LESNet - LOGOWRITER, TELECOMMUNICATIONS, AND EXPERIMENTAL SCIENCE - A Call for Collaborators

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I propose the development of a grass-roots, learner-centered, experimental science network using LogoExpress, LogoEnsemble and LogoWriter. Compared to the currently available science and telecommunications projects, the Logo Experimental Science Network, LESNet, hopes to find ways in which the students can freely disseminate their hypotheses, discoveries, data, and questions via the microcomputer—either locally or internationally.

Since all of the activities and software tools will be Logo-based, students will not be inhibited by a handful of tools provided by a publisher. Children will be free to represent their ideas, processes, and data in their own voice. By combining LogoWriter and LogoExpress or just using LogoEnsemble, experimental and communications activities will be performed in the same software environment. Students may use graphing and plotting tools developed by their teachers and the project coordinators, and may extend these tools or represent their scientific experiences in different ways. Our goal is to provide software tools to assist, not inhibit, the young scientist.

The existing online science projects require students to collect quantitative data, make predictions, compile the data, and graph results. LESNet looks forward to working with children and science educators to learn other ways of enhancing the collaborative scientific experience. One of our goals is to develop collaborative science units in which the majority of students won't know the expected outcome or experiments in which their preconceptions will be challenged. We will try to maintain a balance between experimental topics which are interesting and challenging to students and activities that encourage the development of important scientific methodologies and understanding of fundamental concepts.

While most online science network projects are designed for grades 4-12, LESNet will focus on identifying topics and developing units appropriate for grades 1-3. We recognize the challenge of developing science units for such young children but believe that we will learn a great deal about creating appropriate telecommunications environments by developing tools simple and powerful enough for even young children to use. The students will be simultaneously developing important scientific method and problem solving skills. Students will also become more familiar with local, regional, national and perhaps international geography. Collaborative science projects could include such topics as: plant growth, mealworm behavior, television and leisure time patterns, weather, coin circulation, and pollution. Accompanying resource materials will also need to be created.

Educators interested in collaborating on such a project should contact the author:

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Stager, G. S. (1993). **LESNet - LogoWriter, Telecommunications, and Experimental Science: A Call for Collaborators**. In Estes, N., & Thomas, M. (Eds.), *Rethinking the roles of technology in education: The tenth international conference on technology and education, Massachusetts Institute of Technology, March 1993* (pp. 512). Austin, Texas: The University of Texas at Austin, College of Education.