

Georgia's Technology Literacy Challenge Fund Grant Application

Bremen City Schools

Section 3: Grant Proposal

Narrative: Due to our system size (total enrollment: 1,430 – pre-k to 12) and our belief that we can effectively “cover the waterfront”, the proposed approach will address all of the core academic content areas to include mathematics, reading, and writing. It will also integrate formal reading and writing instruction with the teaching in academic disciplines that are heavily dependent on language arts skills (i.e. social studies, foreign language) and a blend of reading, writing and math with others that call on both (i.e. health, science).

Technology will support that integration of content areas and direct instruction in the core subjects. Two schools in Bremen will be served in the process, the 4th and 5th at H. A. Jones Elementary and 6th, 7th and 8th grades at Sewell Middle School. This constitutes a target population of approximately 475 students across the five grade levels. Professional development, training, and direct involvements for 35 to 40 faculty members are also being proposed.

General approaches to improved student learning include: increasing student, parent, and teacher access to technological hardware and software, upgrading the quality and sophistication of instructional support technology in every classroom involved, establishing and maintaining learning support partnerships with the parents of the student participants and with the community, providing teachers and parents with the training and professional development required to allow for their informed and productive participation, and extending access to technology beyond the walls and time parameters of the schools to parents in their homes and to the community. Partnerships with local

institutions of higher learning will support staff development, planning, implementation, and evaluation processes. Others in our community will interact with students as they learn and apply their skills and knowledge. Building on this foundation, the specific strategies being proposed involve approaches to use of technology that enhance student learning and achievement, the effectiveness of instruction, and parent / community involvement. They are:

- 1. Networked access to the internet and upgraded technological support for every targeted classroom to include graphing calculator and sensor / probe equipment, computer assisted instruction stations, full access to challenging and relevant software, telecommunications access, projection and television link capabilities, and full server supplied access to a broad range of software and multimedia programs;**
- 2. Comprehensive professional development aimed at building teacher skills in using technology to support and improve instruction and student performance and to build capacity for providing in-system training;**
- 3. Enlisting the active participation of parents in gaining information and training in the use of “Brainchild” technology to reinforce in-school instruction and establishing a checkout system to provide for out-of-school access;**
- 4. Integration of basic skills instruction in reading, writing, and math across the curriculum content areas;**
- 5. Expanded focus on the use of technology to engage students in active rather than passive research (student generated projects, experiments, data collection / analysis, and interpretation) as an approach to application of knowledge and skills and to cross content area curriculum integration;**

- 6. Comprehensive training for all participating personnel aimed at using technology as a tool for teaching with a combined emphasis on knowledge and skills building, applications, and curriculum integration; and**
- 7. Systematic, ongoing assessment of student performance as a guide to instructional planning, delivery, and improvement.**

One specific instructional strategy merits further explanation. The “Brainchild” technology that we are proposing has some special advantages that reinforce its selection and use. It is affordable, portable (hand held sized), simple to learn to operate, accompanied by a broad range of learning support software, provides for essential practice and repetition of skills, allows for individualization, can be checked out for home use, and can be provided in a quantity that truly allows for expanded access by students and their families. In addition to these noted advantages, use of the “Brainchild” units and software has produced significant student achievement gains in public schools in this state. This academic progress is documented in research studies, and we have verified the results by talking with public school officials where the approach is in use.

Our primary strategy to promote equity in participation among students, parents, community members, and teachers is inherent in the proposed approach itself. The point is to provide for and support the individual learning needs of students, to involve the parents of all children in learning partnerships, to prepare all teachers and other personnel involved in preparation for full and effective participation, and to provide for meaningful community involvement. To further assure equity of access and opportunity, staff with specific training in working with special needs populations will be called on to lead in the development and delivery of learning support systems for students with disabilities,

remediation / acceleration / enrichment needs, and / or characteristics associated with being educationally at-risk. With the support systems in place, expectations and academic requirements can realistically be raised, and we can expect performance gains, for these students as well as their peers with fewer special needs.

The general objectives of our proposed approach with respect to technology mirror the four National goals and focus specifically on all teachers and students having modern technology in their classrooms and on the provision of effective and engaging software and on-line resources as an integral part of the curriculum. In addition to the pure information access benefits of internet connectivity, we are committed to a focus on the data generation and “active research” capabilities of varied technological equipment and program applications that can be used in the teaching / learning process.

Specific student performance goals and benchmarks for progress include:

- 1. To increase the National Percentile Ranking (NPR) of upper elementary and middle grades students (4th-8th) to the 70th percentile on a nationally normed assessment instrument and to 10 points above state average on the CRCT in reading / language arts and mathematics, over a 3 year period.**
- 2. To increase the percentage of 4th – 8th grade students assessed to be in the top two ranks of writing proficiency (engaging or extending) to 85% over a 3-year period.**
- 3. To increase the NPR of 4th – 8th grade students to the 70th percentile on the state required national achievement test and to 10 points above the state average on the CRCT in social studies and science over a 3 year period.**

Specific training and professional development goals for instructional and administrative staff include:

- 1. To document completion of In-Tech training for all involved staff over the next 12 months.**
- 2. To provide specialized staff development activities for all involved personnel with a focus on use of technology in assessment of student progress, in providing for individual student and group needs, in improving academic performance, and in enrichment of learning opportunities.**
- 3. To document observable application and actual practice of the technological skills and knowledge gained in addressing the two goals stated above.**

A final set of objectives related to parent and community use of technology resources and involvement in the project processes can be identified as follows:

- 1. To increase parent and community use of school district and partner resources in furthering their children's and/or their own educational opportunities and progress.**
- 2. To increase parent / community participation and involvement in the implementation, operation, and evaluation of the project.**

Specific benchmarks for student progress can be viewed across a three year project period in increments of 3 NPR point gains for the nationally normed achievement indicators and 3 to 4 CRCT point gains each year in the areas of reading / language arts and mathematics. For the area of writing skills development, gains of 5 to 7 percentage points per year in the numbers of students who are assessed in the top 2 levels provide realistic benchmarks to track our progress. For the related areas of social studies and science, 3 NPR point and 3 to 4 point CRCT gains each year are targeted. Over a three-year project implementation period, gains in these specified ranges will meet or exceed the goals noted above.

Benchmarks specific to our progress toward goals related to professional development are implied in the goal statements provided earlier. Records of completion of the state In-Tech training by all involved school system personnel will mark the accomplishment of our first year's primary goal. Records of participation in the varied training opportunities will be maintained across the 3-year project period and beyond, and documented participation in and completion of the specified sequences of training will mark our progress toward our second goal. Building level lead teachers and administrators will share the responsibility for documenting application of technological skills and knowledge in classroom practice through observation and review of lesson planning techniques.

Benchmark indicators relative to parent / community use, participation, and involvement are more difficult to specify. We and our partner organizations will maintain records of such use and involvement across the project period, and we believe that we can reasonably expect successive increases of 20% for each of the 3 years involved (a total increase of 60%). Present participation at these grade levels is extremely limited, and baseline information will be gathered prior to the implementation of project activities.

Our community is invested heavily in collaborative interaction, resource sharing, and coordination of services for students and families served in the Bremen City schools. As an active participant in the Haralson Coalition for Children, Youth, and Families, our school district plans and works directly with other community agencies and organizations involved in the provision of adult literacy and parent education services. Representatives of target populations (i.e. consumers of services / parents), business and industry, local government, public libraries, postsecondary educational service providers, and other local

agencies and organizations have been actively involved in planning for and implementing school reform initiatives in Bremen, including those which address the role of technology in improving the schools and the academic achievement of the students enrolled. The Haralson Chamber of Commerce, the Family Connection Advisory Board, the Haralson Developmental Disabilities Council, the Southwire Company, and others have played vital roles in planning and developing programs and services.

Specific to this proposed initiative, partnerships have been entered into with the State University of West Georgia, Carroll Technical Institute, the Warren Sewell Public Library, and Floyd College. Each of these organizations has present and expanding operations and facilities in our local area, and each is committed to providing support in the process we propose. For example, the public library will support access to technology and the checkout systems being developed, Floyd College and the State University of West Georgia will be active in providing training and staff development services with open access to their technology resources and faculty expertise, and Carroll Tech will provide coordinated adult literacy and specific technology related training for parents and others in our community. Each of these direct partners will take an active support role in preparing parents and local citizens for informed participation in the process.

With increased access to the technology resources of our schools and our project partners, parents and students can be given enhanced opportunities to learn basic literacy and academic skills together in community locations and in their homes. The “Brainchild” technology being proposed is portable, realistic in terms of costs, and “user friendly” with minimal training and preparation. It can be used to support and reinforce our students’ learning, adult literacy education, and higher levels of learning. Each of the partners noted

above is committed to coordinating its use in adult continuing education activities and offerings and to helping to train others in its use. In this way, the training focus can be expanded to address the needs of students, teachers and other staff in the schools, parents, and/or community members who stand to benefit from the process.

At present there are no private schools operating in this community. If any are established in the future, they will be given full access to the resources and services being proposed. The global community nature of the project outlined in our application supports the inclusion of any and all that may be interested.

The resources and purchases needed to accomplish our stated goals are outlined in the proposed budget summary and the worksheets provided in this application package. They cannot, however, be viewed in isolation. The existing technological and expert advisory resources of our school district and active partners also enter into the picture and provide additional support for the project being proposed. The budget will reflect direct costs for staff development and training, for hardware / software and related equipment purchases, and for other operational support. In reality, though, the proposed budget only reflects a fraction of the resources that can be relied upon in carrying out the processes and procedures involved. (See Section 4)

The instruments needed to provide information with regard to our progress toward our stated goals are included as a part of the state required assessment process. A nationally normed test will be administered annually for students in the 4th – 8th grade levels in the areas of reading / language arts, mathematics, social studies, and science as will the CRCT instruments under development. For writing achievement, the state writing assessment will be used at levels where it is made available, and a locally selected

instrument will be utilized at levels where that does not automatically occur. Summative point to point yearly progress can be accurately monitored in this way. Ongoing assessment based on student accomplishment of sequenced prerequisite competencies and skills in all academic areas are also being planned as a part of the project evaluation strategy. The “Brainchild” and much of the instructional programmed software proposed gives continuous feedback on student progress and skill development. Student grade reports, as an element of student achievement and academic improvement can also be utilized in evaluating progress.

The proposed project is designed to be implemented over a 3-year period and then operated on an ongoing basis from that point forward. A project timeline that reflects implementation and evaluation activities is presented below:

Year One-

May–August, 1999

- 1. Initiate community education, parent training, and staff development activities.**
- 2. Determine baseline benchmarks. (by June 30, 1999)**
- 3. Complete implementation planning. (by August 1, 1999)**
- 4. Complete baseline testing. (by May 1, 1999)**
- 5. Provide and install hardware / software, equipment, and establish check out system. (by August 15, 1999)**

August, 1999-June, 2000

- 1. Implement student, parent, and community-oriented activities and support systems.**
- 2. Initiate ongoing evaluation of progress toward project goals. (by August 15, 1999)**
- 3. Implement ongoing staff development, community education, and parent training.**

- 4. Document completion of In-Tech training for involved staff. (by August 30, 2000)**
- 5. Complete formal assessment / testing. (by May 1, 2000)**
- 6. Complete first year summative evaluation process including quantitative and qualitative measures. (by June 30, 2000)**
- 7. Complete first year performance report and disseminate to stakeholders.**

July, 2000-June, 2001

- 1. Continue ongoing implementation based on evaluation, input from stakeholders, and identified adjustments and improvements.**
- 2. Continue ongoing evaluation processes.**
- 3. Continue ongoing staff development, community education and parent training.**
- 4. Complete formal assessment / testing. (by May 1, 2001)**
- 5. Complete first formal project evaluation and report to stakeholders. (by June 30, 2001)**

July, 2001-June, 2002

- 1. Continue ongoing implementation based on evaluation, input from stakeholders, and identified adjustments and improvements.**
- 2. Continue ongoing evaluation processes.**
- 2. Continue ongoing staff development, community education and parent training.**
- 3. Complete formal assessment / testing. (by May 1, 2002)**
- 4. Complete second formal project evaluation and report to stakeholders. (by June 30, 2002)**

July, 2002-June, 2003

- 1. Continue sustained operation of all elements of the project on an ongoing basis.**
- 2. Continue formal assessment / testing on an annual basis.**

3. Complete a final project evaluation and report to stakeholders. (by June 30, 2003)

The project evaluation plan is responsive to our stated goals and clearly reflected in the assessment instruments proposed and in the timetable outline as presented. It targets a limited population of students and teachers, identifies instruments to be used, focuses on qualitative and quantitative assessment, utilizes standardized tests when appropriate, and, because of the range of participation across segments of our community and their inclusion in the processes, should give an accurate picture of the project's impact on all involved. Our ability to use an internal control group model is limited by system size, number of schools, the scope of our project, and local public relations considerations. We will, however, be able to use achievement report information from other systems with similar characteristics, as we have in the past, to gain comparative data. Other than for ongoing progress tracking purposes, testing related to our project takes advantage of existing state-required processes, and instruments will be administered according to the state testing plan and schedule. The ongoing nature of our evaluation design allows for program implementation adjustments and improvements in process. The model also provides for the collection of baseline data, for ongoing data collection, for both formative and summative scoring, analysis, recording, and reporting of progress, and for pre and post analysis of quantitative and qualitative results, data validation, and written reports.

In keeping with equity requirements and as a matter of local interest and choice, we also intend to disaggregate data to look at specific populations (i.e. at-risk students, children with disabilities, those with gifts and talents, etc.) in order to better plan for

meeting their needs and optimize their opportunity to succeed. In addition to addressing our concerns, this approach will provide some interesting group specific information on the impact of our project in relation to the populations being served.

Planned strategies for reporting information related to our project to local, state, and other stakeholders include print media (newsletters, local papers, brochures, etc.), local radio and television coverage, presentations for organizations and interested groups, written reports, presentations at regional / state / national conferences, and/or journal articles. Results from the project performance evaluation process and information from project reports will be included in all of the above. The required evaluation and reporting elements are shown as specific items on the timetable outline presented as well.

The interrelationship of technology to student achievement, established by design in the development of this project, makes the task of convincing the public and policymakers of the importance of technology an easier one. Its clear link to teaching / learning outcomes in the plan, chosen strategies, and evaluation of our proposed project and its function in support of the teaching / learning process are founded in “best practice” / effective schools research related to application of learning, student engagement, relevancy of instruction, repetition and practice, generalization of skills, and multimedia presentation advantages. As a means to those ends, technology has a clear relationship to the academic gains that result from the implementation of our project.