Logo Environment in Public Libraries

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In recent years, a new field has emerged in education. It is called "computers in education." This new field involves teaching about computers (computer literacy and computer science), teaching with computers (often called computer-assisted learning), and teaching incorporating computers (computer as a tool). 1 In this field, two areas that draw general interest are "computer literacy" and "Logo in education." If one takes an integrated approach by combining these two areas and implementing them outside the school system, the ideal place for such implementation would be the public library.

The computer has made a vital impact on society, and one of the most profound impacts is that the computer tends to deinstitutionalize formal education. Many subjects that were taught traditionally in formal educational institutions are now being taught

by using computer software packages outside the formal educational systems. This trend will intensify when software becomes more sophisticated and friendly and when hardware becomes more powerful and affordable.

This impact creates a new type of social need: The need for computer literacy for advancing social status (the new computer-literate elite), for better life (greater income), and in many cases, for employment survival (keeping your job).

Public libraries are resources and learning centers to serve community needs. Resources in public libraries include not only books and printed materials but also nonprint materials, such as films, filmstrips, slides, audio and video cassettes, microforms, and AV equipment. In recent years, microcomputer software packages have been added to the collections of many public libraries, becoming an integrated part of the collection. Selection and evaluation criteria, cataloging rules, and circulation policies on microcomputer software are established at the national and local levels.2

The idea of creating a Logo environment in a public library is . an innovation means to provide a nonconventional service to meet the needs of the community, especially the younger generation. Logo, a "child-directed system," as David Moursund called it, is like a seed of computer literacy which can be planted in the minds of children when they are very young. The seed will grow with them and lead them gently into the computer literate generation. The use of Logo to introduce computer literacy provides children with the experience of learning through interaction. Seymour Papert, founder of Logo, relates that children learn to develop their own system of problem solving while learning the principles of geometry, esthetics, composition, etc.3 This approach creates a self-initiative learning environment in a discovery mode instead of a transmission mode (the traditional mode in formal educational system). In the Logo environment, the librarian serves as a system coordinator and learning facilitator. One may ask "why Logo?" The truth is that Logo is by far the most powerful programming language available for home computers; according to Brian Harvey.4

CREATING A LOGO ENVIRONMENT

Objectives for such an environment may be outlined as follows:

1) to provide a supervised learning environment for children to learn Logo programming language;

2) to serve the community needs by articulating the library resources with practical applications.

3) to take the first step toward the electronic library concept.

4) to promote the library/librarian image from a passive to an active role.

The first two are primary objectives and latter two are by-products.

To implement such a project, additional financial support is needed. The public library may already have software in its collection. However, to create a Logo environment, the library needs additional hardware and personnel. The immediate question is: Where can we find additional funds to support these extra services? Here are some ideas to raise funds:

1) Organize a "Friends of XYZ Public Library" if your library does not have one. As a non-profit organization, funds may be raised by this group through auctions, contributions, bake sales, sales of old and donated books, etc.

2) Contact NLX Local Logo Exchange Program, P.O. Box 5341, Charlottesville, VA 22905, for information on a Local Logo Exchange group in your region for resource support. If there is no such group in your region, a copy of guidelines for establishing such a group is available from the headquarters.

3) Contact microcomputer producers for grants. Major producers, like Apple Computer and Radio Shack, have grants for non-profit organizations. Grants require proposal writing and submission. If the grant is approved, hardware and software is usually donated or loaned.

4) Contact other software sources. Public domain software is available from Softswap, San Mateo County Office of Education, 333 Main Street, Redwood City, CA 94063. Software exchange is available from such sources as National Logo Exchange, Box 5431, Charlottesville, VA 22905; Young People's Logo Association, 1208 Hillsdale, Richardson, TX 75081. Instructional materials on Logo are available from Minnesota Educational Computing Consortium (MECC), 3490 Lexington Avenue, North, St. Paul, MN 55112; International Council for Computers in Education (ICCE), 1787 Agate Street, Eugene, OR 97304; Logo Conference, Special Events Office, MIT Room 7-111, Cambridge, MA 02139; Logo Computing Systems, 220 Fifth Avenue, Suite 1604, New York, NY 10001; Microquests, Martin-Bearden, Inc., Box 337, Grapeville, TX 76501; and Interactive Educational Foundation, Suite 219, 1320 Stoney Brook Road, Stoney Brook , NY 11790. Commercial software may be available for loan from some software producers for quality testing, etc.

5) Involve local community people in your project. Get support from local computer users' clubs. Public domain software and technical support are usually available from these groups.

6) Involve local merchants. Donations of older models of hardware may be feasible when the company is switching to newer models. Early contacts are important, so the company may plan for an end of the year tax write-off. The donation becomes muturally beneficial.

7) Write letters to the editors of periodicals. Write to editors of computing magazines and tell them about your ambitious plans. You will be amazed to find out how many experts are ready to provide free consultation.

8) Think big and start small. Start the project on a small scale and expand it when resources (i.e., material resources, financial resources, and human resources) become available.

To accomplish the project, the library needs to take these actions:

1) Organize a task force to develop the plan and carry it out. The task force should include a board member, a librarian, a representative from the friends group, and some community people as members or as advisors.

2) Develop policies governing the operation and management of the Logo environment.

3) Reallocate resources. This includes reallocation of space, facilities, materials, and staff.

4) Recruit volunteers. With good publicity and community involvement and assistance from the friends groups, volunteers may be recruited.

5) Collect good quality Logo software, manuals, books, articles and magazines, and make these resources readily available in the Logo Center, Well known authors in the Logo field, in addition to Seymour Papert, include Harold Abelson, Rachel Avery, Donna Bearden, Gary Bitter, Mary Campbell, T.M. Kemnitz, Kathleen Martin, Jim Muller, David Thornburg, and Dan Watt.

6) Long-range planning. Seeking funding for permanent support of the Logo environment is the next logical and necessary step to be included in long-range planning. Search diligently for soft and hard money; *The Foundation Directory* may assist in identifying grant sources.

7) Recognition of contributions. People involved in this extra work should receive some kind of recognition. For example, a "Certificate of Community Service" may be awarded to friends groups and community people who have contributed services or money to the project.

LICENSING LOGO TUTORS

During the operation, innovative approaches may be introduced. For example, tests of Logo proficiency levels may be administered in a "not-so-official" way. Any child may take the test and if s/he passes a particular level, say, level 1, the child will receive a level 1 license. Later, s/he can attempt a higher license. Children who need help in Logo programming may go to these licensed tutors for consultation. This system has several benefits:

1) Children have goals to strive for, and in turn, are motivated to learn more.

2) Children learn from their peers, creating a better learning environment, and in turn, experience the value of team-work.

3) It becomes an honor for children to receive some kind of computer proficiency license, and in turn, it maintains good rapport with parents.

4) With licensed tutors helping learners, library staff time for this project is minimal, and in turn, operational costs are lower.

LOGO FESTIVAL

A Logo Festival can be an annual event of the Logo Center at the library. It can be a city, regional, or even a state event. Or, it can be a part of the annual computer conference. In any case, the event should be co-sponsored by local merchants and community groups. It may include, but is not limited to, the following three activities:

1) A display of Logo graphics created by children.

2) A Logo Programming Contest in which Children with experience in Logo programming may participate in competitions which are divided by age/grade levels.

3) Logo demonstrations and tutorials held for the general public. Tutorials and hands-on sessions are held for children and adults. This is a good time for library licensed tutors to demonstrate their expertise.

The Festival creates a positive image of the Logo environment and, in turn, increases public awareness of the computer literacy program in your public library.

A panel of judges including Logo teachers, local newspaper editors, and graphic designers can be appointed by the library board, or the library director.

The Festival is open to the public free of charge. Publicity and announcements can be made through various media, including a

well designed poster with Logo graphics. At the conclusion of the Festival, awards and recognitions are presented to contest winners and contributors who supported the Festival. Through pre-festival planning and these activities, further contacts may be established with supportive groups and individuals.

CONCLUSION

The foregoing are just a few of the many ideas that are feasible in order to carry out such a Logo environment in public libraries. One does not have to be a Logo expert to start this project, but one has to be energetic and have good public relations to make it successful. One can make very exciting things happen. All one needs is a little bit of imagination and a lot of planning!

Remember: Think big and start small. Now, are you ready to initiate a "Logo Movement" in your library?

NOTES

1David Moursund, "Preparation to be a computer coordinator," *The Computing Teacher* 12 (November 1984) :3.

2Kuang-liang Hsu, "BASIC techniques of interactive CAI: a program illustration for media specialists," *Indiana Media Journal* 5 (Summer 1983) :21.

3Merrianne Coon, "Papert at the faire," *The Computing Teacher* 10 (November 1982) :16.

4Brian Harvey, *Computer Science Logo Style*. Vol 1: *Intermediate Programming*. (Cambridge, MA : MIT Press, 1985), xi.