

1st Australian Summit on the Integration of Research, Teaching and Learning November 5-6, 2009 Sydney, Australia

Nancy Hensel

Executive Officer

Council on Undergraduate Research

Developing Undergraduate Research Across the USA: The Work of the Council on Undergraduate Research





Undergraduate research (scholarship and creative activity) is an inquiry or investigation conducted by an undergraduate in collaboration with a faculty mentor that makes an original intellectual or creative contribution to the discipline.







Unifying Features

•Mentorship

•Originality

Acceptability

Dissemination

Dimensions of Undergraduate Research

Student, process centered Student initiated All students Curriculum based Collaborative Original to the student Multi-or interdisciplinary Campus/community audience

 \leftrightarrow Outcome, product centered $\leftrightarrow \rightarrow$ Faculty initiated \leftrightarrow Honors students \leftrightarrow Co-curricular fellowships \leftrightarrow Individual \leftrightarrow Original to the discipline \leftrightarrow Discipline based $\leftarrow \rightarrow$ **Professional audience**

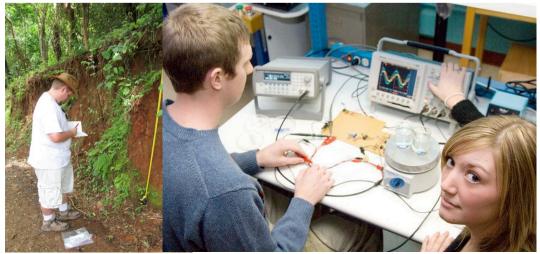
Council on Undergraduate Research

learning Through Research

Benefiting Students



- Advancing cognitive and intellectual growth
- Gains in knowledge and skills
- Academic achievement and educational attainment
- Fostering professional growth and advancement
- Promoting personal growth



Benefiting Faculty



- Enhancing mentoring and teaching
- Achieve research, scholarly and creative outcomes
- Integrating scholarship and teaching
- Increasing job satisfaction and personal development





Benefiting Institutions



- Building a community of scholars
- Deepening relationships with alumni



- Fostering innovation and cross talk
- Sharing a sense of purpose and achievement
- Enhancing an institution's curriculum
- Providing opportunities to engage with the local community

Innovation and Economic Development



- Undergraduate research leads to well-prepared students who are ready for the rigors of graduate school or the high tech job market
- Attraction of high quality faculty who want to work with undergraduate students and conduct research that may lead to future social benefits
- Undergraduate research in the U.S. can bring more federal and private sector research and development dollars into a campus and area
- Research and development dollars can support job creation
- A vibrant research culture can also attract new businesses and high tech industry to an area
- There is always the possibility of spin-off businesses from research



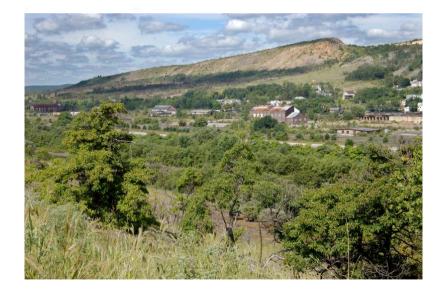
Benefiting Society

- Social benefits
- Job creation
- Business development







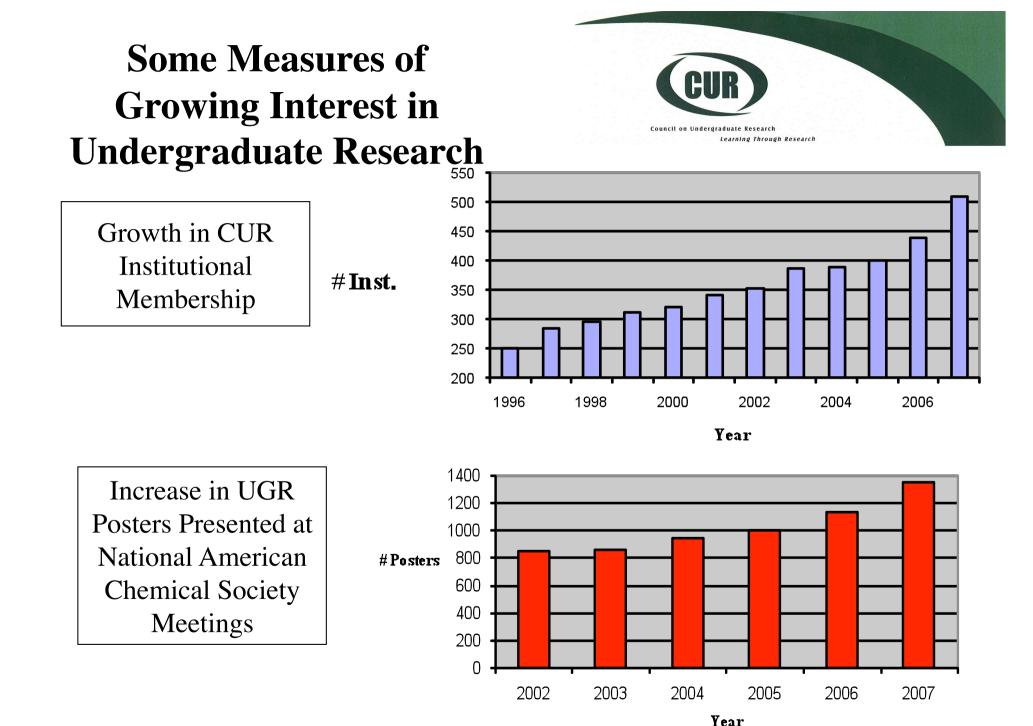


Council on Undergraduate Research



- A national organization of individual (≈ 3000) and institutional members (> 510) representing all disciplines and over 900 institutions of all types
- Eight disciplinary divisions: Arts & Humanities, Biology, Chemistry, Geo-sciences, Mathematics & Computer Science, Physics & Astronomy, Psychology, Social Sciences
- Two multidisciplinary divisions: At-Large and Under-graduate Research Program Directors
- National office in Washington, D.C.

The mission of the Council on Undergraduate Research is to support and promote high-quality undergraduate studentfaculty collaborative research and scholarship.





CUR Dialogues February 25-45, 2010 Washington, DC

CUR Dialogues is designed to bring faculty, administrators and Undergraduate Research Directors, at all career stages, to Washington, DC to interact with federal agency program officers and other grant funders.



UNDERGRADUATE RESEARCH AS TRANSFORMATIVE PRACTICE: Developing Leaders and Solutions for a Better Society

•Bringing undergraduate research together with other high-impact, engaged-learning practices

- •Examining the policy and practice implications of our research
- •Making research experiences a universal practice for undergraduate students
- •Using undergraduate research to help students engage with the world
- •Drawing underrepresented students into our fields

<u>Plenary Speakers</u> **Robert J. Full** Chancellor's Professor Director Poly-PEDAL Laboratory & Director of the Bio-AAPE Center Department of Integrative Biology, University of California at Berkeley

Mary Alice Morgan

Director of Women's and Gender Studies and Senior Vice-Provost for Service Learning Professor of English, Mercer University



INTERNATIONAL PERSPECTIVES ON UNDERGRADUATE RESEARCH AND INQUIRY: A Scholarly Discussion

Pre-ISSOTL Seminar, Liverpool, UK October 19, 2010

Council on Undergraduate Research Learning Through Research

"Undergraduate research is now an international movement." (Jenkins and Healey, 2010)

Aims

The aims of this seminar are to:

•Explore how undergraduate research and inquiry are conceived, delivered, supported and funded in a range of national systems

•Discuss and clarify what is common and distinctive about undergraduate research and inquiry in these national systems

•Identify key current developments in these national systems

•Investigate how undergraduate research and inquiry are conceived in relation to other forms of pedagogy e.g. dissertation, capstone course, problem-based learning

•Analyse the main themes in the literature about promoting and researching the impact of undergraduate research and inquiry on student learning

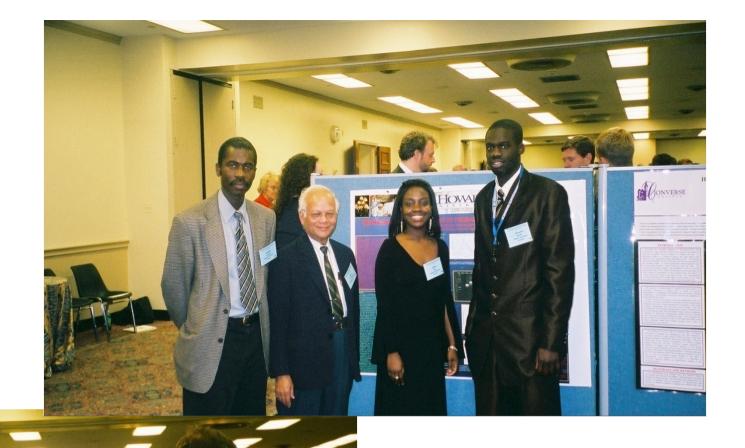
•Explore department and institutional strategies for developing undergraduate research and inquiry including similarities and differences between research intensive and teaching intensive

•Assess what can be done to promote and support international sharing of good practice and research-based understanding of undergraduate research

Further details about the seminar and the process of proposing posters will be posted on the Council on Undergraduate Web site at http://www.cur.org/pre-ISSOTL.html

Posters on the Hill

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Stadent: Diana David University: Stony Brook University Sponsor: NASA Ames Research Center

Analyzing Airborne Laser Altimeter Data Using Bayesian Statistics

Authors: Diana David, Robin Morris, Richard Dearden NASA Ames Research Center

> • Where is the lighthouse located? • β is given and a set of x_k is collected • prob(o { x_i , $\beta = exp(\Sigma_k \log_{\beta}(\beta^2 + (x_i - \alpha)^2))$

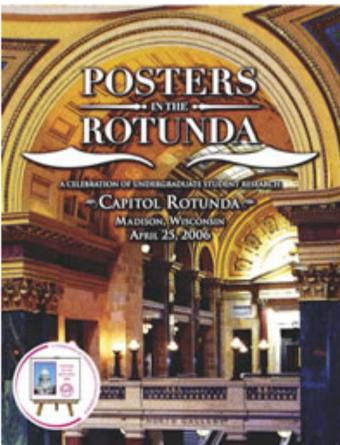
Bayesian Monte Carlo Methods: The following are various Bayesian Monte Carlo

I he memos have been applied to what a wery problem, but they are very general methods that have been used widely in data analysis problems.
 The same software will be applied to analyzing data from a RASCAL sensor at NASA (National Aeronautics and Space Administration)

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Wisconsin Posters in the Rotunda 2006

Since 2004, UW-System campuses have displayed undergraduate in the Rotunda of the State Capital for the edification of legislators, legislative aides, UW-System **Regents and staff, government officials, UW** alumni, and other interested parties in the Madison area.



Council on Undergraduate Research

Learning Through Research

Recent Publications

Developing and Sustaining a Research – Supportive Curriculum: A Compendium of Successful Practices



Edited by Kerry K. Karukstis and Timothy E. Elgren

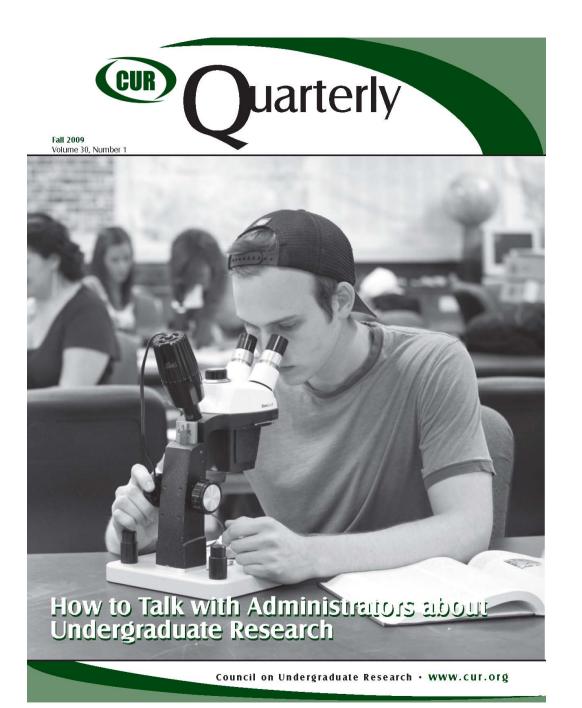


National Press Club February 21, 2007

Broadening Participation in Undergraduate Research: Fostering Excellence and Enhancing the Impact



Edited by Mary K. Boyd and Jodi L. Wesemann



CUR and the National Science Foundation





National Science Foundation

•Two Year Technician Education and Transfer Programs: Tapping the Potential of Undergraduate Research \$110,821

•Collaborative Project: A Workshop Initiative by the Council on Undergraduate Research to Establish, Enhance and Institutionalize Undergraduate Research \$496,000

•Transformative Research Initiative: The Role of Undergraduate Institutions and Students \$34,900

•Developing Undergraduate Research at Community Colleges: Tapping the Potential of All Students \$360,000

•Collaborative Research: Transformative Learning through Undergraduate Research: Comprehensive Support for Faculty, Institutions, and State Systems and Consortia \$999,852



The Second Tidal Wave: The Hmong Refugee Resettlement in Minnesota

Eve Vang and Dr. Manju Parikh College of Saint Benedict



It's All in the Family: Children's and Parents' Perceptions of Children's Rights Creighton Isabelle D. Cherney, Leah Skovran, & Emily Polachek 111 - 1 Should Children have Rights? DISCUSSION MATERIALS ABSTRACT The children in the study did not advocate indiscriminately for rights, but The present study was designed to investigate children's and their hought carefully about which rights they should endorse and which ones Revised Children's Rights Interview (rCRI, Cherney, 2005) parents' perceptions of children's rights. Ten-to-sixteen year-old children Children they are not quite ready to endors -5 preliminary questions, relating to the definition of a right and their parents from three Midwestern cities were interviewed using the -25 conflict laden vignettes in which a child may or may not assert a As a whole, parents believed that their child would advocate for the rights evised Children's Rights Interview (rCRI, Cherney, 2005). The findings Parents more strongly than the children did. right for the child in the story howed that on average, children did not advocate indiscriminately for Self-Determination Vignette: rights, but thought carefully about which rights they should endorse and When deciding whether an anonymous child (not their own child) is Lucy would like to vote for a political leader. Her parents told her that which ones they are not quite ready to endorse. Overall, parents thought responsible enough to make certain decisions, mothers and fathers were she was too young to vote. Which would be a better rule? that their children would advocate for more rights and earlier than their airly consistent in what they deemed appropriate for an anonymous child of a. Should only certain people be allowed to vote or children actually did. Likewise, children were also more likely than their a defined age. They did differ in their response to questions related to social b. Should kids like Lucy have the right to vote? parents to think that children in the vignettes needed to be older to make participation (friend choices, sports decisions, etc.). The fathers were less rturing Vignette: decisions about certain rights. likely to assert autonomy for that child than the mothers were Joan went to the doctor, and he told her that she should take a vaccination. Joan said that she would not take one. Which would be Parents believe that they (and their family) are the biggest influence on where their children learn about their rights while the children believe they a better rule? a Should the physician decide or earn most of their rights from school. b. Should Joan get to decide whether to have the vaccination? INTRODUCTION To a Certain Extent Yes Parents are good at identifying at what age their child will advocate for rights, but they are not as good at determining which rights they will or will Should Children Have Rights? The United Nation's Convention on the Rights of the Child (U.N. Children's Rights from an Adult Perspective (revised; Bohrnstedt ot advocate for eneral Assembly, 1989) is the most widely ratified international human ghts document. Although it has been in force for 15 years, social Freeman, & Smith, 1981) This research is important because it sheds a new light on family and cientists know surprisingly little about it. Especially important in moral values, and how these features play a part in a child's sense of -40 vignettes that examine participants level of support for children's Where do Children Learn abou deciphering what rights children should be entitled to are the perspectives of adults. Adult perceptions of this issue are crucial to the autonomy, and sense of protection. They also inform us of the parental elf-determination rights in ten areas of possible conflict between parents Their Rights? ansmission of these values. nd children mplementation and success of the rights enumerated in the Convention ecause parents act as the first line of implementation of children's right 10-12 how says he does not believe in the existence of a god and is and they legislate on their behalf. Because of a lack of studies on adult IMPLICATIONS efusing to accompany the parents to church. The parents insist that he rceptions on children's rights, problems with the actual implementation Little consideration has been given to how children feel about the decisio f the U.N. Convention have arisen. At the same time, little consideration ust attend with them every Sunday Children made on their behalf. This research illustrates the need to consider the as been given to how children feel about the decisions made on their Parents hild's voice in determining what is "best" for the child Totally Agree Totally Disagree behalf As children suggest that they learn about their rights from school, it may be Two fundamentally different orientations toward children's rights wise to take a look at current school programs that focus on children's xist (Rogers & Wrightsman, 1978). The nurturance orientation stresses rights, more specifically, what they are allowed to do, and what they can do ociety's obligations to make decisions in the best interest of children to embody these rights. These programs should be focused at young children as well as adolescents, as children as young as 8 and 9 years old and to protect children from harm. On the other hand, the selfetermination orientation tresses the importance of allowing children to have an impressive understanding about what is granted to them as a ercise control over various facets of their lives, even when those young person, and what is not. ecisions might conflict with the views of adults charged with the hildren's care. Over the past decades, there has been a continued shift The United States is one of only two countries that have not signed the the orientation from issues dealing with children's nurturance rights to United Nations Convention on the Rights of the Child (U.N. General hose dealing with self-determination rights (Ruck, Petersen-Badali, & Assembly, 1989). Unlike other treaties, this convention explicitly Children's Rights by Individual Vignette bay, 2002). This shift has not only been noticeable in the political arena Parents enumerates the rights that the international community sees as pertaining to School but also in the legal, medical, educational, social services, and mental the unique perspective of the child Adults' and children's perceptions of Source children's rights are crucial to its implementation and success, because ealth fields adults, particularly parents and legal guardians, act as the first line of implementation of children's rights. Melton (1980; 1983) was one of the first researchers to provide an count of the development of children's reasoning about their rights in pothetical situations. He developed the Children's Rights Interview Generally, children tend to be underestimated. If we empower them, give RI) which contained 12 vignettes to test when and under what them a voice, and make an active effort to ask the children what they think cumstances children would assert a right. His findings showed that the we would be surprised by the remarkably bright insight children have about eveloping of reasoning about children's rights is dependent on age and ocio-economic status (SES). More recently, Ruck, Abramovitch and our political system, social issues, and their respective individual rights as a oung person 0.5 (eating (1998) proposed that social context (i.e. home or school) in which the right is embedded and the type of right under consideration ar mportant variables to consider when investigating perceptions of hildren's rights. Other researchers have proposed that, in addition to the REFERENCES ocial context, SES, and type of right, culture plays a role in children's eveloping perceptions of their rights (e.g., Cherney & Perry, 1996). For xample, in a series of studies, Cherney and Perry (1996) as well as hrnstedt, G. W., Freeman, H. E., & Smith, T. (1981). Adult perspectives on children's autonomy. Public Opinion Quarterly, 45, 443-462. herney & Shing (2003) showed that, unlike the 12-year-olds from Cherney, I., & Perry, N.W. (1996). Children's attitudes toward their rights-an urone and North America. Asian adolescents did not advocate for ternational perspective. In E. Verhellen (ed.), Monitoring children's rights ertain rights. The diversity of the responses to surveys indicates that Child hildren's rights are also culturally embedded and that it is important to Martinus Niihoff Publishers, 241-250. nderstand how both adults and children develop their values and Parent Cherney, I. D., & Shing, Y. L. (2003, April). Children's Attitudes Toward Their attitudes that constitute the basis of the U.N. Convention. Across all vignettes, there were significant differences in a child' responses versus how Rights: A Cross-Cultural Perspective. Poster presented at the biennial an adult thought his or her child would respond, t(51) = -2.78, p = .008. There were neeting of the Society for Research in Child Development, Tampa, FL. also significant differences across self-determination rights t(51) = -2.29, p = .026, but Melton, G.B. (1980). Children's concepts of their rights. Journal of Clinica s, t(51) = -1.62, ns. Child Psychology, 9, 186-190

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	-27 Adults (Mean Age = 43.4 years) -12 Fathers -15 Mothers	School Char	0.02	Parent Child
FE.	-25 Children (Mean Age = 12.9 years) -7 Male	Movie	0.01	Parent Child
	-18 Female	Paint Room	0.01	Parent Child
F13		Buy Food	0.04	Parent Child
- Pas		Alcohol	0.01	Parent

Mean SD 0.54 0.8 -0.07 0.99 -0.82 0.97 0.48 0.08 1 0.56 0.85 -0.92 0.39 -0.59 0.69 -0.08 1.02

-0.78

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 RESULTS

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 Parents were quite accurate at estimating at what age their child would advocate for a particular right. There were no significant differences in the age that children would ass a right (M = 13, 4, 5D = 1, 48) and the age and the signers through their child would assert that right (M = 13, 77, SD = 1, 29), t(51) = .95, p = 300

Rogers, C.M., & Wrightsman, L.S. (1978). Attitudes toward children's rights: Nurturance or self-determination? *Journal of Social Issues*, 34 (2), 59-68.

Ruck M.D. Abramovitch R. & Keating D.P. (1998). Children's and

United Nations General Assembly, (1989, November), Adoption of a

Ruck M.D. Peterson-Badali, M., & Day, D.M. (2002), Adolescents' and

onvention on the rights of the child (U.N. Doc. A/Res/44/25). New York:

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nothers' understanding of children's rights in the home. Journal of Research

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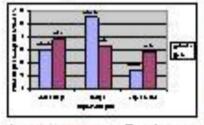
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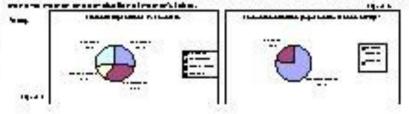
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Council on Undergraduate Research 734 15th Street NW, Suite 550 Washington, DC, 20005 (202) 783-4810

http://www.cur.org Nancy@cur.org