TRACKING K-12 STUDENTS AFTER PARTICIPATION IN OUTREACH PROGRAMS

C. Wayne Unsell¹, Carol Dostal²

Abstract - The School of Engineering, Technology, and Computer Science (ETCS) at Indiana-Purdue University Ft Wayne (IPFW) has been very successful this past year in efforts related to K-12 outreach. Record participation was achieved in several programs. External funding is required for all programs along with assessment of outcomes. Potential donors and university administrators will want to know “What happens to the students that participate in our programs? Do they enroll in engineering, technology, or computer science programs after high school?” This work in progress will describe a new program, INSITE, which is presently in the development stage. INSITE will involve student participants in outreach programs with ETCS throughout high school.

MISSION AND GOALS

The IN.S.I.T.E (Indiana Students Investigating Technology and Engineering) program is based on the fundamental idea that two factors have a major impact on a student’s career choice: one is the influence of parents, teachers, and community mentors; the second is the student’s positive K-12 educational experiences both inside and outside the traditional classroom setting.

MISSION

The IN.S.I.T.E. mission is to offer integrated, progressive informal educational opportunities that engage, challenge, and build self-confidence in the STEM skills through constructivist activities generating awareness and interest in engineering, technology, and computer science fields.

GOALS

1. Provide continuity as grade level activities build on the previous year and explore increasing information and age-appropriate, hands-on STEM challenges

2. Guide students to develop an “action plan” for investigating STEM programs

3. Meet interpersonal needs through the element of group affiliation as an In.S.I.T.E. member

4. Reinforce ongoing engineering and technology investigation using a system of personal reward and achievement “units” (“units” are similar to the credits given within education)

5. Support student involvement with adult mentorship provided by engineering and technology professionals and university undergraduate mentors participating in IPFW events.

6. Distribute information to student and school members regarding opportunities offered by IPFW’s School of ETCS and qualifying In.S.I.T.E. Partner organizations.

7. Reward volunteers with matching units to parents and their student.

8. Support In.S.I.T.E. teachers and schools by offering discounts, continuing renewal units, and graduate credit for specified workshops and seminars, and creating website resources that assist them in their involvement in informal educational projects.

PROGRAM ELEMENTS

1. The In.S.I.T.E Network of Collaborators

2. The In.S.I.T.E. Outreach Activities

FIRST S.I.T.E. for middle school students
SECOND S.I.T.E. for high school students


TIMELINE FOR IMPLEMENTATION

A five year time line has been defined for full implementation and development of an effective outcomes based assessment program. External grant funding will be included in this time period.

¹ C. Wayne Unsell, Interim Dean, School of Engineering, Technology, and Computer Science, IPFW, unsell@ipfw.edu

² Carol Dostal, Director of Outreach Programs, School of Engineering, Technology, and Computer Science, IPFW, dostalc@ipfw.edu

0-7803-7961-6/03/$17.00 © 2003 IEEE

November 5-8, 2003, Boulder, CO

33rd ASEE/IEEE Frontiers in Education Conference

S2D-2