

FY08 New Look Final Report Format

Title of your New Look Project: **Exploring Math/Technology-Related Careers for Non-Traditional Students**

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Special Populations Targeted:

X Nontraditional (for gender) Training and Employment

Implementation Date(s): Sept. 2007-June 2008

Goals:

A. List long and short-term goals for your New Look Project.

A short term goal was to expose non-traditional students to STEM careers through attendance at Engineering Open Houses, through videos and speakers. Also, we wanted to make the faculty aware of ways to encourage and support non-traditional careers.

A long term goal is to increase female enrollment in advanced math courses to 20% over three years. Another long term goal is to increase the number of non-traditional participants to 7% over the next three years.

B. Explain how those particular goals were aligned with your New Look Project.

We looked for ways of exposing females to STEM careers and making them more interesting to them. This was done through Parkland College and University of Illinois Engineering Open Houses and through speakers and videos during the high school's fall Career Fair and spring Math Week. Also materials were purchased to do interesting math-related activities during Math Week.

A staff development workshop was presented by the University of Illinois about careers in nanotechnology with emphasis on encouraging females in this area.

C. How did you plan to evaluate the effectiveness of the project in meeting the stated goals?

The effectiveness was measured by the number of female students who attended the Engineering Open Houses and participated in Math Week and the representation of non-traditional speakers at the Career Fair. The number of females taking advanced math courses was monitored.

D. Describe plans for sustainability and for accomplishment of the long-term project goals.

It will be possible to sustain this project because many of the activities, such as the Career Fair and Math Week, were already in place. We added another component with non-traditional career emphasis.

The increase in the percentage of females taking advanced math courses next year is encouraging so we will want to continue the exposure to non-traditional careers and high-interest math activities.

Activities:

Describe activities implemented and/or products developed. Submit samples if applicable.

The November 16 Career Fair included a Bement High School graduate who is now a welder at Carterpillar.

A nanotechnology workshop was presented by the University of Illinois which included emphasis on career opportunities and ways to encourage and support females in engineering and technology careers.

In March, 24 female juniors and seniors attended the University of Illinois Open House. In October, one female student had attended the Parkland College Automotive and Engineering Open House.

Competitive activities were held during Math Week in March. During this week, over 50% of the female students saw videos about women in STEM careers.

In addition, some materials were purchased for high interest activities that were incorporated into math courses throughout the year.

Evaluation:

A. What evaluation methods and tools were used in assessing your New Look Project? Please submit a copy of your evaluation tool, if applicable.

We counted the number of female students who attended the Engineering Open Houses at Parkland College and the University of Illinois and who watched videos on non-traditional careers during Math Week. We also tracked the percentage of female enrollment in the most advanced math course.

B. What conclusions were drawn during your assessment? Did you meet your short-term goals? Did you make progress toward meeting your long-term goals?

We felt we made progress in exposing female students to non-traditional careers and in encouraging their enrollment in courses that would support these careers.

We did exceed our long term goal of more females enrolling in the advanced math course. (Goal: 20% over three years Actual 53% in one year) This should help us meet our long term goal of 7% non-traditional participation.

We exceeded our short term goal of exposing female upperclassmen to non-traditional career videos. (Goal: 20% Actual: 80%). We hoped to have 2 non-traditional presenters out of 12 at our Career Fair, but because of a last minute cancellation, we only had one.

Another goal was to make faculty aware of non-traditional career opportunities through a nanotechnology workshop presented by the University of Illinois which was received well by the teachers.

C. What plans do you have for utilizing evaluation feedback in planning for similar activities?

One observation that came out of a discussion during the faculty nanotechnology workshop was that some parents expressed a negative attitude about math ability or the importance of math that was transmitted to students.

We talked about having a parent/student Math/Science/Technology Night with relevant and interesting activities to try and address the issues of negativity and anxiety toward math.

D. What outcomes or changes occurred to your program as a result of the project?

Some new high-interest materials were used during Math Week competitions. More females enrolled in math/technology courses. Teachers are more aware of ways to encourage and support non-traditional careers.

E. Which of the following Illinois Core Performance Indicators did your project assist your program in reaching?

Secondary

- | | | |
|---|-----|------------------------------|
| X | 1S2 | Academic Attainment – Math |
| X | 2S1 | Technical Skill Attainment |
| X | 6S1 | Nontraditional Participation |

- F. Please provide information regarding the impact of your project, including: collaborating agencies, total number of students served, total number of educators served, materials distributed, and other pertinent quantitative information.**

Collaborating agencies included Parkland College's Engineering, Science, and Technology program; the University of Illinois Department of Mechanical and Industrial Engineering; and the Education for Employment System #330.

The number of students impacted was 58 (Our school enrollment is 130). The number of teachers impacted was 35 (which included k-12 faculty).

- G. Provide feedback received from organizers, participants, and/or observers on the effectiveness of your program or product.**

All the activities, including the Career Fair, Math Week, and Engineering Open Houses, had enthusiastic participation. All feedback was anecdotal.

The faculty and administration feedback after the nanotechnology workshop by the University of Illinois was positive, and they will be returning next fall to do a community presentation.

- H. Based on the results of your evaluation, feedback, and personal reflection, what modifications could be made to improve your New Look Project?**

I wish there had been an opportunity after a month or two to do a follow-up with the faculty after the workshop to sustain their interest in non-traditional careers. I did have contact with the math teachers throughout this project.

I plan to do something at the beginning of the next school year to highlight awareness of gender bias in the school climate.

Dissemination:

- A. Describe plans for dissemination of the project accomplishments, including record of or plans for statewide conference display/presentation. Please provide copies of your activity(s)/product(s) (e.g. promotional materials, educational products, and program descriptions). Electronic samples are preferred.**

I made a presentation to the Bement Area Chamber of Commerce about the activities connected with the New Look Award.

An article about the New Look project and the nanotechnology workshop appeared in the county newspaper.

Technical Assistance Feedback:

- A. In general, your experience with the FY08 New Look Project was ...**

Excellent

- B. The most valuable aspect(s) of the FY08 New Look Project was...**

The financial support

The technical assistance and resources provided by ICSPS

The professional development, goal setting and networking opportunities

- C. Did you request any technical assistance for your FY08 New Look Project?**

Yes

- D. Overall, how was your experience with your Technical Assistance Liaison?**

Excellent

- E. If anyone were to ask you if the money devoted to the New Look Project has made a difference in your institution's ability to serve special populations, what would you say?**

The funding was the impetus to address the need we had, but the information was as important as the money. We probably would not have focused on non-traditional careers if the New Look grant had not been

awarded. It has helped our school as seen in the increased enrollment in upper level math courses among female students.

F. Will you consider applying for another New Look Project in the future?

X Yes

FY08 New Look Final Budget	FY08 Final Budget
Beginning Balance	\$1350
Salaries	\$
Benefits	\$
Contractual Services	\$
General Supplies and Materials	\$1100
Travel Expenses	\$250
Other Expenditures* (See Below)	\$
Total Award Expended	\$1350
* Provide detailed description of any expenses listed in the "Other Expenditure" category.	\$