



MWCA 2006 BEST PRACTICES RECOGNITION NOMINATION FORM

WIB Name/WSA NE MN Workforce Investment Board (3) & Duluth Workforce Council (4)

Submitted by Dennis Wain and Don Hoag

Attach a description (no more than two pages) describing the initiative.

Please return via e-mail or fax to Anne Olson by **Thursday, July 27.**
aolson@mncounties.org or (651) 224-6540

 (Leave this section blank -to be completed by judges)

Judge # _____

Criteria for Selection of Outstanding Best Practices	Maximum Points	Points Awarded
Overview describing the innovative best practice	25	
Jobseeker impact (ie: benefits, outcomes for jobseekers)	25	
Community impact (ie: benefits, outcomes for non-jobseekers)	20	
Identification of those involved, including collaborators	15	
Leveraging/alignment of outside resources	10	
Ability for use or replication by others	05	
<i>TOTAL:</i>	100	

Regional Applied Math Project (RAMP)

Overview

Cosponsored by the Northeast Minnesota Workforce Investment Board and the Duluth Workforce Council, the Regional Applied Math Project (RAMP) is an opportunity for the area's educators to learn first-hand how math is applied in the workplace. Teacher participants spent 40 hours with a host business observing occupations that use regularly use math, interviewing employees and participating in hands-on activities. This applied math will then be taught to students at a variety of levels (K-12, post-secondary, Adult Basic Education, and alternative learning formats) to help emphasize the relevance of what is being taught, improve and expand ways of learning math to accommodate all learners, and increase the math skills needed by actual employers.

RAMP participants include math, career and technical educators teaching grades 7 through 12, from a variety of disciplines: algebra, pre-algebra, math 7 through 9, geometry, statistics, transitional math, consumer math, applied math, developmental math, technology, technical math, industrial technology, accounting, fundamental math, business math, and elementary math. In addition, several RAMP participants are Adult Basic Education or Alternative Learning Center instructors responsible for teaching an assortment of other subjects in addition to math. Participants also include three community college developmental math instructors, a private school math teacher, and an instructor from the Fond du Lac Ojibwe School. Participants represent 21 districts in five counties throughout Northeast Minnesota.

RAMP business hosts represent an excellent cross-section of industries important to the economy of Northeast Minnesota, including manufacturing, utilities, small business development, engineering, finance, building trades, steel fabrication, banking, machining, mining, architecture, natural resources, and healthcare. A sampling of participating businesses include Cleveland-Cliffs Steel Mining Company, United Taconite, UPM-Kymmene Blandin, Sappi Paper, Architectural Resources, St. Luke's Hospital, Minnesota Power, Stanley-LaBounty Manufacturing, Northstar Aerospace, and UMD Center for Economic Development.

Participants are required to write a report on their experience including an industry overview, how technology is used in the industry, detailed occupational information including education/training requirements, tips for students entering the field, and work competencies and/or abilities that could connect to teaching. Reports will also include specific examples of how math is used, tools or equipment used to make calculations, consequences of miscalculation, ideas for classroom activities, teaching strategies related to specific occupational math concepts, and a description of how other skills such as critical thinking, writing, problem solving, mechanical aptitude, and oral communication are used in the field. Final reports will be compiled to create a catalog of information that will be distributed to all program participants as well as other interested parties such as the GWDC, the Minnesota Department of Education, parents, school counselors, and local workforce development entities.

Job Seeker and Community Impact

The purpose of RAMP is to better prepare more of our community members to enter the workforce or post-secondary training through building stronger ties between industry and education. When RAMP teachers display their enthusiasm for their experience and incorporate not only what they learned, but also the information gleaned from all project participants, students will be afforded the chance to learn math as actual work skills, valued and needed by local employers. By doing so, we will enhance the workforce of Northeast Minnesota and ensure that our students are more prepared to compete for

tomorrow's jobs. We are also ensuring that employers have the workforce they require to remain competitive.

Not only are teachers bringing how math is used in the workplace to their classrooms, but also in-depth, practical career information typically not accessed by students in the midst of making career decisions. Therefore, the secondary goal of RAMP is to educate the emerging workforce about local industries and occupations. This could impact the community as a whole by retaining more local youth, stemming out-migration due in large part to the misconception that there are no career opportunities in Northeast Minnesota.

Another important by-product of the project is initiating connections between industry and education, inspiring a partnership that will serve both entities and strengthen the community as a whole. Several participants have already reported that employees from their host business have plans to come into the classroom to speak with students. Others report the development of job shadowing opportunities as a result of their participation in RAMP. Business hosts have also expressed overwhelming satisfaction with RAMP outcomes, eager to continue working with their teacher intern beyond project parameters.

Collaboration

RAMP could not have succeeded without the strong partnerships between some key entities and we are fortunate to have had such an extraordinary foundation upon which to build the Regional Applied Math Project. The project is co-sponsored by the Northeast Minnesota Workforce Investment Board and the Duluth Workforce Council. Partners that came together to support the development and implementation of RAMP include the Northeast Minnesota Office of Job Training, Duluth Workforce Development, the Northeast Higher Education District, Adult Basic Education - AEOA, North Shore Trade and Tech, East Range School to Work and Tech Prep, the Northland Learning Center Board, Hibbing Chamber of Commerce, the Iron Range Economic Alliance, and Iron Range Resources. Most importantly, the essence of the project itself is based on collaboration between schools and business.

Leveraging Outside Resources

To reward RAMP participants for their hard work and recognize the commitment they are making to pioneer connections between industry and education, each was offered the chance to obtain two graduate credits from Bemidji State University. Funding for this opportunity was obtained by leveraging several local resources that value the potential of this project and support its goals. Over \$15,000 was raised through a combination of funding from the Blandin Foundation, the Northeast Minnesota Office of Job Training, Duluth Workforce Development, Mesabi Range Community and Technical College, and AEOA. Twenty-eight teachers will be receiving credit for their work in RAMP.

Replication

RAMP processes are well documented and all correspondence, forms, checklists, internship support information, report guidelines, recruitment brochures and informational materials are available for replication. As the project was developed, coordinators paid special attention to detail and have maintained exemplary files clearly illustrating the processes followed. Coordinators would be happy to assist other areas in developing their own or similar projects linking education and industry. The information gained from the reports will also be available to students throughout the region and state in the years to come and provides a model foundation on which to develop similar industry-education partnerships in other subject areas.