

**BOSTON  
STRONG**





Dr. Carol A Smith  
Elon University, NC

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**JULIAN W. SMITH LECTURE**  
**THE IMPACT OF OUTDOOR**  
**EDUCATION**

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- This session will include research and anecdotal information related to the benefits of outdoor education/adventure based learning, and the influence of nature deficient disorder.
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background

# Julian W. Smith


- Teacher
- Author
- Leader
- Innovator

# Definitions

- Outdoor Education
  - “... direct, active, and engaging learning experiences that involved the whole person and have real consequences”
    - Prouty, 2007, p. 4
  - “...education that is conducted in a wilderness-like setting or through nature and physical skills development to promote interpersonal growth ...”
    - Gilbertson, Bates, McLaughlin & Ewert, 2007,p. 8




# Definitions

- Adventure Education
    - process based on structured activities which use natural or artificial environments to identify individual and group inter/intra-personal strengths and weaknesses, and from this awareness, promote positive personal growth
      - Kolb, 1975
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# Goals of Outdoor Education

- Increase self confidence
  - Increase mutual support within the group
  - Increase comfort with physical self and with others
    - Rohnke, 1989
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# Skills enhanced:

- Collaborative teamwork
  - Creative problem solving
  - Communication – influence
  - Sense of ethics and responsibility to the greater community
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# Outcomes of Outdoor Education

- Personal development
    - Self-concept
    - Self-esteem
    - Confidence
    - Personal motivation
    - Self-efficacy
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# Outcomes of Outdoor Education

- Moral development
  - How your actions affect others
    - "... psychological construct that characterizes the process by which people determine that one course of action in a particular situation is morally right and another course of action is wrong" (Rest, Thoma & Edwards, 1997)

# Outcomes of Outdoor Education


- Group development
  - Forming; first come together and recognize “group”
  - Storming; negotiate individual expectations in exchange for group expectations
  - Norming; agree to certain “rules” to help achieve success
  - Performing; functions as a unit to complete task
  - Adjourning; closure and separation

# Outcomes of Outdoor Education

- Leadership development
  - Challenging “status quo” – making positive change
  - Inspiring a mutual vision
  - Empowering others
  - Leading by example
  - Encourage others to develop him/herself




# Outcomes of Outdoor Education


- Moral development
  - Personal development
  - Group development
  - Leadership development
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- Curriculum must be intentional
  - Experiences must be authentic
  - Debriefing must occur
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# STUDENT RETENTION


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- Retention – generically “the ability of a particular college or university to successfully graduate the students that initially enroll that institution”

- Berger & Lyon, 2005, p. 3


- *voluntary* departure - student decides not to reenroll
    - *involuntary* departure - institution does not permit the student to reenroll
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- **Summer Fireside Experience [SFEP]**
    - Gass, 1987
    - enhanced, five day adventure based program
      - variety of outdoor adventure and team activities that supplemented the summer orientation program
    - extended traditional orientation program
    - traditional orientation program


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- Adventure in Leadership is a summer program for rising first year students to assist their transition from high school to university student. Goals of the program include:
    - develop skills to enhance leadership abilities
    - learn to work in team
    - understand the importance of and build community prior to beginning undergraduate career.

TOTAL First-Year Enrollment		Sophomore Year Enrollment	Sophomore Male Enrollment	Sophomore Female Enrollment
All first-year students	N = 5,035 Males = 2,927 Females = 3,008	4,507 89.5%	1,825 90.0%	2,682 89.2%
AIL participants	N = 209 Males = 103 Females = 106	193 92.3%	94 91.3%	99 93.4%
Non-AIL participants	N = 4,826 Males = 1,924 Females = 2,902	4,314 89.4%	1,731 89.9%	2,583 89.0%

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- Participation in a FYE outdoor adventure program improved the rate of retention for first year students
    - IHEs with adventure-based orientation program will keep track, record and publish their institutional retention rates
    - More IHEs will implement an adventure-based orientation program





# SELF EFFICACY



## ■ Self-efficacy

- increases with participation in outdoor adventure programs
  - Davis-Berman & Berman, 1993; Robitschek, 1996
- “perceptions of personal empowerment and learning relevance were found to be associated with changes in reported self-efficacy”
  - Sibthorpe, 2003, p. 80
- “preponderance of positive research findings indicates that development (e.g. increases in self-esteem, self-efficacy, trust, group cohesion) through adventure based programs is possible ...”
  - Sibthorpe, 2003, p. 81



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- College students show good adjustment to college
    - high self-efficacy
    - self-esteem
      - Carr, 2004; Olsen, 2004
  - Self-efficacy
    - defined as “levels of confidence individuals have in their ability to execute a course of action or attain specific performance”
    - developed through mastery experience, vicarious experience, social persuasion, and physiological and emotional status
      - Bandura, 1997
    - linked to retention and persistence
      - Devonport & Lane, 2006


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- Tompson and Dass (2000) found significant increase in self efficacy occurred in their subjects after an experiential program. Gosen and Washbush (2004) determined “as a result of experiential learning, changes in behavior and interpersonal effectiveness were also reported” (p. 282), and “learning is an internal mental process, and what is learned and how it is learned is unique for each individual” (p. 284). Additionally, Sibthorp (2003) related that literature “... looked at the participants’ perceptions of task value and relevance and the relationship between this perception and learning.” This relates to the value of “authentic learning” versus “book learning”.






# MORAL DEVELOPMENT

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- Researchers have found that college students admit to cheating, and feel that it ‘evens the playing field’ as 99% of all *other* students cheat (Greene & Saxe, 1992). This denial of responsibility also occurs with athletes (Storch, Storch & Clark, 2002). This trend toward lower moral reasoning continues into adulthood (Bredemeier & Shields, 1986; Stoll, Beller, Cole & Burwell, 1995).


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- The DIT is based on Kohlberg's stages of moral reasoning. Subjects read several dilemmas, then evaluate twelve statements, rating the importance of each when deciding on the appropriate action. Based on the rate and rank responses to those statements, a Principled ("P") Score is determined. The P Score ranges from 0 to 95, with the higher score reflecting a higher level of principled moral reasoning (Rest, 1979).


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- Results of the ANOVA revealed a statistically significant difference between athletes and venture dynamic students for the DIT ( $p = .0004$ ). The DIT scores (means $\pm$ sd) were 25.0 $\pm$ 15.5 for the athletes and 32.1 $\pm$ 15.6 for the venture dynamics.
  - The DIT scores (means $\pm$ sd) were 30.1 $\pm$ 17.9 for the males and for females 31.6 $\pm$ 14.6. Results of this study revealed no significant gender difference ( $p = .9594$ ) and the gender by athletic status interaction was not statistically significant ( $p = .3053$ ).




# FLOW





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- Csikszentmihalyi developed the concept of “flow” to define the ultimate experience a person can have, when his / her skill level and demand of the activity are equally matched.
  - Too much demand and too little skill can result in panic or anxiety; too little demand and too high a skill level can result in boredom or apathy (Moneta & Csikszentmihalyi, 1999).
  - Student engagement has strong links to student learning, and the relationship between perception and the reality of the learner.

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- Students reported they were engaged and attentive to the information when: (a) the perceived challenges and skill were high and balanced; (b) instruction was relevant; and (c) the learning environment was under their control (Shernoff, Csikszentmihalyi, Schneider & Shernoff, 2003).
  - Profound interest in activities can create advantageous learning experiences. Dedeke (1999) concluded that experiential programs result in increased enjoyment; other researchers reported improvement in skills (Brodbeck & Greitemeyer, 2000; Herz & Merz, 1998), perceived increase in group cohesion (Glass & Benshoff, 2002) and strengthened self-regulation and self-esteem (Nichols & Steffy, 1999).

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- A premise behind outdoor experiential or adventure education is the authenticity of the minute; students are engaged and they are *involved* both physically and cognitively (Boss, 1994; Conrad & Hedin, 1981; Priest & Gass, 1997).
  - Students' focus and awareness levels are augmented as the potential for harm increases with a lapse in concentration (Boniface, 2000).




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- Hunter and Csikszentmihalyi (2003) and Delle Fave, Bassi and Massimini (2003) concentration is amplified if the challenge is slightly greater than their skill level.
    - concentration levels higher during the outdoor adventure experience than during more traditional sporting activities (Jackson & Eklund, 2002; Jackson & Eklund, 2004).
  - Moneta and Csikszentmihalyi (1999) determined that mean concentration scores appear to be a “function of challenges and skills” (p. 618). Lesser challenges may have a detrimental effect upon concentration and that “concentration is optimized when the perceived challenges of the task stretch ... one’s perceived capabilities” (p. 630).

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- Participants in the Australian outdoor adventure/experiential activities reported higher post activity total concentration scores when compared to data from both the Jackson and Eklund 2002 and 2004 studies. Data analysis for this study revealed a mean concentration score of 4.38 (SD=0.58,  $p<.017$ ) after the rappelling/canyoning experience.


# **COMPARISON OF CONCENTRATION SUB-SCORES**

<b>RAPPELLING/CANYONING</b>	<b>4.38±0.58</b>
<b>INDIVIDUAL ACTIVITIES</b>	<b>3.70±0.80</b>
<b>NON-COMPETITIVE EXERCISE PROGRAMS</b>	<b>3.62±0.89</b>
<b>SPORTS ACTIVITIES</b>	<b>3.73±0.78</b>

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- Based on the results of this study, the researchers believe that including activities that: (a) stimulate students, (b) discourage complacent attitudes, and (c) involve them more fully in the moment, should all be considered as possible methods or strategies through which students' concentration levels might be increased, at least short term.
  - Shernoff et al (2003) suggested, “issuing appropriate challenges and providing opportunities to enhance skills ... may be one of the most ideal ways of engaging students” (p. 160).





# Last Child in the Woods

- “a fourth grader in San Diego: “I like to play indoors better, ‘cause that’s where all the electrical outlets are.”
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# Last Child in the Woods

- “The kids were complaining about being bored. And I said “okay, you guys are bored? I want you to go out into that field, right there, and spend two hours. Find something to do there. Trust me; just try one time. You might enjoy yourselves. So the begrudging, they went out into the field. And they didn’t come back in two hours – they came back much later. I asked them why, and they said ‘It was so much fun! We never dreamed we could have so much fun! They climbed trees; they watched things; they chased each other; they played games like we used to do when we were young. So the next day, I said, ‘Hey, you guys are bored – why not go out it the field again?’ and they answer, ‘Nah, we already done that once.’”

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- Outdoor education means allowing the outdoors to influence your emotions. Learning things about yourself without realizing it and letting your mind wonder. Participating in outdoor activities puts the mind at ease because that is where we were made to be; not indoors.
    - University junior, female, track athlete, anthropology major

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- To me, outdoor education means the journey towards or the development of leadership, group cooperation skills, inclusion, and last but not least, wilderness skills through the use of skill-practicing activities in or out of doors. The journey and development is never complete because these characteristics of outdoor education are ever-evolving.
    - University senior, male, baseball, finance major



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- Outdoor Education is a way to take back our intrinsic involvement with nature as humans. With our progress technologically and socially we have all but removed ourselves from our natural habitat by encasing ourselves in 'produced' environments. By looking at nature and our involvement with it through an Outdoor Education lens we are able to understand how we benefit from something that has been part of our lives for thousands of years. This knowledge and understanding combined with the interpersonal outcomes of almost any Outdoor Education make it a truly unique field in our modern age.
    - University junior, male, creative writing major