

**Sandy Buczynski, Ph.D.**  
Associate Professor  
University of San Diego  
School of Leadership and Education Sciences  
5998 Alcalá Park  
San Diego, CA 92110-2492

---

Phone: (619) 260-7991

Fax: (619) 849-8159

e-mail: [sandyb@sandiego.edu](mailto:sandyb@sandiego.edu)

---

---

### EDUCATION

---

- Ph.D.** UNIVERSITY OF HAWAI‘I, Manoa  
**Doctor of Philosophy, 2002** Teacher Education and Curriculum Studies: Cognate in Educational Technology  
*Dissertation: A Qualitative Study of the Epistemologies and Pedagogies of Environmental Practitioners in Maui, Hawai‘i*  
Committee Chair: Dr. Joseph Tobin
- M.P.H.** UNIVERSITY OF TEXAS, School of Public Health, Houston  
**Master of Public Health, 1977**  
*Thesis: A descriptive study of the population distributions of selected biochemical measurements in a random sample of adolescents and adults*
- B.A.** UNIVERSITY OF TEXAS, Austin  
**Bachelor of Arts in Biology with Honors, 1973**
- Science Credential** UNIVERSITY OF HOUSTON, Houston  
**Teaching Certification, 1978:** Science Composite

---

### PROFESSIONAL EXPERIENCE

---

- 2009 - Present **Associate Professor**  
**University of San Diego, School of Leadership and Education Sciences**
- 2011-2012 Coordinator, Master’s Credential Cohort (secondary)
  - 2004-2010 Coordinator, Math, Science and Technology Education Program
- 2002-2009 **Assistant Professor**
- 2004-2005, 2008 Coordinator, Curriculum and Teaching program
  - 2008-2009 Coordinator, Single Subject Credential Program
- Courses taught:
- |                    |   |
|--------------------|---|
| Undergraduate..... | EDUC 332/532 Curriculum and Methods of Teaching |
|                    | EDUC 314/514 Instructional Technology           |
|                    | EDUC 101 Introduction to Teaching               |
| Graduate.....      | EDUC 535/571 Curriculum Design and Evaluation   |
|                    | EDUC 536 Curricular Innovations                 |
|                    | EDUC 538 Instructional Theories and Practices   |
|                    | EDUC 527 Advanced Secondary Pedagogies          |
|                    | EDUC 579 Planning and preparing an e-Folio      |
|                    | EDUC 579 Inquiry Learning Seminar I and II      |

EDUC 570	Contemporary Issues and Trends in Math, Science and Technology Education
EDUC 574	Pedagogical Processes for Science Educators
EDUC 576	Advanced Seminar in Science
EDUC 580	Capstone Action Research Seminar
EDUC 500	Research Design and Methodology
EDUC 567	Student Teaching Seminar
EDUC 508e	Artistic Modeling and Representation in Science and Mathematics education

1988 - 2002 **Science Department Chair, Seabury Hall**

- 6-12 Science teacher
- Budgeting and program evaluation
- Curriculum and staff development
- Strategic planning
- National Tandy Technology Scholar (1994)
- Master teacher (1996)

Courses taught:

Middle School...Tides and Tentacles (Marine Biology)  
 Blood and Guts (Anatomy & Physiology)  
 Gee Whiz (Chemistry)  
 Life Science, 7<sup>th</sup> grade

High School.....Honors Biology, 9<sup>th</sup> grade  
 Biology I, 10<sup>th</sup> grade  
 A.P. Biology, 11<sup>th</sup> – 12<sup>th</sup> grade  
 A.P. Environmental Science, 11<sup>th</sup> – 12<sup>th</sup> grade

1996 - 1998 **Graduate Assistant, University of Hawai'i, Manoa**

- Field supervision for student teachers in science
- Teaching assistant science education course
- Board member College of Education Doctoral Student Association

1992 - 1997 **Educational Testing Service**

- Reader: A.P. Biology National Exams
- Faculty Consultant and A.P. Biology workshop presenter

1979 - 1988 **Elsik South High School, Houston Texas**

Alief Independent School District, Grades 9 - 12

Courses Taught:

High School.....Biology I, 9<sup>th</sup>-10<sup>th</sup> grade  
 Biology II, 10<sup>th</sup> - 11<sup>th</sup> grade  
 A.P. Biology, 12<sup>th</sup> grade

1974 - 1978 **Baylor College of Medicine, Houston, Texas**

- Research Technician: Clinical Laboratory for Lipid Analysis
- Phlebotomist on the service of Dr. Michael DeBakey

## PUBLICATIONS

---

### Books:

- Buczynski, S., Hansen, B. & Plunkett, K. (2015, in progress). *Curriculum and teaching for the 21<sup>st</sup> century*. San Diego, CA: Bridgepoint Education.
- Buczynski, S. (2014). *Information explorer junior: Designing a winning science fair project*. Ann Arbor, MI: Cherry Lake Publishing.
- Buczynski, S. & Hansen, B. (2014). *The change leader in education: Roles and strategies in the differentiated environment*. San Diego, CA: Bridgepoint Education.
- Buczynski, S. (2011). *Super smart information strategies: Get ready for a winning science project*. Ann Arbor, MI: Cherry Lake Publishing.
- Buczynski, S. & Fontichiaro, K. (2009). *Story starters and science notebooking: Developing children's thinking through literacy and inquiry*. Westport, Conn: Teacher Ideas Press.

### Refereed Articles:

- Hansen, B. & Buczynski, S. (2013). The teaching of inquiry-based science in elementary classrooms: A bi-national comparative reflection of U.S. and Lithuanian practices. *International Journal of Higher Education*, 2(3), 41-54.
- Buczynski, S., Ireland, K., Reed, S. & Lacanienta, E. (2012). Communicating science understanding through art: 21<sup>st</sup> century skills in practice. *Science Scope*, 35(9), 29-35.
- Buczynski, S., Gorsky, J., McGrath, L. & Myers, P. (2011). Sift like Eratosthenes. *Teaching Children Mathematics*, 18(2), 110-118.
- Inoue, N. & Buczynski, S. (2011). You asked open-ended questions, and now what?: Understanding stumbling blocks in inquiry-based lessons. *The Mathematics Educator*, 20(2), 10-23.
- Buczynski, S. & Hansen, B. (2010). Impact of professional development on teacher practice: Uncovering connections. *Teaching and Teacher Education*, 26(3), 599-607.
- Buczynski, S., Lattimer, H., Inoue, N. & Alexandrowicz, V. (2010). Developing a policy for an international experience requirement in a graduate teacher education program: A cautionary tale. *Teaching Education*, 21(1), 33-46.
- Reprinted** as Chapter 4 in *Internationalization of teacher education: Creating globally competent teacher and teacher educators for the 21<sup>st</sup> century*. (Reyes Quezada, Ed.) (2012), pp. 33-46. New York, NY: Routledge.
- Buczynski, S. (2009). 10 tips for providing formative feedback. *Phi Delta Kappan International's electronic Classroom Tips*, Posted October 15, 2009

[http://www.pdkmembers.org/members\\_online/members/sample\\_menu.asp?&member\\_yn=1&af=PDK](http://www.pdkmembers.org/members_online/members/sample_menu.asp?&member_yn=1&af=PDK)

- Buczynski, S. & Sisserson, K. (2008). School district and university co-teaching: Toward instructional synergy in an induction/M.Ed. program. *Issues in Teacher Education*, 17(1), 47-74.
- Buczynski, S., Garcia, S., & Lacanienta, E. (2007). Using Japanese lesson design to anticipate an ant invasion on Maui. *The Science Teacher*, 74(8), 49-54.
- Buczynski, S. (2007). Weed Warriors. *Science Activities*, 44(1), 23-32.
- Buczynski, S. (2007). Making the most of limited lab facilities. *Science Scope*, 30(6), 60-62.  
**Reprinted** as Chapter 9 in *The Frugal Science Teacher, 6-9: Strategies and Activities* (Linda Froschauer, Ed.) (2010). Arlington, VA: NSTA Press.
- Buczynski, S. (2006). What's hot? What's not? Goldilocks investigates temperature and heat. *Science & Children*, 44(2), 25-29.  
**Reprinted** in *Readings in Science Methods K-8* (Eric Brunzell, Ed.) (2008). Arlington, VA: NSTA Press.
- Buczynski, S. (2006). Eggheads: Pioneers of genetics. *Science Scope*, 29(6), 52-55.
- Buczynski, S. (2004). Hawaiian Legacy: *Malama i ka 'aina*. *Connect*, 18(2), 4-7.
- Buczynski, S., & Garcia, S. (2003). Mosquitoes on Maui: Students conduct research for an island-wide mosquito study. *The Science Teacher*, 70 (5), 32-34.

#### **Invited Articles:**

- Buczynski, S. & Fontichiaro, K. (2013). Classroom Connections: Inquiring minds. *Book Links*, November, 2013, p. 1-5  
Available:  
[http://booklistonline.com/media/booklinks/CommonCorePDFs/booklinks\\_ccss\\_2013\\_11\\_inquiring-minds.pdf](http://booklistonline.com/media/booklinks/CommonCorePDFs/booklinks_ccss_2013_11_inquiring-minds.pdf)
- Buczynski, S. (2009, October). A meeting of the minds leads to publication. *American Professional Partnership for Lithuanian Education (A.P.P.L.E.): report to the corps*, 19(2), 1.
- Buczynski, S. & Fontichiaro, K. (2009). Science notebooking in action: Where does condensation come from? *School Library Media Activities Monthly*, 25(7), 12-14.
- Fontichiaro, K., & Buczynski, S. (2009). Connecting science notebooking to the elementary library media center. *School Library Media Activities Monthly*, 25(7), 24-27.
- Fontichiaro, K., Pascaretti, V., & Buczynski, S. (2009). Science notebooking in the library media center: Alternative energy. *School Library Media Activities Monthly*, 25(7), 14-16.
- Buczynski, S. (2006). Preparing to teach Math and Science: Challenges and Opportunities. *First Criterion*, XIV(1), 15-19.

Buczynski, S. (2005, October). Promoting sustainable education: Lithuanian elementary science strand. American Professional Partnership for Lithuanian Education (A.P.P.L.E.) newsletter

**Other scholarly works:**

Mobile Technology Learning Center (2014). Coronado Unified School District: 21<sup>st</sup> Century learning research study, 2012-2013. San Diego, CA: University of San Diego.

Buczynski, S. 2012. SciPack: Hereditary and Variation. National Science Teachers Association's Learning Lab.

Buczynski, S. 2011. Lesson Plans for SciPack: Chemical Reactions in Cells. National Science Teachers Association's Learning Lab.

Buczynski, S. 2010. Testbank to accompany Berg, L. Visualizing Environmental Science. Hoboken: Wiley & Sons.

Buczynski, S. 2010. Pre-Post testbank to accompany Ireland, K. Visualizing Human Biology. Hoboken: Wiley & Sons.

Buczynski, S. 2010. Powerpoint shows to accompany Ireland, K. Visualizing Human Biology. Hoboken: Wiley & Sons.

Buczynski, S. 2007. Instructor's end of chapter question guide to accompany Botkin, D. & Keller, E. *Environmental Science*. Hoboken: Wiley and Sons.

Buczynski, S. 2007. Testbank to accompany Botkin, D. & Keller, E. *Environmental Science: Earth as a Living Planet*. Hoboken: Wiley and Sons.

Buczynski, S. & Steehler, G. 2006. *Instructor's Manual* to accompany Trefil, J. & Hazen, R. *The Sciences: An Integrated Approach*. Hoboken: Wiley & Sons.

Buczynski, S. 2005. Testbank to accompany Raven, P. & Berg, L. *Environment*. Hoboken: Wiley and Sons.

---

**CONFERENCE PRESENTATIONS**

---

**Refereed:**

Buczynski, S. (2014, spring). Moving from STEM to STEAM in the 21<sup>st</sup> century. National Science Teachers Association (NSTA), Boston, MA.

Quezada, R. & Buczynski, S. (2012, spring). Assessing International Experiences: Are we making a mistake overlooking critical reflection? American Educational Research Association (AERA), Vancouver, Canada.

Buczynski, S. (2012, spring). It is not easy seeing green. National Science Teachers Association (NSTA), Indianapolis, IN

Quezada, R. & Buczynski, S. (2011, fall). Internationalization requirement experiences

of graduate education students: Do they meet the spirit of the policy?  
California Council of Teacher Educators (CCTE), San Diego, CA.

Quezada, R. & Buczynski, S. (2011, summer). International requirement experiences of education graduate students: What do they tell us?. International Council on Education for Teaching (ICET), Glasgow, Scotland.

Buczynski, S. & Quezada, R. (2011, summer). Internationalizing a teacher education preparation and graduate education program: Lessons learned. International Council on Education for Teaching (ICET), Glasgow, Scotland.

Buczynski, S. & Trueblood, S. (2011, Spring). National Park Preservation Interdisciplinary Project. National Science Teachers Association (NSTA), San Francisco, CA.

Buczynski, S. (2010, Spring). Developing children's thinking through literacy and inquiry. National Science Teachers Association (NSTA), Philadelphia, PA

Quezada, R. & Buczynski, S. (2010, Winter). Internationalizing Teacher Preparation and Graduate Education Programs: Faculty Discussions and Implementation Process. The Association of Teacher Educators (ATE), Chicago, IL.

Buczynski, S. & Quezada, R. (2010, Winter). Internationalizing graduate Education Program: Lessons Learned. World Federation of Associations for Teacher Education (WFATE), Chicago, IL.

Buczynski, S., Lacanienta, E. & Garcia, S. (2008, Spring). Little fire ant alert on Maui. National Science Teachers Association (NSTA), Boston, MA.

Buczynski, S., (2008, Winter). A longitudinal study of science based professional development for elementary teachers. Association of Science Teacher Educators (ASTE), St. Louis, MO.

Buczynski, S. & Hansen, B. (2007, Spring). Tracing inquiry and classroom pedagogy in grade 4-6 science classrooms. American Educational Research Association (AERA), Chicago, IL.

Buczynski, S. (2007, Winter). Tracing inquiry pedagogy in grade 4-6 science classrooms. Association of Science Teacher Educators (ASTE), Clearwater, FL.

Buczynski, S. (2006, Summer). Using Children's Literature to develop critical thinking skills. American Association for the Advancement of Science, Pacific Division (AAASPD), Closing Speaker, San Diego, CA.

Buczynski, S., Goessling, C. (2006, Spring). No lab space, no problem. National Science Teachers' Association (NSTA), Anaheim, CA.

Hansen, B., Buczynski, S., Inoue, N., Sisserson, K. & Dantus, M. (2006, Winter). Stories of 21st Century International School Reforms: Implications for US Educators. American Association for Colleges of Teacher Education (AACTE), San Diego, CA.

Hansen, B., Buczynski, S., Inoue, N., Meyers, P., McGrath, L., Siefert, L. (2005,

Spring). Shared Insights from University Math Education Study Group.  
National Council of Teachers of Mathematics (NCTM), Anaheim, CA.

Hubbard, L., Buczynski, S., Gelb, S., Schlinder, B., True, M. (2005, Winter).  
University / School Partnerships. American Association for Colleges of Teacher  
Education (AACTE), Washington, D.C.

Buczynski, S. (2005, Winter). "Stuff I saying is not in school": A study of teaching  
local environmental knowledge in Hawai'i. Association for the Education of  
Teachers in Science (AETS). Colorado Springs, CO.

**Non-refereed:**

Buczynski, S. (2005, Fall). Let's get physical: Hula. Healthy Girls Healthy Lives  
Symposium, San Diego-Imperial Council Girl Scouts. San Diego, CA.

Buczynski, S., DeaMude, Angela, and Goessling, Christine (2004, Spring).  
Celebrate the Day: Teaching science with holiday themes. San Diego Science  
Educator's Association Conference (SDSEA), San Diego, CA.

**AWARDS and RECOGNITION**

---

- 2014 San Diego County Parks Society Achievement Award, Full STEAM ahead  
after school program, City of Escondido
- 2009 Tenure, University of San Diego
- 1996 Master Teacher as awarded by Seabury Hall
- 1994 Tandy Technology Scholar as awarded by Tandy Corporation/Radio Shack
- 1994 Warren E. Schull Adviser of the Year as awarded by the National Association of  
Secondary School Principals

**GRANTS**

---

**EXTERNAL**

**\$477,000.**

**Awarded 7/09**

Talley, D., Buczynski, S., Gray, S. & Yin, Z.  
Opportunities for Enhancing Diversity in the Geosciences (OEDG)  
Funded by: National Science Foundation (NSF)

**\$889,335.**

**Awarded 7/06**

Buczynski, S. & Myers, P. (Co-principal investigators)  
Inquiry Learning Partnership July 2006 – August 2008.  
Re-funded by: California Mathematics and Science Partnership  
(CaMSP)

**\$994,651.**

**Awarded 1/05**

Buczynski, S. & Myers, P. (Co-principal investigators)  
Inquiry Learning Partnership November 2004 – September 2006  
Funded by: California Mathematics and Science Partnership (CaMSP)

**INTERNAL**

**iPads**

fall 2013

spring 2014

Buczynski, S.  
iPad Classroom Project  
Submitted to: USD Academic Technology Services

**\$500.**

Buczynski, S.

<b>Awarded 10/11</b>	Enhanced student faculty interaction fund to support 2012 action research conference. Submitted to: USD Provost's office
<b>\$850. Awarded 5/11</b>	Buczynski, S. International Opportunity grant for conference presentation in Scotland Submitted to: USD International Council
<b>\$860. Awarded 04/09</b>	Buczynski, S. International Opportunity grant for study in Lithuania Submitted to: USD International Council
<b>\$500. Awarded 08/07</b>	Buczynski, S. International Opportunity grant for study in Lithuania Submitted to: USD International Council
<b>\$500. Awarded 02/07</b>	Buczynski, S. Enhanced student faculty interaction fund to support 2007 Bi-national Action Research Symposium Submitted to: USD Provost's office
<b>\$1,500. Awarded 09/06</b>	Buczynski, S. International Opportunity Grant for CIEE program in India Submitted to: USD International Council

#### **Grant Review Panel Member**

2006, 2008	National Science Foundation (NSF) Informal Science Education Program, Technology
2006	California Department of Education California Math and Science Partnerships (CaMSP) Cohort 3

---

#### **REVIEWS and ADVISORY BOARDS**

2014	Reviewer for <i>Urban Education</i>
2012-2013	Reviewer for <i>Multicultural Education Journal</i>
2011-2012	Member, Magnolia Charter Schools' Credential Advisory Board
2011- 2012	Chair, <i>Science Scope</i> Advisory Board
2010 – 2013	Member of <i>Science Scope</i> Advisory Board
2010 – 2013	Member of Ocean Discovery Institute's Advisory Board
2010 -2013	Reviewer for <i>Asia Pacific Education Review</i> (APER)
2008 - 2012	Reviewer for <i>Issues in Teacher Education</i> (ITE)
2003 - 2006	Reviewer for <i>Journal of Research in Science Teaching</i> (JRST)
2003 – 2006	Reviewer for <i>American Educational Research Journal</i> (AERJ)
2003 - 2014	Reviewer for CHOICE (Current reviews for academic libraries)
2010 – 2014	Reviewer for <i>Science Scope</i>

---

#### **SERVICE**

<b>International</b>	
2005, 2007, 2009	• American Professional Partnership for Lithuanian Education (A.P.P.L.E.) Instructor for two-week summer institute for elementary science teachers



## **National**

- 2012 • Judge, Disney's Planet Challenge
- 2008-2009 • Co-chair AERA Science Teaching and Learning SIG
- 2009 • Chair AERA session: Identifying Effective Reform-Based Strategies for Improving Student Performance.
- 2006 • Montana State University Biotechnology Frontier Program Teacher
- 2005 • Assessment Evaluator: University of Louisville Center for Research in Mathematics and Science Teacher Development's (CRMSTD)
- 2004 • Co-director of the Third Annual American Association for the Advancement of Curriculum Studies (AAACS) Conference held at the University of San Diego

## **Community**

- 2013-2014 • Chair, Academic Committee, Nativity Preparatory Academy
- 2009-2014 • Member Board of Trustees, Nativity Preparatory Academy
- 2011-2012 • Member, Credential Advisory Board of Magnolia Charter Schools
- 2011-2012 • Liaison with Leonardo daVinci Health Sciences Charter School
- 2010 -2013 • Member of Advisory Board, Ocean Discovery Institute
- 2008-2009 • Instructional editor, Environmental Education Initiative (EEI) Curriculum
- 2003-2008 • Member, Board of Directors for non-profit: *Halau Hula O Ka 'eo*
- 2003-2014 • Member of Scholarship Panel: Rueben H. Fleet Science Center as administered by the San Diego Foundation

## **University of San Diego**

- 2014 • iPad Classroom Project Panelist for the Technology Showcase
- 2011-2014 • Member, Institutional Review Board (IRB)
- 2002-2008 • Teacher Education Council (TEC)
- 2002-2007 • Teacher Education Group (TEG)
- 2006 • Math Camp Faculty
- 2002-2004 • Faculty Senate Committee: Honorary Degrees
- 2002-2003 • Academic Integrity Committee

## **SOLES**

- 2014 Faculty Marshall for Graduation
- 2012-2013 Member, Action Research Committee
- 2011-2012 Co-Director, 9<sup>th</sup> Annual Action Research Conference
- 2010-2011 Member, L & T Admissions Committee
- 2010-2011 Member, NCATE, Standard 1 Committee
- 2010-2011 Member, Credential Committee
- 2009 Discussant, Action Research Symposium
- 2009 Facilitator, Learning and Teaching's Internationalization of the Curriculum  
Workshop sponsored by Longview Foundation
- 2008-2009 Search Committee Member, Educational Technology position
- 2008-2009 Member L & T admissions committee for MSTE and single subject candidates
- 2006-2009 Action Research Symposium Planning Committee
- 2008 Science classroom evaluator: Nativity Prep Academy
- 2006-2009 Activities Chair, Phi Delta Kappa
- 2007- 2009 Member of Planning Committee, Action Research Symposium
- 2007 Discussant, USD Action Research Symposium
- 2007-2008 Liaison with Educational Leadership Development Academy for Spotlight  
Speakers series on Math and Science Education
- 2006-2009 Faculty representative for Prospective Students' Lunch with Faculty Day

2006-2007 Faculty representative, San Diego Secondary Teacher Recruitment Fair  
Curriculum & Teaching redesign *ad hoc* committee

### **LEARNING & TEACHING**

2013 Chair, On-line M.Ed. Coordinator Search Committee  
2011-2012 Program Coordinator, Secondary Master's Cohort Credential (MCC)  
2011-2012 Member, Course Budget Committee  
2011-2012 Chair, Ad hoc International Requirement Committee

---

### **OTHER PROFESSIONAL SERVICE**

---

#### **Educational Consultant:**

2012-2013 •Assessment writer: A Pass Educational Group  
2012 •Author: National Science Teachers Association (NSTA) Variation and Heredity  
SciPack  
2010-2011 •Curriculum Designer: National Science Teachers Association (NSTA) SciPacks  
•Grant writer: California Math Science Partnership (CaMSP) for Fresno Pacific  
University/ Burton School District, 2011; Investing in Innovation (i3) for  
Corinth School District, Mississippi, 2011; Tobacco-Use Prevention Education  
Program for East Side School District, San Jose, CA, 2009; Arts in Education  
Model Development and Dissemination for San Marcos School District, CA,  
2009  
•Reviewer, Lombardi, J. *Guide to performance assessment for California  
teachers (PACT)*. Pearson Allyn & Bacon  
2008-2009 • curriculum reviewer, State Education & Environment Roundtable  
(<http://www.seer.org>) environmental education

---

### **ACCREDITATION & CREDENTIALING EXPERIENCE**

---

2009- 2014 Performance Assessment for California Teachers (PACT) scorer  
2008 Chair, Standard 6, California Commission on Teacher Credentialing Standards  
Review  
2003-2004 SOLES Co-chair of Standard One for National College Accreditation Teacher  
Educators (NCATE)  
2003 Appointment to California Commission on Teacher Credentialing, Science  
Standard Setting Panel for the Biology and Specialized Science exams. Assist in  
the development of the passing criteria on the science exams for the California  
Subject Examination for Teachers (CSET™)  
1999 & 2002 Team member for WASC: Accrediting Commission for Schools to Maui  
High School.

---

### **PROFESSIONAL AFFILIATIONS**

---

- American Educational Research Association (AERA)
- National Science Teachers' Association (NSTA)
- National Association of Research in Science Teaching (NARST)
- Association of Science Teacher Educators (ASTE)

- California Science Teachers' Association (CSTA)
- International Council on Education for Teaching (ICET)
- Computer-Using Educators (CUE)
- Collaborative Action Research Network (CARN)