

Kathayoon Khalil, Ph.D.

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EDUCATION

- 2010-2014 **Stanford University**, Stanford, California
Graduate School of Education, PhD in Learning Sciences and Technology Design, Curriculum and Teacher Education (Environmental Education)
- 2008–2010 **Yale University**, New Haven, Connecticut
School of Forestry and Environmental Studies, Master of Environmental Science
- 2003–2007 **Claremont McKenna College**, Claremont, California
BA in Organismal Biology and Literature (dual major)

RESEARCH EXPERIENCE

- 2015 **Measuring Empathy Collaborative Assessment Project**, Seattle Aquarium, Seattle, WA. Project lead on study to determine best practices in evaluating feelings of empathy toward animals in informal learning settings. Responsible for developing and pilot testing tools in collaboration with the Woodland Park Zoo and the Point Defiance Zoo and Aquarium.
- 2014 **Girls Learning Environment and Energy**, Stanford University, Stanford, CA. Assisted in content development for a massive open online course (MOOC) designed to teach Girl Scout troop leaders how to implement energy efficiency curriculum. Principal Investigator: Dr. June Flora
- 2013–2014 **Environmental Learning in the Bay Area**, Stanford University, Stanford, CA. Constructed literature reviews on informal learning and environmental behavior, assisted with the development of survey instruments including pilot testing and editing, transcribed recordings from community listening sessions, attended community listening sessions as a recorder and facilitator, contributed to the development of the social network analysis tool and analysis of network data.
Principal Investigator: Dr. Nicole Ardoin
- 2012–2014 **Using Social Network Analysis to Explore Communities of Practice in Zoo and Aquarium Education** (Dissertation Research), Stanford University, Stanford, CA. Conducting semi-structured interviews, participant observations, and a social network analysis to examine how evaluation tools are used and shared within zoos and aquariums nationwide.
Advisor: Dr. Nicole Ardoin
- 2013 **Environmental Education Research Bulletin**, Stanford, CA. Contributing writer for the research bulletin. Reviewed and wrote reports for practitioners on key articles in environmental education.
Project Director: Dr. Nicole Ardoin

- 2012 **Ano Nuevo Tourism Study**, Stanford University, Stanford, CA. Administered surveys to participants in a nature tour at Ano Nuevo State Park. Helped pilot tools for use in future research on nature-based tourism.
Principal Investigator: Dr. Nicole Ardoin
- 2011-2012 **Applying the empowerment evaluation framework to informal environmental education** (Qualifying Paper Research), Oregon Zoo, Portland, OR. Led an empowerment evaluation training for 12 specialists in the summer camp program. Conducted three interviews with each of five specialists to gauge attitudes towards evaluation. Observed evaluation activities in the specialists' respective camps throughout the summer.
Advisor: Dr. Nicole Ardoin
- 2011-2012 **Evaluation of the "Snakes and Lizards" Exhibition**, California Academy of Sciences, San Francisco, CA. Conducted a full evaluation of a traveling exhibition. Developed pre-exhibit and post-exhibit surveys and an observation protocol. Coordinated data collection with Stanford students and CAS docents. Analyzed data and presented findings in a formal report to the institution. Principal Investigator: Dr. Nicole Ardoin
- 2010-2012 **U.S. Department of Energy's Advanced Research Projects Agency-Energy**, Stanford University, Stanford, CA. Research assistant for the Girls Learning Energy & the Environment (GLEE) project. Assisted in curriculum development and teaching for a behavioral intervention staged with Girl Scout troops in the Bay Area on topics including home energy conservation, food, and transportation. Collected and analyzed survey data from 30 Girl Scout troops. Acted as the project manager in absence of the formal project manager. Principal Investigators: Dr. Tom Robinson and Dr. Nicole Ardoin; Advisor: Dr. Hilary Schaffer-Boudet
- 2009-2010 **Kasese Wildlife Conservation Awareness Organization**, Kasese, Uganda via the Oregon Zoo, Portland, OR. Designed an evaluation of existing curriculum for elementary school students. Survey is used by Kasese program staff to determine changes in student knowledge and teacher reactions to conservation education programming.
Advisors: Anne Warner and Asaba Mukobi
- 2009 **Evaluating the impact of zoo education programs in terms of knowledge and attitude change** (Masters Thesis Research), Oregon Zoo, Portland, OR. Designed survey for 4th grade students to determine attitude and knowledge changes on the subject of local and native wildlife for use in the summer camp program. Delivered survey twice a week to 40 campers. Performed interviews on campers and developed embedded assessment activities to gauge student learning throughout the week. Developed a census on zoo camp evaluation programs and distributed census to zoos and aquariums across the country.
Advisor: Dr. Susan G. Clark
- 2008-2009 **Entomology Department Lab Assistant**, Peabody Museum of Natural History, New Haven, CT. Assisted with curatorial duties involving Lepidopterae collection including pinning, electronic museum cataloguing, identification and sorting. Assisted with project on the evolution of butterfly eyespots by coding photographic data.
Advisor: Dr. Lawrence Gall.
- 2008 **Intern to the Executive Director**, Oregon Zoo, Portland, OR. Digitized zoo media for distribution to zoo staff, communicated with the public on behalf of

- the director, identified potential funding sources and attended upper administration meetings on exhibit planning.
Advisor: Tony Vecchio
- 2007 **Animal Behavior Group Research Intern**, Smithsonian National Zoological Park, Washington D.C. Researched abnormal and stereotypic behavior in captive animals. Conducted studies on naked mole rat infanticide. Worked with keepers and enrichment staff to develop enrichment for animals.
Advisor: Dr. Erika Bauer
- 2006-2007 **Senior Thesis Research**, Joint Science Department of the Claremont Colleges, Claremont, CA. Studied temperature preference differences between adult and juvenile desert night lizards under feeding and fasting conditions. Performed captures in the Mojave Desert and experiments in a thermal gradient. Thesis title: "*Postprandial temperature selection in adult and juvenile Xantusia vigilis*"
Advisors: Dr. Diane Thomson, Dr. Marion Preest
- 2006-2007 **Independent Study Research**, Biology Department at Pomona College, Claremont, CA. Discovery and identification of chitin-degrading bacteria in the digestive systems of insectivorous lizards. Collected fecal matter from several lizard species and streaked for aerobic and anaerobic bacterial isolation.
Advisor: Dr. Nancy Hamlett

PROFESSIONAL EXPERIENCE

- 2015 **Principal Evaluator**, Seattle Aquarium. Leads evaluation efforts across the Aquarium, including formative and summative program evaluations and large cross-institutional research projects. Trains and supervises education staff in evaluation efforts and capacity building. Acts the liaison with external evaluators. Collaborates with Marketing and Development departments to share evaluation results.
- 2015-present **Fellow**, Emerging Wildlife Conservation Leaders. Member of the sixth class of the EWCL program, sponsored by U.S. Fish and Wildlife, the International Fund for Animal Welfare, the Houston Zoo, Defenders of Wildlife, White Oak, and the Wildlife Conservation Network. Participating in a two-year international conservation campaign on giraffes in partnership with the Giraffe Conservation Foundation.
- 2014-present **Director of Evaluation**, Natural History Museum of Los Angeles County. Managed formative and summative evaluations for the museum's exhibits and educational programming, including major museum initiatives. Assisted with program and exhibit planning and development.
- 2013-present **Instructor**, Miami University of Ohio, Oxford, Ohio. Facilitated online courses in evolution, biodiversity, professional media, and Earth Expeditions courses in Costa Rica and Baja, California. Mentors students on projects and discussions. Taught course on evaluation via Skype to Advanced Inquiry Program students at the Phoenix Zoo.
- 2013 **Zoo Ambassador Coordinator**, Oregon Zoo, Portland, OR. Acted as the primary contact point for 120 volunteers aged 10 to 90. Assisted with curriculum development for stations centered on environmental behavior.

- Coordinated volunteer assignments and provided training on instructing for behavior change.
- 2013 **Evaluation Consultant.** Coordinate program and exhibit evaluations; conduct professional development courses in evaluation. Conducted the exhibit evaluation for the AZA Exhibit Award recipient, Sea Lion Cove at the Fresno Chaffee Zoo. Other clients include: San Diego Zoo Global; Oregon Coast Aquarium; Oregon Zoo; St. Louis Zoo; and San Antonio Zoo.
- 2012 **Early Childhood Coordinator,** Oregon Zoo, Portland, OR. Managed operations of five camps, from pre-kindergarten to first grade. Assisted with curriculum development, delivered instruction, and mentored staff professional development. Developed and organized two media events to promote special events in camp and at the zoo. Managed digital archives of curriculum.
- 2012 **Co-founder,** Spark Truck, Stanford, CA. One of six co-founders of the Stanford Spark Truck (formerly SparkLab) project. Involved with all operations including curriculum development, public relations, social media outreach, business planning, teaching, fundraising, and budget planning. Raised over \$100,000 for the project through a Kickstarter campaign and donations. Featured in numerous publications including FastCompany, GOOD, CNNMoney, TechCrunch, Wired, Huffington Post, Stanford Daily, Core77, Southwest Airlines Spirit, and MAKE magazines.
- 2012 **Interim Project Manager, Girls Learning Environment and Energy,** Stanford University, Stanford, CA. Conducted statistical analysis of survey data. Researched and wrote literature reviews for articles pertaining to the project. Coordinated data collection with Girl Scout troops and Stanford staff. Managed three graduate students in the revision and design of publishable curriculum on energy efficiency.
- 2011 **Interim Camp Coordinator,** Oregon Zoo, Portland, OR. Mentored staff in 12 camps in daily operations of camp in the prolonged absence of the formal coordinator. Mediated interactions with parents, volunteers, and administrative staff. Facilitated shut-down of camp including cleaning out classroom spaces, organizing supplies, and managing staff. Assisted with situations involving special needs or behaviorally challenged campers.
- 2011 **Assistant Coordinator in Charge of Evaluation,** Oregon Zoo, Portland, OR. Supported staff in 12 camps to conduct regular, formal evaluation of camper learning and attitude change. Provided staff professional development in evaluation. Performed duties required of camp coordinator in the absence of the formal coordinator, including interacting with parents, managing 45 staff members, assisting campers with special needs, and acting as a liaison with other departments in the zoo.
- 2009–2010 **Assistant Coordinator in Charge of Education,** Oregon Zoo, Portland, OR. Directed curriculum development for 12 camps collectively serving 4,000 children from kindergarten through eighth grade. Performed annual evaluation of 44 staff and staff training. Coordinated distribution, collection, and recording of parent surveys and activity evaluations and camp assessments. Directed camp assistant program with 55 youth volunteers.
- 2009–2010 **Curriculum Developer,** Peabody Museum of Natural History, New Haven, CT. Created curriculum and associated materials for the museum's *Sustainable Choices* exhibit. Trained docents and taught classes for 3rd-9th

- grade students. Taught programs on sustainability at local elementary schools to K-5th grade students.
- 2007–2009 **Camp Specialist**, Oregon Zoo, Portland, OR. Led a team of educators to develop lessons and activities on habitats, adaptations, and zoo conservation for 4th grade students. Trained and guided staff in techniques for teaching special needs children.
- 2008 **Environmental Educator**, Hixon Center for Urban Ecology, Urban Resources Institute, New Haven, CT. Taught outdoor-based biological science 6th grade students at a minority dominated elementary school through the *Open Spaces as Learning Places* program.
- 2008 **Field Instructor**, Multnomah Education Service District Arrah Wanna Outdoor School, Wemme, OR.
- 2004-2007 **Conservation Educator**, Oregon Zoo, Portland, OR.

PUBLICATIONS

Ardoin, N.M, Schuh, J., Khalil, K.A. (In press). Environmental behavior of visitors to an informal science institution. *Visitor Studies*.

Khalil, K.A., Ardoin, N.M., Wojcik, D. (In review). The company you keep: Networks and communities in zoo and aquarium education.

Khalil, K.A., Ardoin, N.M, Wojcik, D. (In review). Social learning within a community of practice: Investigating interactions about evaluation among zoo education professionals

Khalil, K.A. 2014. A magnificent orangutan experienced the best and worst of zoos. *Slate Magazine*, 9 May.

Khalil, K.A. 2012. Book review: Free-choice learning and the environment. *Journal of Environmental Education* 43(1): 68-69.

Khalil, K.A., Ardoin, N.M. 2011. Programmatic evaluation in AZA-accredited zoos and aquariums. *Applied Environmental Education and Communications* 10(3): 168-177.

Ardoin, N.M., Khalil, K.A., Flora, J., Boudet, H., and Robinson, T. (In preparation). Writing curriculum for behavior change.

PROFESSIONAL CONFERENCE PRESENTATIONS

Caplow, S., Khalil, K.A., Tate, K.S. “Bursting the bubble: Getting a job in EE research.” North American Association of Environmental Education, San Diego, CA. October 2015.

Khalil, K.A., et al. “Evaluation: a journey for all -- A road map for evaluating your institution?s programs, guests and communications to further your mission”. Association of Zoos and Aquariums, Salt Lake City, UT. September 2015

Khalil, K.A. “The company you keep: Professional networks in AZA education”. Association of Zoos and Aquariums, Orlando, FL. September, 2014.

Khalil, K.A. "Using network analysis to understand evaluation practices". American Evaluation Association, Washington, D.C. October, 2013.

Khalil, K.A. "Scientists like me: Helping students develop qualitative inquiry". North American Association for Environmental Education, Baltimore, MD. October, 2013.

Khalil, K.A., Caplow, S. "The emotional experience of graduate school: Coping and communication tools". North American Association for Environmental Education, Baltimore, MD. October, 2013.

Khalil, K.A. "The company you keep: Personal and professional relationships in environmental education". North American Association for Environmental Education, Baltimore, MD. October, 2013.

Wojcik, D., Ardoin, N., Khalil, K.A. "Understanding the landscape: An organizational network analysis of environmental learning opportunities". North American Association for Environmental Education, Baltimore, MD. October, 2013.

Khalil, K.A. "The power of popularity: Using social network analysis to understand staff learning". Association of Zoos and Aquariums Conference, Kansas City, MO. September, 2013.

Khalil, K.A., Carlin-Morgan, K., Steele-Inama, M., Jackson, M., Kiesel, J. "Beyond visitor satisfaction: What are they really getting out of their visits?" Association of Zoos and Aquariums Conference, Kansas City, MO. September, 2013.

Khalil, K.A. "Evaluation networks and communities in zoo education". Visitor Studies Association Conference, Milwaukee, WI. July, 2013.

Khalil, K.A., O'Connor, K. "Innovative approaches to evaluation in informal settings". 2012 North American Association for Environmental Education, Oakland, CA. October, 2012.

Khalil, K.A. "Training and empowering staff in evaluation". Association of Zoos and Aquariums Annual Conference, Phoenix, AZ. September, 2012.

Chua, J., Khalil, K., Korsunskiy, E., Peck, A. "Stanford Design School Innovations: SparkTruck". Aspen Ideas Festival, Aspen, CO. June, 2012.

Khalil, K.A. "Staff members as stakeholders in participatory evaluation". American Evaluation Association Annual Conference, Anaheim, CA. November, 2011.

Khalil, K.A., O'Connor, K. "GLEE: An environmental curriculum designed using principles of behavioral science". North American Association for Environmental Education Annual Conference, Raleigh, NC. October, 2011.

Khalil, K.A. "Different Strokes for Different Folks: Evaluation models, methods, and merits". Association of Zoos and Aquariums Annual Conference, Atlanta, GA. September, 2011.

Khalil, K.A. "Assessment Data Records: An adventure in participatory evaluation". Visitor Studies Association Conference, Chicago, IL. July, 2011.

Khalil, K.A. "Education and evaluation at AZA zoos: Results of a national census". Association of Zoos and Aquariums Annual Conference, Houston, TX. September, 2010.

Khalil, K.A. "Evaluating the effectiveness of zoo-based conservation education programming". Student Conference for Conservation Science, Cambridge, England. March, 2010.

INVITED TALKS AND OTHER EVENTS

Khalil, K.A. "Beyond bars: Designing exhibits to promote welfare and visitor experiences". Keynote for the Northern California Branch of the American Association for Lab Animal Scientists, San Francisco Zoo, September, 2014.

Khalil, K.A. "Building staff capacity in evaluation through collaboration". St. Louis Zoo invited talk, St. Louis, MO. December, 2013.

Khalil, K.A. "Using empowerment evaluation to measure program effectiveness". Oregon Coast Aquarium invited workshop, Newport, OR. August, 2013.

Khalil, K.A. "Collaborative practices for program evaluation". San Diego Zoo Global invited talk, Escondido, CA. November, 2012.

Khalil, K.A. "Evaluating the effectiveness of conservation education: A case study at the Oregon Zoo". Masters Student Colloquium, Yale University, New Haven, CT. April, 2010.

Khalil, K.A., Goodness, J., Poorman, K., Wynn-Grant, R. Wetlands International and ICLEI/Local Governments for Sustainability Project Volunteer, Observer. United Nations Climate Change Conference in Copenhagen (COP 15), Copenhagen, Denmark. December, 2009.

Zoo Camp Program Room Presentation, Association of Zoos and Aquariums Annual Conference, "Zoo Day" event, Portland, Oregon. September, 2009.

HONORS AND AWARDS

2013	Children and Nature Network Natural Leaders Fellow
2013	Fast Company Innovation by Design Award for SparkTruck
2012	North American Association for Environmental Education California Scholarship for Academic Study (academic merit)
2012	Haas Center Graduate Public Service Fellowship (academic merit)
2010-present	Paul DeHart Hurd Fellowship (science education)
2009	Jubitiz Family Endowment for Research Internships Award Recipient
2008-2010	Yale School of Forestry and Environmental Studies Harrison Scholar (full tuition)
2007	Sigma Xi Honor Society
2003-2007	McKenna Scholar (academic merit)
2003-2007	Robert Byrd Scholar for the State of Oregon (academic merit)

SKILLS

Software: SPSS, NVivo, R, MiniTab, Volgistics, Photoshop, InDesign, UCINet

Language: Proficient French, introductory Spanish

OTHER EXPERIENCE

- 2015-present Liaison between the Visitor Studies Association's Zoos and Aquariums Focused Interest Group and the Association of Zoos and Aquarium's Conservation Education Committee.
- 2015-present Advisor for the Association of Zoos and Aquarium's Research and Technology Committee
- 2015-present Advisory Panel for the Visitor Studies Association Awards Committee
- 2014-present Advisor for the Association of Zoos and Aquarium's Conservation Education Committee, co-champion of Visitor Studies Initiative
- 2014 Advisory Panel for The Ocean Project's Innovative Solutions Grant
- 2013 Reviewer for Studies in Educational Evaluation
- 2012-2013 Stanford University School of Education Executive Student Council
- 2010-2012 Coxswain, Palo Alto Rowing Club
- 2008-2010 Coxswain and Captain, Yale University Graduate Rowing Team (James A. Snider Cup recipient for overall rowing excellence and dedication)
- 2008-2010 Member, Conservation Biology Student Interest Group at Yale University
- 2009 Founder, Environmental Education Student Interest Group at Yale University
- 2004-2007 Head Coxswain and Captain, Claremont Colleges Rowing Club
- 2005 Study Abroad Program in Zoology and English, University of Melbourne, Melbourne, Australia

REFERENCES AVAILABLE UPON REQUEST
