

# Science Association for Persons with Disabilities **GOOD NEWSLETTER**

Volume 49

Fall, 1993

## **Davies Assumes SAPD Presidency**

### **1993-1995 Officers Elected**

At the Business Meeting of SAPD held in Kansas City, MO during the NSTA National Convention in April, 1993, new officers were elected. Elected president was Dr. Janet Mansfield Davies. Janet is a charter member of SAPD, having given her first paper presentation at the NSTA National Convention in 1974.

Janet has three children, of which two sons have autism, and has taught science in public and private schools for a total of fifteen years. Janet's doctorate was in science and special education. Her dissertation was a research study using the elementary science study, ESS, with students diagnosed with learning disabilities and mental retardation.

Janet has written science curricula for handicapped students on staff at BSCS and as a Special Education Consultant for Charles E. Merrill Publishing Co (Glencoe).

She has published articles in *JRST*, *Exceptional Parent*, and *Science for Persons with Disabilities*.

Janet currently co-chairs the Department of Education, coordinates the middle / secondary education program and teaches science methods and secondary mainstreaming courses at Colorado Christian University.

Dr. Ben Van Wagner was elected president-elect. Dr. Van Wagner is currently a Professor of Science Education at Fresno Pacific College where he teaches biology, directs a M.A. in the Science Education program and supervises math and science student teachers. He has taught for 30 years in all levels from preschool to graduate school, serving as an itinerant teacher of visually impaired students and as a Visually Handicapped Specialist at a community college Disabled Support Services.

Dr. Van Wagner has a M.S. in Biology and a M.A. in Science for Teachers from the University of Michigan and an Ed.D. in Science Education from the University of Northern Colorado. He holds teaching credentials in the areas of life science, visual impairment and physical disabilities.

Elected secretary-treasurer was Ruth DeBuck.

## **NEWS FROM THE PRESIDENT**

This past summer, I was privileged to attend the annual meeting of the NSTA board, state chapter presidents, and presidents of the associated groups such as SAPD. We met in Mexico City for 2 1/2 days of leadership training.

This was a year of great changes. The board approved of a plan to redistrict membership on the Board of Directors by (a) the number of districts from 16 to 18, and (b) allowing groups such as SAPD to become affiliated groups and have voting privileges on the board, all pending membership vote.

Subsequently, I have written to NSTA asking for the forms to fill out so we can become an affiliated group. (We are now an associated group in NSTA, with no voting privileges or representation on the board.)

I recently completed my critique of the National Research Council's Science Education Standards for which I represent our association as a reviewer. Several of our members serve on a committee in this same organization to ensure that the new standards in science will be the most meaningful for our students with disabilities in public and private schools.

I hope to see many of you at the area convention in Denver in October and then at the National Convention in Anaheim in March, 1994.

Did you know that I was your president in 1976, when we were just getting our organization off to a good start? It is with joy and pleasure that I once again have the opportunity to represent all of you and students with disabilities in advocating for their full inclusion in science classrooms, and science careers.

Sincerely,

Dr. Janet Mansfield Davies

Mrs. DeBuck earned a B.A. in Special Education and is working on an MST in Special Education. She has 14 children. She is interested in team teaching.

## Then and Now: Blindness and Science Careers

Charles E. Hallenbeck, Ph. D.  
University of Kansas, Lawrence

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Knowledge is a mixture of data plus the inferences one draws from them. Let me first summarize the data of my life as a blind scientist (and a student of science) and then suggest some inferences that might be drawn from that experience.

Born in 1930, I lived an unremarkable life in modest family circumstances until 1945, when I was blinded in an accident involving explosives. After several weeks of hospital care, my life as an average high school sophomore was replaced by a unique one in which everything I did was new and challenging. I was encouraged to resume my education alongside my former classmates by school officials, and with enormous support from family, teachers, friends, and my first Seeing Eye dog "Queenie." I graduated with excellent grades in 1949, only one year behind my peers. THEN it had no name and seemed quite natural; NOW it is called MAINSTREAMing, and it seems controversial.

Between 1949 and 1953 I went to a small men's college, majoring first in physics, then mathematics, and finally earning a degree in Social Science. My supporters were gradually becoming skeptics. In particular, I was "excused" from having to take a physics lab as a freshman physics major because, as a blind individual, I would be a danger to myself and others. Never mind that I was a licensed radio amateur with skill at designing and constructing electronic equipment, including auditory meters. I did not argue with the decision, though now I wish I had done so. THEN it seemed "easier" to study something else on the advice of an expert; NOW it seems like

discrimination based on well meant ignorance.

In 1960 I earned my doctorate in psychology, where many of my professors had an open-minded experimental attitude toward the feasibility of my goals. Of course there were those who advised me to specialize in client-centered therapy, since in that specialty one had only to sit still all day and listen politely to unhappy people. No mobility problems, no reading problems. Yuck! My choice of clinical psychology as a specialty reflected both the THEN and the NOW job markets.

After earning my doctorate, rehabilitation psychology seemed a good choice. Its diversity allowed me to tailor my experiences to meet my needs, and soon computing and psychology competed for my attention. Physics and math had not disappeared after all. After a post-doctoral fellowship in applied mathematics and computer science, I joined the faculty of a university where I presently teach and do research in cognitive psychology.

THEN it worked best for me and my teachers to pool our talents to figure out how I might do such things as take a quiz, write a thesis, or administer an intelligence test. In this particular instance, NOW is no different from THEN.

### Documents Sought for SAPD Newsletter

*Calling All Contributors*

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We are interested in hearing from those who would like to share a summary of an experience or document, review a text or program, furnish information regarding future meetings, or other information of interest to our membership. Please send your contribution to SAPD Newsletter, Cornelia J. Munroe, Co-Editor, Ste. 250, 1 Dupont Circle NW, Washington, D. C. 20036.

# Science Activities for the Visually Impaired—SAVI/SELPH

## *Science Enrichment for Learners with Physical Handicaps*

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Paula Huffman  
Perkins School for the Blind  
Watertown, Mass.

The SAVI/SELPH (Science Activities for the Visually Impaired/Science Enrichment for Learners with Physical Handicaps) program was developed at the University of California at Berkeley in the 1970's with funding from the U.S. Office of Education. Designed for upper-elementary school-aged blind children, its goals included providing a multi-layered program which would, first of all, teach science content. Tied to that was the development of science process skills, followed by a multisensory approach to learning and finally, multidisciplinary learning.

SAVI/SELPH activities involve hands-on manipulation of objects, many of which are common everyday objects to convey science concepts. In addition, all the senses are used to the HIGHEST degree possible for each student for information gathering. Effort was made to make the activities fun. Enrichment activities are flexible. As the program was being developed, it was discovered that it worked well with students with other disabilities, in addition to students in the mainstream.

The SAVI/SELPH program is set up as a collection of activities organized into topical clusters called modules. These include activity writeups in the folios that give overview, background and purpose of the activity and much other

information. Comprehensive student equipment kits are available to use with each activity. In short, everything is in the box except the teacher and basic classroom supplies such as masking tape.

I have used the nine modules in my classroom at Perkins School for the Blind in Watertown, Mass. for several years. Four lower level modules include Measurement, Structures of Life, Scientific Reasoning and Communication. Five higher level modules address Magnetism and Electricity, Mixtures and Solutions, Environments, Kitchen Interactions, and Environmental Energy.

All of my students of varying abilities have enjoyed and learned from the materials. Often I find that the intended lesson has to be set aside because an even more basic skill has to be learned first, such as how to fill a syringe or open an alligator clip. Repeated use of the materials does not seem to bore the students but rather helps them to expand on concepts previously learned. In work with the disabled, whether mainstreamed or not, the teacher will find these kits an excellent teaching tool either as the main focus of a science program or as a hands-on supplement to an existing program.

For more information, write to Larry Malone and Linda DeLucchi, Center for Multisensory Learning, Lawrence Hall of Science, University of California, Berkeley, CA 94720.

# TEACHING SCIENCE TO DEAF STUDENTS

Frederick R. Mangrubang, Ph.D.

KDES

Gallaudet University, Washington, D. C.

Deaf students come to the classroom with varied backgrounds and experiences. They vary in cognitive and effective development and in the development of all of their human talents. Schools with deaf students have not provided for individual differences among students because of traditions, problems of scheduling, poor teacher preparation, instructional costs, and poor science equipment. This lack of individualized instruction and quality in science programs for deaf students creates a situation that rarely permits the choice of a scientific career.

Greater efforts must be made to teach "hands-on" experience in learning science at an early age so as to prepare deaf students toward the next grade level. Without emphasizing science education at an early age, deaf students will not be able to acquire the scientific skills necessary to do as well as their hearing peers.

In communicating with deaf students, no single method of communication (sign language, ASL, oral, gesture, total communication, mime, etc...) can meet all of the needs of all deaf students in the classroom. The only way to moderate the communication schism is to recognize its history and to understand that attitudes and expectations for deaf students are important factors. Arguments may shift from which system is best for all to which system is best for each individual student.

Below are several suggestions on how to give better individual attention in teaching science to deaf students:

1. Individualize assignments so that students progress at their own rate and at the end of the period, hand in what they have accomplished. This may be a laboratory or written assignment.
2. Extend special recognition to a student who goes beyond minimum acceptance level for doing and formulating laboratory investigation.
3. Use multiple resources including texts in class. If a slow student has difficulty reading one

text, endeavor to find another or attempt to help him/her learn the material in ways other than through books.

4. Offer special activities for the academically talented. Let them assist you in preparing solutions and materials for laboratory work. They should be involved in experiences which are educationally desirable and not just prepare for a future working at a menial job.
5. Encourage students to do research. They should consult with a scientist or engineer in the community on their research problem. Local industries, museums, zoos, botanical gardens, and hospitals have resource people who will often help.
6. Have students from the upper grades go to some of the lower grades and demonstrate a scientific principle or explain a science project. This approach has the advantage of giving recognition to the younger students and motivating them to greater achievement.
7. Encourage parents to obtain books and to take trips which have advantages for science students. Parents often welcome a suggestion from the teacher about books and type of trips to help enrich their children's science education.

There are numerous diverse activities (school-wide) that can be used to teach for individual differences:

1. Establish science fairs, science night, displays, and assemblies, like those sponsored by NASA and other government and industrial groups.
2. Have students of various abilities give one or more presentations to the PTA.
3. Produce a science newspaper for the school.
4. Encourage science seminars for interested students.
5. Offer students research experiments as aides to scientists.

Individualized instruction in science will only be successful if parents, teachers, staff, and students all work together for cooperation toward a common mission.

**NOMINATION FORM FOR  
THE SCIENCE TEACHING AWARD**

**Sponsored by Shell Oil Company**

Name of Nominee \_\_\_\_\_

Grade Levels Taught \_\_\_\_\_ Disciplines Taught \_\_\_\_\_

School \_\_\_\_\_ School Phone \_\_\_\_\_

School Address \_\_\_\_\_

Home Address \_\_\_\_\_

Home Telephone \_\_\_\_\_

Number of Years Nominee has Taught Science \_\_\_\_\_

Number of Hours/Day Currently Spent Teaching Science \_\_\_\_\_

Signature of Nominee \_\_\_\_\_

Name of Nominator \_\_\_\_\_

Position \_\_\_\_\_

Address of Nominator \_\_\_\_\_

Telephone (business) \_\_\_\_\_ (home) \_\_\_\_\_

Signature of Nominator \_\_\_\_\_

Name of Nominee's Supervisor (Principal) \_\_\_\_\_

Position \_\_\_\_\_

Address \_\_\_\_\_

Telephone (business) \_\_\_\_\_ (home) \_\_\_\_\_

Signature of Supervisor \_\_\_\_\_

Submit two copies of nomination form and supporting materials to:

The Science Teaching Award  
NSTA  
1840 Wilson Boulevard  
Arlington, VA 22201-3000

The Nomination Package must be received by NSTA Headquarters no later than November 15, 1993. Do not fax Application Package.

# CALL FOR NOMINATIONS FOR THE SCIENCE TEACHING AWARD

Sponsored by the Shell Oil Company

## \$10,000 Award To A Classroom Teacher

NSTA announces the opening of nominations for the 1994 Science Teaching Award sponsored by Shell Oil Company. The award is designed to honor one classroom science teacher (K-12) who significantly impacts students through exemplary science teaching and learning. Special projects may be mentioned, but should not be the main focus of the candidate's application. Shell Oil will present the selected teacher with a \$10,000 cash award, plus travel expenses to receive the award at the NSTA National Convention, March 30-April 2, 1994 in Anaheim, California.

**Eligibility:** Nominees for the award must be classroom teachers whose major responsibilities include teaching science. Nominees must have taught science for at least five years, and must teach in the United States, U.S. territories, or at Department of Defense Dependent schools.

**Nominations:** Nomination packages must include a completed nomination form signed by the nominating individual, the nominee, and the nominee's supervisor (principal). Accompanying documentation written by the nominee must include:

- |                            |   |
|----------------------------|---|
| <b>VITA</b>                | one-page (single spaced) detailing the nominee's teaching experience, professional activities, formal and continuing education, awards, and publications  |
| <b>TEACHING PHILOSOPHY</b> | one-page (single spaced) description of the nominee's teaching philosophy   |
| <b>INSTRUCTION METHOD</b>  | not more than five pages (typed, double-spaced) of description of the candidate's classroom activities that represent the nature of science; enhance student knowledge, skills, and attitudes of science; employ unique methods to make science exciting and relevant; make connections between science and the student's world; encourage scientific inquiry and problem solving; impact a wide variety of students including, but not limited to, those who may be at risk or have different abilities and opportunities. In addition, nominees must demonstrate success in working with other teachers, parents, and community groups. |
| <b>LETTERS OF SUPPORT</b>  | one letter of nomination and three to five letters of support which may come from colleagues, students, parents, administrators, and/or community representatives (maximum of two pages for each letter).   |
| <b>DETAILED SCHEDULE</b>   | one week's schedule including time, subject taught (briefly describe content or thematic base of course, and student profile, i.e., 11:00-12:00: Environmental Science, Special Ed.<br>1:00-2:00: Physical Science, G.T. students   |

**Applications not conforming to these basic guidelines will be automatically eliminated. Don't reduce text to conform to page limits. Please don't include additional material as it will not be considered or returned.**

**Selection Procedures:** Nomination packages will be reviewed by the Science Teaching Award Screening Committee which will select ten semi-finalists. These individuals will be notified and asked to provide additional documentation in the form of a ten-minute video illustrating classroom activities and interactions with students that clearly reflect the candidate's teaching philosophy.

The committee will review the videos and select three finalists. Site visits will be made to each of the finalist's schools to determine the final Awardee. All three finalists will receive an expense paid trip to the NSTA National Convention. Nominators should send two copies of the entire nomination package to The Science Teaching Award, NSTA, 1840 Wilson Boulevard, Arlington, VA 22201-3000.

**Nominations must be received by NSTA Headquarters no later than November 15, 1993.**

## PROPOSAL GUIDELINES

TAPESTRY grant proposals should demonstrate creativity, involve risk-taking, possess a visionary quality, and model a novel way of presenting science. Proposed projects should promote exciting and innovative activities to motivate students in science and be limited only by the creative imaginations of the applicants. Proposals may include but are not restricted to:

- novel instructional strategies
- curriculum development and implementation
- creative uses of technology
- involvement with the community or industry
- collaborative programs among students and teachers
- professional and staff development
- innovative uses of educational equipment
- involvement of at-risk or minority students
- multidisciplinary or interdepartmental participation
- in-class or extracurricular activities

## PROPOSAL REQUIREMENTS

Proposals must be typed, double-spaced (except where otherwise noted), and single-sided on standard white 8 1/2" x 11" paper. Leave 1" margins for all pages. Do not use report covers, binders or folders. Do not include appendices, or any materials other than the required components. Handwritten proposals will not be accepted. Do not staple pages together. Faxed and late proposals will not be accepted. Proposals failing to meet all of the stated requirements will be disqualified. Each TAPESTRY proposal must contain all of the required components.

## EACH TAPESTRY PROPOSAL MUST INCLUDE:

- **PROPOSAL ABSTRACT** (250 words or less, not to exceed one double-spaced page.) Briefly summarize the important points of the project proposal. At the top, include the project director's name, project title and total budget figure. Submit **12 copies** of the abstract page.
- **PROPOSAL COVER FORM** Submit a single, typed, completed proposal cover form (photocopies accepted). The name, address, and signature of the Project Director's principal is required. Only one name may appear as the Project Director.
- **DESCRIPTION** (500 words or less, not to exceed two double-spaced pages.) Provide a thorough description of the activities involved in your proposed project.
- **RATIONALE** (250 words or less, not to exceed one double-spaced page.) Explain why there is a need for such a project in your school and/or school district. State how the project idea originated.
- **POTENTIAL IMPACT** (250 words or less, not to exceed one double-spaced page.) Describe the goals of your proposed project and how students will benefit from participating in the project. State the approximate number of teachers and students that will be impacted by the project.
- **EVALUATION PLAN** (250 words or less, not to exceed one double-spaced page.) State your mechanism for measuring the success of your project.
- **PROJECT CALENDAR** (One page, single-spacing acceptable.) Give a year's time line for your proposed project. Projects must begin by May 1, 1994, and

the funding must be spent by May 1, 1995. Relate each of the project activities to an approximate date.

- **BUDGET** (One page, single-spacing acceptable.) Prepare a detailed budget for your project, not to exceed \$10,000. Provide justification of the cost effectiveness of the project budget.
- **PROJECT STAFF VITAE** (One page per participating teacher, limit five, single-spacing acceptable.) Vitae for the Project Director and other participating teachers should include education, teaching experience, publications, past involvement with innovative teaching programs, and anything else germane to the proposed project.
- **LETTERS OF SUPPORT** (One page each, single-spacing acceptable.) One to

three letters of support must accompany the proposal. One letter must be from the Project Director's principal. These letters must accompany the rest of the proposal. Letters sent separately will not be considered.

- **PHOTO** Send a recent black and white, passport-size face photo of the Project Director.

Send one copy of the proposal complete with all components and any inquiries to:

NSTA/TAPESTRY, 1840 Wilson Blvd.,  
Arlington, VA 22201-3000. Upon receipt, proposals become the property of NSTA. Proposals will not be returned to applicants. **Proposals must be received at NSTA headquarters by 5 p.m., Wednesday, January 12, 1994.**

## ABOUT THE JUDGING

TAPESTRY grant awardees are selected by a panel of distinguished science educators with expertise in environmental education and the physical sciences. The decision of the judges is final.

All proposals received in accordance with the rules will be judged for overall creativity and innovation in teaching science. Each component of the proposal will be weighted as follows:

Description .....	25%
Rationale .....	10%
Potential Impact .....	15%
Evaluation Plan .....	10%
Project Calendar .....	10%
Budget .....	10%
Project Staff Vitae .....	10%
Letter(s) of Support .....	10%



## 1994 TAPESTRY PROPOSAL COVER FORM

(Please Type)

Project Title: \_\_\_\_\_

Entry Category (check one):

- Environmental Education Proposal  
 Physical Science Applications Proposal

Budget Total (not to exceed \$10,000): \_\_\_\_\_

School Type:  Rural  Suburban  Urban

Approximate School Population: \_\_\_\_\_

### TO BE FILLED IN BY THE PROJECT DIRECTOR

#### PERSONAL DATA

Check one:  Mr.  Mrs.  Ms.

Name: \_\_\_\_\_

School: \_\_\_\_\_

Complete School Address: \_\_\_\_\_

City State Zip

Complete Home Address: \_\_\_\_\_

City State Zip

School Phone: ( ) \_\_\_\_\_ Ext. \_\_\_\_\_ Home Phone: ( ) \_\_\_\_\_

Names of other participating teachers (optional, maximum of four): \_\_\_\_\_

#### TEACHING INFORMATION

Grade level taught (Please check one):  Middle School  High School

Grades Taught (6-12): \_\_\_\_\_ Disciplines Taught: \_\_\_\_\_

Number of years teaching science: \_\_\_\_\_ Number of science classes taught per day: \_\_\_\_\_

#### OPTIONAL

In order to determine the degree to which diverse segments of the population are served by this program, we would like the project director to respond to the questions below. Completion of this section is voluntary. Awardees will be selected on merit, regardless of race, religion, national origin, or gender.

Gender:  Male  Female

Ethnicity:  Caucasian  African American  Asian  Hispanic  Native American  Other \_\_\_\_\_

#### SIGNATURE REQUIRED

Project Director: \_\_\_\_\_ Date: \_\_\_\_\_

#### TO BE FILLED IN BY THE PRINCIPAL

Name: \_\_\_\_\_

Title: \_\_\_\_\_

School Phone: ( ) \_\_\_\_\_

Home Phone: ( ) \_\_\_\_\_

Complete proposal must be received by  
5 p.m., Wednesday, January 12, 1994 at:

**NSTA/TAPESTRY**  
**1840 Wilson Boulevard**  
**Arlington, VA 22201-3000**

No faxed proposals accepted.

#### SIGNATURE REQUIRED

I have read and support this proposal. To the best of my knowledge, I verify that the applicant will remain employed at my school for at least the next school year.

Principal: \_\_\_\_\_ Date: \_\_\_\_\_



## **Helping Hard-of- Hearing Students in the Classroom**

Dr. Marjorie Z. Newmark  
Professor Emeritus, University of Kansas,  
Lawrence

The biggest challenge for hard-of-hearing students is to be able to comprehend speech. Hearing aids, which function to amplify sound, provide considerable help; however, because they amplify background noise as well as speech, background noise often overwhelms whatever is spoken. Most hard-of-hearing students also must depend upon their sight, through speech reading, to augment their hearing. When these problems are recognized, school systems and teachers can do much to minimize the difficulties associated with hearing loss.

In the construction and remodeling of schools, sound absorbing material should be used wherever possible to eliminate echoing and general clatter. Additionally, schools should have individual FM systems available to enhance communication and overcome extraneous noise. In classes where students take notes, schools should provide notetakers for the hard of hearing students who must speech read. School audiologists often are in the best position to work with administrators, teachers, and the families of hard-of-hearing students to assess the students' needs and to work for equitable solutions.

The following suggestions for teachers will greatly help hard-of-hearing students: Speak clearly and at a moderate pace. Avoid standing in front of windows or bright lights where one is silhouetted. Be sure your face is lighted. When speaking, look directly at the hard of hearing student and make sure the student "sees" what you say. When you point out something while talking, give the student time to look at it, either before or after you speak. Slides and transparencies should have titles and videos should be captioned. Whenever taking notes is important, make copies of class notes for the student or have a peer notetaker. Use an individual FM system which will allow the hard-of-hearing student to hear you anywhere in a room without the

interference of background noise. In short, teachers working with hard-of-hearing students should be sure that their speech is both visible and audible.

(Summary of Address, SAPD, NSTA National Convention, Kansas City, MO, 1993)

### **Call for Memorabilia**

NSTA will be celebrating its 50th anniversary at Anaheim in March, 1994. We would like to have our own scrapbook of historical events to display along with other NSTA mementos.

Please send newspaper clippings, pictures, tidbits of interest, special happenings, etc., to SAPD, P. O. Box 17411, Boulder, Colorado 80308-0411.

### **WGBH Selects Van Wagner for Educational Task Force President-elect joins Select DVS Team**

Ben Van Wagner was invited to participate as a member of an eight member DVS Educational Task Force on June 11, 1993. DVS, or Descriptive Video Service, is part of WGBH in Boston, Massachusetts that makes television and video accessible to visually impaired audiences. The workshop goal was to explore ways to make DVS description of children/family programs and movies as beneficial as possible for blind and visually impaired children with regard to general education and cultural literacy.

#### Science Association For Persons With Disabilities **GOOD NEWSLETTER**

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**JOURNAL OF THE SCIENCE ASSOCIATION FOR PERSONS WITH DISABILITIES**

**Manuscripts Requested**

**MANUSCRIPT GUIDELINES**

Unsolicited manuscripts are welcome. 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

Manuscripts should be submitted by January 14, 1994  
Contributors will be sent a complimentary copy of the publication.

Send Manuscripts to:

Publications Editor: Greg Stafanich  
Assistant Editor: Yannis Hadzigeorgiou  
Department of Curriculum and Instruction  
University of Northern Iowa, Cedar Falls, Iowa 50614

**Science Association for Persons with Disabilities**

Name \_\_\_\_\_

Position \_\_\_\_\_

Institution \_\_\_\_\_

Mailing Address \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

SAPD Dues for 1994 (\$10.00) \$ \_\_\_\_\_

Send to:

Science Association for  
Disabled Persons

Updated Bibliography (\$4.00) \$ \_\_\_\_\_

P. O. Box 17411  
Boulder, Colorado

Total sent: \$ \_\_\_\_\_

80308-0411

*Hi Ed, Jan*

## Enhanced Learning for Deaf Students

Dr. Harry G. Lang, Professor  
National Technical Institute for the Deaf  
Rochester Institute of Technology

Much writing has been published on specific strategies science teachers might use to enhance learning for deaf students. In my presentation at the SAPD luncheon, I elected to focus on deafness in a personal sense and draw implications for teachers.

People often ask me my opinion on mainstreaming and residential schooling. I encourage them not to generalize haphazardly, but to evaluate each school's offerings and each student's own preferences and needs.

In my case, I was profoundly deafened while in junior high school. The decision to attend a residential school for the deaf was one of the best my parents and I made at the time. Not only did it help me to learn more about my deafness and how it would influence the rest of my life, but it greatly helped me to see that I had more potential than I had thought I had before becoming ill with meningitis.

Eventually, the small class of seven deaf students [six of them prelingually-deaf] earned two doctoral degrees, five masters' degrees, and six bachelor's degrees, quite a success story.

Twenty-five years later, we met at a reunion and, after discussing this, we agreed that there were two reasons, in particular, that explained our success. First, when we were in high school we had teachers who never stopped working us hard. Second, we were given the opportunity to try courses in high school and college without being told our language was a barrier, or that deafness would make it difficult to pass. In other words, we were given the opportunity, like our hearing peers, to

learn from our failures and disappointments.

My presentation at the SAPD luncheon focused especially on attitudes. I have spent six years studying the lives of many successful deaf scientists for a forthcoming book I have written, Silence of the Spheres: The Deaf Experience in the History of Science, and attitude barriers surface repeatedly in the diaries, journals, and other writing of these men and women. I advised those attending the luncheon to view deafness as a human experience. The different acoustic, cultural, and linguistic experiences deaf and hard-of-hearing students bring to the classroom should be valued by teachers and peers.

Everything possible should be done to develop self-esteem, for I found the most successful deaf people, in history and today, are those who do not spend their lives pretending to be like hearing people, but feel good about themselves as unique individuals.

### Educator of the Year Named *Credential Counselors and Analysts of California Honor Van Wagner*

Dr. Ben Van Wagner, a science education teacher at Fresno Pacific College, was recently selected as the Educator of the Year by the Credential Counselors and Analysts of California.

Dr. Van Wagner, who has taught at the graduate and undergraduate levels at the college since 1990, received the "Crystal Apple" award during a ceremony in Sacramento. He has taught at the college level for 22 years and in public K-12 schools for seven years. He is credentialed in life sciences and teaching of the visually impaired and physically disabled.

He has been involved with the Central Valley Science Project, the Odyssey of the Mind competition and the Science 2000 Festival.

## Calendar of Activities of Interest to SAPD Members NSTA Area Conventions

### Denver, CO, October 28—30, 1993

Thursday, 12:30—1:30 pm

Stop Swimming Upstream—The "Special Needs" Student Can be Mainstreamed

Thursday, 3:30—4:30 pm

Adventures with Plants for Special Education

AIMS for Students with Special Needs

Thursday, 5:00—6:00 pm

Potpourri of Ideas for the Special Needs Student

Saturday, 8:00—9:00 am

The Mind of the Visual Thinker

Saturday, 2:00—3:00 pm

Private Sector Partnership: Summer Science Enrichment for At-Risk Elementary Students.

### Louisville, KY, November 11-13, 1993

Thursday, 5:00—6:00 pm

Potpourri of Ideas for the Special Needs Student

Friday, 5:00—6:00 pm

Involving the Moderately Mentally Disabled Student in the Science Curriculum

Saturday, 12:00—1:30 pm

Applied Physical Science: An Alternative Science Program for the At-Risk Student

### Orlando, FL, December 16—18, 1993

Thursday, 4:00—5:00 pm

Collaborative Model for Improving Science Instruction for Middle School Special Education Students

Friday, 11:00—12:00 noon

Creative Biology and Life Science Strategies for Mainstreamed EDE (Exceptional Student Education) and ESOL (English for Speakers of Other Languages) Students

Saturday, 1:00—2:00 pm

Potpourri of Ideas for the Special Needs Student

**Science Association for Persons with Disabilities  
P. O. Box 17411  
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