Tips for Teaching Older Adults to use Computers

These tips were compiled from the resources listed at the end of this document.

I. Class setting and make-up

1. "Eliminate noise disturbances in the classroom because older adults have difficulty ignoring irrelevant auditory stimuli" (Jones & Bayen, 1998, p. 684).

2. "Be aware of and regulate other environmental distractions in the classroom such as unnecessary movement, extreme temperatures, and poor lighting (Jones & Bayen, 1998, p. 684).

3. "Choose an appropriate time of day to schedule class." Morning is especially good. (Jones & Bayen, 1998, p. 684).

4. "Class size should remain small" (Mayhorn et al., 2004, p. 200).

5. "Students should be separated by skill level and experience" (Mayhorn et al., 2004, p. 200).

6. Place novices in novice only classes (Bean & Laven, 2003).

7. "Locate the training in a room or area conducive to learning for older adults." The room should be warm room and away from noise distractions. (Bean, 2003, p. 21).

8. "The physical space should be welcoming, and the staff aware of what seniors can offer the library and what the library can offer the senior" (Mates, 2004, p. 34).

II. Teacher behaviors

1. "Use language as explicitly as possible to minimize irrelevant connotations and inferences that may be drawn by older adults" (Jones & Bayen, 1998, p. 684).

2. "Instructors should avoid technical jargon (e.g., megabytes, motherboards) when teaching older adults about computers" (Mayhorn et al., 2004, p. 200).

3. Use positive statements and use the active voice. (National Institute on Aging and the National Library of Medicine, 2001).

4. "Bring enthusiasm, patience, humor, creativity and preparation. Bring awareness that some students are there to learn the computer and others may simply want to be in a room with others. Be prepared to adapt curriculum to individual learning styles and needs, and to teach to students' interests and abilities" (Helpguide.org).

5. “Encourage questions every step of the way and listen to the whole question before starting to answer: repeat the question as it might be one that everyone wants to hear” (Helpguide.org).

6. Modify terms used to introduce new concepts. For instance, when introducing the concept of icon, use the term “picture.” Try to connect terms like “shortcut” and “menu” with an explanation that connects the term to its new meaning. (Bean & Laven, 2003).

7. “Speak slowly. The lower the trainers voice, the better” (Bean, 2003, p. 21).

8. “Speak clearly, with frequent pauses” (Bean, 2003, p. 21).

9. “Use precise, unambiguous terms” (Bean, 2003, p. 21).

10. “Staff should assure seniors that the library can help them learn at their own pace. Explain to them that they will be in a class with contemporaries – no one will laugh or judge them if they make a mistake” (Mates, 2004, p. 35).

11. “The instructor’s role should be that of coach, facilitator, or mentor rather than that of task-master” (Mates, 2004, p. 38).

12. “Encourage patrons to ask questions. Ask patrons open-ended questions to start them talking and always thank them for their response and questions (Mates, 204, p. 38).

13. “Don't take the keyboard. Let them do all the typing, even if it's slower that way, and even if you have to point them to every key they need to type. That's the only way they're going to learn from the interaction” (Agre, 1998).

14. “Attend to the symbolism of the interaction. Try to squat down so your eyes are just below the level of theirs (sic). When they're looking at the computer, look at the computer. When they're looking at you, look back at them” (Agre, 1998).

15. “Be aware of how abstract your language is. "Get into the editor" is abstract and "press this key" is concrete. Don't say anything unless you intend for them to understand it. Keep adjusting your language downward towards concrete units until they start to get it, then slowly adjust back up towards greater abstraction so long as they're following you. When formulating a take-home lesson ("when it does this and that, you should try such-and-such"), check once again that you're using language of the right degree of abstraction for this user right now” (Agre, 1998).

16. “Whenever they start to blame themselves, respond by blaming the computer. Then keep on blaming the computer, no matter how many times it takes, in a calm, authoritative tone of voice. If you need to show off, show off your ability to criticize bad design. When they get nailed by a false assumption about the computer's behavior, tell them their assumption was reasonable. Tell *yourself* that it was reasonable” (Agre, 1998).

III. General teaching strategies

1. Instructors should use many different types of teaching methods. For instance, teachers should provide direct instruction to introduce and identify critical concepts and to model procedures. However, instructors should also provide time for hands-on computer practice so that students can refine their skills and work at their own pace. Teachers must also allow time for questions and discussion s during class and schedule time to be available to answer questions outside of class. (Jones & Bayen, 1998).

2. "Allow sufficient time during instruction for older adults to process events and information. It is important to build time into the course schedule to allow for a slower pace of instruction" (Jones & Bayen, 1998, p. 677).

3. "Provide more pauses during lectures so that students have time to take notes. Extra time is necessary because older adults may take longer to write notes. In addition, research has shown that older adults may have a greater reliance on external memory aids than younger adults… thus, written notes might be more important to them" (Jones & Bayen, 1998, p. 678).

4. "Allow students to ask questions during instruction to help clarify information. It is important to not only anticipate many questions, but also to encourage students to ask them. Also, schedule time outside of class to be available to answer student questions" (Jones & Bayen, 1998, p. 678).

5. "Minimize the amount of reading required during instruction – or provide extra time for reading." This is because older adults read slower than young adults (Jones & Bayen, 1998, p. 678).

6. "Provide opportunities for students to complete hands-on activities at their own pace" (Jones & Bayen, 1998, p. 678).

7. "Use the same version of computer software during instruction that students will use for hands-on practice sessions and assignments" (Jones & Bayen, 1998, p. 680).

8. "Use advance organizers at the beginning of each instruction unit. Advance organizers are overviews provided at the beginning of a unit to introduce and sum up the material in the unit that follows" (Jones & Bayen, 1998, p. 681).

9. "Break-up the instruction into small units with specific goals … For instance, when teaching word processing, one unit may consist of learning all of the functions associated with the "Edit" command (e.g., cut, copy, paste). Another unit may consist of the functions associated with the "Format" command (e.g., font, style)" (Jones & Bayen, 1998, p. 681).

10. "Present information explicitly, as opposed to requiring subtle inferences" (Jones & Bayen, 1998, p. 681).

11. "Relate new information to students' existing knowledge. Analogies can be an effective way of explaining new concepts to older adults" (Jones & Bayen, 1998, p. 681).

12. "Model procedures and skills to be learned… the instructor should consider inviting an older adult with little computer experience to participate in the instruction and model some of the procedures" (Jones & Bayen, 1998, p. 681).

13. "Provide information in pictorial format in addition to text." Use Screen shots and projectors. (Jones & Bayen, 1998, p. 682).

14. "Allow students to practice each unit after it is taught" (Jones & Bayen, 1998, p. 682).

15. "Allow students to work in pairs during hands-on activities. Partners may be useful in helping one another to remember information that cannot be recalled immediately" (Jones & Bayen, 1998, p. 682).

16. "Have a sufficient number of instructors available to answer questions and provide support during hands-on computer sessions" (Jones & Bayen, 1998, p. 682).

17. "Make the learning objectives clear and explicit to minimize the chances of irrelevant information entering into students' working memory. Furthermore, students should know exactly what they are supposed to be learning and doing at all times. This should help to keep older adults focused and on-task" (Jones & Bayen, 1998, p. 683-684).

18. "Organize hands-on activities so that students work on only one specific task at a time. For instance, students who practice "saving" a document should have only one document "open "at once" (Jones & Bayen, 1998, p. 684).

19. "Demonstrate the practical uses of computers for older adults and strive to reduce initial anxiety by introducing positive experiences early in training" (Mayhorn et al., 2004, p. 193).

20. Focus on the specific goals and interests of the participants, not the agenda of the teacher (Mayhorn et al., 2004).

21. "Emphasis should be placed on building a positive initial experience with computers to reduce computer anxiety and build positive attitudes" (Mayhorn et al., 2004, p. 200).

22. "Instructional materials should be organized into a series of well-defined units that incrementally increase in complexity. These units should be relatively brief to prevent presentation of too much information at once" (Mayhorn et al., 2004, p. 200).

23. "Students should be encouraged to engage in self-paced practice of skills learned earlier" (Mayhorn et al., 2004, p. 200).

24. "Course materials for novice students should be presented in a step-by-step procedural format. Similarly, instructor-based learning should be accompanied by step-by-step reference materials that provide cognitive support for later practice" (Mayhorn et al., 2004, p. 200).

25. "Instruction should progress at a pace comfortable for older students" (Mayhorn et al., 2004, p. 200).

26. "Make the class relevant. Adults, especially older adults, need a direct correlation to their lives to maintain interest" (Bean, 2003, p. 21).

27. "Allow extra time to accomplish even simple tasks (Bean, 2003, p. 21).

28. "Involve seniors in their training. To whatever extent possible, have older students participate in goal setting and feedback for specific tasks, and in the entire course outcome" (Bean, 2003, p. 21).

29. "Partner learners with similar abilities, to increase motivation and reinforcement" (Bean, 2003, p. 21).

30. "Focus on the content or value of the work, not on the computer application. For example, 'Finding travel information on the Web,' rather than using search engines" (VanFleet & Antell, 2002, p. 150).

31. Emphasize not what the computer can do, but what the user can do with the computer. (VanFleet & Antell, 2002).

32. Focus on details rather than abstractions. For instance, explain how to check e-mail, instead of how e-mail works. (VanFleet & Antell, 2002).

33. "Older adults prefer and learn better when presented with single-theory courses that allow for immediate hands-on applications. Most patrons want to be sure they can accomplish one skill before moving on to a new challenge" (Mates, 2004, p. 38).

IV. Ways to empower seniors to learn

1. Adjust the "mouse double-click speed" to a slower setting. Adjust the "pointer speed" to a slower speed. (Jones & Bayen, 1998, p. 679).

2. "Position computer monitors to reduce glare. Instructors should know how to move and adjust monitors and show students how to do so. Window shades and lighting may also be adjusted to reduce glare. If monitors cannot be positioned to eliminate glare, an anti-glare screen (glare guard) may be placed over computer screens to reduce glare" (Jones & Bayen, 1998, p. 685).

3. "Training materials should include instruction on accommodative behaviors that compensate for declines in perceptual, motor, and cognitive ability" (Mayhorn et al., 2004, p. 200).

4. "Teach students to take frequent brakes: to stand up and walk around or stay seated and stretch hands, arms, shoulders: blink eyes frequently during class session" (Helpguide.org).

5. When choosing Web sites to demo, select those with high contrast (Bean, 2003).

6. "Provide hand-held magnifiers for class usage" (Mates, 2002, p. 38).

V. Handouts and supplementary material

1. "Provide handouts for students to use as a reference. It is particularly useful to provide handouts with pictures of toolbars and buttons accompanied with a short description of all the relevant items. Providing students with handouts that identify the location and function of toolbars and buttons should serve as a reminder to students when they are working on their own" (Jones & Bayen, 1998, p. 683).

2. Make handouts senior-friendly with simple, step-by-step instructions using clear, concise wording, in an easy to read font and size. They should also include abundant, labeled graphic illustrations to keep their attention focused. (Bean & Laven, 2003).

3. "Instructions should be comprehensive and explicit: don not assume they will retain knowledge of prior steps" (Bean, 2003, p. 21).

4. "Give each learner a personalized workbook at the start of training. Be sure to include: Step by step instructions; Lists of resources; White space to take notes and review concepts; Large, clear print and uncluttered pages" (VanFleet & Antell, 2002, p. 150).

5. "Provide laminated index cards including such information as how to open and close programs, how to access the Internet at the library, how to use the address line in the browser, and a reminder that one click plus the Enter key will open a program if they have trouble double-clicking" (Puacz & Bradfield, 2000, p. 52).

6. "Bring a selection of books and videotapes into the classroom that patrons can borrow" (Mates, 2004, p. 38).

7. "Present a certificate at the end of each lesson" (Mates, 2004, p. 38).

VI. Specific content to teach

1. "Teach students to use "toolbars" that have buttons with images." This reduces the need for older adults to remember where specific commands are located in menu systems. (Jones & Bayen, 1998, p. 680).

2. "Familiarize students with online "help" features…to provide students with additional environmental support. Although older adults need more time to read online text, they also tend to comprehend and recall online text better than printed text" (Jones & Bayen, 1998, p. 680).

3. Have them practice playing solitaire. This allows them to practice pointing, clicking, and dragging skills (Mayhorn et al., 2004).

4. "Teach students to use the tab key, arrows, page up and page down. This is much better for the hands than using the mouse. Web pages can be navigated easily this way" (Helpguide.org).

5. "Teach that URL's (Web addresses) need to be typed only once. Show them how to add them to favorites" (Helpguide.org).

7. "Explain procedure for turning computers on/off" (Helpguide.org).

7. Demonstrate how the mouse works (Helpguide.org).

8. For novices, provide a class just on how to use the mouse. (Bean & Laven, 2003).

9. Teach them how to get around double-clicking problem by clicking once and hitting enter key. (Bean, 2003).

10. Teach them to hold mouse with one hand and click buttons with other (Bean, 2003).

11. Show them how to adjust monitor tilt (Bean, 2003).

12. "Discuss the ways seniors are using computers. Log onto a few websites that older adults could use to track medical insurance, keep current with finances, and research hobbies, genealogy, health, and bargains" (Mates, 2004, p. 35).

13. "Travel to some of the many senior-focused websites on the Internet. Offer to find a recipe, poem, or purchase source of a hard-to-find item" (Mates, 2004, p. 35).

14. "Demonstrate e-mail" (Mates, 2004, p. 35).

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