

SCIENCE FOR PERSONS WITH DISABILITIES

GOOD NEWSLETTER

NUMBER 48 FALL 1992

PRESIDENT'S MESSAGE

We have some exciting news. We have received a National Science Foundation Grant to hold a conference prior to the National Science Teachers Association national meeting in Kansas City. If you are interested in being a participant, there is an application in this newsletter. The screening committee is hopeful that we will have enough applications to select the participants in early February so get your applications in early.

At the board meeting in 1991, it was decided that we would prepare a journal for the membership of our association. We have not yet published our first issue, primarily because we have not received a sufficient number of manuscripts. I would like to make another call for articles for the first issue of the Journal of the Science Association for Persons With Disabilities. The new target date for preparing the journal is January 15, 1993.

Dr. Jan Davies, our president-elect, was able to attend the July meeting of the Council of Affiliate Groups of the National Science Teachers Association in July. As in the past, our primary forum for communication is at the NSTA meeting. The following times have been reserved:

Meeting of SAPD - Thursday, April 1, 1993
Joe Turner Room A, Allis Plaza Hotel
Kansas City, Missouri
1-3 PM

SAPD Luncheon - Friday, April 2, 1993
12:00 noon - 2:00 PM

This is a special time for our group. In light of recent legislation and greater efforts toward inclusion in our schools, there is a need for all teachers to become informed on opportunities and responsibilities concerning quality with equity for all students. We need an active cadre of scientists and science educators to serve as resource people to assist in a national effort to provide equivalent educational opportunity for students with disabilities. The conference in March should be the first step in a much larger and more comprehensive program, and we are hoping that you will become an active participant in the process.

Sincerely,

Greg Stefanich, President

Here is an opportunity for us to help.

The National Committee on Science Education Standards and Assessment wants to start a small group of about 8 persons to give advice concerning science education for persons with disabilities in such areas as curriculum, teaching, and assessment. If you are interested in serving in this group, send biographical information to Elizabeth Stage, National Research Council, 2101 Constitution Ave., Wash. D.C. 20418, or phone (202) 334-3413.

APPLICATION

A WORKING CONFERENCE ON SCIENCE FOR STUDENTS WITH DISABILITIES

March 30-31, 1992
Allis Plaza Hotel, Kansas City, Missouri

NAME:

DATE:

INSTITUTIONAL AFFILIATION:

ADDRESS:

CITY:

STATE:

ZIP CODE:

TELEPHONE:

DISABILITY AREA OF GREATEST INTEREST:
(please circle)

Hearing impaired *

Learning Disabled *

Motor / Orthopedically Impaired *

Visually Impaired *

STATEMENT: Please prepare a statement (maximum 100 words), indicating why you wish to be included as a participant at the conference.

CONFIDENTIAL INFORMATION: (OPTIONAL)

Race/Ethnicity (please circle):

African American/Black *

American Indian/Alaskan Native *

Asian American/Pacific Islander *

Caucasian/White *

Other ----- *

Please check here if also of Hispanic origin

Gender (please circle): male * female *

If you are disabled, please identify your disability.

----- *

Selection of participants will begin on December 20, 1992. Send your application to:

Greg Stefanich
Schindler Education Center 618
University of Northern Iowa
Cedar Falls, Iowa 50614-0606

A WORKING CONFERENCE OF SCIENCE

EDUCATION FOR STUDENTS

WITH DISABILITIES

MARCH 30-31, 1993

**ALLIS PLAZA HOTEL (THE HOTEL MAY BE
TAKEN OVER BY MARRIOTT), KANSAS
CITY, MISSOURI**

A working conference, convened to address issues regarding the educational needs of students with disabilities, will be held prior to the National Science Teachers Association National Meeting in Kansas City, Missouri. The four focus areas of the program will be: Hearing, Learning, Orthopedic and Visual Disabilities. Participants will include science educators in higher education, science teachers, and professionals providing services to K-12 students with disabilities. This conference is jointly sponsored by the Science Association for Persons With Disabilities, the National Science Teachers Association, The American Association for the Advancement of Science, and the Association for Educators of Teachers in Science. Funding for the conference has been provided by the National Science Foundation. Specific Goals of the Conference are:

1. To Formulate an assessment of conditions concerning science education for persons with disabilities.
2. To formulate recommendations for federal, state, and local agencies, institutions, and organizations for science education in careers in science, math, engineering and related fields for students with disabilities.
3. To provide resources for science teacher educators to enable them to prepare future K-12 science teachers who would provide effective science education in mainstreamed classrooms, resource rooms, special classrooms and special schools for students with disabilities.
4. To demonstrate the value of providing support services to all students within the regular classroom.
5. To show how science curricula can be adapted to meet

the needs of all students by modifying instructional practices and objectives.

6. To increase the awareness of technological advances and contributions which can enhance and contribute to the learning and participation of students with disabilities.
7. To ultimately affect the quality of science education by identifying a pool of science educators and others who can provide ongoing national leadership in science education for persons with disabilities.
8. To detail various informal "outside the classroom" activities and/or sites that enhance the learning of science by students with disabilities.

Conference attendance will be limited to 80 participants. Selected participants will receive \$150 to offset expenses of meals and lodging. Travel to and from Kansas City must be paid by the participants.

If you wish to be a participant, please complete the attached application. Selection of participants will be made on a basis of maximum variation. That is: maximum geographic diversity, cultural diversity, diversity of individuals who teach and/or provide services to persons with disabilities, will be considered in the selection of conference participants. A concerted effort will be made to inform those selected to participate by February 1, 1993.

THOUGHTS ON SUCCESSFULLY MAINSTREAMING DISABLED STUDENTS INTO THE REGULAR CLASSROOM

**Linda Norris
Roosevelt Middle School
Cedar Rapids, Iowa**

Students presently receiving special education services are a very diverse group. A large percentage are classified as learning disabled or speech impaired.

The remainder fall into a wide range of classifications that include emotionally disturbed, mentally retarded, vision or hearing impaired, physically disabled or otherwise health impaired. Providing disabled students with the "least restrictive environment" requires that public schools educate them with children who are not disabled, and that the removal of disabled children from the regular educational environment occur only when the nature or severity of a handicap is such that education in regular classes with the use of supplemental aids services cannot be achieved in a satisfactory manner.

This mandate can be challenging to school systems charged with its implementation. Teachers assigned to regular classrooms are given the task of addressing a wide range of abilities in students in a regular classroom setting. Disabled students, many who possess mental functioning equal to, or exceeding that of, their regular classroom peers, may have specific physical requirements if they are to be successful in the educational process. This only adds to the already broad spectrum of abilities that must be addressed in the classroom.

While this can be overwhelming, especially in light of heavy curriculum demands, there are steps that can be taken in the regular classroom to accommodate students with disabilities. I would like to share what I have learned as a middle school science teacher about making the regular classroom experience successful for all my students, including those with specific disabilities:

1. A daily routine should be established and adhered to without fail.
2. The classroom should be as "barrier free" as possible to accommodate physically disabled students.
3. Preferential seating in the classroom should be given to students who need it and will benefit from it.
4. Visual distractions in the room such as clutter, should be kept to a minimum.
5. Auditory distractions should be kept a minimum whenever possible.

6. I have found it helpful to assign students to cooperative learning groups. In fact, they often prefer to work with others and seem to be more comfortable discussing class material while working using this approach .

7. The use of hands-on activities will benefit student with disabilities, especially if the task is modified for the student .

8. Diagrams or other visual aides will help in many instances. Reading material may need to be taped.

9. I make it a point to allow extra time. Disabled students may need extra time to complete an assignment question. Extra time may be needed by students to form answers, explanations, and questions of their own.

10. During assessment, I take into account the current level of performance, the effort put forth by the student, the student's ability to relate and work with others, and the relative improvement of the student's performance compared to past records.

11. Peer tutoring can be an effective method of proof-reading a written assignment, monitoring assignments (Is your work finished?), monitoring organization (Do you have your materials for class?), and encouraging students to monitor each other at unstructured times (Remember to walk in the hall).

12. Always be task-oriented and businesslike.

13. Monitor the difficulty of tasks. Students must view tasks as demanding enough to get some sense of accomplishment from doing it. They must feel they have earned success.

All students benefit from mainstreaming practices. When disabled students are mainstreamed, they are exposed to the same experiences as other students in the classroom. They talk about their experiences and listen while others talk about the same experiences. As they interact with their peers and with the materials in the classroom, they begin to interpret, organize, and apply information to other instances in their environment. When disabled students are mainstreamed, students have the opportunity to learn

that we all possess strengths and weaknesses. When disabled students are mainstreamed, we have the opportunity to model for all students the respect, understanding and tolerance they will need to exhibit as responsible adults. We have the opportunity to show them how to respect individual abilities and differences. We have the opportunity to challenge each student, regardless of ability, to achieve. Is mainstreaming a challenge? Yes, but it's an even greater opportunity.

NEWS FROM THE PRESIDENT ELECT

Science Association for Persons with Disabilities (SAPD) was asked to send a representative to the NSTA Summer Board Meeting in the Bahamas in July of this year. In addition to the NSTA President, Wendell Mohling, and members of the Board, representatives from many state science teachers associations were there. The Division Affiliates such as the Association for the Elementary Science International (CESI), and the National Middle Level Science Teachers Association (NMLSTA), to name just a few, were also represented.

The professional work sessions stimulated growth in leadership skills. We heard messages on the National Science Foundation Standards Project, learned how to conduct meetings using Robert's Rules of Order, examined strategies for increasing an organization's membership, studied techniques for writing grants and proposals, learned ways to influence science education with our legislatures, and net worked with the various state and national officers. These various officers are real people, not just names! This was most exciting for me. In relating with other science educators, I was able to encourage them to keep their science classes accessible to the handicapped and disabled population. I discovered that SAPD is an Associated Group under NSTA, and that the input our group has to share with the state and national associations is very valuable and needed.

Respectfully, Janet Davies



MATERIALS/EQUIPMENT FAIR NEEDS PARTICIPANTS

As part of the Working Conference on Science for Students with Disabilities as described elsewhere in this newsletter, I am organizing a materials and equipment fair. This fair will run the two days of the conference and is to contain resource materials and equipment designed for use by students with disabilities in their education with special emphasis on science.

If you would like to display your materials and/or equipment or know of materials and equipment we should show, please write me. There is no charge to participate in the fair, but I must have you signed up by March 1, 1993.

George R. Davis
Regional Science Center
Moorhead State University
Moorhead, MN 56563
218-236-2904

***"There are three kinds of people:
Those who make things happen!
Those who let things happen.
and
Those who say 'What happened?'"***
-Richard Chavez

NEW RESOURCES

Two excellent resources specifically written for educators providing full access to hands-on science for persons with disabilities:

Science Success for Students with Disabilities, by Robert A. Weisgerber, Addison-Wesley, 1993, 184 pages, is a handbook for teachers who need a primary reference for information and resources for providing laboratory based science for students with disabilities K-College. Science Success is an excellent, up to date, first resource for teachers and administrators.

The Challenged Scientists. Disabilities and the Triumph of Excellence by Robert A. Weisgerber, Praeger, 1991, 193 pages is a book based on research into the critical factors contributing to the entry and advancement into science and engineering of disabled persons. The book contains the accounts of eight college science majors and thirteen scientists and engineers who are disabled and relates what has allowed them to pursue careers in science and engineering. From these interviews, the author has identified factors that seem to be common to persons with disabilities that will be valuable to persons wanting to provide full access to such fields for persons with disabilities.



THE EARTH AND THE MAN

God said, "I'm so lonesome and sad,
I need someone to love."
So he created a friend - man,
and gave him earth to take care of.

The man said, "This is very nice.
It is so quiet and pretty."
But he made a lot of machines
and used them to build a city.

God said, "Here is clean water.
It is splashing in a stream.
Use it for swimming and drinking.
Make sure you keep it clean."

Man thought the water was great.
He said it had a good taste.
He wrecked it by dumping in stuff.
Like raw sewage and dirty waste.

God said, "Don't kill all these
animals. They all need to be free.
Use some for food and clothing.
They are beautiful for you to see."

Man didn't use them as he should.
He destroyed some, like eagles and
whales. God watched him endanger the
species, and said to himself,
"the man fails."

God said, "It's late now, 1992.
You'd better start to take care.
Conserve all of this nature now,
for there is no time to spare."

Man is too busy to worry.
He has lots of bills to pay.
He won't take time to be careful,
but he'll have to conserve someday.

by Andy Weichers
6th - grader
Central Intermediate School
Waterloo - Iowa

ARTICULATION

We plan to publish an annual bulletin dedicated to addressing science for persons with disabilities. Manuscripts should be submitted by January 15, 1993.

JOURNAL OF THE SCIENCE ASSOCIATION FOR PERSON WITH DISABILITIES

MANUSCRIPT GUIDELINES

Unsolicited manuscripts are welcomed. You are encouraged to share views of the status of science for persons with disabilities, effective teaching practices, curricula, and exemplary work samples that are student produced. Use APA style, double space with wide margins.

The cover page should include:

- Title
- Author
- Author's position
- Author's school
- Author's address
- Date

A running head (abbreviated title that appears on each page with page number.)

A one paragraph abstract

Contributors will be sent a complimentary copy of the publication.

Send Manuscripts to:

Publications Editor: Greg Stefanich
Ass. Editor: Yannis Hadzigeorgiou
Dept. of Curriculum & Instruction
University of Northern Iowa
Cedar Falls, Iowa 50614

SCIENCE FOR PERSONS WITH DISABILITIES

GOOD NEWSLETTER

Science Association for Persons with Disabilities Membership 1993

NAME _____

POSITION _____

INSTITUTION _____

MAILING ADDRESS _____

SAPD Dues for 1993 (\$10.00) \$ _____

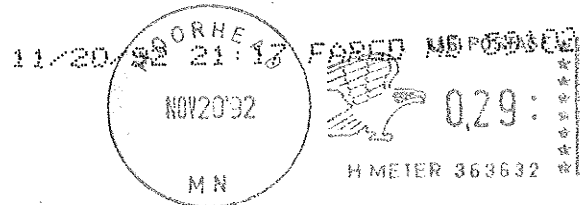
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