have more severe disabilities.

Peer Assessment Results

The author received some positive feedback regarding the lesson plans, with the PowerPoint slides, and the handouts. One suggestion I had received when teaching the very first computer class to older adults was to have an open computer to demonstrate the different parts. This could help them understand the concept of how a computer works, since many older adults have a hard time grasping this concept. A colleague suggested that a more basic lesson plan be included in the guide, for example, learning about the desktop and toolbars. The lesson plans that were included as sample lesson plans, serve to demonstrate that older adults are capable of learning more intermediate computer skills. The above mentioned suggestions should be considered when teaching older adult learners and may need to be the starting point in certain classes.

Recommendations for Further Development

As physical limitations are fairly common and not extreme, it could be beneficial to examine the research regarding the many different adaptive products that are available to make learning about computers easier for people with physical limitations. While working on this project, the author found most studies that had been done on older adults and technology were done with adults who did not tend to be as active or educated as many older adults are. A study of adults who have pursued active careers and education throughout their lives may provide a different set of results and instructional needs.

Project Summary

Computers have become, for most people, an everyday part of life. Checking email everyday can be compared to how most people used to wait for the postman. It is important that resources are available to older adults who have not grown up with computers and have a difficult time finding someone to teach them basic computer skills. This resource guide can provide helpful information in setting up and designing programs for older adults so the help can be there when they need it.

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