



GOODNEWSLETTER

Winter 2007

Science Education for Students with Disabilities (SESD)

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Letter from the President

Dear SESD Friends,

Amid concerns about the U.S. losing its economic competitiveness on a global scale and American students falling behind their international peers, science education is attracting increased attention by policy makers. There is a growing consensus in the educational community that the key to insuring global competitiveness is to improve science education and the diversity of our workforce. The reauthorization of the No Child Left Behind (NCLB) act, planned for 2008, will provide important opportunities for policy makers to write law provisions designed to help improve science education.

To ensure that future reforms will improve science education for *all* students, and in particular for students with disabilities, it is important that we as educators and parents of students with disabilities have a strong voice in policy discussions such as those that are commencing now around the reauthorization of the NCLB act. We need to ensure that standards, policies, and laws are explicit about the expectation that all students, including those with a disability, have opportunities to study science and include provisions for how to support them in attaining high-quality learning outcomes. Such provisions might include that students with disabilities are taught by highly-qualified teachers and receive a standards-based science education that builds on their strengths and supports their needs, that they are included in high-quality science assessments and receive appropriate accommodations as necessary, that science curricula are universally designed to accommodate the widest possible range of learners, and that students with disabilities have access to assistive and universally designed technology to support their learning in science.

SESD could play an important role in adding a voice to emerging discussions around the improvement of science education. But we need your help. The larger we are as an organization, the stronger our voice will be. Please help us increase our membership. If you are not yet a member, we invite you to join now. SESD is open to educators at all levels, parents and anyone else interested in science education for students with disability. For the very low annual fee of \$10, benefits of membership include a subscription to our newsletter and the Journal of Science Education for Students with Disabilities, access to our website, and SESD events conducted at the annual conventions of the National Science Teacher Association (NSTA). A membership form is included in this newsletter or can be found on our website at <http://www.sesd.info>. If you are a member already, please make sure that your membership stays active (and that we have your current contact information). I also would like to urge all current members to talk to their colleagues and parents and tell them about SESD. If each current member could find five new members, our organization and voice would grow terrifically strong. We have lots of work ahead and we are counting on your help!

Best wishes to all,

Babette Moeller

Laureen Summers, Editor

Designed by:
Sabira Mohamed

For more information,
visit: www.sesd.info/

SESD Annual Business Meeting Minutes April 7, 2006 NSTA: Anaheim, California



Call to order by President Babette Moeller, 2:07 PST

Present: Babette Moeller, Laureen Summers, R.L. Grubbs, Jen Nagarah, Kate Fraser, Saul Shenberg, John Stiles, Greg Stefanich

2005 meeting minutes approved with minor changes. The two changes were: Add Greg Stefanich's name to those present; and add an "n" to the word "absetia" (to make "absentia") in the line beginning with Secretary John Stiles.

Babette reviewed the new activities since last meeting, including:

- CAGS meeting, attended by Greg Stefanich and Almetta Hall;
- New award implemented: Lifetime Achievement Award for teaching science to students with disabilities;
- Selected Scadden Award winner;
- New JSESD editors: Larry Quinsland and Todd Pagano of R.I.T.;
- Newsletter published by Laureen Summers, also on web site;
- New webmaster, Mickie Flores;
- Reminder of the "Science-Abled Breakfast" on Saturday with featured speaker Paul-John To.

Babette thanked everyone who worked to make these events and activities possible.

John gave the secretary's report of actions taken by the board, which will be posted on the web site.

Babette asked about funds to cover the newsletter. Laureen replied that AAAS covered expenses. Babette said that perhaps SESD should offer to cover the printing and postage if host organization cannot.

Babette suggested that we turn in reports and minutes to NSTA CAGs representative.

Treasurer's report given by David Bartlett (in absentia) and discussed. The balance as of 3-21-06 was \$1,078.26.

David also reports that SESD currently has 45 paid members. John mentioned that the high point was around 130 members for several years, and that many members traditionally forget to renew memberships. Babette replied that we need new members, and to link with the alliances. We will look into contacting people to volunteer to be membership chair, as it is currently open.

Laureen reported on newsletter practices. She would like to see more short articles about classroom practice. Babette asked about the Research & Disability Project participants: could they be approached to submit?

COMMITTEE REPORTS

Convention

Saturday's breakfast agenda was highlighted by Babette. A concern brought up by Babette: We sometimes miss out on speakers due to lack of funds for additional needs of some speakers. SESD tries to ask those who live nearby or are coming to NSTA anyway. No more receptions are held due to lack of funds and low number of visitors, and thus new members. A Suite is just as costly, John suggested finding a patron to help defray expenses. Babette suggested pursuing funding sources.

Publications

JSESD: Editors are looking at design and content changes for the journal. Three articles are currently in review. Reviewers are needed at the secondary science level. Volunteers are asked to email editors, by finding link on the web site. Larry, in conversation with Babette, suggested digitizing past journals and place on the web. Jen Nagarah suggested putting issues on the web; it would cut costs and entice new members. John reported that a state journal recently went to electronic publishing, giving access to members after full access for first issue. Jen reported that it will most likely snag new members.

Awards

- Scadden Award report given by Sami Kahn, in absentia. This year's winner is Sue Ann Iannacci of Ridley Park Middle School in Pennsylvania. The award is co-sponsored by SESD and RASEM of New Mexico State University.
- Lifetime Achievement Award report given by John Stiles. This year's winner (the first awarded) goes to Greg Stefanich of The University of Northern Iowa.

- Both awards are to be presented at Saturday's "Science-Abled Breakfast."

CAGs Report

Greg Stefanich reported on his participation at the annual meeting of Chapters and Affiliated Groups last year in Minneapolis. Greg submitted the NSTA position statement on students with disabilities. With Greg's suggestion, NSTA Congress passed a resolution that highly qualified teachers include knowledge of resources to provide access for diverse students to all aspects of the science curriculum AND collaborative skills for working with specialists and support personnel in the professional learning community.

Greg suggested that SEDS ask NSTA to include information on students with disabilities as applies to highly qualified teachers on their website and to encourage NSTA to put into NCATE standards encouraging universities to show that they are including accessibility for diverse students, including teacher preparation programs. Babette will draft a letter.

New Business

- Officers: Membership Chair is open. Membership forms will be distributed at breakfast and SEDS booth.
- John suggested that both SEDS awards be under same committee (Awards), with Sami the chair. Approved.

- Suggestions for membership drives included discussion about sending information and forms to museums, universities, and alliances. Jen suggested that SEDS provide a number of presentations with accessibility the theme at future conferences. Greg suggested asking NSTA to reserve a "block" of sessions so that we do not vie for participants when they occur at the same time slot. Kate suggested getting a block for Boston 2008. R.L. Grubbs suggested joining a diversity track along with culture, language, sexual orientation, and ethnicity. Greg thought that since time is short for next year's proposal deadline that we try to target Boston. He and John would contact NSTA about it.

- John expressed a desire to have SEDS be more of an advocacy group, and support students who find themselves victims of discrimination, or if institutions balk at providing accommodations for students with disabilities. Perhaps have a letterhead made with representative names, and have the president or designee make contact with schools as we hear of problems. Due to time considerations, it was suggested that we take this up in earnest at next year's meeting as one of the main topics for discussion.

- Babette is looking for funds to help sustain the web site. She would welcome any ideas or leads. John suggested contacting N.O.D. (National Organization on Disabilities) that has a high profile, with support from many sponsors as well as celebrity advocates.

2007 SEDS Meeting

When?

Friday, March 30, 2007
2:00 - 4:00 p.m.

Where?

Adams Mark Hotel
Boardroom 23

- Breakfast tickets: SEDS covers awardee's ticket, but not guest. It was suggested that from now on, SEDS offer an additional guest ticket to awardees if requested. Unanimously approved.

- CAGs (NSTA Chapters and Affiliated Groups) Congress this year is July 19-22 in Toronto. Babette may go. If anyone else is interested in representing SEDS, please contact Babette.

ADJOURNED 4:09 PM

- John Stiles

Events at the 2007 Annual Convention of the National Science Teachers Association, St. Louis, MO.

Anyone interested and all SEDS members are encouraged to attend the following events

SEDS Business Meeting

The annual SEDS business meeting will be held on Friday, March 30 from 2:00 - 4:00 pm in Boardroom 23 of the Adams Mark Hotel.

Featured Session

Shell is sponsoring a featured presentation called "Sound Science Beyond Sound—Solutions for Deaf and Hard of Hearing Students," by Corinne K. Vinopol, President of the Institute for Disabilities Research and Training, Inc., at America's Center, Room 275 from 10:30 a.m. - Noon.

Science-Abled Breakfast

The science-abled breakfast meeting is an event that brings together teachers of disabled students, parents, science educators and scientists. At this meeting we will recognize the recipients of the *Lifetime Service Award for Outstanding Contributions in Science*

(Continued Next Page)

Events at the 2007 Annual Convention

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Education for Students with Disabilities and the *Lawrence Scadden Teacher of the Year Awards*. The meeting also features presentations that highlight the educational experiences of scientists with disabilities and their contributions to science.



This year our featured speaker will be Dr. Greg Stefanich. Dr. Stefanich is a Regents Professor of Science Education at the University of Northern Iowa.

He is also a founding member and past-president of SEDS and the recipient of SEDS's 2006 Lifetime Achievement Award.

His presentation is entitled: "*Engaging Learners.*" Dr. Stefanich will talk about how disability, gender, race, and social-status play a prominent role in defining ourselves, our world and how we interact with the world. More importantly, through everyday actions and interactions, an individual can define his/her role among his/her fellow human beings.

So often it is not the swift but the persistent, life long learners who hold a line of high morals and values that have a high quality of life. The challenge of educators is to stimulate engagement and commitment of the learner, in spite of all challenges.

The meeting will be held on Saturday, March 31 from 7:00 to 9:00 am. A hot breakfast will be served, and tickets will be required to attend. Tickets can be obtained in advance or at the conference through NSTA.

Council for Elementary School International

The Council for Elementary Science International (CESI) is an international professional organization for elementary and middle school educators, and pre-service teachers who will become Pre-K - 8th grade teachers who have the responsibility to teach science to children. The mission of CESI is to promote excellence and equity in K-8 science education. The purposes of the Council for Elementary Science International, according to the CESI Constitution, are ". . . to stimulate, improve, and coordinate science teaching at preschool and elementary school levels and to engage in any and all activities in furtherance thereof; to promote the improvement of science progress which begins in preschool and develops in continuous and integrated fashion through grade 12 and beyond." CESI membership includes a professional journal, newsletters, and opportunities to learn and collaborate with colleagues at breakfasts, luncheons, make and take sessions, workshops and presentations, and mini conferences usually held at national and regional NSTA conventions. CESI is the elementary affiliate of the National Science Teachers Association.

Founded in 1920, the Council for Elementary Science International (CESI) is one of the oldest science-oriented organizations in the nation. The purpose of CESI is to promote excellence in the teaching of science in preschool through middle school classrooms. CESI has approximately 1,200 members, two organizational affiliates, and two states which share joint membership. Members of the organization include classroom teachers, resource teachers, specialists, principals, researchers, and college and university science instructors (methods and content area).



**Promoting
Excellence
and Equity in
K-8 Science
Education**

For more info. visit
www.cesiscience.org

Special Recognition

Laureen Summers would like to give special thanks and recognition to a good friend and colleague at AAAS, Sabira Mohamed, for her continued support in helping students with disabilities excel in STEM careers.

Sabira was responsible for the layout and design of the 2006 Spring and 2007 Winter issues of this newsletter. She is an incredible support and resource person for several programs within the Education and Human Resources directorate including the Project of Science, Technology and Disability, Entry Point!/ACCESS, the Center for Advancing Science and Engineering Capacity, and K-16 Mathematics and Science Programs such as DC ACTS and Project 2061.

Ms. Mohamed's professional experience crosses both science research fields and medical realms. Prior to AAAS, she worked for the National Science Foundation's (NSF) Office of the General Counsel dealing with grant proposals, compliance, and projects such as the Louis Stokes Alliance for Minority Participation (LSAMP). She was the designated webmaster for the directorate. She also served as a program assistant at the National Research Council's (NRC) Board on Life Sciences and worked in the Radiology Department at Inova Alexandria Hospital, as well as the U.S Army Corps of Engineers' Institute for Water Resources.

Sabira earned her bachelor's degree in biology from George Mason University in 2005. Her research interests center in the life sciences and medicine. She is an avid fan and collector of anime and enjoys drawing.

“ I have always had a fascination in science ever since the first time I used a microscope and discovered a whole new world. The individuals I have come to know, including some Entry Point! Alums, in the research and medical industries have motivated, inspired, fueled, and reaffirmed my desire to study science.

The human species has the ability to learn, innovate, and advance in the understanding of life and its processes. It is inherently part of our innate sense of survivability. We have been able to accomplish many feats of which would not have been possible without any mutual effort, and we continue to make new discoveries and improve old theories and methods in order to adapt to the ever changing environment and what it necessitates.

However, the U.S. is losing its fight against other nations to regain its competitive edge in Science, Technology, Engineering, and Mathematics. I feel privileged to be part of education reform efforts and to be surrounded by “giants” of the trade. It is imperative that the younger generation gain quality education that'll arm them for the future and it is my hope that we will, one day, have the ammunition necessary to ensure the quality of life for all.

- Sabira Mohamed

Modeling Effective Teaching Techniques

“Wait time” is an instructional technique and teaching procedure where the instructor uses silence in order to encourage information processing and student verbal interactions after a question is asked. This non-verbal technique sends a message to students to give serious thought to the question being asked.

Dr. Mike Clough, Associate Professor of Curriculum and Instruction and Iowa State University, models “wait time” and other effective teaching techniques that may be used in small or large classes, in a new “Virtual Classroom Visit.”

This 7½-minute clip demonstrates how waiting several seconds for students to respond to your questions or classmates' comments can bring about more answers, longer and more appropriate answers, and fewer “I don't know's.”



This brief clip is available on the Center for Excellence in Learning and Teaching (CELT) website

www.celt.iastate.edu/teaching/modelingeffective.html

2006-2007 LAWRENCE SCADDEN Teacher of the Year Award in Science Education for Students with Disabilities



Open to:

- **All** current K-12 teachers (general education, special education, or science teachers, public or private);
- Must have taught at least 5 years;
- Must have made an outstanding contribution to science students with disabilities.

Past Winners

2005	Sue Ann Iannacci, Ridley Middle School, Ridley Park, PA
2004	Sherry Humphries, Illinois School for the Deaf
2003	Jean Durrett, Maedgen E.S., Lubbock, TX
2002	Katherine Sorel, Mary McDowell Center, Brooklyn, NY
2001	Debbie Harris, Shadowbriar School, Houston, TX
2000	Charlene Counsell, Central E.S., LaGrande, OR
1999	Alan Roth, Washington State School for the Blind
1998	Don Berthiaume, H.S. Biology, Biddeford, ME Pattyanne Corsentino, Place M.S., Denver. CO (merit)

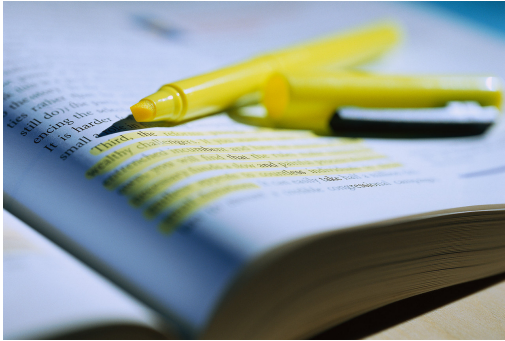
The recipient will be recognized at the annual National Science Teachers Association Convention in 2007 (St. Louis, MO) and will receive a \$1,000 award to be applied to travel expenses for the conference.

To receive an application, please contact Sami Kahn, Awards Chair, at samkn@aol.com. Applications are due on January 19, 2007.

Sponsored by RASEM (Regional Alliance for Science, Engineering, and Mathematics for Students with Disabilities) New Mexico State University and SESD (Science Education for Students with Disabilities).

Science is Not a Reading Subject

The following is an excerpt from the October 31, 2006 entry in the "Science For All" blog, a site for the exchange of ideas regarding the state of science education, created by John Stiles:



It's amazing how many teachers and administrators actually think that they are "teaching" science to kids by having students read science texts or trade books, followed by information gathering (usually searching for terms in the chapter) and almost always terminating the "unit" with a multiple choice quiz.

Science is not information. It is about finding the answers to questions about the natural world through

investigations in which learners are creatively engaged. Science is not about finding the right answer; it is about being skeptical, making observations, explaining what one has found, and comparing this knowledge to that of scientists, all the while understanding that science is tentative, and that the knowledge base is in constant flux.

I was absolutely flabbergasted when my daughter's biology "teacher" spent day after agonizing day having students read from the text, complete photocopied packets of worksheets, and take chapter tests, all year!

The administration should be ashamed for supporting such poor science education. Our kids deserve a lot better, and our future depends upon finding and keeping teachers of science who understand the importance of developing creative thinkers and problem solvers, and do it in such a way that is supported by best practice research. Parents should demand it.

- John Stiles

For more information, please visit "Science For All" at <http://sciencefor.blogspot.com>.

PROJECT "CLASS" Creating Laboratory Access for Science Students



Current education reform efforts encourage women and minorities pursue careers in Science, Technology, Engineering, and Mathematics (STEM) fields. According to an article by Suzanne K. Lunsford and Mary Ellen Bargerhuff of Wright State University, "efforts to encourage students with physical and learning disabilities [into science] are far less common."

A program known as "Project CLASS" (Creating Laboratory Access for Science Students), seeks to remedy this trend and focuses on providing students with disabilities gain laboratory exposure and experience, and to motivate them to pursue careers in science. Project CLASS' main approach is through two-week collaborative professional development summer workshops.

Week one focuses on disability awareness and sensitivity for educators. Middle and High School

students, all with disabilities, join the educators in week two. Together, they "engage in hands-on, inquiry-based laboratory and field exercises." Teachers create an action plan specific to their home schools after each activity and receive feedback from the CLASS team.

Ninety percent of the participants had little or no formal preparation in how to teach students with disabilities prior to the workshops. Post-surveys show an increase in the willingness to teach students with disabilities who choose science as a career.

There are more than 6 million students with disabilities in grades K-12, according to the U.S. Department of Education, and they represent an untapped source of potential scientists. It is vital that they do not go unnoticed.

- Sabira Mohamed

Lunsford, Suzanne K. and Mary Ellen Bargerhuff. "A Project to Make the Laboratory More Accessible to Students with Disabilities," *Journal of Chemical Education*, Vol. 83, March 2006.

Supporting Students with Learning Disabilities in High School Science

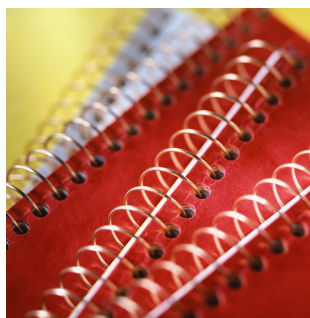
The Education Development Center, Inc. (EDC) has published a new web resource for science and special educators supporting students with LD in high school science. Designed primarily for science teachers and administrators, the site highlights research and practice in the field of special education as it is being applied to teaching and learning science at the high school level.

Check out their website at:

<http://cse.edc.org/products/supportingStudentsLD/default.asp>

A Resource of the Center for Science Education at EDC		More Resources & Publications CSE Home	
		Supporting Students with Learning Disabilities in High School Science	
		A Resource for General and Special Education Teachers and Administrators	
<i>This product is best viewed using Microsoft Explorer.</i>			
Home	This resource has been developed to highlight the work of researchers and practitioners who are developing models, programs, and technologies to make high school science more accessible to students with learning disabilities.		
Introduction	Our primary audience for this resource is regular and special education teachers and administrators who are developing their own schoolwide or districtwide programs to support students with learning disabilities in high school science, and who want to know what is already out there and where they can see it. Thus, to the extent that we could, we have indicated where this work can be seen in action.		
Key Researchers in the Field	The sections of this resource include:		
Universal Design for Learning	<ul style="list-style-type: none">• Introduction• Key Researchers in the Field• Universal Design for Learning• Instructional Models and Strategies• Technology Tools for Students• Regional Alliances for STEM• Related Links and Additional Resources		
Instructional Models and Strategies			
Technology Tools for Students			
Regional Alliances for STEM			
Related Links and Additional Resources			

Journal of Science Education for Students with Disabilities CALL FOR PAPERS



With the upcoming issue of the Journal of Science Education for Students with Disabilities (JSESD) soon to be released, we invite you to submit manuscripts and reviews.

The JSESD is published by SESD and is dedicated to addressing science issues for persons with disabilities, especially those in educational settings. 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.

More information can be found on the SESD website at <http://www.sesd.info/journal>. JSESD back issues are also available online.

Send manuscripts and reviews to:

Dr. Larry Quinsland
1250 Telephone Road
Rush, NY 14543
E-mail: LKQ9999@rit.edu

SUBMISSION GUIDELINES:

- APA style
- Double-space with wide margins
- Submit three (3) copies of the manuscript (if printed)

If accepted, contributors will be asked to send manuscripts on disk, using either Microsoft Work (Macintosh preferred) or Word Perfect 5.1 (IBM).

The cover page should include:

- Title
- Author
- Author's position
- Author's address
- Date
- A running head
- A one-paragraph abstract

2007-2008 SEDS Directory

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SESD Membership Application

SESD is open to teachers, administrators, parents or anyone else interested in science education for students with disabilities. Benefits of membership include a subscription to the Newsletter, published semi-annually, information regarding the annual SESD meeting, an annual journal (Journal of Science Education for Students with Disabilities), and a member directory. To join SESD, please complete and return the form below with your dues to:

David Bartlett, SESD Treasurer
225 North Ely Drive
Northville, MI 48167

Name: _____ Telephone: _____

Position: _____ E-mail address: _____

Institution: _____

Mailing Address: _____

City/ State/ Zip Code: _____

√Committee Interest:

Membership Convention Award Listserv/web Bid Update Newsletter

Dues*:

\$10.00 for Indiv. Or Library Overseas Members \$16.00 \$5.00 Students Dues: _____

Enclosed: _____

*Dues cover one year of membership benefits starting April 1 to March 31 of the next year. Check your mailing label for your renewal date.