

CHILDREN'S TIME OUTDOORS AND IN NATURE: A National and State Study

Current Research Partners:

National Wildlife Federation

The University of Tennessee

Texas AgriLife Extension Services (Texas A&M)

US Forest Service (Southern Research Station)





Patrick Fitzgerald, Director of Education Advocacy,
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What We Will Cover Today

- Background on why are we wanting to conduct this research
- Meet the Research Team
- Proposed Research
 - Objectives
 - Approach
 - Methodology
 - Deliverables
- Timeline
- How can you get involved?

How will the research findings be used?

- Policy decisions
- Curriculum development
- Youth programming
- Future research
- Baseline data to track future trends
- Comparisons across regions, demographics, etc.



Who are the stakeholders?

- Policy Makers
- Public Land Agencies
- School Administrators and Teachers
- Youth Service Professionals
- Educators
- Researcher
- Parents
- Children
- Health Professionals



Research Team

Background

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Dr. Mark Fly, Environmental Psychologist

- Position:** Professor & Director, Human Dimensions Research Lab
- Affiliation:** Department of Forestry, Wildlife/Fisheries
- Research:** National Kids Study, National Survey on Recreation & Environment, Children's Gardening & Obesity Prevention
- Degree:** Ph.D., University of Michigan School of Natural Resources and Environment, Environmental Psychology & Recreation Behavior Survey Research Center - Institute for Social Research



Dr. Mat Duerden, Extension Specialist

Position: Associate Professor and Coordinator,
Sequor Youth Development Initiative

Affiliation: Department of Recreation, Park & Tourism
Sciences Texas A&M University

Research: Impact of Direct and Indirect Nature
Experiences, Program Evaluation, Socialization

Degree: Ph.D., Texas A&M University Recreation, Park
and Tourism Sciences



Dr. Ken Cordell, Pioneering Research Scientist

Position: Project Leader

Affiliation: U.S. Forest Service Southern Research Sta.
Athens, GA

Research: National Kids Study; National Survey on
Recreation and the Environment

Degree: Ph.D., North Carolina State University,
Economics and Business



Research Partners and Collaborators

Texas A&M University

- Michael Edwards, Ph.D.
- Alex McIntosh, Ph.D.
- Corliss Outley, Ph.D.
- David Scott, Ph.D.

USFS, University of Georgia

- Gary Green, Ph.D.

The University of Tennessee

- Robert Jones, Ph.D.
- Susan Schexnayder, M.A.

National Wildlife Federation

- Kevin Coyle, VP of Education and Training
- Patrick Fitzgerald, Director of Education Policy
- Eliza Russell, Director of Education



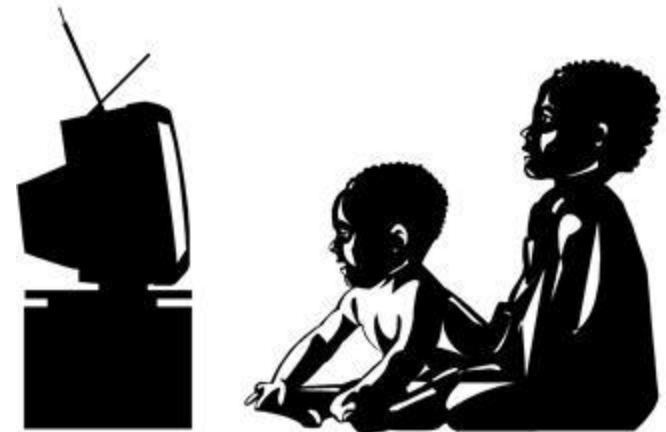
**Dr. Mark Fly, Environmental Psychologist
University of Tennessee**

**What are the assumptions about
children's connection
to nature?**

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Trends in Children's Activities

- Steep decline in amount of time children are outdoors in natural settings.
- Increase in time spent on indoor-related activities including electronic media and games.
- Increase in serious physical and mental health issues in children.
- Loss of imagination, creativity, and innovation in the U.S.



Implications

- Natural Resources and the Environment
 - Future environmental leaders
 - Stewards of nature
 - Citizen advocates
- Health
 - Growing demands on the health care system
 - Decreased life expectancy
 - Lowered quality of life
- Education
 - Decline in creativity/problem solving
 - STEM Education (future scientists)
- Economic
 - Increased health care costs
 - Less innovation and entrepreneurship



Photo: Charlie Archambault

Summation

- Much has been said about what kids are doing or not doing outdoors.
- Evidence is abundant that electronic media are a growing part of children's lives.
- Many have concluded media time is competing directly with outdoor activities.



Reality

- The actual trend in the amount of time kids spend outdoors and in nature is unclear.
- Very little scientific research has been conducted on kids' time and activities outdoors.



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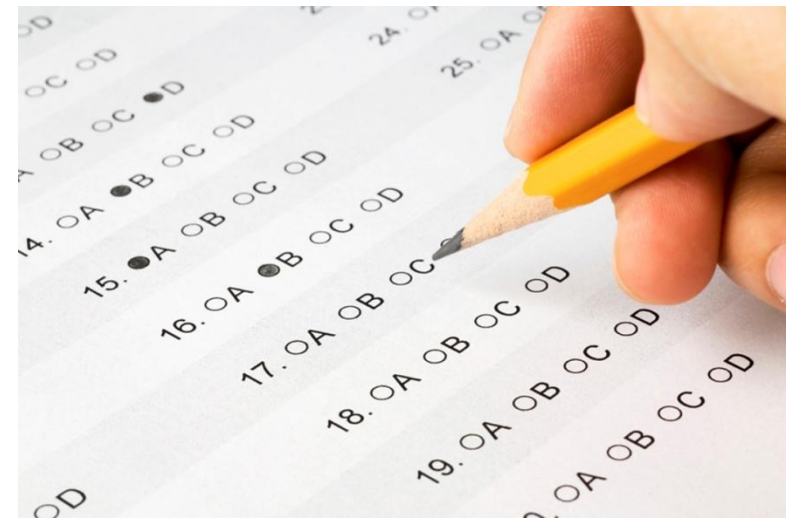
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Proposed Research

Children and the Outdoors -
National, Regional and State Analysis of
Time, Behavior, and Influence

Research Objectives

- Time and activities in nature (Degree, extent, and type)
- Natural settings used (including access)
- Lifespan and adult influences
- Preferences and constraints
- Demographic characteristics (socio-economic, age, family structure, geographic area, etc.)



Research Approach

Overlapping Phased approach

- Each phase informs and guides the next research phase.

Mixed methods

- Preliminary surveys paired with time diaries, focus groups, and personal interviews
- Telephone and mail/online surveys

Peer review

- Research methods will be peer reviewed by scientists with expertise in appropriate fields.

Phase I: Time Diaries and Interviews

- Provides rich time data from multiple perspectives
- Provides guidance to survey item development

Phase II: Iterative Pilot Test

- Development and validation of survey measures for Phase III

Phase III: National Dual Method Survey

Phase IV: National Survey with State Level Data

Study Flowchart



**Dr. Mat Duerden, Extension Specialist,
Texas A&M University/AgriLife**

Phase I: Basic Research

Objectives:

- Lay the empirical and methodological foundation for the national study.
- Identify and test strategies to increase the validity of national time use data.
- Address potential limitations of the national survey.

Methods

- Time diaries and interviews
- Surveys and focus groups

Time Diaries & Interviews

Stage One: Time Diaries

- Multi-state purposive sample of youth ($N \approx 800$)
- Caregivers and youth complete initial 24 hour recall surveys
- Range of socio-economic strata

Outcome:

- In depth time use data from a large youth population
- Results compared to determine the validity of reported behavior vs. actual behavior and caregiver vs. youth reporting

Stage Two: Interviews

- In-depth interviews with children who spend the most time ($n = 40$) and least ($n = 40$) amount of time outdoors
- In depth interviews with caregivers

Outcome:

- Understanding of the social and environmental dynamics of children's outdoor time

Surveys and Focus Groups

Telephone Surveys

- Survey of adult family members reporting on kids' time and activities outdoors.
- Use a quota sample of different demographic backgrounds.

Outcomes:

- Test time-use techniques; use results to select participants for focus groups.

Focus Groups

- Explore the cognitive processes children and adults use in reporting kids' time outdoors.

Outcome:

- Understand the validity of adult's reporting of children's time outdoors and use findings in survey design.

Phase II: Survey Pilot Testing

Objective: Develop and refine survey instrument for the national study.

- Develop content and structure of the mixed-mode (phone and written) survey instrument to gather data at the national and state level.
- Use an iterative approach to fully develop and validate survey questions for phase III.



**Dr. Mark Fly, Environmental Psychologist
University of Tennessee**

Phase III: National Survey

Objective: Generate a sample size large enough to produce statistically valid results for a range of sub-strata at the national level.

Stage One: Phone Survey

Dual-frame random digit dial telephone survey (land lines and cell phones) will be used to survey target population and gather basic survey data (n=5,000).

Stage Two: Mail or Web Survey

Written survey will be completed by the target population (separate adult caregiver and youth surveys will be distributed) by mail (or on-line) to collect detailed time-use data, etc. (n=3,000)

Phase IV: State Surveys

Objective: Generate a sample size large enough to produce statistically valid results for a range of strata at the state level.

Stage One: Phone Survey

Dual-frame random digit dial telephone survey (land lines and cell phones) will be used to connect with the target population and gather basic survey data (n=1,155 per state).

Stage Two: Mail or Web Survey

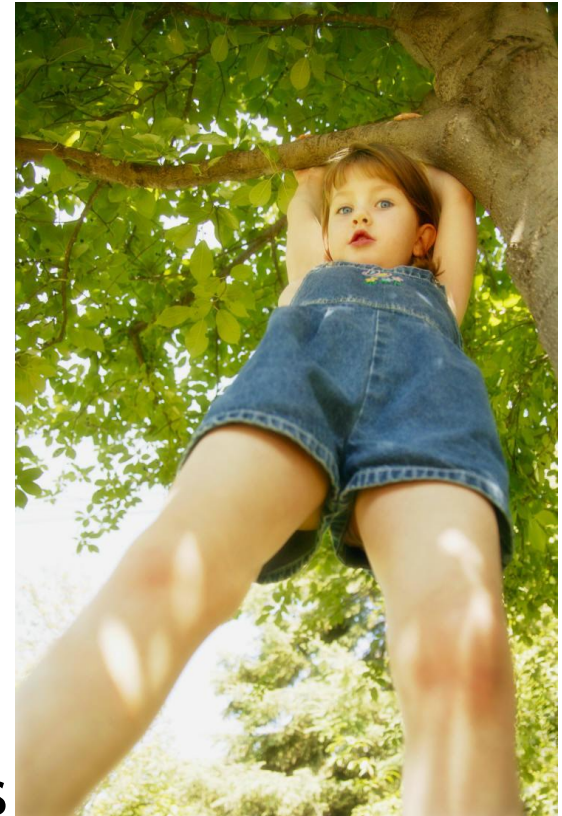
Written survey will be completed by the target population (separate adult caregiver and youth surveys will be distributed) by mail (or on-line) to collect detailed time-use data, etc.(n=693)

Deliverables

- Comprehensive findings on kids' time spent outdoors at the national and state levels.
- Detailed reports on all areas addressed in the research questions.
- National and state level snapshot reports of kids relationships to nature.
- National release of full report including website results.

Timeline (3 years)

- Phases build on each other and can be completed in stages based on funding availability.
- Phases I and II: 15 months
 - Release of initial findings
- Phase III: 9 months (overlaps w/ Phase II)
 - Release of national report
- Phase IV: 18 months (overlaps w/ Phase III)
 - Release of full report from all phases with national press conference





Eliza Russell, Director of Education, National
Wildlife Federation, russell@nwf.org

Questions

Please feel free to raise your hand using the “green” hand.

Engaging Partners and Sponsors

Timeline, Fundraising, Budget
and Next Steps

Next Steps

- Continue building partnerships and generate additional interest from potential funders
- Pilot Phase I: time diaries/phone surveys
- Continue to solicit feedback on the proposed research concept
- Solidify the timeline for the 4 research phases
- Launch the research project

Thank you for participating

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