

On The Margins

Creating Opportunities for Learning with Computer Technology for Homeless
People

Frontier College Press

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Beat the Street's Philosophy on Using Computers in Literacy

We recognize computer and information technology as a tool that can enhance the learning process and facilitate positive learning experiences. We strive to encourage and direct students to think critically about how they use technology and how they can control its use for their own creative purposes and literacy skill development.



Here's what students wrote about the computer lab:

"I enjoy evaluating software because it makes me feel that my opinion is valued and could make a difference."

"I came long way with computers. Because before I wouldn't touch the computer."

"Hi how are you dowing I am hear siting dowing something differt in my day thank you or making that happen if I can pay for it I would dow that. Thank you. Ser Ian Hutt Foster "

Introduction

Beat the Street is a program of Frontier College offering basic literacy instruction and upgrading to street youth and homeless adults. A computer lab with Internet access was donated to Beat the Street in July 1996. This computer lab helped us to increase access to learning technology and deliver programming in new and innovative ways.

On the Margins is about our study of computer technology and how it can be used effectively. Our intent is to provide the literacy community with relevant information about the challenges that are presented when using technology as an educational tool.

On the Margins has two parts:

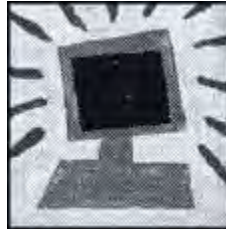
The first part combines current research on learning technologies with Beat the Street's experiences. It explains the process Beat the Street underwent to integrate technology into their literacy program. The issues discussed include:

- accessibility
- effective planning
- elements for building a solid foundation
- supporting instructional activities with software.

The second part, Software Reviews and Resources, offers a wealth of information to help literacy programs purchase software and locate additional information. Included in this section are software programs that have been reviewed by Beat the Street staff and students.

Part One

Learning with Computers



Technology and Literacy Education

A mind is a terrible thing to waste. However, computer technology can provide many avenues to express and enhance a person's understanding. Josey Leon Hollins, volunteer at Plugged In

Technology affects our social and economic landscape. It affects our language, how we relate to one another, how we read the word and the world. People want to participate in society in a manner that is meaningful to their lives. Making technology meaningful requires that we put people at the centre of our discussions.

Ursula Franklin, a researcher, raised concerns about whether new technology promotes social and economic justice (Ellwood 1996; Franklin 1990). She emphasizes the need to consider how technology influences our lives as individuals as well as the impact on society as a whole. Promises have been made about the significance of technology and how it can improve the quality of the literacy programs. The extent of promises are wide and leave one amazed or in disbelief. Literacy educators can add a critical perspective to this ongoing debate. For their involvement to be effective their reasons for using technology must be compatible with their educational goals and must be tempered with a dose of healthy skepticism.

Technology is a tool that can be adapted to meet most programs' philosophies and instructional methods. However it can get in the way of instruction goals when literacy students are learning to use a computer instead of learning literacy. Literacy program staff need to keep their educational goals in mind when developing teaching strategies and programming. Decisions made must support the delivery of language literacy rather than computer literacy instruction. Mendrins (1997) suggests that models attempting to teach computer skills in isolation will be inadequate. Teaching the parts of a computer must be integrated with the curriculum being used for students to be able to transfer and apply these skills in different situations. This can be accomplished by having 'students perform real tasks that require computers, instead of teaching them computer functions separately. In other words, it is possible for students to develop necessary computer skills while they are using technology to improve their reading and writing.

The benefits of technology will need to be weighed against the limitations. New problems and challenges are to be expected when technology is purchased. Literacy educators may find that additional staff time and finances are needed for a computer-assisted learning program. A question that will arise is whether software purchases can be justified when funding is desperately needed elsewhere, ultimately challenging us to re-examine how resources are distributed and being used.

Technology has the potential to shift teaching methodology in a positive direction for youth and adults who were unsuccessful in the traditional education system. Situating technology in education increases access to the skills that are required to enter the workforce and promotes lifelong learning. Our responsibility, as educators, is to ensure that technology provides alternative learning opportunities that are relevant for an information-driven society. While technology is not a panacea for our social problems, programs increasing community access can contribute to building a more equitable society.



Plugged in story

Bridging the Technological Gap in East Palo Alto, California

East Palo Alto is located in Silicon Valley and has experienced enormous economic changes over the last decade. However, few low-income residents have benefitted from these changes or have the technical skills required to apply for the jobs that are opening up in the computer and information technology field.

Plugged In's mission is to ensure that everyone in their community, has the opportunity to fully benefit from all that the information revolution has to offer. They have become a national model for other initiatives across the United States working to increase access to technology.

Four main programs exist to deliver programming to adults, youth and children. They are Community Kids, Plugged In Enterprises, the Community Technology Center, and computer classes. Community members use Plugged In's services to improve their literacy skills, write resumes or participate in a class to develop computer skills.

Look in the Resource section to find out how to contact them.

Literacy at Beat the Street

'When literacy programs help students come to know, reflect upon and express their own meanings, we help students come into their power. Instrumental power — they can do new things. Personal power — they feel more capable of doing new things — and political power — those who have been poor and disenfranchised can begin to demand a new voice as citizens.
Hannah Fingeret (1990)

Beat the Street provides several different ways for students to join the learning process (Norris and Kennington 1992). Students who are attempting to stabilize their lives need to be able to access instruction easily and be able to choose how they will participate. It is a flexible method for working with students that acknowledges the difficulties of being homeless.

Literacy moments are valued at Beat the Street. Literacy moments occur when the learner is able to apply reading, writing or math to practical, everyday experience (also known as functional literacy.) These moments can be challenging, but also very rewarding for students and staff alike. Literacy moments help learners who have been marginalized to begin to take steps toward a program of learning.

Effective educational programming for marginalized communities must address barriers to participation. Issues that limit access include:

- transportation
- distances between programs
- crisis counseling and support
- formalized and lengthy assessments
- highly structured and inflexible program hours
- rigid program expectations.

In order to provide literacy services that recognize student needs, Beat the Street has to be both a resource centre and a link between "the learner and the city, available services, and educational opportunities" (Norris and Kennington, 1992). Beat the Street has to provide its students with a bridge to other training, educational, or employment programs. To do this, many levels of learning and support are required. Literacy work is meaningful when learners can have access to These services, and participate more fully in their communities.

Beat the Street has worked to increase access and create a non-threatening environment by offering flexible programming. This has been achieved by using trained community volunteers and encouraging peers to work with other youth.



Compugen 10K Road Run

Technology Community Supports Literacy

In June 1996, Beat the Street and Compugen opened their doors to a new computer-based learning lab for street youth. Funds to establish and maintain the lab were raised by the Compugen 10K Road Run held in 1995. Compugen's determination to help street youth has inspired others within the high-tech community to become involved. With their ongoing support, the Compugen 10K Road Run has become an annual event.

Contributions have far exceeded financial support to embrace a spirit of collaboration that has helped build and sustain quality programming for people who are homeless. This partnership has increased access to literacy instruction through the effective use of technology. As a result, students are developing the skills required to participate more fully in society and to gain employment in a technology-oriented job market.

Compugen is an excellent example of how the corporate sector can work effectively with programs like Beat the Street, to help meet a community need and improve the quality of life of many individuals.

To find out more about the 10K Road Run visit Compugen's website at <http://www.compugen.ca/10k/index.html>

Creating Opportunities for Learning with Computer Technology

Expanding Access and Participation

An increasing number of people are unable to achieve their educational goals in the traditional education system. The passion of community-based literacy programs is rooted in their ability to provide alternative and non-traditional learning environments. Community-based programs have a long history of advocating that education is a right and must be accessible to all people.

It is a continuous struggle to maintain a commitment to building programs that are accessible. Similar to walking through a minefield, educators negotiate and set program priorities according to the requirements and demands of their funders, the organizational goals and the needs of their students. These negotiations are further complicated by existing program constraints such as limited staff resources. This process becomes more complex when the stakeholders involved have conflicting philosophies and agendas.

At Beat the Street, a number of issues emerged that required consideration when the computer lab opened. Using technology in education presents numerous challenges for community-based literacy programs. In general, this group has been low on funds compared to many schools, colleges and universities which have larger budgets, as well as trained technical staff. These challenges threatened to erect new barriers and limit access unless creative solutions were found.

Our vision for using computers had to consider the social and economic circumstances of our students. Homeless people need to access a network of services and supports not only to survive, but to over time achieve more stability in their lives. Research has demonstrated that homeless people spend at least two-thirds more time attending to their basic needs than people who have stable housing (Advisory Committee 1997). For instance, a homeless person might need to go to one community agency to get bus tickets in order to visit a community health centre in another part of town. If that person requires medication, travel to other agencies may be required to get a prescription filled. Before long, hours have been spent performing a task that many housed people can accomplish in minutes.

Some community-based services have also been known to close overnight or decrease their hours of operation in response to funding cuts. Interruptions in services and changing schedules have made it exceedingly difficult for individuals to receive regular and consistent support.

Beat the Street staff acknowledged that the most significant issue affecting the participation of people who are homeless may be the literacy program itself. The program's educational goal for using technology was articulated to guide the future development of the lab.

Our goal is to provide consistent and stable access to learning opportunities created by computer and information technology while ensuring meaningful participation in the program.

Effective Planning

What is Technology Planning?

The National Center on Adult Literacy (University of Pennsylvania) introduces technology planning as "...an ongoing process that translates program and technology needs into concrete actions. It allows adult literacy organizations to take advantage of technology innovations while minimizing the negative impacts of unexpected challenges " (Hopey and Harvey-Morgan, 1995). The purpose of planning should be to identify problems associated with using technology and determine appropriate solutions. It should help to bring clarity and provide long-term direction on the effective use of technology (Hopey and Harvey-Morgan, 1995). Programs should engage in an in-depth process of planning in order to identify a vision for technology that does not compromise educational goals.

Current research shows that it is important to build hardware and software selection into a larger planning and evaluation process (Hopey, Rethemeyer and Elmore, 1995). Responding to the challenges created by technology can become overwhelming for underfunded and understaffed programs. Engaging in a larger planning process enables programs to make the best use of their limited resources and respond to the most pressing problems.

Planning at Beat the Street

At Beat the Street, we wanted to establish a computer lab that was functional and accessible to students. This was made possible by the involvement of key members from the Compugen 10K Road Run Committee. They helped determine our hardware needs and installed and configured equipment free of charge. After this objective was met, staff turned their attention toward finding educational software, staffing the lab, and responding to a large number of unanticipated problems.

The number of students using Beat the Street's services rose significantly with the addition of the lab. The impact was felt on many levels and raised concerns about sustaining quality support and service. The program was forced to take a step back and re-enter the planning process. This process was situated within a larger strategic planning discussion. Beat the Street staff revisited the program goals, examined organizational strengths and weaknesses and questioned the role of technology within the program.

Clarity and Direction

Engaging in a planning process provided clarity as Beat the Street staff struggled with a changing environment. It helped to bridge together educational goals to technology use. As a result, we developed three new objectives to help us achieve our primary goal.

1. Build a stable foundation to support and sustain computer-assisted learning.
2. Research, develop and document teaching strategies for computer-assisted literacy instruction.
3. Evaluate and select appropriate software to support instructional activities and program administration.

Integrating technology into literacy requires planning that extends beyond software and hardware selection. Unfortunately, this was not realized at the outset of Beat the Street's planning. As a result, a valuable resource - staff time - was not used efficiently. From our experience, it became apparent that planning had to be an on-going process.

Planning Tip: Basic Principles of Technology Planning

The following principles were developed by the National Centre on Adult Literacy (NCAL). They advocate that technology planning for adult literacy programs should:

- ✓ be an organized and continuous process
- ✓ use a simple straightforward planning model
- ✓ result in a document that improves how technology is used for instruction, management, assessment and communications
- ✓ take into account the mission and philosophy of the adult literacy organization
- ✓ be "owned" by that organization, its administrators and instructors
- ✓ involve all stakeholders
- ✓ be broad but realistic in scope, with economical and technically feasible solutions
- ✓ identify organizational strengths and weaknesses and how each will impact the implementation of technology
- ✓ formalize the procedures and methods for making technology decisions, including the setting of priorities, purchase, evaluation, upgrading and the use of technology
- ✓ be driven by educational goals rather than by technological developments

Source: Hopey, C.E. and Harvey-Morgan, J. *Technology Planning for Adult Literacy* (Practice Guide No. PG95-02) Philadelphia: University of Pennsylvania, National Center on Adult Literacy, 1995.

Building a Foundation to Support Learning with Technology

He who dares to teach must never cease to learn.

John Cotton Dana

If implemented properly, technology can be a powerful tool for adult literacy instruction and improve the delivery of services (Hopey and Harvey-Morgan, 1995). Four key elements were identified as being important to building and sustaining a functional lab.

1. Hardware Selection
2. Staff Training
3. Volunteer Recruitment and Training
4. Technical Maintenance

Developing a solid foundation will minimize the problems that are associated with using software and hardware. Technology provides a new way to learn that most of our students have not experienced. It is important to capture this opportunity and build upon the student's interest. If the proper supports are not in place to facilitate positive learning experiences, many of these moments will be lost.

Hardware Selection

The National Center on Adult Literacy (NCAL) recommend a nine step approach to purchasing hardware and software programs.

- Step 1: Identify software titles that might be used in a learning program.
- Step 2: Determine the hardware requirements of each piece of software.
- Step 3: Create an inventory of existing hardware.
- Step 4: Obtain software preview copies.
- Step 5: Determine evaluation criteria and conduct software evaluations.
- Step 6: Determine how students will use the software and explore ways teachers can integrate the software into instruction.
- Step 7: Compare existing hardware with the hardware requirements for each piece of software.
- Step 8: Determine the cost of software and hardware for each of package.
- Step 9: Select a software package and its associated hardware.

The first step recommends that software should be selected before hardware. Under this approach, hardware is perceived as " ... nothing more than a delivery system" that doesn't dictate educational content (Hopey, Rethemeyer and Elmore, 1995). Purchasing hardware first can mean that the "...the machine's capabilities ... dictate software choices, content and, ultimately, educational goals." This is a valid point that warrants consideration. However, practical concerns will impede the ability of literacy programs to follow this approach.

There is an inherent conflict between NCAL's recognition of "bottom-line" realities (e.g. limited staff time) and the model itself. While they attempt to address these constraints, they do not change the model to reflect this consideration. It is next to impossible to maneuver around program spending and staff limitations. Each program should have a different approach to purchasing hardware and software given their financial resources, available staff and program needs.

Beat the Street's Approach to Purchasing Hardware

Beat the Street's approach included building a unique partnership with a computer reseller, Compugen Systems Ltd. Our staff lacked the expertise, time and funding to establish a computer lab. These gaps were filled by Compugen and technical volunteers affiliated with the company. Technology changes occur at a rapid pace, and I involved in this industry are able to make people recommendations that reflect these new developments. Conducting a hardware needs assessment would have been difficult and time consuming without their involvement.

Hardware was purchased prior to software to meet the funder's requirements and facilitate their involvement. The hardware purchased didn't limit our instructional options, but provided our program with the most up-to-date computer technology with multi-media capabilities. Having access to a functional computer lab while evaluating software provided numerous benefits:

- a small selection of software could be evaluated and used over an extended period of time. This trial evaluation would help staff to make major purchasing decisions in the future.
- students could be involved in the evaluation of software
- software could be previewed at Beat the Street.

Decisions surrounding the purchase of computer technology will involve taking risks. Poor choices can affect the quality of instruction and be costly mistakes. Tapping into the knowledge and technical expertise that exists helped Beat the Street address program constraints while building a supportive network to address technical concerns.

Staff Training

A gap in knowledge about the use of technology exists in the adult literacy field. Underutilized by literacy programs Research findings reveal that computers are underutilized as a result. A national initiative to fund training and increase knowledge about learning technology needs to occur for it to be used successfully. Training objectives need to be realistic, help develop computer literacy skills and an awareness of the link between literacy and technology.

Literacy organizations need access to computer technology for training to be useful. Frustration levels will rise when literacy educators are expected to use technology, but don't realize its intrinsic value. Newly developed skills need to be applied on a daily basis and for practical purposes. Educators who use technology to meet their needs are able to visualize how it can be applied in the field. Innovative and effective uses for technology will be cultivated if a commitment is made to increase the knowledge and upgrade the skills of literacy educators.

Volunteer Recruitment and Training

Numerous considerations had to be taken into account to determine how volunteers could help supervise the computer lab. We had to consider:

- how to manage potential threats to the operation of the lab, such as viruses, computer hackers, operating system deletions, etc.
- how to schedule lab hours and programming
- the training needs of volunteers working with computers

Success may be impeded if these issues are not dealt with adequately. Technology is only effective if the computers are working and students can use a software program. Allowing students to use computers without supervision or rules will compromise the ability of your program to provide consistent access.



Beat the Street: Computer Lab Stats

Computer lab activities were tracked over a seven month period. Information was gathered about the number of students and hours spent using the computers for learning. Look in the Resources section to find the graphs that display this information.

Step 1. Developing Policies and Procedures

Developing policies and procedures that reflect the above considerations will ensure continuity and consistent service from day-to-day. Most literacy programs rely on volunteer labour to support learning activities. Policies and procedures are an essential communication tool. They should include:

- how the lab operates
- what the responsibilities of volunteers are
- how the computers and the Internet can be used by students.

A log will reveal valuable information if it is used to record student activity, technical difficulties and the amount of time spent on specific tasks by students.

The following provides insight into some of the issues raised and recorded in the policies and procedures at Beat the Street.

Lab Hours

At Beat the Street, planning around lab use had to be flexible but provide enough structure to ensure meaningful student participation. Our hours increased on a gradual basis as more volunteers were recruited and trained. The lab is open five days a week with half the day allotted for drop-in and the other half for structured learning activities, such as an Internet workshop or small group work.

Learning Environment

Policies and procedures must address how the existing space is used. This can be accomplished by a careful examination of the learning environment including:

- space
- physical comfort
- lighting
- noise level

All of these factors have the potential to diminish a student's ability to learn effectively.

Requirements to Use the Computer Lab

Most participants use the lab to meet immediate needs and, in the process, learn about other services. To use the lab, a short quiz must be completed after reading list of rules. Students can complete this task with the help of a literacy tutor. The quiz ensures students understand the rules, and serves as a visible contract between the student and Beat the Street. This task also provides an informal, quick assessment of a student's reading and writing abilities. This information helps volunteers and staff identify first-time users who are more likely to require one to one support.

In addition to completing the quiz, Beat the Street participants can use the Internet after they have attended the workshop. The purpose of the workshop is threefold:

1. To develop basic navigational skills to use the Internet independently.
2. To think critically about the source and type of information available on the web.
3. To communicate the policies for using the Internet at Beat the Street.

Step 2. Recruitment of Technical Volunteers

Beat the Street received a great deal of publicity with the Compugen 10K Road Run. We were able to gather a pool of volunteers who had an interest and knowledge about technology. In addition, we advertised in the volunteer centre at the University of Toronto. This made recruitment easier during our initial year of set-up. Points that need to be considered are:

- Identify the new set of skills that are required to work with computer and information technology.
- Estimate the number of volunteers required to assist in the lab. For instance, we have a maximum of three volunteers available during drop-in to ensure students could work, one to one, with trained volunteers when it was necessary.
- Locate new sources of recruits (e.g. local university students, professionals in the computer industry).
- Advertise in computer newspapers.
- Develop a job description for volunteers involved with technology.
- Consider how new volunteers can provide feedback for improving day-to-day operations and recommend new projects.

All of the above points have contributed to building a solid and core group of technology volunteers at Beat the Street. For technology to be used effectively volunteers in the computer lab and a higher proportion of one to one tutors will need to be computer literate. Recruitment strategies must reflect this change.

Step 3. Training Volunteers

It is unrealistic to believe that computer technology will engage a learner directly without teacher involvement (Hoey and Harvey-Morgan, 1995). Each software program purchased is different in many respects, as is the skill level and knowledge of the student. Instructors play a vital and significant role in Community-based literacy programs facilitating successful learning experiences. Community-based literacy programs rely heavily on volunteer instructors to staff computer labs. Training needs to occur continuously to counter the frequent turnover of volunteers. Existing training methods should be reassessed as new technology is added and new volunteers join the program.

Effective instructors use computers as tools for learning, help students select appropriate software, and teach how to use software to achieve their goals (Kleifgen, 1989). Volunteers must understand that computers are used as a tool in the learning process and that computer literacy is not an end goal in education (Metro Toronto Movement for Literacy, 1990). Exclusive focus on computer skills at the expense of literacy can be avoided by providing proper training.

Beat the Street's approach to training is participatory. It consists of the following elements:

- An orientation session involves a discussion around working with technology at Beat the Street and includes training on policies and procedures, job responsibilities and technical requirements of the position. In addition to the above, volunteers must observe lab activities and spend time using the educational software available to the students.
- Tutor training (14 hours) provides concrete strategies for teaching reading and writing. A significant portion of tutor training is focused on homelessness and literacy.
- Hands-on training involves volunteers being paired with a more experienced volunteer or a Of member during their shift. The new volunteer works directly with students and uses the other volunteer or staff member as a resource. This establishes a buddy system whereby both volunteers come to rely on one another for mutual support and reinforcement.
- Debriefing sessions provide on-going support to new volunteers and help to identify problem areas. These sessions consist of quick informal meetings, one-to-one or in pairs, with volunteers after their shift.

Existing training methods will be evaluated for effectiveness as we enter a second phase of research and development of the computer lab.

Technical Maintenance

Technical support is expensive. The National Center on Adult Literacy suggests a sample budget that illustrates a breakdown of potential expenses and an estimate of the percentage each expense will assume. For instance, hardware expenses might be 70% of a budget, software 20%, technical maintenance 5% and miscellaneous supplies 5% (Fleischman, 1994). Technical maintenance can be higher depending on the length of your warranty, volume of use, security features on your system, effective supervision and skill level of students.

Literacy programs have three ways to develop a regular source of technical support for a limited budget:

1. Recruit a community volunteer with technical knowledge.
2. Hire a staff member to oversee maintenance.
3. Establish a relationship with the computer industry.

Each of these ideas has limitations. For instance, relying on community volunteers to fix hardware can create problems: Determining how much a volunteer knows about technical maintenance is exceptionally difficult when staff do not have a background in this field. Allowing inexperienced volunteers to learn on your system could have disastrous consequences. Mistakes may not be evident immediately, but may surface later and cause computers to crash.

Not only would literacy programs incur additional expenses to fix these problems, staff and students could become frustrated with using technology, An increase in expenses and frustration levels may be a direct result of a poorly maintained lab.

Staff are limited in their ability to provide technical maintenance. Few organizations have literacy educators with extensive technical knowledge or the funding to hire technical staff at competitive rates. It would be unrealistic to expect staff to develop these skills on the job. They could learn minor problem living skills, but would still require ongoing support. A solution to technical maintenance should enable literacy educators to spend more time teaching her than fixing computers and trouble-shooting.

One solution-as practiced by Beat the Street-would, ideally, combine all three to different degrees. Volunteers and staff could provide minor technical support and trouble-shoot on a daily basis. Whereas, professionals in the industry can provide a direct line of support and advice for major difficulties such as, system or hardware failure. The advice offered would help determine when a problem could be managed by staff or would require a service call. The objective would be to minimize the number of paid service calls required. Literacy program staff should consider obtaining service contracts to reduce their services or provide costs and look for companies willing to donate their services or provide discounts to non-profit agencies.

Supporting Instructional Activities

There are many software programs on the market that are labeled 'educational'. However, not all are suitable for all learners. Programs faced with the daunting task of purchasing software must look beyond the catalogues to find the ones that are worth buying.

Defining a Process for Software Evaluation

The first objective is to determine a process for evaluating software that will help select appropriate and effective programs. To determine the best way to approach software evaluation, consider the following two points:

1. Look for documentation on the evaluation process from the field and research institutes, such as the National Center on Adult Literacy.
2. Look at different approaches taken by community-based literacy programs, e.g. visit other programs or join an electronic conference on this subject.

This will help you to gather information and define a method that is meaningful and best-suited for your program.

Beat the Street's Evaluation Process

The following process assumes that hardware has already been purchased and can be used to evaluate software. Prior to beginning this process, staff reviewed the philosophy statement outlining the role of technology at Beat the Street.

Step 1: Determine evaluation criteria. Step 2: Identify stakeholders to involve. Step 3: Identify software titles. Step 4: Obtain software previews. Step 5: Conduct preliminary evaluation by staff and literacy volunteers. Step 6: Students evaluate software that has been short-listed. Step 7: Select and install software.

At this point, we reflected on the first round of installed software to determine if our decisions had been valid. We returned to the fourth step to re-enter the evaluation process and select a second and final round of software.

Developing Criteria

A list of criteria was developed to guide the selection of software. The risk of making poor decisions that could be expensive are enormous. Learning about software occurs over time and often by trial and error. However, errors can be minimized by completing this essential step.

Sources for developing criteria are widely available and can be found embedded in any discussion on educational software. For more information, consult the National Center on Adult Literacy and the Metro Toronto Movement for Literacy.

Beat the Street's Criteria

Criteria should help software selection to complement methods of following I guide so. instruction. The following criteria, presented in the form of questions, draw attention to the technical features and instructional assumptions of the software program being evaluated.

1. Is the learning material:
 - ✓ oriented towards adults?
 - ✓ written in clear language?
 - ✓ free from bias and stereotyping?
 - ✓ culturally sensitive?
 - ✓ Canadian in content?
 - ✓ relevant to the learners we work with?
2. Does the program encourage the development of critical thinking skills?
3. Can the student use the software independently?
4. Does the student control the rate and sequence of information, review and repetition? (e.g. turning off the timer in a game)
5. Can the learner access information about their performance at their own discretion?
6. Can the students choose their skill level and will the program automatically adjust their level according to their performance?
7. Is the student provided with a detailed and clear explanation for obtaining answer? e.g. step-by step answer for mathematical word a correct problem. Does the student have more than one try and is a hint provided for incorrect attempts?
8. What is the quality of reinforcement and is the response appropriate?.e.g. positive, for adults, immediate and constructive, not boring or annoying.
9. Is the stated level of difficulty accurate?
10. Are the on-screen instructions concise and clear? Is the required level of reading for the instructions consistent with the level of the learning activities. Does the student have the option of having the instructions read aloud?
11. Can the print size and volume level be adjusted?
12. Is the presentation and layout clear and logical?
13. Can the student access the menus easily? Is it clear how to exit and get help?
14. Does the program have authoring capabilities.? e.g. the tutor/student can generate their own learning materials

Preview Policies

It is highly recommended that purchasers preview and evaluate their own software programs. The value of a particular program will not be revealed until it is used by an instructor. It is essential that this person must be familiar with the group of students who will be using it.

There are two options for viewing a software program before purchasing it:

1. Request a preview copy directly from the software publisher or a Canadian distributor.
2. Visit sites that are using or collecting educational software. This includes libraries, research centres and local literacy programs.

For instance, Beat the Street has ordered preview copies from Educational Resources located in St. Catharines, Ontario. Their preview policy is simple and fair. They will send out a software program for a limited amount of time, but you must pay postage for any returns. You are also responsible for returning the package in perfect condition to be re-sold. This policy tends to be the standard; however, some distributors charge a re-stocking fee for software that is returned. Postage costs and re-stocking fees are minimal compared to the expense of purchasing multiple copies of a software program if it is not used by students.

Distributors and publishers are changing the way educators have access to software programs. An increasing number are referring educators to websites to download demos of software. Demos are not complete copies of the software program, but permit users to use a limited number of features. The National Center on Adult Literacy warns that demonstration software doesn't provide the information you will need to make a major purchasing decision. However, time can be saved by viewing demos and can narrow down the list of software that looks promising. Educators should insist on receiving a preview copy of the program to use with students prior to purchasing.

Another method for previewing software is to visit centres that have software available for review. In some locations, you will have direct access to educators who have used the software and can provide additional feedback. While it is worthwhile to make use of the preview centres, it shouldn't be the only method of obtaining or using preview copies. They can be a fair distance away and this would make it difficult to involve most students.



Resource Tip: Software Preview Centres

You can save time and money by using local resource centres that have educational software available for evaluation. We recommend using Alpha Ontario, The Centre for Literacy and Beat the Street. Look in Part Two of this report under Research and Information Centres to find out how you can contact one of these locations.

Student Involvement in Software Evaluation

Beat the Street approached software evaluation as a two-layered process. The first layer consisted of identifying relevant titles on an ongoing basis and performing a cursory evaluation to determine if software was suitable for our learners. Many programs for younger learners were eliminated during this stage. The second layer involved student participation. A wide range of students, from basic to advanced literacy learners, were encouraged to participate. Students could choose the program they wanted to evaluate. However, suggestions were made according to interest, educational goals, and skill level.

A questionnaire was developed to facilitate and record student evaluations. Students were encouraged to take the time required to evaluate a program (e.g. three hours over a three-week period). The evaluations were opportunities to observe the difficulties students encountered using the software, and to work with the students to improve a particular skill. Beat the Street's timeline for evaluating software was extended to be more accessible to students who are homeless.

The involvement of students had a ripple effect on how they viewed technology and their role in the literacy program. Participating in evaluations encouraged students to think critically about the use of computer technology. They were challenged to think about the software program as a tool to help achieve their goals, or how it would be an asset to other students. The students provided valuable insight into the quality and effectiveness of software being evaluated.

Students also developed a greater sense of ownership in the lab. The experience of evaluating software increased their level of confidence and participation in program planning. Some students were successfully moved onto other learning opportunities at Beat the Street such as one to one tutoring.



Beat the Street: Most Popular Software

Beat the Street tracked a select number of software to determine which programs students were using frequently. Find out which ones were most popular by looking in the Resources section.

Determining the Best Use of Software

What does it mean when software packages are described as a 'simulation' or 'drill and practice'? These are terms that are commonly used to classify different types of instructional software. It is important to have a basic understanding of these terms to understand software reviews. The classifications are by no means neat and tidy. Overlap does occur and programs will fall into a number of categories. The terms used may not reflect the changes in software design and newly released programs are becoming more difficult to categorize.

Understanding the categories proved to be useful for Beat the Street staff for several reasons

- As a starting point, a frame of reference was required to make sense of the staggering amount of software that existed.
- Purchasing software that promotes active learning was acknowledged as a priority. Would the classification of software help to reveal the type we should focus on?
- The potential of technology to isolate homeless students further was quite obvious. We were determined to find innovative ways to facilitate the use of software in small-groups and for collaborative learning. Was it possible to determine if a certain type of software was better suited for this type of instruction?

Terilyn Turner (1993) agrees that each type of software will have consequences when applied to basic skills instruction. Asking the questions outlined above helped to develop a better understanding of these consequences. The following will provide a brief description of the most commonly used classification system for software.

Drill and Practice

Drill and practice exercises develop and reinforce specific skills. Skills such as, spelling, grammar, division or multiplication are improved through repetition that is not self-directed. Learning tends to be broken down into little pieces and can be presented out of context. The best use for drill and practice is reviewing skills that have been taught in small-groups or one to one. The commercial market is saturated with drill and practice software that is presented as a game. It has been criticized because it does not stimulate higher level thinking, and does not allow adults to be self-directed and to treat subject matter holistically (Bredemus, 1990).

Tutorial

Tutorials offer students self-paced interactive instruction on a specific subject. The content is often broken down and presented in small stages. Tutorials are often embedded within a larger program and computer driven (Metro Toronto Movement for Literacy, 1990). Most tutorials emphasize developing computer literacy skills such as Windows 95 TIPS & Tour. This design emphasizes learning a specific concept – such as opening files – and has users apply what they have learned.

Simulation

Simulations tend to present some aspect of real life under certain conditions (Anderson, 1991). The interactive design facilitates problem-solving, and engages the user in a process of decision-making usually through a series of steps. Simulations are used a great deal for workplace education programs. Student responses tend to be limited to a small number of variables and do not permit open ended answers. Simulations tend to be student driven and often make excellent use of sound and graphics.

Game

An abundance of games exist that are labeled as educational. They tend to overlap with drill and practice exercises, but are not limited to this feature. For instance, simulations can overlap by involving the user in role-playing. Games are useful for engaging hesitant learners.

Problem Solving

This type prompts students to use their knowledge and skills to achieve a particular outcome or goal (Fleischman, 1994). They can be useful for small group discussion and in collaborative learning environments. Problem-solving can overlap with simulations.

Word Processing

Word processing programs such as Microsoft Word or desktop publishing, build upon the connection between reading writing sand thinking (Anderson, 1991) . This design is content-free and permits users student/tutor) to insert their own material. Another feature of word processing programs is the spellchecker, which highlights words which may Eve been misspelled and suggests alternative spellings, leaving the user to make the final decision about corrections.

Reference

This type of program encourages critical inquiry and offers a fun new medium for exploring. Students can develop information seeking skills such as research, alphabetic orderly skimming for the main idea. These programs tend to be student driven and reinforce the idea that computers are only one part of the learning environment (Anderson, 1991).

Enhancing Relevance and Quality of Learning

Research by the U.S. Office of Technology Assessment revealed that drill and practice software was the most commonly used for literacy instruction. This is due, in part, to inexperienced educators tending to use technology for drill, practice and automated tutorials rather than other types of activities (U.S. Congress, 1993).

In the early stages of software evaluation, most of the programs offered to Beat the Street were drill and practice games. This influenced our ear purchasing decisions. However, we recognized that the software was limited to a passive approach to learning. This common use of technology is regarded, by Mendrinis, as reducing the computer to the equivalent of expensive flash cards (1997) . This does not mean that drill and practice should not be used, but that it is not the only use for technology. We were interested in software that would support instruction at four different points of entry:

1. one-to-one
2. drop-in/literacy moments
3. small group
4. independent study

Our challenge was to find a variety of software to meet a range of instructional needs.

We concluded that there are many problems with program design and content. From our evaluation, we made the following observations:

- Most software designed for adult learners is too expensive for communitybased literacy programs.
- Most software designed for children is inappropriate for use with adults.
- Bias and stereotyping does exist and is embedded in the content and visual representations.
- Software programs do not represent the diverse cultural background of the people we work with.
- Programs tend to be American in content and language which reflects the high concentration of publishers located in the U.S.
- Written instructions provided in a program can be difficult to read. These instructions may require a higher level of reading ability than the software is teaching.
- There are a very small number of programs with authoring capabilities available on the market. This absence prevents educators from developing and inserting local community-based images and content that is relevant and meaningful to students.

This list highlights the need for literacy educators to be consulted in designing adult literacy software. This is contingent, of course, on a wide range of adult literacy programs acquiring access to computer technology.

Software with Authoring Tools

Software programs with authoring tools hold great promise for literacy educators. (Authoring tools allow literacy staff and students to customize software to reflect their own needs and interests.) They will generate literacy activities from the words that the student inserts or from material inserted by the instructor. Programs with authoring tools have the potential to be flexible and provide learning material that is relevant to the student's life. The quality of the learning experience is enhanced by this feature.

Beat the Street recognizes the potential of this feature for supporting learner-centred instruction and has placed a premium on purchasing authoring tools. One such program that is receiving wide attention in the literacy field is *The New Reading Disc*. This program will support the addition of content that deals with local issues relevant to people who are homeless. It is not just limited to text, but permits educators to insert audio clips, photographs and video. This program requires an investment of time but is worthwhile because *The New Reading Disc* offers educators the ability to engage in innovative literacy projects.

Beat the Street will involve participants in the process of developing material for *The New Reading Disc*. An opportunity exists to engage students in developing a program that will reflect the community they live in. They could participate in providing relevant video and photos to complement the life skills content. providing Topics might include welfare, job preparation skills, money management, substance abuse and parenting.



Resource Tip: Literacy Volunteers of America (LVA)

For the past three and a half years, LVA has been evaluating educational software. The results of this project have been published in an excellent report containing over 100 software reviews.

Look in the Resources section to find out how to contact Literacy Volunteers of America.

Guiding Principles for Effective Software Use

The Ottawa Board of Education produces a useful newsletter called *Connect*. It is a national newsletter sharing ideas from the field about using technology in adult literacy. *Connect* presented four broad principles for using software effectively (McNaughton, 1997).

- 1. Clearly identify the reasons for using a program.**
Literacy educators and students should understand why they are using a specific program. They need to question how it will help accomplish learning goals.
- 2. Make sure learners know how to use the program.**
A vast majority of software will require students to have basic knowledge of the menu and how to navigate through it. An introduction should prepare students to work as independently as possible. Student will easily become frustrated if they are not supported adequately.
- 3. Monitor learner progress and make adjustments when necessary.**
Paying attention to progress will ensure that any problems using the software will not go unresolved. Students should be working at an appropriate level with tasks that are challenging.
- 4. Recognize learner progress and achievements.**
Understanding what has resulted from using a particular software program. is an important part of the learning process. Students should be able to identify what they had learned, and whether it correlates to their original expectations. Document progress by printing out a progress report for the student's file or portfolio.

Electronic Communities of Learning

As an educator you are involved in social intervention. Your role is neither neutral nor passive. You either intervene on behalf of change or you intervene to prevent change.

Robert f. Caswell

Educators can be involved in promoting the use of the Internet to meet broader educational and social goals (Cummins and Sayers, 1995). Educational opportunities are presented by the Internet and the World Wide Web. An increasing number of teachers and literacy educators are turning to the Web to share information with their peers about teaching strategies and to complement classroom and individual instruction.

Information and communication technology are generating new ways of interacting and communicating with people regardless of time and location. Online communities are quickly becoming a part of our personal and work environment. The potential to develop a context for learning within online environments is being realized by projects such as Writers in Electronic Residence (<http://www.wier.yorku.ca/WIERhome/>). This project enables students to correspond through e-mail with Canadian writers. Students submit their stories and receive encouragement and literacy support by the writer-in-residence. This is one example of how learning opportunities are being created as more students want to discover how information technology can help them achieve their goals.

The following details how Beat the Street has used the Internet to support instructional activities.

Literacy Students as Online Learners

This project had the implicit goal of developing and field testing computer-assisted literacy curricula within an online learning environment. Beat the Street was involved in the pre-pilot phase offering 30 hours of online instruction and learning activities. Five students participated four days a week and used the materials for approximately two hours per visit.

A staff member was assigned the role of Site Facilitator to trouble-shoot technical problems, document observations and provide literacy support on-site. On several occasions researchers met with and served students as they interacted with the software and hardware. Beat the Street students played an integral part in evaluating the effectiveness of the learning activities and using the Internet as a method for instruction.

Project participants included Beat the Street, East End Literacy, Le College des Grands Lacs, La Magie des Lettres, AlphaCom Network, Independent Learning Centre and the Ontario Ministry of Education and Training. Knowledge Connection Corporation (<http://www.kcc.ca>) was responsible for co-ordinating this effort to provide research-based information for the literacy field.

Beat the Street Website

"A Beat the Street student was hired to develop and design the program's website (www.beat-the-street.org) over a three month period. The purpose was to provide information to people outside of the organization and establish a presence on the World Wide Web. It was a challenging task that required the support of a volunteer with technical and html experience. The National Adult Literacy Database (NALD) provided sound advice, technical support and offered to host our site. It is anticipated that Beat the Street's website will be expanded to publish student writings generated from theme-based projects. This method of publishing enables a program to highlight student writings more frequently. It is relatively easy to update and involves transferring files to the most computer.

Community Bridging Project

The effective bridging of students onto other training, educational or employment programs rests on the ability of staff and students to have access to current information on existing services. Technology has enabled Beat the Street to offer students this information in a easy to use, hyperlinked format that doesn't require an Internet connection. A browser such as Netscape helps students to search for, view and print relevant information. Through this process, students learn to use web browsers and to locate information on a database. This database is available, on diskette, to other agencies working with street involved and socially isolated people. Technology has provided a solution for easy student access to large amounts of information and offered a cheap and quick method for enabling other agencies to use this information.

Website for Students

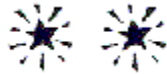
A computer lab volunteer designed a website to tutor students in World Wide Web use. This website provides a tutorial explaining the Internet, relevant links to student-identified topics of interest and rules on how the Internet can be used at Beat the Street. The site uses clear language principles to help students use the Internet more effectively and complements instruction provided in the Internet workshop..

Conclusion

The nature of technology continuously changing with newer models of hardware and software being released at an astonishing rate. This makes publishing current information virtually impossible. However, readers should acknowledge that this report and others "...reflect a particular point in time in the development of both literacy and technology " (Turner, 1990). Much of the information is still relevant and offers insight into elements that contribute to the successful use of technology in literacy.

Technology offers an alternative and new way to learn. For most learners, it is an opportunity to be engaged in a learning situation that does not resemble past experiences that were unsuccessful. It has been proven that technology can sustain learner motivation and deliver individualized instruction that is private, self-paced and gives immediate feedback. A recurring theme in reports from the field is that technology does offer these instructional benefits, but significant barriers prevent educators from realizing its full potential. Particularly in rural areas, computer and information technology is still inaccessible to literacy programs. Those who do gain access face additional barriers and, frequently, less support to overcome the problems associated with using technology.

Beat the Street's experience proves that the gap in knowledge can be bridged with the support of computer professionals, like Compugen Systems Ltd. However, a national commitment is required to provide literacy educators with the knowledge and skills necessary to realize the benefits of technology. Innovative and effective uses for learning technologies will only occur when this gap lessens, and as expertise develops in the literacy field. Clearly, professionals in the computer industry have an essential role to play to help us meet this long-term objective. Government officials, educators and computer professionals need to come together and develop effective strategies to address these issues for positive changes to occur.



Part Two

Software Reviews and Resources



Software Titles Evaluated at Beat the Street

Following is a list of all the software programs we reviewed. The items in bold were purchased or donated to us and are available for viewing at Beat the Street.

Software Title

Publisher

A.D.A.M. The Inside Story '97	Tangent Scientific
A.D.A.M. Life's Greatest Mysteries	Tangent Scientific
Between Earth and Time	ICE
Canadian Almanac 95	Canadian Almanac Publishing Co.
Canadian Encyclopedia 96	McClelland & Stewart
Carmen Sandiego Word Detective	Broderbund
Creative Writer	Microsoft Corp.
Crossword Companion	Visions
Decisions, Decisions - Substance Abuse	Tom Synder Productions
EduEnglish	EduCorp.
Encarta Atlas 97	Microsoft Company
Encarta Encyclopedia 97	Microsoft Company
Events that Changed the World	ICE
Getting Ready for a Good Job	NTC Publishing
Gizmos & Gadgets	The Learning Company
Grammar Games	Davidson
Grolier's Encyclopedia	Grolier Interactive
I Know Math	NTC Publishing
Ideas that Changed the World	ICE
Inspiration	Inspiration Software Inc.
Interactive Picture Dictionary	Protea Textware
Issues in English	Protea Textware
Klondike Gold	Hyperborean Productions Inc.
Learn the Internet	CompuWorks
Love, Medicine & Miracles	Harper Collins Publishers
Math Rabbit	The Learning Company
Mayo Clinic - Family Health	IVI Publishing
Mayo Clinic - Family Pharmacist	IVI Publishing
Mega Math Blaster	Davidson & Associates
Microsoft Publisher	Microsoft Corp.
Microsoft Word 7.0	Microsoft Company

Midnight Rescue	The Learning' Company
Movie Maker	Microsoft Company
Music Central 96	Microsoft Company
My City	McGraw-Hill Ryerson
Native Trails	Eagle Software Inc.
New Readers Bookstore	NTC Publishing
Nine Month Miracle	A.D.A.M Software
Opening Night	MECC
Operation Neptune	The Learning Company
PFS: Resume Pro	Softkey
Perfect Copy	Logicus
Read, Write, Type	The Learning Company
Reading Academy	Autoskills
Reader Rabbit 1	The Learning Company
Reader Rabbit 2	The Learning Company
Reader Rabbit 3	The Learning Company
Reading Development Library	The Learning Company
Reading Journey	The Learning Company
Rosetta Stone	Fairfield Language Tech.
S.T.A.P.L.E. 96	Literacy Services of Canada
Storybook Weaver Deluxe	MECC
Study Smart	McGraw Hill Ryerson
Studying for SAT	The Learning Company
SuperSolvers Outnumbered	The Learning Company
SuperSolvers Spellbound	The Learning Company
TextHELP!	Lorien Systems
The Cruncher	Davidson & Associates
The Lost Mind of Dr. Brain	Sierra Company
The New Reading Disc	Cambridge Training and Development
The Parenting Disk	NTC Publishing
The Student Writing Centre	The Learning Company
Treasure Galaxy	The Learning Company
Treasure Math Storm	The Learning Company
Type To Learn	Sunburst
WinWay Resume	WinWay Corp.
Word City Grand Prix Edition	Sanctuary Woods
Word Munchers Deluxe	MECC
Wordsmart	The Princeton Review

Software Reviews

The following reviews provide detailed information on a small selection of software that were evaluated favourably. It is important to remember that 'Software is continuously changing and becoming outdated within a short period of time. Publishers will release upgrades on an annual basis. However, do not 'assume that an upgraded version will mean that it has improved for the better. The changes made to the software could affect its overall tone and make it less user-friendly.

Individual software reviews can be useful to help identify a smaller group of programs to preview. Purchasing software base on a review could prove to be a costly mistake. We strongly recommend that you preview any software program prior to purchasing it. Evaluating software can be time consuming for one person to complete. This task should be shared with other staff members to save time and to ensure sound purchasing decisions are being made.

Tips for Reviewing Software

- ✓ Shop around for the best educational price.
- ✓ Ask if you will be charged a re-stocking fee for software that is previewed and returned.
- ✓ Read software reviews regularly to highlight programs that you should preview.
- ✓ Have your students use the software program before purchasing it.
- ✓ Use the Internet to locate software demos that you can save to your hard drive.
- ✓ Involve all staff members in evaluating software to save time and to get a fresh perspective.
- ✓ Visit a local literacy program or library that have educational software available to preview.

Decisions, Decisions 5.0 - Substance Abuse

Publisher: Tom Synder Productions

Description

This program (CD-ROM or diskette) is a simulation that engages students in role playing, critical thinking and cooperative learning around substance abuse issues. It encourages critical discussion, problem-solving and a engages students in a decision-making process. A series of themes are offered and include: Urbanization; Violence in the Media; Campaign Trail; AIDS; Balancing a Budget; Prejudice; Immigration.

Software Type

Drill and Practice

Tutorial

Simulation

Price

\$224.95 Single

Game

Problem Solving

Other

\$374.95 Lab Pack

Strengths

Most software programs have been designed for independent use. The Decision, Decision series provides an interactive design for small-group work. It fosters teamwork and helps to develop communication skills.

A five step model for critical thinking and decision-making is provided and easy to follow. Students are encouraged to use the World Wide Web for research. A website exists for students to expand and include other students through e-mail in their discussions.

This is an innovative way to engage students in using computer technology. The potential uses for literacy learning are numerous for instance, a writing module is built into the interface. Teacher manuals are included with the program and also offer curriculum ideas.

Weaknesses

Consequences of decisions made by the small-group are not always realistic. Decisions, Decisions is expensive in comparison to other programs on the market.

Comments

This particular theme, Substance Abuse, was an award winner for the Technology & Learning Award of Excellence.

Only the Best. The Annual Guide to the Highest-Rated Educational Software and Multimedia highlight the top-selling educational programs. In 1996, the theme prejudice was included in this listing of quality programs. In 1997, two additional themes, nation-building and violence in the media, made it to their list.

Literacy Volunteers of America reviewed two themes, environment and immigration, and were highly rated.

Encarta Atlas 97

Publisher: Microsoft Corp.

Description

This CD-ROM provides students with information on the countries and cities of the world. It includes details on the animals, cultures and customs of different regions. Over 1.2 million places have been listed in the program. At least 50 detailed maps of city streets are included. An on-line feature makes it easy to provide up-to-date information.

Software Type

Drill and Practice

Tutorial

Simulation

Price

n/a Single

Game

Problem Solving

Other

n/a Lab Pack

Version 97 is no longer available, however a software distributor can provide the price for the 98 version.

Strengths

Students can explore different regions of the world and visuals/pictures will pop up for easy access to stunning pictures, audio and text on the various aspects of life for a particular region. Students can still search by keyword or tour using this pop up feature.

It is easy to use the navigational features of this program. For instance, pointing and clicking on an image of the earth will zoom in or move farther away from a particular country or region being viewed.

Weaknesses

A multimedia journal features about thirty families from around the world. Facts about families, language and the country they live in are included. This component is fun, but offers a very conventional definition of family. Nuclear families are prominent with little exploration of same sex, single parent or extended family households. However, this component could present learning opportunities to discuss how this presentation is limited and who it excludes.

The size of the letters in the menu are very small. This tends to be a common characteristic of reference databases.

Comments

The Encarta website can be found at <http://www.encarta.com/>

Encarta Encyclopedia 97

Publisher. Microsoft Corp.

Description

Encarta Encyclopedia (CD-ROM) is an interactive and multimedia resource of information for educational, entertainment or research purposes. The 97 version offers over 31,000 articles and the option of downloading monthly article updates from the Internet. This two-disc program provides a larger quantity of media elements, such as video and photos to meet information needs of individuals and organizations.

Software Type

Drill and Practice

Tutorial

Simulation

Price

n/a Single

Game

Problem Solving

Other

n/a Lab Pack

Version 97 is no longer available, however a software distributor can provide the price for the 98 version.

Strengths

The navigational features are excellent in this program. The menus 'fly-out' without clicking the mouse and help students decide where to go next. The search box is easy to understand and students can browse through a list or enter with a key word, time, place or media type such as video footage. A more advance search menu is offered for students with a higher level of skills. For novices, a wizard (tutorial) will walk the student through the process of searching step-by-step

Guided tours and collages are offered for students who want to explore. They are interactive, engaging and enhance self-directed study. Information is grouped according to themes, such as world music, personal nutrition, role models and the birth of television. This section is not text-based and uses sound effectively. It can be used to introduce basic literacy students to encyclopedias.

Numerous words within the articles have been hyperlinked to provide quick and easy access to a dictionary/word bank.

Weaknesses

All encyclopedia programs tend to use small font size for menus. The program cannot be read by people with visual impairments and makes navigation for low level readers difficult. The articles in the database require advance reading skills and would be too difficult for basic learners. Basic learners will require tutor support and should be directed to the collages and guided tours section.

Comments

Featured in *Only the Best. The Annual Guide to the Highest-Rated Educational Software and Multimedia* for two years in a row - 1994/95 and 1996.

Getting Ready for a Good job

Publisher: NTU Contemporary Publishing Co.

Description

This program (CD-ROM) offers a series of lessons to improve reading skills. The six module topics are: Take Charge - Make Your Job Dreams Come True; Looking for a Job; Filling Out an Application Form; Writing a Resume; Interviewing for a Job; Keeping the job and Getting Promotions. It offers a teacher management component, introduces students to computers and how to use a mouse. It has been developed for a grade 5 to grade 9 reading level.

Software Type

Drill and Practice

Tutorial

Simulation

Price

\$670.95 Single

Game

Problem Solving

Other

n/a Lab Pack

Strengths

The student sets the instructional pace. It is possible to customize this feature for each student.

Content on job and employability skills are relevant and interesting to adult learners.

Literacy activities help the student increase reading comprehension skills such as: setting reading goals; vocabulary development; scanning for information; making first level inferences, organizing information, summarizing information and answering comprehension questions. This program demonstrates how software can use sound educational techniques to increase skill development.

Weaknesses

It is expensive and out of reach for most community-based literacy programs.

The American content is not always appropriate for Canadian students. There are subtle gender biases that may reinforce negative stereotypes.

Comments

Literacy Volunteers of American rated this program as very good.

I Know Math

Publisher. NTC/Contemporary Publishing Co.

Description

This CD-ROM provides 400 basic mathematical word problems dealing with everyday life situations. The problems presented involve using whole numbers, fractions, decimals and percentages. Twenty hours of digital audio give directions, skill review and feedback. Placement tests and a student management system is available.

Software Type

Drill and Practice

Tutorial

Simulation

Price

\$670.95 Single

Game

Problem Solving

Other

n/a Lab Pack

Strengths

This is a math program that is not embedded in a game form. This program progresses at the student's pace and can be customized to meet an individual student's needs.

I Know Math provides great feedback and support for incorrect answers. Three types of feedback are given. For instance, a word problem will be read aloud to the student if an incorrect response is provided. A second incorrect response will prompt a hint giving part of the answer. If the answer is still incorrect the solution will be provided and the program demonstrates, step by step, how the solution can be reached.

The student management system stores relevant information to assist with progress and evaluation. The system stores the number of questions answered correctly and the amount of time spent solving problems.

Weaknesses

It is expensive and out of reach for most community-based literacy programs. However, in comparison to other numeracy programs, I Know Math shines.

Inspiration

Publisher Inspiration Software Inc.,

Description

This program (3.5" disk) is a visual learning tool that helps students to improve their writing skills. Inspiration provides tools to help organize ideas through the use of mind-mapping diagrams.

Software Type

Drill and Practice

Tutorial

Simulation

Price

\$96.95 Single

Game

Problem Solving

Other

\$434.00 Lab Pack

Strengths

Inspiration is a great alternative for students who experience difficulty with writing because they are over-concerned about spelling, punctuation and perfect handwriting. This program offers features such as text outline and rapid fire to help students generate ideas and recognize how they are organized.

Tutors can use this program to emphasize the development of ideas and help students to focus on building content as the first stage in the writing process. The rapid fire feature mimics brainstorming techniques and automatically arranges the ideas into a diagram. Students are encouraged to take risks and will be pleased by the professional looking mind-map that is produced.

The ideas generated through rapid fire can easily be transferred into a text outline with the click of a button. Students will be able to prioritize ideas in this view or return to the diagram.

The graphical toolbar is easy to use and consists of the most commonly used features. This helps to make inspiration user-friendly and easy to learn.

Comments

Inspiration Software's website (<http://www.inspiration.com/>) has a demo copy of this software program for people to download. You can use Inspiration for a 30 day period before deciding whether to purchase a copy.

Interactive Picture Dictionary

Publisher: Protea Textware

Description

Australia has produced a toy-notch CD-ROM designed for adult literacy learners that is instructionally sound and visually appealing. Spelling and vocabulary are improved in a context that is familiar to learners. It draws on the student's knowledge of everyday material such as food and nature. The program is fun and engages students while improving word recognition skills.

Software Type

Drill and Practice

Tutorial

Simulation

Price

\$140 Single

Game

Problem Solving

Other

n/a Lab Pack

The distributor did not have a Canadian price available at the time of publishing this report.

Strengths

The layout is consistent and easy to learn. Students with low literacy and computer skills have found this program easy to navigate. The interface is user friendly, except for the main menu icon that is hard to interpret.

This program is student-driven and can be used at the student's own pace. It offers three different cloze activities for each word being learned. Each activity increases the level of difficulty. Students choose when to move on to the next activity and when to review. Testing is optional and can be printed.

Vocabulary words appear in a sentence beside a picture. Words within the sentence that may be difficult are hyperlinked to a definition. Definitions are visual, animated and have sound effects to help the learner understand the meaning of the word. This is a great example of how visual clues can be used with basic literacy learners to increase comprehension.

An authoring tool allows learners to write original sentences using words from their word bank. Spelling activities are then generated from the student's list of words.

Weaknesses

The Australian accent may be difficult to understand for some literacy students. Some of the terms may be confusing for Canadian learners e.g.) 'jumper' instead of 'sweater'.

Comments

Ideally, an Interactive Picture Dictionary will be redesigned with Canadian content. Nevertheless, this program generated a discussion among students about the differences between Australian and Canadian language.

Protea sells another program called "Issues in English." It is also well-designed and worth evaluating.

Microsoft Word 7.0

Publisher. Microsoft Company

Description

A sophisticated word processor that supports any form of letter writing and more advanced desktop publishing. It offers a large number of templates to assist with writing.

Software Type

Drill and Practice

Game

Tutorial

Problem Solving

Simulation

Other

Price

\$70 **Prices are greatly reduced for organizations with a charitable tax number. For more details, refer to the Microsoft Company listing in the Software Publisher's section.**

Strengths

The true potential behind Microsoft Word (and other word processors) is the ability for students to author their own material for publishing and literacy instruction.

Many strategies can be used to facilitate the writing process. For instance, editing, revising, brainstorming etc. Visual icons assist with the editing process and are easy to learn.

A wide variety of clip art can be previewed. Microsoft Word makes combining graphics and text easy and fun. A student's ability to publish materials are greatly enhanced by using a program like Microsoft Word.

Weaknesses

The work environment can be intimidating for basic literacy learners who have had limited exposure to computers. Basic computer skills are required and may inhibit writing. If basic learners choose to use Microsoft Word they should have support from a tutor / staff.

The templates, particularly for resumes, have been a source of frustration for our students because they are rigid and the layout is difficult to change. They are only recommended for students with advanced computer skills.

Comments

Word processors are a common business application found in most workplaces. Many literacy students are motivated to learn MS Word because they believe it will increase their chances for obtaining a job.

My City

Publisher McGraw-Hill Ryerson

Description

This simulation (CD-ROM) has been designed for youth and is interactive and animated. Players must deliberate a series of social and cultural issues based on United Nations Convention on the Rights of the Child. The player becomes mayor and must make decisions on the future of the city.. The issues are based on real-life problems and the solutions reflect potential actions taken by communities around the world. It can be played independently or in small groups and has been designed for ages nine to fourteen, but can be used with some adults.

Software Type

Drill and Practice

Tutorial

Simulation

Price

\$52.45 Single

Game

Problem Solving

Other

\$209.95 Lab Pack

Strengths

The designer believes that an integral part of the program is the discussion and debate that stems from the game. The program manual offers a variety of ideas for using the program in small-groups and suggestions for projects that do not involve the use of the computer. Students are encouraged to apply what they learn in their own community.

Students are provided with a variety of sources to gather information from prior to making decisions. They can become more informed by consulting with a youth council, community experts, and using the library resources. The program also provides short articles that can be printed and various video clips.

Students can set the pace for the program.

The graphics are fun, colourful and animated. They are especially appealing to youth.

Weaknesses

The navigational features are not clear and can be frustrating for students with limited experience using computers. It is essential that students receive a brief orientation about the program's interface. This will decrease the potential for students to exit the program early.

Comments

A portion (\$2.50) from every sale of My City goes to support Unicef-related projects.

This program covers a great deal of social issues. It has enormous potential and has had a positive reaction from our students.

Native Trails

Publishen Eagle Software Inc.

Description

This program (CD-ROM) is entertaining and educates the student about North American native history. A series of First Nation villages are presented from across Canada and students must explore each one to learn about local customs and life prior to contact with European explorers.

Software Type

Drill and Practice

Tutorial

Simulation

Price

\$89 Single

Game

Problem Solving

Other

n/a Lab Pack

Strengths

The content is Canadian and offers a view of history that is often missing from mainstream software.

Information is presented in a village scenario that is fun and graphically pleasing. A series of questions and puzzles test the student's comprehension of the material being presented.

Weaknesses

During the log on procedure the student must choose either boy or girl after typing in his/her name. This may be inappropriate for some adults.

Comments

Much of the information for the content of this program came from interviews with Native people, in particular Elders from various Nations were consulted.

Overall, student evaluators enjoyed this program and learning about native history.

Operation Neptune

Publisher: Learning Company

Description

Operation Neptune (CD-ROM) is an action-filled undersea adventure. Students solve math problems while operating of a high-tech submarine. Arithmetic operations involve the addition, subtraction, division and multiplication of whole numbers, fractions, decimals and percentages. Solutions involve interpreting graphs, charts, and maps. Problems incorporate measurement concepts, including length, time, temperature, distance, speed, angles, area, perimeter and volume.

Software Type

- | | |
|--|--|
| <input checked="" type="checkbox"/> Drill and Practice | <input checked="" type="checkbox"/> Game |
| <input type="checkbox"/> Tutorial | <input type="checkbox"/> Problem Solving |
| <input checked="" type="checkbox"/> Simulation | <input type="checkbox"/> Other |

Price

\$29.99 Single

\$67.95 Lab Pack

Strengths

This program can be customized to meet individual needs and skills. Students can choose from four levels in each mathematical operation (whole numbers, fractions, or decimals).

The graphics are engaging and colourful.

Students are provided with two levels of feedback . At the first level, an incorrect answer will prompt a hint and encourage students to retry. If the answer is still incorrect the next level provides a step-by-step solution.

This program offers a math practice area and provide students with similar problems encountered in the game environment. Students can customize the problems math practice by choosing an appropriate educational level and number of problem sets to practice. (e.g. 5 or 10 problems)

Weaknesses

Maneuvering the submarine in the game portion of this program can be frustrating for some students. It is easy to move the submarine up, down, left and right, however to move diagonally requires using more than one direction key.

Perfect Copy

Publisher: Logicus Incorporated

Description

This program (3.5" disk or CD-ROM) provides students with a series of articles to proofread and find common punctuation and grammatical errors. Three levels of reading (grade 4-6, 7-8, 9-10), and interest (junior, teen and adult) are available to meet a wide range of skill levels. The program has a complete diagnostic and tracking component.

Software Type

Drill and Practice

Tutorial

Simulation

Price

\$269 Single

Game

Problem Solving

Other

\$649 Lab Pack

Strengths

Perfect Copy can be used at the student's pace.

The most important feature is the authoring tool that enables educators to develop and write new material to insert into the program. The content can be tailored to meet the needs of the students.

A pop-up menu clearly identifies different skill areas and helps students to make an appropriate choice. Some of the choices for students include working on capitals, commas, subject/verb agreement, and apostrophes. Feedback and hints are provided as needed.

Weaknesses

Overall, it is a dull text-based package that doesn't make use of sound and/or graphics. It has some instructional value, but is not appealing to most students.

Comments

This program is a good resource for tutors and students looking for additional exercise to practice writing skills

An extra component can be purchased for \$189 and provides additional resource article for adults.

Rosetta Stone (Level 1 and 2)

Publisher: Fairfield Language Technologies

Description

Rosetta Stone (CD-ROM) provides instruction and practice for English as a Second Language learners. It offers individualized instruction for learning styles. Emphasis is placed on developing speaking, writing, listening and reading comprehension skills

Software Type

- | | |
|--|--|
| <input checked="" type="checkbox"/> Drill and Practice | <input type="checkbox"/> Game |
| <input checked="" type="checkbox"/> Tutorial | <input type="checkbox"/> Problem Solving |
| <input type="checkbox"/> Simulation | <input type="checkbox"/> Other |

Price

\$553 Single

\$2,065 Lab Pack

Level 1 and 2 are sold separately.

Strengths

Instruction is student-driven, operates at the learner's own pace and offers an incredible amount of flexibility. A wide range of learning modes are offered and appeal to a variety of learning styles. Each learning mode has varying combinations of voice, text and pictures.

The content is geared toward basic and intermediate E.S.L learners. The first level has students associate a word with its pictorial representation. The tasks gradually increase in complexity beginning with words and moving toward understanding phrases, sentences and dialogues. Even though this program has been designed for ESL students it can be used by basic literacy learners.

People represented in the photographs come from a wide and diverse range of ethnic groups.

A dictation mode enables students to practice pronunciation skills (words, phrases and sentences). The program checks the student's work and offers feedback .

Weaknesses

Instructors need to invest time to become familiar with the interface and the manuals that accompany the program. Students will need an orientation in order to select an appropriate learning mode. This could be confusing to a student who expects to start the program and go. This program could have been enhanced by a tutorial to help the student make appropriate choices by explaining the different learning modes.

Comments

Featured in Only the Best: The Annual Guide to the Highest-Rated Educational Software and Multimedia for 1996.

Literacy Volunteers of America gave this program an excellent review.

S.T.A.P.L.E. 96: Supplemental Training for Alberta Practitioners in Literacy Education

Publisher. Literacy Services of Canada

Description

S.T.A.P.L.E. 96 (CD-ROM) is for literacy tutors and covers how to teach reading and writing skills and assessment. It was designed by educators who wanted to offer practical training tools to supplement existing training methods. It is fun, interactive and provides a wide variety of activities. Module topics include: Teaching Reading; Introduction to Assessment and Teaching Writing. An ESL component embedded in the program explains the differences between teaching ESL and literacy.

Software Type

Drill and Practice

Game

Tutorial

Problem Solving

Simulation

Other

Price

\$110.21 Single

Lab Pack

Refer to comments for details on the 1998 version of S.T.A.P.L.E and prices.

Strengths

The design is highly engaging, fun and interactive. The introduction has been well designed and provides enough information to get started. All sections involve completing quizzes and tests, offer a review of the material covered and provide feedback on the user's performance.

The content is presented in a series of topics and subtopics. Tutors can enter different sections at any point and can control the sequencing of topics. For instance, tutors can review the Language Experience Activity by checking the manual to find the appropriate section.

The program offers a wide range of activities to keep the tutor involved and interested. The program makes excellent use of sound and graphics.

Tutors can write a take home exam and, if they pass, receive a certificate for completing the training.

Weaknesses

The text runs off the screen in some places, however it is usually limited to two or three letters and can still be understood.

Some software problems occurred when tutors didn't sign-in properly after the program was opened. S.T.A.P.L.E. would automatically close down and tutors did not have a second chance to re-enter their name. The telephone support offered by the publisher was responsive and provided sound advice.

Comments

No other program has compared to S.T.A.P.L.E. and what it offers. It is an excellent supplement to tutor training.

S.T.A.P.L.E. 96 is no longer available for purchase. A new version is being distributed, Volume 1, for \$230 plus shipping and G.S.T. A second CD-ROM, Volume 2, has been produced and can be purchased for \$100. Both volumes are worth evaluating !

Storybook Weaver Deluxe

Publisher: The Learning Company

Description

Storybook Weaver (CD-ROM) provides students with an easy to use storybuilding program capable of using text, pictures and sound. It is interactive and inspires students to engage in an active process of creative writing.

Software Type

Drill and Practice

Game

Tutorial

Problem Solving

Simulation

Other

Price

\$54.95 Single

\$124.95 Lab Pack

Strengths

Students can choose from a wide variety of sound clips and images that can be used to build a story or support the writing process. It is versatile and can be used in a variety of ways to encourage reluctant writers. For instance, students can choose a selection of opening sentences to start a story. As well, students do not have to develop the story first. Students or tutors can create a picture first to generate story writing ideas and add the text later.

It is relatively easy to use, however first time users should get a brief orientation to the interface and menu.

Weaknesses

Printing has been problematic. The program tends to print out a smaller representation of the book (thumbprints) rather than filling up an entire page (8.5 by 11).

This program might be regarded by some as juvenile - images include princesses and fairies, however the choice is not limited to these graphics. The student evaluators at Beat the Street had fun with this program. One student produced a storybook for her children.

Storybook Weaver offers an excellent feature whereby students can choose a word, sentence or page to be read out loud to them. Unfortunately, the computerized voice is poor quality and difficult to understand. The potential of a program is greatly diminished when software designers do not invest the time and expense to produce better quality of sound.

Comments

It is recommended that other interactive story-building programs are considered and compared to this one. Check other story-building programs for full page printing and suitability for adult learners.

SuperSolvers Outnumbered

Publisher. Learning Company

Description

This program (CD-ROM) is part of the SugerSolvers game series staged at the Shady Glen TV Station. The objective of the game is to search for hidden clues that reveal the location of the Master of Mischief before he takes control of the Station. Students need to use math and problem-solving skills to obtain these clues. Two sets of math skills are developed through the use of this program. The first set involves performing basic operations such as addition, subtraction, multiplication and division. The second set develops the analytical process of interpreting, structuring and solving word problems.

Software Type

Drill and Practice

Tutorial

Simulation

Price

\$40.97 Single

Game

Problem Solving

Other

\$124.95 Lab Pack

Strengths

This program can be customized to meet individual needs and skills. Customization involves choosing one of the four different levels of difficulty and specific operations such as addition, subtraction, multiplication or division. Students can also choose the numbers to be used most frequently in drill questions. For instance, student may want to practice addition using the number 1,2,3,4, and 5. Finally, the format of drill problems is flexible and problem formats can be either $2+3=?$, $?+3=5$, or $2+?=5$.

The drill for skill feature allows students to review the questions that will need to be solved during the game. The program tracks the number of questions completed and the total number correct. Students who do not want to play the game can use the drill for skill feature to practice math.

The game clock is paused when students are solving a math problem and can be turned off for the entire game.

Students encounter two types of math problems: word problems using graphs and drill questions that require basic math calculations.

Weaknesses

After this program was purchased, an error message started to appear that prevented students from completing the game. The publisher offered to replace the program.

TextHELP!

Publisher: Lorien Systems

Description

This CD-ROM is advertised as the "critically acclaimed software for dyslexia. " It packs a powerful combination of speech, word prediction and spelling support or people with learning difficulties. It works in conjunction with any Windows application such as Microsoft Word.

Software Type

Drill and Practice

Tutorial

Simulation

Price

\$296 Single

Game

Problem Solving

Other

n/a Lab Pack

Strengths

TextHELP! is a program that has a high degree of flexibility. It can be tailored to provide a wide range of support. Features can be easily turned off or on according to the student's preference and learning needs. The ability to individualize the level of support is impressive and will require a small investment of time to learn how to use the toolbar effectively.

The level of speech support and interaction is fabulous. TextHELP! offers an innovative use of speech to support students. This makes it a highly effective program for basic learners. The program can read highlighted sections out loud, word-by-word or sentence-by-sentence.

TextHELP! provides spelling support that is "real time" and integrates the use of speech. When a student types a word incorrectly the spellcheck box will appear immediately and provide a short list of suggested spellings. Students can point and click on each word to hear how they sound and choose the appropriate word. A student may not recognize the correct spelling, but will know how the word is pronounced.

Another feature is word prediction that provides a list of commonly used words to select from during the course of writing. The program tries to predict a potential list of words based on the structure of the word being typed. This feature is excellent for basic learners who can choose words to help write a sentence.

In addition, TextHELP! will learn new words as it is used. For instance, a student uses the word "hippopotamus" that is unavailable in the word prediction box, but spell check helps to spell it correctly. The next time the student starts to write "hippopotamus" the word prediction box will appear and will have added this word to its list.

Weaknesses

As usual, the quality of speech is a concern. TextHELP! permits users to change the pitch and tone of the voice. However, it may still be distracting to students who may be put off by its robotic sound.

A definition will be provided for homophones when they are used in a sentence and read aloud. For instance, the sentence "I used five pears - meaning a fruit - to make a salad for the party. " While this is a useful feature it may be confusing to basic learners who are already distracted by the robotic voice and may not recognize that the word "pear" is a homophone. The definition interrupts the flow of the sentence and should be offered after the sentence has been read aloud.

Most students will require help to set the features that would benefit them the most. The menu has been designed with instructors in mind. Adult students who will want participate in setting the level of support (e.g. read aloud each word as I type) will require an orientation to the program's toolbar. It will take longer than most software programs for adult students to use TextHELP! independently.

Comments

An updated version has been completed and has greatly improved the interface of TextHELP!. An animated character, appropriate for adults or children, floats on top of the word processing program. It talks to the students rather than opening up a smaller window with the text being read. As well, it provides access the menu by pointing on the body of the character. It is visually pleasing, fun and less intimidating than the previous toolbar.

The Knowledge Tree is a Canadian distributor of TextHELP! Refer to the list of software distributors to find out how to reach them.

The Lost Mind of Dr. Brain

Publisher: Sierra Company

Description

This game (CD-ROM) provides ten challenging puzzles for students to solve in order to rescue Dr. Brain. An educational consultant was involved in developing this program and adapted Howard Gardner's Theory of Multiple Intelligences to develop design criteria and puzzle objectives.

Software Type

Drill and Practice

Tutorial

Simulation

Price

\$56.97 Single

Game

Problem Solving

Other

\$133.97 Lab Pack

Strengths

A variety of approaches and strategies are used to solve puzzles. Students are able to choose the type of activity, the sequence and level of difficulty. They are not required to complete a whole puzzle before being able to enter another one and can return at any time to the incomplete puzzle.

Some notable puzzles include: word surge - finding a list of words within a puzzle; file sorting - improving memory by filing objects that are identified and locating them; pentode - different forms of communication, such as sign language is introduced and students must locate and match five symbols.

This program makes excellent use of animation and sound that helps to keep students engaged and interested.

Weaknesses

Less advanced students need an orientation to the menu and options. The design encourages exploration, however certain features such as the exit and control panel are small and dark, making them difficult to locate.

Comments

This program is a good hook to introduce students to computer technology. It is entertaining and fun to play. Beat the Street students tend to laugh a lot when they are using this program.

The New Reading Disc

Publisher: Cambridge Training and Development

Description

This CD-ROM has been designed for adult literacy learners. Three activities, writing an article, debate and letter writing encourage writing. The program uses the student's own writing for the reading exercises. The reading exercises include sentence construction, cloze activity, alphabetic sorting and comprehension activities. This software program successfully integrates an excellent combination of print, audio and video.

Software Type

Drill and Practice

Tutorial

Simulation

Price

\$300 Single

Game

Problem Solving

Other

n/a Lab Pack

Strengths

The design is excellent and easy to use. Audio and visual instructions are offered to help guide students through the program.

The Program integrates reading and writing in a variety of instructional program integrates reading and writing in a variety of instructional activities. The writing section encourages and supports language experience activities.

This program takes full advantage of the multimedia capabilities of new technology. It makes excellent use of audio (good quality), visual (video and photos) and combines them with text. It will appeal to and be effective for a variety of learning styles.

Designers of The Reading Disc considered the needs of basic learners and have provided support for hesitant readers and writers. For instance, the writing section has a range of sentences built into the program that students can choose to start their story. The program will read the sentences aloud to students if they have difficulty reading.

Weaknesses

The authoring tool enables literacy educators to move beyond program weaknesses such as, British content and accent.

Comments

Award for Best Educational CD, 1991 European Multimedia Event.

Extensive evaluations were conducted by 38 literacy programs in Canada. The report outlining the evaluations can be obtained from Marla Waltman Daschko, National Literacy Secretariat, 15 Eddy Street, Room 10E10, Hull, Quebec K1A 1K5. Telephone: (819) 953-5675 or Email: waltmann@fox.nstn.ca

Purchases can be made through The Centre for Literacy of Quebec, (514) 931-8731 ext. 1415.

The New Reading Disc has been upgraded and released under a different name. It is called *Words in Action* and is available for preview.

The Student Writing Centre

Publisher. The Learning Company

Description

This word processor (CD-ROM) has been designed for students in a formal school setting. The easy to read screen has large icons with pre-formatted documents for students to use. It can be combined with Compton's Concise Encyclopedia to provide easy access and retrieval of information for research papers and writing.

Software Type

Drill and Practice

Game

Tutorial

Problem Solving

Simulation

Other

Price

\$54 Single

\$157.95 Lab Pack

Strengths

This program provides five pre-formatted documents to produce newsletters, journal entries, reports, banners and letters. At the start of the program, a large menu appears prompting students to choose one of the five document types. This is particularly useful for students who are discouraged by a blank page on the screen. Pre-formatted documents help students to focus on writing rather than formatting. It is a good stepping-stone for users who are intimidated by the Microsoft Word environment. Students with low literacy skills and limited experience with computers should have the option of using a program like this one. Hesitant writers will be encouraged by the easy to understand icons and can move to a more advanced word processor when they develop skills to work in this type of environment.

Positive and encouraging tips are offered on topics such as, writing, grammar, and even journal writing. It is unfortunate that the designers did not provide sound in this section.

This program acknowledge the importance of journals and designers have built in a journal writing section.

Weaknesses

Saving a file for the first time can be confusing. A dialog box appears that does not hide the file extensions. File naming conventions will need to be taught to first time computer users. For instance: length of filename, purpose of file extensions, characters not allowed in a file name.

Comments

Basic learners will benefit from using a, talking word processor, such as Write Aloud by Don Johnston Inc. (<http://www.donjohnston.com/>) or TextHELP! by Lorien systems (<http://www.loriens.com>). Beat the Street will invest in three different types of word processing programs to meet a wider range of skill level.

Type To Learn

Publisher: Sunburst

Description

Type to Learn is a keyboarding program (CD-ROM) that teaches students to type while reinforcing spelling, grammar, composition and punctuation skills. Students can choose from two different vocabulary levels and a variety of games. Speed-building exercises allow students to apply what they have learned.

Software Type

Drill and Practice

Game

Tutorial

Problem Solving

Simulation

Other

Price

\$159.95 Single

\$159.95 Lab Pack

Five programs can be purchased for the price of one.

Strengths

The program can be customized to meet individual needs and reading levels. Students can change: the vocabulary level, gender of voice prompts, words per minute, accuracy goals, automatic review and automatic goal adjustment. This flexibility gives the student a fair amount of control over the learning process and goal setting.

A digital voice is one of Type to Learn's most important features. Prompts are verbal and offers positive reinforcement. This program can be used to teach the alphabet. It helps make the connection between the spoken and the written letter. Programming features can be set at 10 words per minute. This slow pace will prevent a basic learner from becoming frustrated.

Progress reports can be printed, and students can track their progress.

This program's instructional design is excellent. Students are provided with ample time to learn new keys before being tested, gives on-going positive assessment, encouraged to apply what they learn in different contexts and cannot move to the next level before reaching target goals.

Weaknesses

The designers assumed a teacher will control how the student uses the program. To individualize the program a hotkey (Ctrl T) needs to be activated for the teacher menu. The program should offer this feature as a regular part of the menu.

The default volume setting is not consistent and must be adjusted each time the program is loaded.

Comments

Parent's Choice Award, 1997

CODIE Award Finalist 1997

1996 Best Software in a Special Category Award

Kids First! 1997, Media & Methods

Software Publishers and Distributors

A brief note on the differences between distributors and publishers is required. American publishers will have a Canadian distributor who will offer previews, sell the product and provide technical support. We were informed that distributors purchase products in large quantities and often resell at a lower cost than the publisher. Publishers can also be licensed to distribute products owned by other publishers. It should be noted that the distinction between distributors and publishers is often difficult to determine.

Software Distributors

The following distributors will send out their catalogues free of charge. The catalogues outline a preview policy and provide a price list. Be sure to ask for educational prices and shop for the best price. Prices vary from company to company.

Asquith House Ltd.

94 Aquith Avenue

Toronto, Ontario

M4W 1J8

Phone: (416) 925-3577

Email: n/a

Website: n/a

Licensed to sell print and software products from the following publishers: Curriculum Associates, Science Research Associates (SRA), Nystrom (maps and globes), Options (print only). Asquith House is a Canadian owned company.

Educational Resources

38 Scott Street West

St. Catherines, Ontario

L1R 1C9

Phone: (800) 565-5198

Email: n/a

Website: <http://www.edresources.com>

Core Curriculum Technology

243 North Service Road West
Suite 100
Oakville, Ontario
L6M 3E5
Phone: (905) 338-2288
Email: n/a

Core Curriculum Technology is a Canadian owned and operated distributor. They guarantee the lowest prices and will match a competitor price if it is lower. They charge a 15% re-stocking fee for preview software that is returned.

Gage Educational Publishing

164 Commander Blvd.
Scarborough, Ontario
MIS 3C7
Phone: (800) 667-1115
Email: n/a
Website: <http://www.cornerstones.gagepub.ca>

Gage has a growing selection of educational software for purchase. They have a license to distribute products made by Sunburst Communications, Skillsbank, and others. Gage is Canadian owned and operated.

Tangent Scientific

261 Martindale Road, Unit 10
St. Catherines, Ontario
L2W 1A2
Phone: (800) 363-2908 or (905) 704-1500
Email: sales@tangentscientific.com
Website: <http://www.tangentscientific.com>

Tangent is a Canadian company licensed to distribute A.D.A.M. and Queue software. Most of the programs have been designed for science students, however software programs such as A.D.A.M.- Life's Greatest Mysteries and A.D.A.M - The Inside Story engage the student in reading and learning about health.

Torcomp Publishing Corporation

160 Applewood Crescent Unit #14

Concord, Ontario

L4K 4H2

Phone: (800) 561-7520

Email: vlynnem@torcomp.com

Website: <http://www.torcomp.com>

A Canadian-owned distributor for Tom Synder Productions. This software line is geared for small group work and collaborative learning environments.

The Knowledge Tree

554 Merton Street

Toronto, Ontario

M4S 1B3

Phone: (888) 336-4307

Email: n/a

Website: <http://www.knowledgetree.on.ca/>

They distribute Lorien System's TextHELP! plus other educational software programs.

Software Publishers

The following list provides the names of publishers for the programs reviewed in this report. A more extensive list of publishers can be found in *Only The Best: The Annual Guide to the Highest-Rated Educational Software and Multimedia* publication. To order a copy refer to the next section, Software Review Publications.

Cambridge Training and Development

Block D2

The Westbrook Centre

Milton Road, Cambridge

U.K.

Phone: +44 (0) 1223 582582

Email: postcentre@ctadcam.demon.co.uk

Website: n/a

Note: Cambridge has a Canadian distributor, The Centre for Literacy, and can be reached in Montreal at (514) 931-8731 ext. 1415.

Eagle Software Inc.

7 Cherry Drive

Dartmouth, Nova Scotia

B3A 2Z1

Phone: (902) 421-1961

Email: n/a

Website: <http://www.eagle2000.com/default.asp>

Inspiration Software Inc.

7412 S.W. Beaverton Hillsdale Hwy.

Suite 102

Portland, Oregon

97225-2167 U.S.A.

Phone: (503) 297-3004 or (800) 877-4292

Email: sales@inspiration.com

Website: <http://www.inspiration.com/>

Literacy Services of Canada Ltd.

P.O. Box 52192

Edmonton, Alberta

T6G 2T5

Phone: (403) 413-6491

Email: brokop@telusplanet.net

Website: n/a

Logicus Incorporated

Brownsville junction, Suite 205

Schomberg, Ontario

L0G 1T0

Phone: (800)267-3189 or (905) 939-8652

Email: bville@logicus.com

Website: <http://www.logicus.com>

Lorien Systems

Enkalon Business Center

25 Randalstown Rd.

Antrim

Co. Antrim, Northern Ireland

BT41 4LJ

Phone: (44) 0 1849 428105

Email: info@loriens.com

Website: <http://www.loriens.com/>

MECC: Minnesota Educational Computing Consortium

6160 Summit Drive North

Minneapolis, MN

55430-4003 U.S.A.

Phone: (800) 685-6322

Email: learningco.com

Website: <http://www.learningco.com>

Note: The Learning Company has recently purchased MECC, Comptons and Softkey products.

Microsoft Company

* call for the nearest reseller

Phone: (800) 563-9048 (Canadian Sales & Information)

Email: n/a

Website: <http://www.microsoft.com/Canada/kidreach>

Contact the sales and information line to find out about the Charitable Organization's "Not for Resale" Program. Non-profits with a charitable registration number can purchase Microsoft programs at a substantially reduced price. To speak with the operator, press "1" for English, "4" for the small business line, and "2" for other inquires. Contact Microsoft's public relations agency, Hill & Knowlton, at (416) 483-5228 to inquire about software donations.

McGraw-Hill Ryerson

300 Water Street

Whitby, Ontario

LIN 9B6

Phone: (800) 565-5758

Email: n/a

Website: <http://www.mcgrawhill.ca>

NTC/Contemporary Publishing Company

4255 West Touhy Avenue

Lincolnwood, IL

60646-1975 U.S.A.

Phone: (800) 323-4900 / Cdn distributor (416) 466-6542

Email: ntcpub@tribune.com

Website: <http://www.contemporarybooks.com>

Protea Textware Pty Ltd.

ACN 077 575 047

P.O. Box 49

Hurstbridge, Victoria

Phone: 61-3-97 14 8644

Email: protea@mpx.com.au

The Interactive Picture Dictionary can be previewed and purchased at Alpha Ontario. Alpha can be contacted at (416) 397-5900. They also have two other programs designed by Protea called Issues in English and Measuring Up.

Sierra

P.O. Box 3404

Salinas, CA

93912 U.S.A.

Phone: (800) 757-7707 (24 hrs)

Email: sierra@itimail.com

Website: <http://www.sierra.com>

Sunburst

c/o Gage Educational Publishing Company

164 Commander Blvd.

Scarborough, Ontario

MIS 3C7

Phone: (800) 667-1115

Email: n/a

Website: <http://www.SUNBURST.com>

The Learning Company

6160 Summit Drive North

Minneapolis, MN

55430-4003 U.S.A.

Phone: (800) 685-6322

Email: learningco.com

Website: <http://www.learningco.com>

Note: The Learning Company also owns MECC, Comptons and Softkey products.

Tom Synder Productions

80 Coolidge Hill Road

Watertown, MA

02172 U.S.A.

Phone: (800) 342-0236

Email: ask@teachtsp.com

Refer to Torcomp Publishing Corporation in the Software Distributors section to purchase Tom Synder Products in Canada.

Software Review Publications

Annotated Bibliography of Computer Resources for Literacy Programs Ottawa Board of Education

Website: <http://207.236.117.20/>

The Ottawa Board of Education coordinated this effort to provide an online database reviewing software for ESL and LINC programs. It offers a long list of educational software programs that are relevant for literacy programs.

Software Evaluation Report

Literacy Volunteers of America - New York State (LVA)
301 South Geneva Street, Room G10
Ithaca, New York
14850 U.S.A.

Phone: (607) 273-0634

Email: ccarlin@lightlink.com

Website: <http://www.lvanys.org>

Cost: approximately \$25 U.S.



Literacy programs evaluating software should consider buying LVA's report. It contains software reviews of approximately 150 programs that were evaluated over a 3 1/2 year period.

Only The Best: The Annual Guide to the Highest Rated Educational Software and Multimedia

Association for Supervision and Curriculum Development
1703 North Beauregard Street
Alexandria, VA
22311-1714 U.S.A.

Phone: (703) 578-9600

Email: member@ascd.org

Website: <http://www.ascd.org>

Cost: \$48.10 Cdn.

Approximately 30 evaluators from the education field, in U.S. and Canada, sift through thousands of programs and submit their findings. This report highlight the top 300 educational software programs and provide detailed information on each.

MTML Update

Metro Toronto Movement for Literacy (MTML)

Refer to the Newsletter section for details on how to contact MTML. Their newsletter, MTML Update, often publishes software reviews.

AlphaCom - Software Electronic Conference
Ontario's Literacy Communications Network
George Brown College
Box 1015, Stn. B.
Toronto, Ontario
M5T 2T9
Phone: (416) 415-4640
Email: n/a

AlphaCom links community literacy programs in Ontario and hosts electronic conferencing on various topics in literacy. A software conference exists and old messages can be scanned to read about recommended software programs. AlphaCom can also provide technical advice for literacy programs who need support.

Research and Information Centres

The following list provides the names of research centres and libraries that offer information and software preview centres.

Alpha Ontario

The Literacy and Language Training Resource Centre

21 Park Road

Toronto, Ontario

M4W 2N1

Phone: (416) 397-5900

Email: info@alphaont.ca

Alpha has a small collection of software available for loan or review in the library. A complete list of software available for loan can be obtained. In addition, excellent resources discussing critical issues in literacy/education and technology can be found.

AskERIC

c/o ERIC Clearinghouse on Information and Technology

4-194 Center for Science and Technology

Syracuse University

Syracuse, NY

13244-4100 U.S.A.

Phone: (315) 443-3640

Email: eric@ericir.syr.edu

Website: <http://ericir.syr.edu/>

The Educational Resources Information Center (ERIC) is a federally funded national information system that provides a broad range of education-related issues. ERIC is associated with 16 subject-specific clearinghouses that provide the content for this database. AskERIC is an Internet-based service providing access to educational information.

Beat the Street

290 Jarvis Street

Toronto, Ontario

M5B 2C5

Phone: (416) 979-3361

Email: bts@ican.net

Website: www.beat-the-street.org

In addition to producing this report, Beat the Street invites literacy educators to visit and learn more about our computer lab. We have a small collection of software programs that literacy educators can preview.

Canadian Congress for Learning Opportunities for Women (CCLOW)

Janus Project
47 Main Street
Toronto, Ontario
M4E2V6

Phone: (416) 699-1909

Email: cclow@web.net

Website: <http://www.nald.ca/cclow.htm>



CCLOW initiated The Janus Project: Promises and Prospects of the New Learning Technologies for Adult Learning Opportunities for Women in 1997. This project, funded by the Office of Learning Technologies, focused on identifying issues and investigating the potential of new technologies and women's learning. A report documenting research findings and proceedings from a workshop discussing the report can be obtained through CCLOW.

The Centre for Literacy of Quebec

3040 Sherbrooke Street West
Montreal, Quebec
H3Z 1A4

Phone: (514) 931-8731 ext. 1415

Email: teracycntr@dawsoncollege.qc.ca

Website: <http://www.nald.ca/litcent.htm>

A software library consisting of 65 software products in adult literacy and basic skills from producers in Canada, the United States and the United Kingdom is available. Resources include software from Autoskill, Interactive Knowledge, Tom Synder Productions and many more. Appointments must be made ahead of time to preview any of the software products. A complete list of available software will be mailed upon request.

Community Technology Centers' Network (CTCNet)

Education Development Center, Inc.
55 Chapel Street
Newton, Massachusetts
02458 U.S.A.

Phone: (617) 969-7100

Email: n/a

Website: <http://www.ctcnet.org/>



CTCNet is a network of more than 250 community technology centres in the United States. Visit their website to find useful publications and learn more about setting up a computer lab for low-income communities.

Institute for the Study of Adult Literacy (ISAL)

The Pennsylvania State University

College of Education

204 Calder Way, Suite 209

University Park, PA

16801-4756 U.S.A.

Phone: (814) 863-3777

Email: isal@psu.edu

Website: <http://www.ed.psu.edu/isal/index.html>

ISAL is concerned with the field of adult literacy study and research, improvement of practice and advocacy and leadership. ISAL's website offers software demos that can be downloaded.

National Adult Literacy Database (NALD)

Scovil House

703 Brunswick Street

Fredericton, New Brunswick

E3B 1H8

Phone: (506) 457-6843

Email: info@nald.ca

Website: <http://www.nald.ca>



NALD gathers and makes available information dealing with the literacy field. In particular, they have resources that can be used in learning situations. Their website has a section offering information on software and reports on literacy. It is worth checking out!

National Center on Adult Literacy (NCAL)

University of Pennsylvania

3910 Chestnut Street

Philadelphia, PA

19104-3111 U.S.A.

Phone: (215) 898-2100

Email: editor@literacy.upenn.edu

Website: <http://www.literacyonline.org>

The Center sponsors innovative research, works with practitioners to grove instruction and supplies information for sound policy decisions. information from the field is distributed through newsletters, technical reports, conferences, policy forums, a literacy technology laboratory and the Internet. A number of their technical reports have been cited in this report and are a valuable source of information. They sell a CD-ROM (\$35US), Adult Literacy Explorer, that contains multimedia presentations about technology use in adult literacy and includes 23 software demos.

A database of adult literacy software that is available for purchase can be obtained on a disk or downloaded from NCAL's Internet site.

National Literacy Secretariat (NLS)

Learning & Literacy Directorate
Human Resources Development Canada
Jos Montferrand Building
170 Hotel de Ville 8th Floor
Hull, Quebec K1A 0J9
Phone: (819) 953-5280
Fax: (819) 953-8076
TTY/TDD: (819) 953-3228
E-mail: nls@fox.nstn.ca
Website: <http://www.nald.ca/nls.htm>

The website has a publications section with numerous papers discussing technology and adult literacy programs.

Office of Learning Technology (OLT)

15 Eddy Street
Ground Floor
Hull, Quebec
K1A 0J9
Phone: (819) 953-0300
Email: olthrdc@ibm.net

The Office of Learning Technology offers funding for a range of research projects through its Contribution Program. Visit OLT's website to find out more about the different projects currently receiving funding, to read a list of 250 organizations (mostly Canadian) using learning technologies, and to access a database of information pertaining to learning technology. The database includes the Ontario Ministry of Education & Training and the Canadian Education Index. In addition, over 200 listserves dealing with topics related to technology and learning are listed.

Plugged In

1923 University Avenue
East Palo Alto, California
94303 U.S.A.
Phone: (650) 322-1134
Email: info@pluggedin.org
Website: <http://www.pluggedin.org/>

Plugged In is an innovative program bringing educational opportunities created by new technologies to low-income communities. Their website shares information about their development, the challenges they faced, working with technical volunteers, curriculum ideas plus more.

Newsletters

Connect

National Newsletter on Technology and Adult Literacy

Continuing Education Centre

Ottawa Board of Education

300 Rochester St. Room 202

Ottawa, Ontario

K1R 7N4

Phone: (613) 239-2656

Email: cbelange@obe.edu.on.ca

Website: <http://www.nald.ca/connect.htm>

Subscription: Free

Literacy Across the Curriculum

The Centre for Literacy of Quebec

3040 Sherbrooke Street West

Montreal, Quebec

H3Z 1A4

Phone: (514) 931-8731 ext. 1415

Email: literacyctr@dawsoncollege.qc.ca

Website: <http://www.nald.ca/province/que/litcent/NEWSLETT/litarch.htm>

Subscription: \$16 (4 times a year)



Literacy Across the Curriculum raises awareness of the complexities surrounding literacy as an educational, social, cultural and political issue. It provides examples of practical teaching approaches and critiques current popular notions. A supplement is included in each newsletter and discusses the connection between media, technology and literacy.

MTML Update

Metro Toronto Movement for Literacy

365 Bloor Street East, Ste 1003

Toronto, Ontario

M4W 3L4

Phone: (416) 961-4013

Email: mtml@interlog.com

Website: <http://www.nald.ca/mtml.htm>

Subscription: \$15 or free to members (4 times a year)

Membership fees are \$5 to \$30 for individuals (pay what you can) and \$60 for an organizational membership.

Networks

National Adult Literacy Database (NALD)

Scovil House

703 Brunswick Street

Fredericton, New Brunswick

E3B 1H8

Phone: (506) 457-6843

Email: info@nald.ca

Website: <http://www.nald.ca/NALDNEWS/archive/archive.htm>

Subscription: Free

Output

Educational Computing Organization of Ontario (ECOO)

Box 2699, Stn. B

Richmond Hill, Ontario

L4E 1A7

Phone: (905) 773-3981

Email: n/a

Subscription: varies from \$20 to \$40 per year

ECOO's mandate is to share and disseminate information and to advocate and promote the effective use of computers and associated technologies in the education process.

World Wide Websites

This list provides a brief highlight of sites that may be of interest to readers of this report. Some of the newsletters mentioned above also feature a section of relevant websites.

Beat the Street's Homepage for Students

This page can be adapted for use by other literacy programs. Contact Beat the Street for more information.

Charity Village

Website: <http://www.charityvillage.com/charityvillage/main.asp>

Canada's supersite for the non-profit sector - 1300 pages of news, jobs, information and services.

Dictionaries for Adults in Literacy

Website: <http://www.ncirc.state.nc.us/home/>

Free Email

Website: <http://www.hotmail.com/index.html>

Hotmail provides free Email and is easy to use. They offer many of the features that can be found in email software packages.



Free or Low-Cost Software

Website: <http://www.shareware.com>

Website: <http://www.download.com>

Website: <http://www.teachers.net/tools>

Website: <http://www.nald.ca>

Each website provides free software that you can save to your hard-drive and use with students. Software designers may request a small fee (\$10 to \$20 dollars) if you decide to use their program.

Free Website Storage

Website: <http://www.nald.ca>

The National Adult Literacy Database will provide sound advice and website storage space for literacy programs in Canada.

Literacy Resources

Website: <http://www.nald.ca/netlinks/mainmenu.htm>

Information resources are becoming more accessible as an increasing number of people publish material on the World Wide Web and build online communities. NALD is a good example of how this can work successfully to create a common meeting space whereby information can be shared and discussed.

NativeWeb

Website: <http://www.nativeweb.org>

Online communities are being built on the World Wide Web as more people gain access to communication technology. This is another example of an online community.

Read To Me

Website: <http://www.pixi.com/download.html>

Read to Me is a program that can be downloaded from the Internet. This program is designed to read the text content of the active Netscape or Internet Explorer Web page. Read to Me is difficult to use and the quality of audio is poor. However, it is included here as an example of the type of programs that are being developed.

Rideau Street Youth Enterprises (RSYE)

Website: <http://207.236.117.20/>

RSYE is a great example of how technology can be used to develop literacy and employment skills. Information is shared about RSYE's training program to provide street youth with the opportunity to develop website design and programming skills.

St. Christopher House

Website: <http://www.nald.ca/schalp/index.html>

This site is a good example of clear language design. Most websites do not consider clear language and require a high level of reading to understand them.



The Basics of Software Licenses

Website: <http://www.microsoft.com/piracy/>

Microsoft produced this page to provide basic information on piracy and software licensing.

United Nations Education, Scientific and Cultural Organization (UNESCO) Educational News

Website: <http://www.unesco.org/education/educnews/>

Website: <http://www.unesco.org/>

Web Networks

Website: <http://community.web.net>

Web Networks is a non-profit organization providing access to communication technology and resources to groups working for social justice. Resources include training, WWW site development, full Internet access, and an online Community Resource Centre. The Resource Centre offers a collaborative space to participate in electronic conferences and obtain information relevant to communities working for social change.

Writers in Electronic Residence (WIER)

Website: <http://www.wier.yorku.ca/WIERhome/>



This Toronto-based program recently celebrated its 10th anniversary. Students are able to correspond with the writer in residence and receive feedback and encouragement about their writing skills. There is a long list of writers who have inspired and collaborated with students. Past writers include Susan Musgrave, Leon Rooke and poet, Robert Priest.

Computer Donations

IBM Canada

Corporate Donations Dept.

Station A4 / 961

3600 Steeles Avenue East

Markham, Ontario

L3R 9Z7

Contact: Kathy Stuart

Phone: (905) 316-2424 (recorded message)

Fax: (905) 316-2154

Email: kibm@vnet.ibm.com

IBM donates computers to non-profit organizations. They require all applicants to write a proposal that includes the following information:

1. The type of machines you are requesting.
2. Why you are requesting a donation.
3. The quantity of machines you need.
4. Your charitable registration number.
5. What type your non-profit organization is.
6. Your organization's sources of income and a budget.
7. Identify other forms of support. i.e. services in kind.

Your written proposal must have the signature of your board's President and Vice-President.

Beat the Street Computer Lab Configuration

The lab is connected via Ethernet with Peer to Peer capabilities enabled through Microsoft Windows 95. Peer to Peer is a network configuration that allows students to share files, printers and a fax/modem.

Services to establish this network were donated by Compugen Systems.

Literacy Lab

8 Compaq Prolinea E Series, P5/75, 16 MB RAM, 1 GB Hard Drive

SoundBlaster Vibra Value Multimedia Kit, 6x CD 16-bit Sound Headphones

TTX 15" Colour Monitor

1 USR, Sportster 28.8 Modem

1 Hewlett Packard, LaserJet 4+

1 Hewlett Packard, DeskJet 660C (colour capabilities)

Administrative Systems

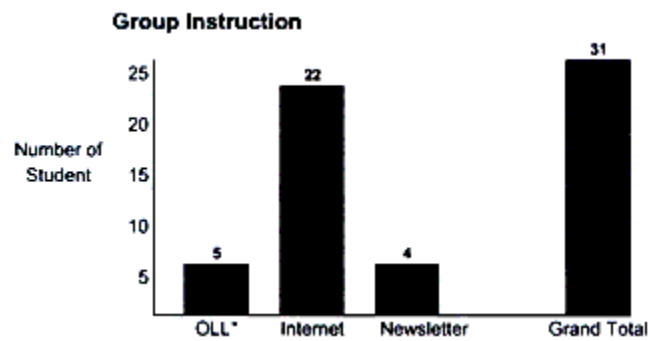
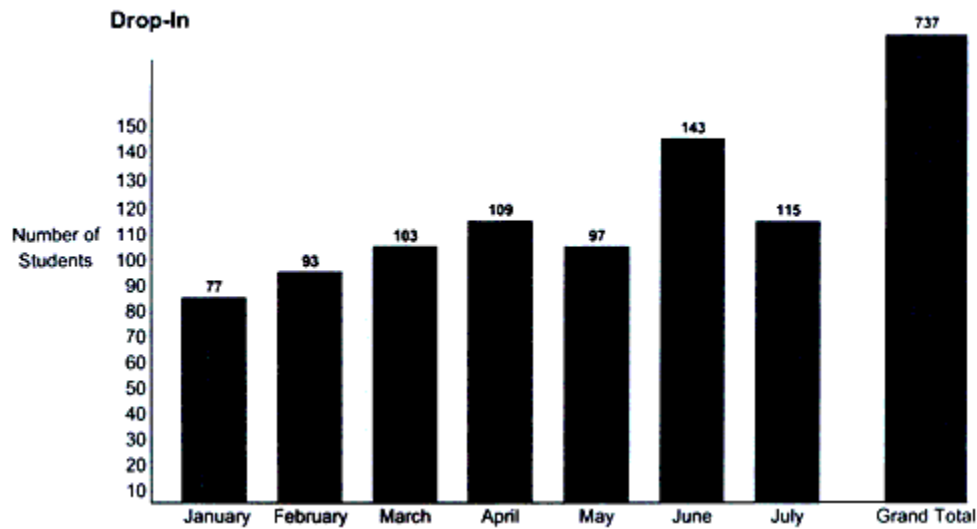
1 Compaq Prolinea E Series, P5/75, 16 MB RAM, 1 GB Hard Drive

1 USR, Sportster 28.8 Modem

1 Hewlett Packard, Deskjet 600

Number of Student Visits to the Computer Lab

January to July 1997



Duration of Group Instruction

* Online Literacy Learners Pre-Pilot Project, May 20 to June 13

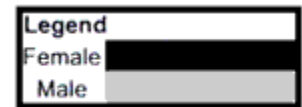
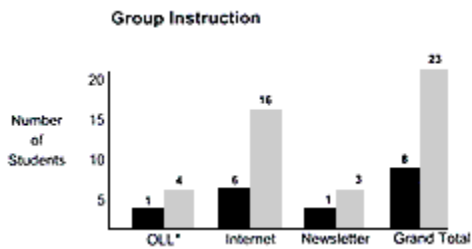
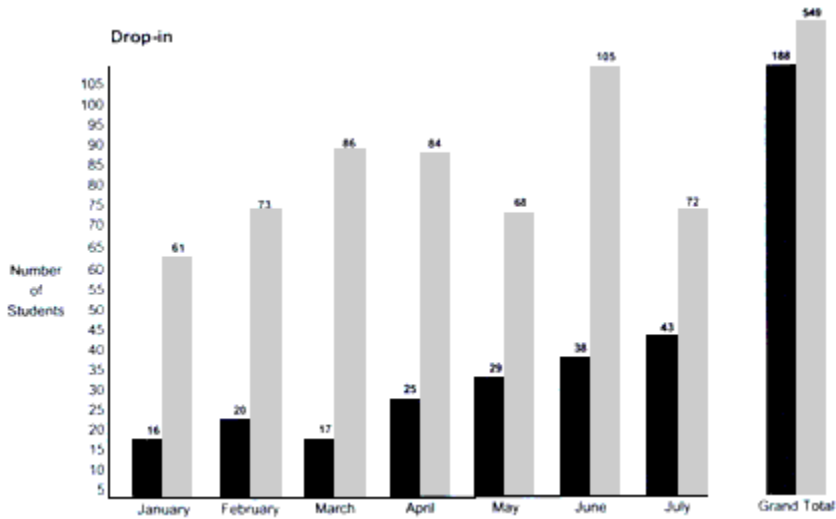
** Internet Workshop, Aug 26 to Dec 16

*** Newsletter Writing Group, Aug 25 to Dec 15

Number of Student Visits By Gender

January to July 1997

More male students gain access to literacy instruction through the use of computers in Beat the Street's Lab. In response, Beat the Street is working to support programming involving computers with partner agencies who provide service to women only.



Duration of Group Instruction

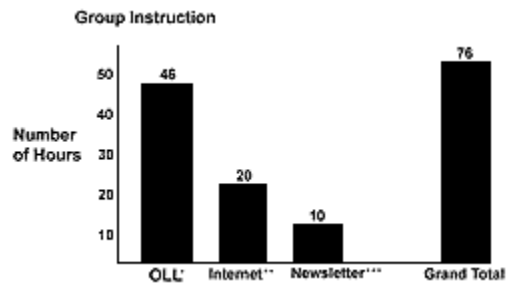
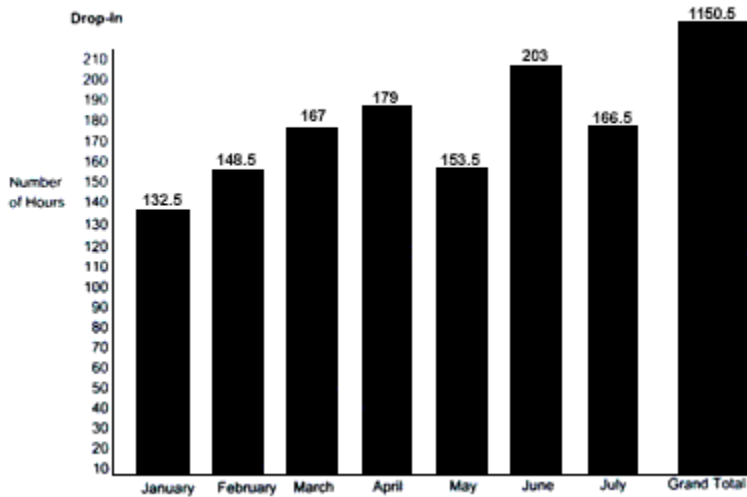
* Online Literacy Learners Pre-Pilot Project, May 20 to June 13

** Internet Workshop, Aug 26 to Dec 16

*** Newsletter Writing Group, Aug 25 to Dec 15

Number of Student Hours Using Computers for Learning *January to July 1997*

The amount of time spent using computers varied from month to month. Students used the computers an average of 1.6 hours per visit.



Duration of Group Instruction

* Online Literacy Learners Pre-Pilot Project, May 20 to June 13

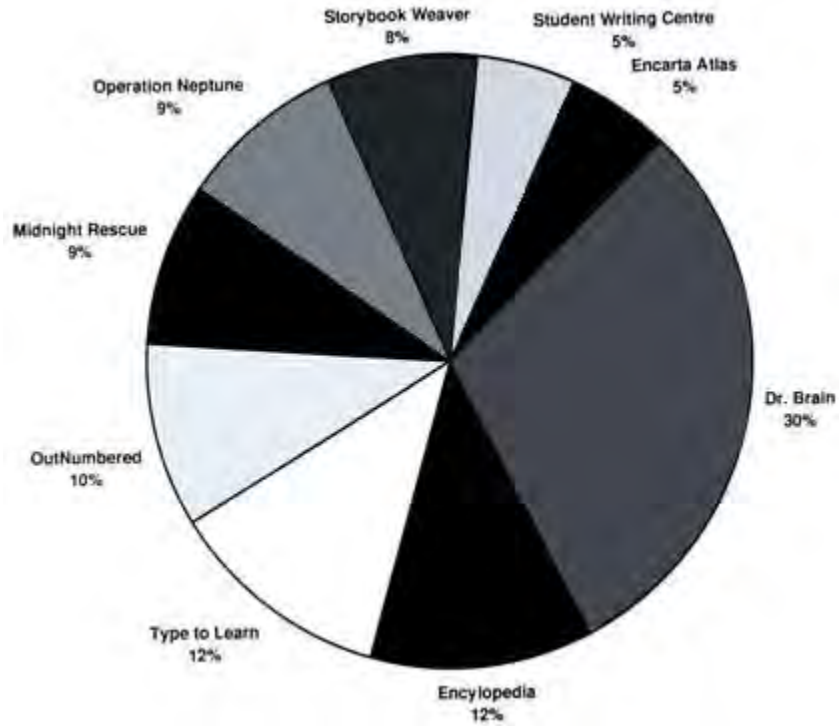
** Internet Workshop, Aug 26 to Dec 16

*** Newsletter Writing Group, Aug 25 to Dec 15

Educational Software (CD-ROM) Used During Drop-In

January to July 1997

A small selection of CD-ROMs were available to students during the seven month period that we collected statistics. The following graph provides information on the most popular programs. It should be noted that Microsoft Word was not included, but is the most frequently used program.



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