

2001-2002 PreCollegiate Program Report

Introduction

The FIE PreCollegiate Program focus in 2001-2002 was directed at middle school students with potential for success in mathematics and science, to help these students select a curriculum route in middle and high school mathematics that would prepare them for postsecondary education. Program components were conducted at three locations in Florida: Northeast Florida (Duval County), Central Florida (Polk County), and Southeast Florida (Miami-Dade). 2001-2002 activities are described below.

Northeast Florida Program

This program involved Butler Middle School and Lee High School students and teachers. Four middle school teachers (three mathematics and one language arts) and one guidance counselor participated with two high school mathematics teachers in this program. During the period September 2001-May 2002, UNF mathematics and mathematics education faculty developed and delivered to these teachers 11 workshops in mathematical content and teaching methods, and also incorporated course and program planning. Special modifications were made to the standard seventh and eighth grade mathematics courses they were teaching, to introduce more intense problem solving strategies and the communication of mathematics in "real life" situations. These courses were presented by the Butler teachers during the Spring, 2002, to a class of 19 eighth graders and a class of 20 seventh graders. A ten-day summer mathematics camp was designed during the spring, and 37 of the students from the special courses attend that camp on the UNF campus in June 2002. The full cadre of teachers and UNF faculty conducted the camp. Teachers received stipends for their participation in the 22 days of activity required of them, and students received \$300 for their participation in the ten-day summer camp. For additional information about the Northeast Florida Program, please visit the following website: <http://www.unf.edu/~tbratina/fie/neprecollegiate.htm>.

Central Florida Program

This program was contracted by the FIE to the University of Central Florida. Their responsibility was to develop and conduct the mathematics camp component of the Northeast Florida program. A "Summer Math Camp" was held at Boone Middle School in Haines City, Florida, from June 3, 2002, to June 7, 2002, and from June 10, 2002 to June 14, 2002. Twenty-one seventh and eighth grade students attended this camp. Two faculty members from the University of Central Florida, two Boone Middle School teachers, and two teachers from Haines City High School along with the Counselor from Boone Middle School planned and conducted all of the activities. Six planning meetings were held during the spring 2002 term; four additional middle school teachers from Polk County sat in on some of these planning meetings. Approximately 20 students from the University of Central Florida helped with some of the summer camp sessions. For additional information about the Central Florida Program, please visit the following website: <http://www.unf.edu/mathexcellence/central/vacummgeneralnotes.htm>.

Southeast Florida Program

This program was conducted by the FIE to Florida International University. Their responsibility was to develop and conduct the summer mathematics camp component of the Northeast Florida program. Such a summer camp was designed and was held on the FIU campus on weekdays during the period May 27, 2002 through June 7, 2002. Twenty-eight seventh and eighth grade students attended. These students came from Mays and Richmong Heights Middle Schools. Two faculty members, one graduate student and two M-DCPS teachers conducted the camp, which included two field trips. Two planning sessions were held in the weeks prior to the camp, but the leaders had met frequently prior to these "final" planning sessions to put together and try out the major activities of the camp. The camp focused on three major projects, each a multi-day effort (3-5 days per project). More than half of the activities were video taped, and student projects were video taped, as were the group presentations explaining outcomes and demonstrating features of their specific projects. The collaborative work, opportunities to present physical models, written reports, and oral (PowerPoint, in many cases) presentations were features of each project. Each group was expected to plan and represent their projects electronically, including creating scale models, doing measurements, calculating costs, etc. About 10 university students, most of whom were junior or senior future mathematics teachers, assisted in the project. All participants were provided food, including snacks in the morning and afternoon, and launch. Attitudes were very positive, and much was learned from conducting the camp.