The Greater Pittsburgh Literacy Council (GPLC) found an increasing need to provide computer-aided instruction (CAI) as a component of its curriculum, in particular to help staff and volunteers become computer literate. GPLC staff designed and taught two 12-week introductory computer courses for up to 20 (10 each) literacy staff and volunteers. They also demonstrated various educational software written for literacy instruction and discussed ways to incorporate CAI into their literacy programs. The project's goals were met satisfactorily, with the exception of creating CAI implementation models, which participants chose not to do. The summary of participants' evaluations indicated that 83 percent rated the course excellent overall and 17 percent rated it very good. Participants were enthusiastic about using CAI with students; all programs reported they intended to offer CAI as part of their range of services. (Appendixes to the five-page report include the course outline, evaluation form, sample software evaluation checklist, sample CAI decision-making checklist, and CAI implementation model.) (YLB)
Reality Bytes

Preparing for a New Era in Literacy Instruction

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A 353 Staff Development Mini-grant Project
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Reality Bytes: Preparing for a New Era in Literacy Instruction

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Purpose/Procedures
GPLC has increasingly sensed a need to provide Computer Aided Instruction as a component of our curriculum. One important factor in our ability to do this effectively is helping our staff and volunteers become computer literate.

To accomplish this goal for our agency and others in Southwestern PA, GPLC staff designed and instructed two 12-week introductory computer courses for up to 20 (10 each class) literacy staff and volunteers in the Region 4 area. We also demonstrated various educational software written for literacy instruction and discussed ways to get Computer Aided Instruction “on-line” in our literacy programs.

Conclusions/Comments
Overall, the project's time and quality goals were met quite satisfactorily, with the exception of creating CAI implementation models which the participants did not choose to do. The summary of participants' evaluations indicates that 83% rated the course excellent overall and 17% rated it very good. Participants have telephoned with on-the-job computer questions, and others have called to say that they are now using WordPerfect or other software. The participants are enthusiastic about using Computer Aided Instruction with students, and all the programs report that they intend to offer CAI as part of their range of services.

Products
- Final Report
- Curriculum Outline
- Course “final”
- Function Keys Chart
- Software evaluation checklist
- CAI decision-making checklist
- Implementation model
Introduction

This activity addressed priority C. 1. 2., a mini-grant for a staff development project.

GPLC has increasingly sensed a need to provide Computer Aided Instruction as a component of our curriculum. One important factor in our ability to do this effectively is helping our staff and volunteers become computer literate.

To accomplish this goal for our agency and others in Southwestern PA, GPLC staff designed and instructed two 12-week introductory computer courses for up to 20 (10 each class) literacy staff and volunteers in the Region 4 area. We also demonstrated various educational software written for literacy instruction and discussed ways to get Computer Aided Instruction “on-line” in our literacy programs.

The project utilized WordPerfect software as a tool for getting participants acquainted with computer hardware, software commands, and file management. This provided a useful by-product that could be used immediately on the job, and it was complex enough to cover all the computer functions an instructor will encounter when using educational software. In the last weeks of the course, we provided hands-on demonstrations of adult literacy software and gave participants the option of creating an individualized program design for Computer Aided Instruction that considers all the elements necessary for successful implementation. However, none of the participants wanted to leave the computer to complete this activity. The technology plan worksheets are included in this report for those who might like to use it.

Statement of Need

Computer Aided Instruction has proven to be a beneficial learning tool for adult literacy students. Among the advantages cited are the computer’s infinite patience, its interactive nature which provides immediate and non-judgmental feedback, and its suitability for tactile/kinesthetic learners, a learning style that is over-represented among our student population. The opportunity to use
computers is a motivational tool that has increased student retention in the programs where Computer Aided Instruction is offered. Students want and, in many cases, expect computer learning to be a part of their instruction, and, with the quality of educational software that is emerging, it makes sense for literacy providers to use computers as a supplement to traditional instruction. Computers can never take the place of human interaction, the give and take of ideas, but they can provide another dimension to literacy instruction---with beneficial results for students, tutors, and programs in general.

In order for literacy students to experience the advantages of Computer Aided Instruction, our programs' staff and our volunteer tutors must become confident in the use of computers and a comprehensive implementation plan must be developed.

What does it take to implement Computer Aided Instruction? The main factors for consideration include:

- the availability of computer hardware
- locating appropriate software
- knowledge of computer operations

Goals and Objectives

Greater Pittsburgh Literacy Council staff designed and instructed two 12-week introductory computer courses for up to 20 (10 each class) literacy staff and volunteers in the Region 4 area. During the course, participants learned computer operations, explored various educational software written for literacy instruction and discussed ways to get Computer Aided Instruction "on-line" in our literacy programs. Each participant had the option to design an implementation model to submit to his program for consideration. The class participants preferred to spend additional time on the computer instead of doing the model. The probable reason for this is that most of the participants were tutors or line staff, and they didn't feel that they were the appropriate planners for their agencies.
Procedures

a) General Design

The project staff created a curriculum (attached) for learning the parts of a computer and exploring frequently used WordPerfect and DOS functions.

Ms. Cianelli also researched a variety of available adult literacy educational software and created a simple list of criteria (attached) for participants to use in evaluating at least three of the packages during the course.

Options for hardware and computer space acquisition for Computer Aided Instruction were researched and a decision-making tool was written based on these findings, along with an outline for participants to use when creating their implementation models. These documents will serve as thinking tools for the participants as they research the resources available in their communities.

b) Location

The computer course was conducted by GPLC staff in a leased-time computer lab at the YWCA of Greater Pittsburgh at its downtown Pittsburgh headquarters.

c) Methods and Materials

Hands-on computer training was provided using WordPerfect software, 3.5 inch floppy diskettes for data storage, and a textbook entitled *WordPerfect 5.0/5.1: A Practical Approach* by Mary Alice Eisch (South-Western Publishing Co.) Demonstration models of four Adult Literacy software packages were examined by the group.
d) Evaluation

The project was evaluated by benchmarks toward completion of the computer course:

- initial planning, research, course design and participant enrollment for first class completed by August 31, 1994
- first computer class and participant enrollment for second computer class completed by December 31, 1994
- second computer course completed by May 31, 1995
- evaluation of project/project report completed by August 30, 1995

Additionally, each participant was asked to evaluate the effectiveness of the course. A summary of the evaluations is included in this report.

Overall, the project’s time and quality goals were met quite satisfactorily, with the exception of the CAI implementation models which, as mentioned earlier, the participants did not choose to do. Participants have telephoned with on-the-job computer questions, and others have called to say that they are now using WordPerfect or other software. The participants are enthusiastic about using Computer Aided Instruction with students, and all the participating programs report that they intend to offer CAI as part of their range of services.

e) Products

- Final Report
- Curriculum Outline
- Course "final"
- Function Keys Chart
- Simple software evaluation checklist
- CAI decision-making checklist
- Implementation model
Coordination and Dissemination

This project was implemented under the authority of the board of directors of Greater Pittsburgh Literacy Council and the executive director, Donald G. Block. The project director, Arlene Cianelli, was responsible for carrying out the project. Ms. Cianelli is employed by GPLC as the training coordinator. She holds a bachelor of science degree in business administration, *summa cum laude*, from Robert Morris College. She has six years of successful experience in adult education including over three years teaching business communications and computer skills in a JTPA/SPOC employment training program. Project planning was the responsibility of Arlene Cianelli, project director; Karen Mundie, GPLC program director; and Michelle Joyce, reading specialist.

Participants were recruited through the Region 4 Staff Development Coordinator. All staff of PDE adult basic and literacy education programs in the Region 4 area were notified of the project and encouraged to participate. Both classes were fully enrolled.

PDE Financial Series (PDE-2011C) has been submitted to the PA Department of Education comptroller’s office.

Copies of the project report will be disseminated through the Western Pennsylvania Resource Center and AdvancE. Individuals interested in replicating the project may contact Ms. Cianelli for additional information.
Reality Bytes: Preparing for a New Era of Literacy Instruction
Course Outline

This course was designed to help tutors and staff become more comfortable using computers so that they might effectively assist students in programs offering Computer Aided Instruction. WordPerfect was chosen as the learning tool because it provides the direct benefit of learning a widely-used software application while instilling the indirect benefit of greater computer confidence and enthusiasm.

The course was conducted in a rented computer lab, using obsolete IBM 286’s with dual floppy drives (no hard drive). This was a good choice because it emulated the types of equipment most often found in non-profit adult ed.

The topics are divided according to a twelve-week, two-hour meeting schedule. The participants were also given the option of arriving 1/2 hour early to practice independently.

This outline is generally realistic. It is extremely important, however, to proceed at the participants’ pace. Moving too quickly defeats the entire purpose of this course.

The text used for this course was: WordPerfect 5.0/5.1: A Practical Approach by Mary Alice Eisch, South-Western, 1991.

Week 1

This is a computer; it is your friend: Discussion of system hardware and peripherals
RAM, ROM, bits, bytes, binary code: Discussion of memory and how computers operate
Floppy Diskettes: Care and Feeding
DOS basics: What is DOS?, Booting, Formatting, Copying
Formatting your data disk
Entering WordPerfect: Command lines for hard drive or dual floppy system
Status Line
Default Margin Settings
Wrapping
Repeat after me: The space bar is my enemy: Only two good reasons to use the space bar.
Exercise 2.1, page 15. Typing a paragraph; exiting and saving a document
Where did my document go? F5: List Files
I’m done for today. F7: Exiting WordPerfect
Power Down
Week 2

Review: entering WordPerfect
Retrieving text with F5: List Files
Understanding the Enhanced Keyboard
Understanding the F-key matrix
Caps Lock/Number Lock
Cursor Keys
Movement Keys and Home Sweet Home, Home
You can exit, but you can’t escape.
Nifty ways to delete text
Oh No!! I didn’t mean to do that! : F1: Cancel
F7 Review: Exit without saving.
F5 Review: Is my document still there?
**************** Neat things you can do with the Escape key.
Chapters 1 & 2 review questions. Pages 9 & 19.
Exit WP. Power Down

Week 3

Exercise 4.1 Editing text using the default insert mode.
Beware of Mr. Typeover!!
Naming a document: the 8 + . + 3 convention
F10: Save: What if I go to the restroom and someone comes by and falls on my desk?
Exercise 5.1, page 42. Creating and saving a document review
Exercise 5.2, page 44. Retrieving, adding text, saving.
Chapters 3 & 4 Review, pages 27 & 37.
Exit WP. Power Down

Week 4

Managing Files: Deleting, renaming, copying, looking, printing from menu.
Creating new directories
Searching for files
Previewing a text before printing. Say “Softcopy”
Printing from an active document. Say “Hardcopy”
Exercise 6.2, page 55. Creating a memo: Tabs: Shift F5: Date Codes
Chapters 5 & 6 Review, pages 45 & 53.
Week 5

Exercise 6.4, page 57. Editing text
Let's get fancy! : F6 Bold, F8 Underline, Control F8 Italics
Exercise 7.1 Caps, Bold, Underline, Italics Practice
Page Break
Shift F6 Center, Alt F6 Flush Right,
Exercise 7.2, page 63 Caps, Center, Flush Right Practice
Review: Previewing and Printing
Chapter 7 Review, page 67

Week 6

Page Break Review
Hard Space And Hard Hyphen: Hard does not mean difficult!
F3: Help is not much help
Let's be Brave: Alt F3 or Fl 1: Exploring the Underworld of Reveal Codes
Deleting Paired Codes
Why does my text jump like that? : The WP Rewrite feature
Review deleting by word, line or page. Yes, you'll use them when you get good.
Review Chapters 8 & 9, pages 79 & 89

Week 7

F2 and Shift F2: Forward and Revers · Search: A majorly useless exercise
Alt F2: Search and Replace: This you will use...maybe!
Exercise 10.2, page 96. Retrieving, searching and replacing; renaming and saving.
Shift F8: Accessing the format menus
The Line Format menu: setting spacing, margins, tabs plain and fancy.
Exercise 11.4, page 111. Setting left tabs
Page Break review
Exercise 11.5, page 113. Setting left, right, decimal, center and dot leader tabs.
Exercise 11.8, page 115. More setting tabs review.
Chapters 10 & 11 Review, pages 99 & 117.
Week 8

Justification: What’s your pleasure?
Hyphenation: Something else you’ll rarely use, but it’s nice to know it’s there.
Widow and Orphan Protection: Your special WP insurance policy.
Shift F8, 2: Page Formatting: odd/even pages, margins, page numbering
Center page: You’ll use this a lot!!
Creating/Editing Headers and Footers
Suppressing format commands
Selecting your paper size
Shift F8, 3: Document Format: Changing fonts & pitch; leaving all the other stuff alone!
Using Exercise 6.3 to play around with all the neat formatting options we’ve learned.
Exit, but don’t save this awful mess!
Chapters 12 & 14 Review, pages 127 & 155.

Week 9

Alt F4 or F12; Control F4: Block and Move: Let’s haul text!
Block and copy; block and delete
Using Exercise 6.3 to play with Blocking, moving copying and deleting.
Using Block & shift F3 to change case
Rename it your favorite flower and save it
Control F2: Spell Checker: One of the real reasons people love WordPerfect!
Alt F1: Thesaurus: Handy, not heavy to carry, but what’s another word for thesaurus?
Get happy with Spell Check: access and check all the documents on your floppy
Expand your vocabulary with Thesaurus: modify one of your documents

Week 10

Exploring Mail Merge: How one letter can serve hundreds of people!
Exercise 21.1: Creating a secondary file
Exercise 21.2: Creating a primary file
Exercise 21.3: Merging the two files and printing
Chapter 21 Review, page 261
Course “final”: “So you want a day off?” exercise

Week 11

Explore and evaluate three adult ed software demos

Week 12

Discuss computer lab options; create a model for your program
A Day Off

So you want the day off. Let's take a look at what you are asking for:

There are 365 days per year available for work. There are 52 weeks per year in which you already have 2 days off per week, leaving 261 days available for work.

Since you spend 16 hours per day away from work, you have used up 170 days, leaving only 91 days available. You spend 30 minutes per day on coffee breaks; that accounts for 23 days per year, leaving only 68 days available.

With a 1 hour lunch break per day, you have used up another 46 days, leaving only 22 days left for work. You usually spend 2 days per year on sick leave. This leaves you only 20 days available for work.

We give you 5 holidays per year, so your available working time is down to 15 days. We generously give you 14 vacation days per year, which leaves only 1 day available for work.

I'll be damned if you're going to take that day off!
Instructions

Exit and Save original document as dayoff1.mem

Return to document and perform the following commands:

Format: 1.5 inch left margin. 1 inch right margin.
Center document on page top/bottom.
Single-spaced.
Justification on.
Footer: Created by [your name]
Page Numbering: Bottom Center

Block:
Block and bold title.
Block and underline title.
Block and capitalize title.
Block and bold all numbers.
Block and underline all numbers.
Block and capitalize the last sentence.
Block and bold the last sentence.
Block and underline the word "damned".

Search and Replace: Change every per to each, using the replace with confirm command.

Tabs: Set tabs at 1.5, 2.3, 3.8, 4.6, 5.4, 6.2. (You will not need to use the tabs, just set them.)

Save new document as dayoff2.mem

Re-type these instructions as is.
### WordPerfect F-Keys I Have Learned

<table>
<thead>
<tr>
<th>Control</th>
<th>Spell Check</th>
<th>Move</th>
<th>Flush Right</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alt</td>
<td>Reveal Codes</td>
<td>Block</td>
<td></td>
</tr>
<tr>
<td>Shift</td>
<td>Change Case</td>
<td>Date Codes</td>
<td>Center, Print, Format</td>
</tr>
<tr>
<td>Alone</td>
<td>Cancel (undelete)</td>
<td>Indent &gt; List Files</td>
<td>Bold, Exit, Underline</td>
</tr>
</tbody>
</table>

#### Other Common Commands:

**To Delete**
- A word: Control/Backspace
- A line: Control/End
- Rest of page: Control/Page Down

**To Start a New Page:** Control/Enter

**Name**

---

**To Move**
- To top of page: Page up
- To bottom of page: Page down
- To top of document: Home, Home, Up arrow
- To end of document: Home, Home, Down arrow
- Right of screen: Home, Right arrow
- Left of screen: Home, Left arrow
- Right one word: Control, Right arrow
- Left one word: Control, Left arrow
- End of typed line: End
Evaluation Form
Reality Bytes Computer Training

Agency Name
Your Name (optional)

Please rate these aspects of the computer training on a scale from 1 (poor) to 5 (excellent). (18 responses)

Presentation
1 (0%) 2 (0%) 3 (0%) 4 (11%) 5 (88%)
Content
1 (0%) 2 (0%) 3 (0%) 4 (22%) 5 (78%)
Organization
1 (0%) 2 (0%) 3 (0%) 4 (28%) 5 (72%)
Overall
1 (0%) 2 (0%) 3 (0%) 4 (17%) 5 (83%)

Please check one response for each line:
The training was...
what I expected.
95%
Somewhat
5%
No
0%

relevant to my needs.
100%
0%
0%

I gained new skills.
100%
0%
0%

Practice time was appropriate.
61%
39%
0%
(This is a problem with rented lab time. Participants could come 1/2 hour early to practice, but many were coming directly from work.)

My questions were answered well.
100%
0%
0%

What did you like best about this training? Hands-on learning
The instructor
Individual attention
Learned to use a computer
New skills
Trainer answered my questions right away
Relaxed atmosphere
Enjoyed looking at the adult ed software
Informal instruction
WordPerfect5.0--really like it
Text was excellent
Instructor very knowledgeable
FAQ
Felt so comfortable

How would you improve this training? ???
(3) More time to practice Would've studied more
Wish we could have continued more weeks Need more than once a week
Too bad printers weren't working well
(2) Can't improve it--was great
(In a perfect world), divide class according to typing skills

Please list any suggestions for upcoming staff development workshops. More computer classes
13
A Highly Subjective, Experiential Software Evaluation Checklist

Name of Software ________________________________

Published by______________________________

Reviewed by______________________________

Intended for use with__________________________students

___ This software looks appropriate for use by adult learners. (no duckies or bunnies)
___ It uses graphics attractively and logically.

___ The color combinations did not hurt my eyes.

___ It "felt good" to use.

___ The instructions, icons, etc. were simple and logical.

___ The content held my attention. Time passed quickly.

___ It seems to provide skills my students need.

If you have given this software a favorable preliminary evaluation, submit it to the reading specialist or other staff who will examine it for educational content.
Exploring Options for Computer Aided Instruction
A Starter List of Questions to Consider

Why do we want a computer center?

1. So students can reinforce skills learned with their tutors
2. So students can learn additional skills
3. So students can learn marketable job skills
4. This will be the students’ primary mode of instruction
5. CAI will be ideal for our tactile learners
6. Studies show that adults are more motivated to learn on computers
7. We want our students (and us) to be among the “haves” of the Information Age
8. Because everyone else is doing it and we don’t want to be left behind
9. Other
10. Other

Choice(s):

Pros:  Cons:

How will we pay for the computer center?

1. We have funds available in our current budget
2. We plan to obtain a grant(s)
3. We will finance the cost of the computer center
4. We will conduct a special fundraising campaign
5. We will solicit in-kind donations of space, hardware, and/or software
6. Other
7. Other

Choice(s):

Pros:  Cons:
Where will we put our computer center?

1. In our own unused space
2. We will create space in our current facility
3. In space we will rent and control
4. We will lease time and hardware in someone else’s lab
5. We will seek donated space for our own hardware
6. We will seek a corporate partner and use their space/hardware
7. Other ____________________________
8. Other ____________________________

Choice(s):

Pros:
Cons:

What hardware will we use?

1. We already have hardware that we plan to use
2. We will purchase hardware that’s compatible with the software we like
3. We plan to purchase IBM PCs or PC clones because ______
4. We plan to purchase Macintoshes because ______
5. We plan to purchase some of each type because ______
6. We plan to purchase Mac Power PCs with DOS cards installed because ______
7. We will use the hardware that’s in the lab we plan to lease
8. We will use our corporate partner’s hardware
9. Hardware will be donated to us
10. Other ____________________________
11. Other ____________________________

Choice(s):

Pros:
Cons:
What types of software will we use?

1. a multi-level integrated learning system (Josten’s, Plato, etc) with recordkeeping
2. modules from an integrated system with or without recordkeeping
3. self-contained single subject adult ed programs
4. K-12 software
5. off the shelf software that we can adapt or use directly
6. We will create our own software.
7. a combination of the above choices
8. We will seek donated software
9. We already have software
10. Other
11. Other

Choice(s):

Pros: 

Cons:

What if we want to use the Internet for information and instruction?

1. We will ask a local university for an Internet address in their system
2. We will subscribe to an online service for Internet access. We like ___ because ___
3. We will spend big bucks and get our own access line
4. Other
5. Other

Choice(s):

Pros: 

Cons:
Who will staff the computer center?

1. We have a staff person (or persons) who is capable of managing the center
2. A current staff person will be trained to manage the center
3. We cannot spare any current staff for this; we'll need to hire someone
4. We will use a capable volunteer(s)
5. We will train volunteers
6. We will use a combination of staff and volunteers
7. An adult ed-capable manager is part of our space lease agreement.
8. Other
9. Other

Choice(s):

Pros:  
Cons:

How will we make these decisions?

1. Board will decide
2. Director will decide
3. A staff committee will be formed
4. A committee of staff, board, volunteers, and students will be formed
5. We will visit other agencies' computer centers
6. We will seek advice from the National Center for Adult Literacy and others
7. We will seek advice from the corporate community
8. Other
9. Other

Choice(s):

Pros:  
Cons:
Other factors to consider:

- Assurance of funds for continued operation
- Maintenance of space (overhead) and hardware
- Hardware expandability
- Networking configurations
- Hours of operation
- Geographic location/public transportation
- Renting your center to others?
- Protecting your investment if you're using non-dedicated spa'
- Replacing/upgrading your hardware and software
- Budgeting for and choosing peripherals: printers, scanner, video cam, CD Rom (if not internal), modems (if not internal), etc.
  - Other
  - Other
  - Other
  - Other
  - Other
  - Other
  - Other
CAI Implementation Model

These recommendations were made by

__Board  __Director  __Staff  __Volunteer  __Committee

We want to establish a computer center because:

________________________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________________________

We will pay for the computer center by:

________________________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________________________

Our center will be located in:

Area________________________________________

Building ________________________________

This space will be:  __rented  __owned  __donated

The center's hours of operation will be________________________

Notes:________________________________________________________________________________________

________________________________________________________________________________________________________________________________________________________

20
The center will be managed/operated by:

- current staff
- new staff
- volunteers
- combination

Notes:

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________

The hardware we'll use is: brand_________ model_________

This hardware will be: __purchased __leased __donated

Notes:

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________

We will use this software:

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________

Notes:

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________

We __will __will not network our center.

We __will __will not access the Internet.
We will use these peripherals:

Notes:

Other recommendations: