

Local Implementation of American Meteorological Society's Educational Materials

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The American Meteorological Society's Educational Initiatives such as DataStreme, Project Atmosphere, Water In The Earth System, and The Maury Project, have published numerous effective educational materials in the meteorological and oceanographic subjects. Written by educators and scientists, these 'modules' are topical and provide theory as well as 'hands-on' activities to disseminate information to the educators who will, in turn, use these activities with their students. Some examples are: Shallow Water Waves, Coastal Upwelling, Density-Driven Ocean Currents, Hazardous Weather, Weather Satellites, and El Niño/La Niña.

Teacher preparation and professional development are important to increase student performance. Internet and other telecommunications-based professional development can provide research-based professional development on an ongoing basis to teachers in a variety of locations to help improve teaching and learning. For example, studies of educational technology effectiveness report that teacher expertise in using technology can substantially increase the learning gains associated with using the technology. While 80 percent of public school teachers reported in 1999 that they had access to training in use of the Internet, evaluations report that much of the current professional development is too short and not well integrated with ongoing instruction.

Professional development plays an essential role in successful education reform. Professional development serves as the bridge between where prospective and experienced educators are now and where they will need to be to meet the new challenges of guiding all students in achieving to higher standards of learning and development (U.S. Department of Education, 1995, p. 2).

Teachers can be more effective if they are better prepared. AMS seeks to improve that preparedness through its education initiatives such as DataStreme Atmosphere and Water In The Earth System, both online distance-learning courses, as well as others.

These publications are presented by Peer Trainers who are graduates of the AMS Educational Initiatives mentioned above. Peer Trainers are teachers themselves, who guide other teachers in the study of meteorology and oceanography.

Shown in this poster session are teachers learning through the use of Maury Project and Project Atmosphere modules. Teachers inevitably leave feeling better informed and prepared to guide their own students in exploring these exciting topics.

Bibliography

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