

**June 2002 - June 2003**

**Annual Project Report**

**June 24, 2003**

**“In-School Math Labs”**

**LEQSF(2002-04)-ENH-TR-17**

**(LSU Proposal #14895)**

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**Abstract:** This is a collaborative project involving Louisiana State University (Baton Rouge), Southeastern Louisiana University (Hammond), Sherwood Middle School (Baton Rouge), Springfield Middle School (Livingston Parish), Hammond Westside Upper School (Hammond) and Scotlandville Magnet High School (Baton Rouge). Each of the four schools will acquire and operate a mathematics-learning laboratory that will support the following functions:

- instructional programs in each school for the school’s own students,
- newly redesigned, field-based teacher-education programs run by the universities that are based in these schools,
- professional development for each school's mathematics teaching staff,
- university-based community-service and service-learning programs that will place the services of science, mathematics and engineering undergraduate volunteers and tutors in the labs.

Personnel from the mathematics departments of the two participating universities will collaborate with schools in operating the labs and will provide a program of professional development that includes a full-time, 5-week summer mathematics institute for twelve teachers (three from each school), as well as on-site professional development throughout the year.

The rest of the report is organized as follows: items marked by dates are the goals and objectives in the time-line submitted to the Board of Regents (occasionally with slight editing for readability). All significant items dated before June 2003 have been included. Following each objective, the current status is described.

*May--June, 2002. Project directors will draft operating plan based on the present timeline, but including more detail.*

**Status:** Accomplished. First generation operating plans were developed individually by each school jointly with that school’s university liaison. Personnel have been as follows:

Sherwood Middle. Liaison: Madden (LSU). Graduate student: Norma Ortiz (summer 2002, fall 2002), Bobby Stecher (fall 2002, spring 2003). Math lab teacher team: Darlene Ford, Kimberly Daniels and Esther Watson. Other involved teacher: Danita Caillet, Gene Toliver.

Springfield Middle. Liaison: Ann Kirkpatrick (SLU, fall 2002), L. Schultz (SLU, spring 2003). Math lab teacher team: Patricia Jubin, Natalie Ross, Laverne (Gwendolyn) Threeton. (These are all the math teachers at the school.)

Hammond Westside Upper. Liaison: Tina Golding (SLU, fall 2002), L. Schultz (SLU, spring 2003). Math lab teacher team: Todd Oalman and Philies James. Other involved teachers: Debi Driscoll, Felicia Jones.

Scotlandville High. Liaison: F. Neubrandner (LSU). Graduate student: Kevin Zito.  
Math lab teacher team: William Moore, Maurice Barber, Al Cook.

**June 21, 2002, 10:00AM to 3:00PM.** *Project personnel meet in the mathematics teaching lab in the SLU Department of Mathematics to*

- *review and finalize the operating plan;*
- *view facilities in the SLU lab and obtain advise and recommendations for purchasing plans from SLU faculty with experience teaching in the SLU math lab;*
- *view and discuss materials for Connected Mathematics (a curriculum for grades 6-8 developed by the Connected Mathematics Project.*

**Status:** Accomplished. This meeting took place as scheduled and according to plan. Evaluations by participants were positive. Attending:

- From Hammond Westside Upper Elementary School: Brenda Johnson, Principal and teachers Todd Oalman, Felicia Jones, Debi Driscoll and Philies James;
- From Springfield Middle School: Principal Steve Parrill and teachers Patricia Jubin, Natalie Ross and Laverne Threeton;
- From Scotlandville Magnet High School: Principal Mary S. McManus, Assistant Principal Ougrett M. Brumfield and teachers Maurice Barber, William W. Moore and Allen Cook;
- From Sherwood Middle School: Principal Phyllis C. Crawford and teachers Danita Caillet, Darlene N. Ford, Kimberly Daniels and Johnette Winfrey. (Winfrey later left Sherwood.)
- Project evaluator Dr. Sue Street (SEDL).
- From LSU Baton Rouge: Dr. James J. Madden, Dr. Frank Neubrandner and graduate students Norma Ortiz
- From SLU Hammond: Math Department head Dr. Katherine Pedersen, Dr. Lou Schultz, Dr. Beth Gray, Becky Muller, Dr. Tena Golding

**July--August 2002.** *Detailed lab designs are to be developed by each school team, and the first round of equipment purchases is to be made. Lab coordinators, liaisons and graduate assistants will plan and schedule fall programs; liaisons will start recruiting undergraduate participants.*

- *July 8, 2002. Deadline for school teams to submit first draft of first purchase plan. The plans will be shared by all schools, reviewed by the advisory board and returned to the school teams for revisions if needed.*
- *July 22, 2002. Finalized plans for first purchase order to be submitted.*
- *July 26, 2002. Deadline for project directors submit purchase orders.*
- *August 2002. Schools will acquire and install the first round of lab materials and equipment.*

**Status:** Goal was accomplished, but first round of purchasing was completed seriously behind schedule. We found that the amount of paperwork required to make purchases far exceeded our expectations. Moreover, we did not have any clerical support---the Math Department business manager resigned at the end of summer 2002 and still has no been fully

replaced. Therefore, all the paperwork for all purchased had to be handled by the PIs. LSU acknowledges serious understaffing of support personnel, a situation which is related to historical funding patterns. This project provides a vivid illustration of the gross inefficiencies that this situation can precipitate, e.g., professorial faculty spending hundreds of hours doing secretarial work.

Livingston Parish provided Springfield Middle with a new portable building to house its math lab---a substantial investment and a powerful sign of interest and support from the school district. Hammond Westside has set aside a large comfortable room for its math lab, and has purchased a substantial amount of equipment to support hands-on activities. Scotlandville set aside a large unused science lab for its math lab. Sherwood Middle has not provided a location for its lab that conforms to the PIs expectations. They dedicated a small room in the library that accommodates two study tables. The philosophy of the proposal and the entire project has always been that the final decision on use of school space must be made by the school principal. Therefore, we must adapt to the priorities for use of school resources that the principal envisions. Balancing the lack of space, Sherwood has begun what appears to be an effective use of portable technology.

*August--November 2002. Project personnel develop plans to fund labs after 2003.*

**Status:** This is an on-going goal. In this period, we worked with Southern University and LaSIP to develop an MSP proposal to NSF (\$12,000,000) that was based on the in-school math lab concept. Continuing funding for the math labs is requested in a pending NSF G-K-12 proposal submitted by Neubrandner and others.

*August--December 2002. Labs will be put into operation. Lab coordinators will keep written records of lab activities according to protocols suggested by external evaluator. Starting in August 2002, teachers will conduct activities for regular school classes using the labs.*

**Status:** Accomplished. Activities in fall 2002 were on a modest scale. We view this as an adaptation period, during which time the new resources get incorporated into existing systems. A delay in starting up the SLU-related activities was caused by a long delay in the execution of final contract by state, which delayed the execution of the subcontract that LSU made with SLU. In fact, this was not fully executed till late fall. The salaries of involved SLU personnel were provided by the subcontract, and we did not immediately find a way to begin grant activities without the completed contract. (We did eventually discover procedures that would have enabled us to “borrow” funding against the anticipated contract, and if similar situations arise in the future, we will use these procedures.)

Written records of tutor visits were kept, but these are not yet compiled. Different record-keeping procedures developed at different schools. Compiling existing records and developing a uniform system is an important goal for this coming year. We need to develop a method for keeping an inventory of lab services and activities. We will request advice on this from our evaluator in developing this.

*Fall 2002. Community-service and service-learning programs at universities will begin supplying tutors; pilot tutoring programs (with undergraduates students visiting the labs to*

*tutor school students) will be run under careful oversight by lab coordinators and graduate assistants. On-site professional development activities will begin. In-school components of the CITAL middle-school and LSU secondary school mathematics programs will be tested.*

**Status:** Activities conducted in school varied.

- Sherwood: Tutoring activities, managed by Bobby Stecher, took place at Sherwood both fall and spring. Tutors assisted with special classes that Sherwood set up for students who were behind. Madden made visits to the school approximately monthly. School acquired computers and software and started using the package “Understanding Math” in spring 2003, after a day of professional development provided by Neufeld, the makes of “Understanding Math”, on January 10. This workshop was attended by Winfrey, Toliver, Caillet, Daniels, Montgomery, Watson, Ford and 5 other teachers from Sherwood, Ross, Threeton and Jubin from Springfield, Oalman and James from Hammond, and 9 persons from universities, LaSIP and the LA Dept of Education.
- Scotlandville: The school developed system of special tutoring sessions that provide individualized preparation for GEE for 90 low-performing students. Tutoring program, managed by Kevin Zito, provided university students who assisted in the program for 2 to 4 hours per week, each.
- Springfield and Hammond Westside: In contrast to the LSU model of providing numerous students who worked on a volunteer basis and generally visited for periods of up to a couple of hours weekly (and were reimbursed for travel only), the tutoring programs implemented by SLU involves putting pre-service education students on payroll and having them do extensive work in the schools. Two students working at Springfield provided up to 20/wk each in the spring. Hammond Westside received a smaller amount of tutor time---about 20hr/wk in the spring. The tutoring programs are managed by Lou Schultz. Lou makes weekly visits to both schools, spending on average 6 hours per week divided between the two schools according to his estimates. Most of this time is devoted to interactions with teachers and classes, sharing teaching ideas, providing demonstrations of equipment and teaching strategies. Thus, Lou provides on-going informal professional development. Comments from teachers and principals indicate that this is highly appreciated.

The programs under development by CITAL have been modified due to changes in the university/state understanding of the implications of the No Child Left Behind legislation. The In-School Math Lab Project is fully prepared to begin supporting math/science programs developed by LSU College of Education, when they begin running. The In-School Math labs running in Springfield and Hammond are playing an role in the teacher education programs at SLU through the tutoring system.

***December, 2002—January 2003.*** *Directors set a date for the January meeting of the advisory panel and begin work on first report based on interviews with project personnel and examination of lab records. University personnel will prepare formative evaluation report by January 10. After January 10, on dates to be determined, the advisory panel will meet to*

*decide on strategies for the next phase of lab operation in light of formative evaluations and plan second round of lab acquisitions.*

**Status:** The schedule for this was pushed back. Delays in beginning the operation of the labs meant that there really was not sufficient history for a meaningful formative evaluation in January. **New Goal:** Formative evaluation to be completed by end of July 2003. The present report will constitute a preliminary draft. (Note: The advisory panel, according to the original proposal, consists of the university liaisons and the lab directors. Hence, its members are: Darlene Ford, Maurice Barber, Patricia Jubin, Todd Oalman, Ann Kirkpatrick James Madden, Frank Neubrandner and Lou Schultz.)

**January 2003.**

- *each lab coordinator will receive a stipend of \$500;*
- *second round of purchase orders will be submitted.*

**Status:** Both these goals were delayed, again as consequence of start-up delays. Actually, a less pressured expenditure of lab funds is clearly advantageous, since the more experience the lab teams have, the more informed their purchasing decisions. The lab teams received their stipends in late spring.

**January--May 2003.** *Second-generation pilots of lab programs. Up to the middle of March, schools will be working intensively to prepare for LEAP21.*

- *Project personnel plan summer institute collaboratively.*
- *Further concrete on-site professional development activities; an April workshop will be arranged.*
- *Records of lab use will be kept; all records will be compiled in May.*

**Status;** The summer institute was planned in several afternoon meetings that took place at SLU in May. (Madden visited SLU on May 8, 15 and 22. Two of these meetings lasted several hours. Graduate students Bobby Stecher and Mabrouck Faradj assisted in keeping notes and preparing materials.) In spring 2003, the main professional development activities were the January workshop at Sherwood and the activities provided by Lou Schultz. As mentioned above, records were kept and compilation will take place this summer.

**May--June 2003.** *Mathematics departments of LSU and SLU will collaborate to provide a 5-week summer mathematics curriculum development institute for the twelve lab coordinators based on a modified "research experiences" model.*

**Status.** This workshop is currently on schedule and in progress. It includes 9 full-day meetings of the all participating teachers and university staff. In addition, each participant will spend 16 six-hour days working under the supervision of a university faculty member on a research project. Full details about the summer workshop will be included in the next report.

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