

Consortium for Manufacturing Excellence

Interview with Patricia MacGowan, MESA Director

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The Puget Sound Consortium for Manufacturing Excellence (CME) is an education-industry partnership working towards building the connection between manufacturing technology education, student career goals, and private sector demand. The CME is working to assist high schools, tech prep programs, colleges and universities in promoting manufacturing career opportunities to their students. To this end, the CME has sponsored two field trips for middle school students of diverse ethnic backgrounds who participate in the Mathematics, Engineering, and Science Achievement (MESA) program.

In an effort to gather information that can guide future CME planning, the MESA Director, Patricia MacGowan, was interviewed on September 16, 2003, concerning CME/MESA activities and suggestions for future collaboration with MESA. The following information is a summary of the interview.

Challenges for CME Leadership

From her experience, Patricia noted two major challenges that CME Leadership will face as they go forward in the coming year. These challenges included:

- Curriculum and activities need to be based on and reinforce the concepts in the Essential Academic Learning Requirements (EALRs) of Washington State. These requirements are the basis for the state testing system, the Washington Assessment of Student Learning (WASL).
- High schools in Washington State have been reorganized according to the “Small Schools” concept. In this format, each large high school contains several smaller schools and/or academies, each with its own curriculum format and educational staff. The challenge for CME Leadership is to reach the teachers and students in all of the small schools/academies within each traditionally known high school.

Suggestions for CME Leadership

With these challenges noted, Patricia provided many ideas for strategic activities that the CME could undertake. Suggestions included:

- **Discuss CME goals with MESA staff.** MESA staff need to understand the goals of the CME and why they are important. CME leadership can find a time to meet MESA staff and provide information. During this conversation, CME staff can also learn about MESA activities. Through this interaction, the programs can explore ways to collaborate and strengthen the use of resources.
- **A key strategy should be to “grow” Teacher Leaders.** MESA has cultivated a group of “champions” who they term Teacher Leaders. These teachers have been supported through MESA professional development activities. They become curriculum leads for MESA and use

MESA curriculum materials in their own classrooms. Experienced Teacher Leaders also mentor other teachers as they begin to implement MESA curriculum in their own classrooms.

- **Host summer teacher institutes with stipends for teachers who participate.** The institute would introduce teachers to CME materials, gather feedback from teachers concerning how the materials could be used in the classroom, and then continue to support the teachers as they pilot the materials in the next academic year. Patricia noted that it has become almost impossible to “pull teachers out of their classrooms” during the school year. Her suggestion would be to collaborate with MESA and include MESA Teacher Leaders as participants of the CME summer institutes. Patricia noted that “many things are marketed to teachers” but what CME should do is help teachers select and use appropriate curriculum.
- **Develop strategies to impact student learning across grade levels.** Patricia suggested development of an upper elementary strategy (grades 3-5), a middle level strategy (grades 6-8), an “early” high school strategy (grades 9-10), and an “upper” high school strategy (grades 11-12). Each strategy would include appropriate activities and emphasize particularly relevant concepts. For example, students in the early grades can be introduced to concepts through hands-on activities and field trips to interesting manufacturing sites. Middle school students can gain more in-depth understanding with activities that build on the upper elementary activities. Students in the early high school levels can learn about career options in manufacturing. Upper high school students need help with choosing postsecondary educational opportunities and applying for entrance to programs.
- **Create internships for high school students.** Patricia noted that high school students are looking for internship opportunities, either in the summer or after school during the academic year. She stated that internships make a “huge impression” on students and can be a significant recruitment strategy.
- **Provide speakers for classrooms.** Teachers welcome the chance to invite knowledgeable, articulate speakers into their classrooms. Teachers may not understand manufacturing concepts or may not be knowledgeable about career opportunities. Dynamic speakers can provide this information in an inspiring, motivating style.
- **Plan field trips for students.** Patricia noted that you “can’t do too many field trips.” Although it takes time and effort to plan field trips, there are considerable benefits. While on-site, students will meet diverse role models who can encourage them to explore careers in manufacturing.

Conclusion

The MESA program has successfully worked with teachers and schools for many years, and Patricia MacGowan provides excellent leadership. It will be beneficial to CME to not only build on MESA knowledge and activities, but also to plan collaborations that continue to enhance each program. CME Leadership should thoughtfully consider Patricia MacGowan’s suggestions and work to strengthen ties between the programs.