

Curriculum Vita

Rola Khishfe

Personal Information

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Education

2004	Ph.D.	Illinois Institute of Technology, Chicago, IL Science Education
1999	M.A.	American University of Beirut, Beirut, Lebanon, Science Education
1995	T.D.	American University of Beirut, Beirut, Lebanon, Certification in Teaching Secondary Science
1992	B.Sc.	American University of Beirut, Beirut, Lebanon, Biology

Academic Appointments

Teaching

Fall '09/10-present

Assistant Professor, American University of Beirut

Teaching graduate and undergraduate courses:
The Teaching of Science in Elementary School
Foundations of Science Education

Fall '04-Spring '09

Assistant Professor, Loyola University Chicago

Teaching graduate and undergraduate courses:
Secondary Methods: Science
Teaching Elementary School Science
Teaching Science at the Middle School

Research in Science Education

Spring '02- Fall '03

Instructor, Illinois Institute of Technology

Taught graduate and undergraduate courses:

Science/Mathematics Curriculum

Analysis of Classrooms

Fall '00

Instructor, Newport University, Lebanon Study Center

Taught an undergraduate course:

General Science

9/99-7/00

Teacher, Al-Bayader School, Lebanon

Taught Biology for experimental science class

9/95 - 6/00

Teacher, Beirut Baptist School, Lebanon

Taught science for elementary and intermediate classes

9/94 - 6/95

Teacher, Greenfield College, Lebanon

Taught chemistry for secondary classes and science for elementary classes.

Research

9/02-7/04

**Graduate Assistant, Mathematics & Science Education
Department, Illinois Institute of Technology.**

Responsibilities included conducting workshops for science teachers participating in the ICAN (Inquiry, Context, and Nature of Science) project, whose aim is to promote teachers' and students' conceptions of nature of science. This included interviewing and observing these teachers and analyzing the generated data for this project.

9/01- 9/02

**Graduate Assistant, Mathematics & Science Education
Department, Illinois Institute of Technology.**

Responsibilities included participating in the design of the preservice, master, and doctoral programs.

9/00- 7/01

**Research Assistant, Science & Mathematics Education
Department, Oregon State University, Corvallis, Oregon.**

Responsibilities include interviewing and observing science teachers and the analysis of generated data for the ICAN project on promoting teachers' and students' conceptions of nature of science

2/99 - 8/00

Research Assistant, Science & Mathematics

Education Center (SMEC), American University of Beirut, Beirut, Lebanon. Worked on two research projects:
“Do students’ views of nature of science influence their conceptual understandings of science content?”
“The development of Lebanese students’ conceptions of nature of science in the middle and high school years.” ___

Other Professional Experience

- 12/01-6/04 **Evaluator, YWLCS Science Curriculum.** Responsibilities include classroom observations, examination of lesson plans, and collaborating with the evaluation team about related issues.
- 2002 **Test Item Writer, Teacher Academy Math and Science (TAMS).** Designed test items for science tests

Publications

- Khishfe, R. (in review). Students’ views of nature of science and their science content knowledge. *International Journal of Science Education*
- Khishfe, R. (in review). Relationship between nature of science and argumentation skills. *Journal of Research in Science Teaching*
- Khishfe, R. (2008). The development of seventh graders’ views of nature of science. *Journal of Research in Science Teaching, 45(4), 470-496.*
- Khishfe, R. & Lederman, N. (2007). Relationship between instructional context and understandings of nature of science. *International Journal of Science Education, 29(8), 939-961.*
- Khishfe, R. & Lederman, N. (2006). Teaching nature of science within a controversial topic: Integrated versus nonintegrated. *Journal of Research in Science Teaching, 43(4), 377-394.*
- Khishfe, R. & Abd-El-Khalick, F. (2002). The influence of explicit and reflective versus implicit inquiry-oriented instruction on sixth graders’ views of nature of science. *Journal of Research in Science Teaching, 39(7), 551-578.*

Research Papers and Presentations

- Khishfe, R. (2009). Relationship between Nature of Science and Argumentation Skills. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), Garden Grove, CA.
- Khishfe, R. (2009). Nature of Science and Argumentation Skills. Paper presented at the annual meeting of the American Educational Research Association (AERA), San Diego, CA.
- Khishfe, R. (2007). Relationship between preservice teachers' nature of science understandings and argumentation skills. Paper presented at the fifth annual meeting of the International Conference on Education, Honolulu, Hawaii.
- Khishfe, R. (2006). Development of Controversial Socioscientific Issues Questionnaire (CSI). Paper presented at the annual meeting of the American Educational Research Association (AERA), San Francisco, CA.
- Khishfe, R. (2006). Relationship between nature of science and decision making on socioscientific issues. Paper presented at the annual meeting of the American Educational Research Association (AERA), San Francisco, CA.
- Khishfe, R. (2006). Development of a decision making instrument addressing controversial socioscientific issues. Paper was presented at the annual meeting of the National Association for Research in Science Teaching (NARST), San Francisco, CA.
- Khishfe, R. (2006). Influence of nature of science instruction on students' decision making. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), San Francisco, CA.
- Khishfe, R. & Lederman, N. (2005). Improving students' understandings of nature of science: Explicit reflective contexts. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), Dallas, TX.
- Khishfe, R. & Lederman, N. (2005). Interaction between science content and nature of science. Paper presented at the annual meeting of the Association for the Education of Teachers of Science (AETS), Colorado Springs, CO.
- Khishfe, R. & Lederman, N. (2005). Learning nature of science by analogical transfer. Paper presented at the annual meeting of the American Educational Research Association (AERA), Montreal, Canada.
- Khishfe, R. & Lederman, N. (2004). Integrated vs. nonintegrated teaching of NOS: Does it make a difference? Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), Vancouver, Canada.

- Khishfe, R. & Lederman, N. (2004). Relationship between nature of science activities and science content. Paper presented at the annual meeting of the School Science and Mathematics Association (SSMA), Atlanta, GA.
- Khishfe, R. & Lederman, N. (2004). The influence of the context and sequence of teaching NOS on students' NOS views. Paper presented at the annual meeting of the American Educational Research Association (AERA), San Diego, CA.
- Khishfe, R. & Lederman, N. (2004). The influence of three explicit NOS instructional approaches on students' views of NOS. Paper presented at the annual meeting of the Association for the Education of Teachers of Science (AETS), Nashville, TN
- Khishfe, R. & Lederman, N. (2003). The development of students' conceptions of nature of science. Paper presented at the annual meeting of the American Educational Research Association (AERA), Chicago, IL.
- Lederman, N., Lederman, J., Khishfe, R., & Matthews, L. (2003). Inquiry and nature of science: Providing a context for science subject matter. Paper presented at the annual meeting of the American Educational Research Association (AERA), Chicago, IL.
- Lederman, N., Lederman, J., Khishfe, R., Druger, E., Gnoffo, G., & Tantoco, C. (2003). Project ICAN: A multi-layered model of professional development. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), Philadelphia, PA.
- Lederman, N., Abd-El-Khalick, F., Bell, R., Schwartz, R., Lederman, J., & Khishfe, R. (2003). Assessing learners' views of nature of science: Hands-on / Minds-on experiences with the Views of Nature of Science Questionnaire (VNOS). A pre-conference workshop conducted at the annual meeting of the National Association for Research in Science Teaching (NARST), Philadelphia, PA.
- Khishfe, R. & Lederman, N. (2003). Students' conceptions of nature of science: How do they develop? Paper presented at the annual international conference of the Association for the Education of Teachers in Science (AETS), St. Louis, MO.
- Lederman, N., Lederman, J., Khishfe, R., & Matthews, L. (2003). I Can, You Can, We All Can! Paper presented at the annual international conference of the Association for the Education of Teachers in Science (AETS), St. Louis, MO.
- Lederman, N., Sweeney, J., Khishfe, R. & Matthews, L. (2002). Project ICAN: A teacher enhancement project to promote teachers' and students' knowledge of scientific inquiry and nature of science. Paper presented at the western regional meeting of National Science Teachers Association (NSTA), Louisville, Kentucky.

- Lederman, N., Sweeney, J., Khishfe, R. & Matthews, L. (2002). Project ICAN: A teacher enhancement project to promote teachers' and students' knowledge of scientific inquiry and nature of science. Paper presented at the western regional meeting of National Science Teachers Association (NSTA), Portland, OR.
- Khishfe, R. & Lederman, N. (2002). Teaching nature of science to Lebanese students. Paper presented at the annual meeting of the National Association for Research in Science Teaching, New Orleans, LA.
- Lederman, N., Schwartz, R., Khishfe, R., Lederman, J., & Matthews, L. (2002). Project ICAN: A teacher enhancement project to promote teachers' and students' knowledge of scientific inquiry and nature of science. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), New Orleans, LA.
- Schwartz, R., Lederman, N., Dekkers, P., Liu, S., Khishfe, R., Bell, R., & Abd-El-Khalick (2002). International perspectives on research in nature of science: Finding common ground? Paper presented at the annual meeting of the National Association for Research in Science Teaching, New Orleans, LA.
- Wade, P., Lederman, N., Lederman, J., Matthews, L., & Khishfe, R. (2002). Viewing the unviewable: The nature of science, seismology, and earth's interior. Paper presented at the annual international conference of the National Science Teachers Association (NSTA), San Diego, CA.
- Khishfe, R. & Abd-El-Khalick, F. (2002). How to teach nature of science? An explicit inquiry-oriented approach. Paper presented at the annual international conference of the National Science Teachers Association (NSTA), San Diego, CA.
- Khishfe, R. & Abd-El-Khalick, F. (2002). Teaching nature of science: A success story. Paper presented at the annual international conference of the Association for the Education of Teachers in Science (AETS), Charlotte, NC.
- Schwartz, R., Lederman, N., Khishfe, R., Lederman, J., Matthews, L., & Liu, S. (2002). Explicit/ Reflective instructional attention to nature of science and scientific inquiry: Impact on student learning. Paper presented at the annual international conference of the Association for the Education of Teachers in Science (AETS), Charlotte, NC.
- Lederman, N., Schwartz, R., Khishfe, R., Lederman, J., Matthews, L., & Liu, S. (2002). Project ICAN: A professional development program for teachers' knowledge and pedagogy of nature of science and scientific inquiry. Paper presented at the annual international conference of the Association for the Education of Teachers in Science (AETS), Charlotte, NC.
- Khishfe, R. & Abd-El-Khalick, F. (2001). How to teach nature of science to elementary students? An explicit inquiry-oriented approach. Paper presented at the sixth annual

meeting of the International History, Philosophy and Science Teaching Conference (IHPST) Denver, CO.

Lederman, N., Sweeney, J., Khishfe, R. & Matthews, L. (2001). Project ICAN: Inquiry, context, and nature of science. Paper presented at the annual meeting of School Science and Mathematics Association (SSMA), Chicago, IL

Khishfe, R. & Abd-El-Khalick, F. (2000). The influence of explicit reflective versus implicit inquiry-oriented instruction on fifth graders' views of nature of science. Paper presented at the annual meeting of the National Association for Research in Science Teaching, New Orleans, LA.

Abd-El-Khalick, F., & Khishfe, R. (2000). Inquiry instruction and learning about nature of science: The need for an explicit reflective component. Paper presented at the annual meeting of the American Educational Research Association (AERA), New Orleans, LA.

Khishfe, R. & Abd-El-Khalick, F. (2000). Teaching NOS: An explicit inquiry-oriented approach. Paper presented at the fourth Annual Science and Math Teachers Conference (SMEC VI), American University of Beirut, Beirut, Lebanon.

Khishfe, R. (1999). Teaching science by inquiry: A success story. Paper presented at the Third Annual Science and Math Teachers Conference (SMEC III), American University of Beirut, Beirut, Lebanon.

Invited Presentations

May 26, 2006

**Workshop Instructor
Orrington Hotel, Evanston, Illinois**

Conducted a workshop about inquiry teaching and learning for inservice teachers as part of Chicago's High-Need Area Partnership for Teacher Education Recruitment (CHAPTER), which is a teacher education recruitment initiative designed to address the pressing national need for new teachers at the elementary and secondary levels, especially in the area of science education.

January 20, 2006

**Workshop Instructor
Des Plaines Community Consolidated School District, Des Plaines, Illinois.**

Conducted a workshop about inquiry for inservice middle school science teachers from the Des Plaines District

July 18-27, 2005

**Instructor
Loyola University Chicago**

Gave seminars about action research and its implementation for inservice teachers in Chicago Public Schools (CPS).

June 7-10, 2005

Workshop Instructor

Beirut Baptist School in Beirut, Lebanon

Conducted workshops about inquiry and nature of science for inservice science teachers at the elementary, middle and secondary levels.

June 10-13, 2003

Workshop Instructor

Chicago, Illinois

Conducted workshops about inquiry and nature of science for inservice elementary, middle and secondary science teachers

Sept. 11-12, 2000

Workshop Instructor

Armenian Evangelical Schools in Faytroun, Lebanon

Conducted workshops about inquiry-oriented instruction for inservice elementary, middle and secondary science teachers.

Feb. 17, 2001

Workshop Instructor

ICAN Project at Eugene, Oregon

Conducted a workshop about the teaching of nature of science for inservice secondary teachers

Professional Service

4/2006-4/2008

Strand Coordinator

Coordinate the activities for *Strand 7: Preservice Science Teacher Education* at the *National Association for Research in Science Teaching (NARST)*

4/2005-present

Reviewer

Review manuscripts submitted to *Journal of Research in Science Teaching (JRST)*

4/2005-4/2006

Member/ JRST Award Committee

Review and rate papers published in *JRST*

6/2002-4/005

Member/NARST Outstanding Paper Award Committee

Review and rate papers submitted at the annual meeting of *NARST*

2003-2006

Reviewer /Manuscript Review Board

Review manuscripts submitted to *Journal of Science Teacher Education (JSTE)*

2001-2007

Reviewer

Review manuscripts submitted to *School Science and Mathematics (SSM)*

2001-present

Reviewer

Review proposals for the strand *History, Philosophy, and Sociology of Science* submitted for the annual meeting of *NARST*

Awards

Course Reduction Award, Office of Research Services and School of Education Course Reduction Program, Loyola University of Chicago, Awarded Fall 2006.

The Phi Delta Kappa International Loyola University Chicago Chapter Outstanding Doctoral Dissertation Award. Awarded October 26, 2004, Chicago, IL.

The Oregon State University Graduate Student Conference Award for Oral Presentation 2nd Place. Awarded April 9, 2001, Corvallis, OR.

The National Association for Research in Science Teaching (NARST) Outstanding Thesis Award. Awarded April, 2000, New Orleans, LA.

Professional Memberships

National Association for Research in Science Teaching (NARST)
American Educational Research Association (AERA)