

Evaluation & Collaboration: Examining Outward Bound's Research Initiatives

5th Annual REAP Symposium

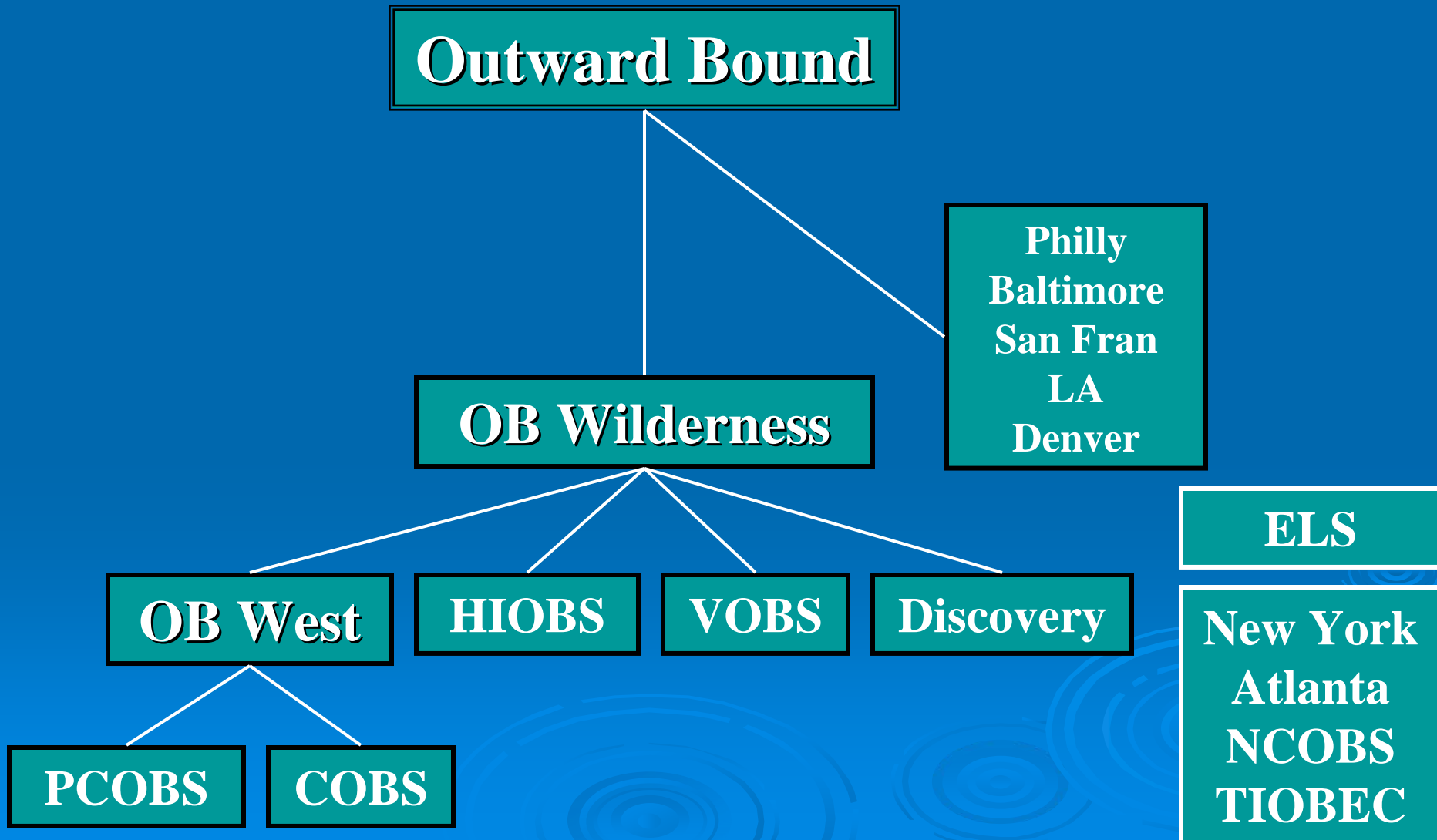
Atlanta, GA: March 18-20, 2009

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Background
Collaboration
Results
Questions



Outward Bound Structure



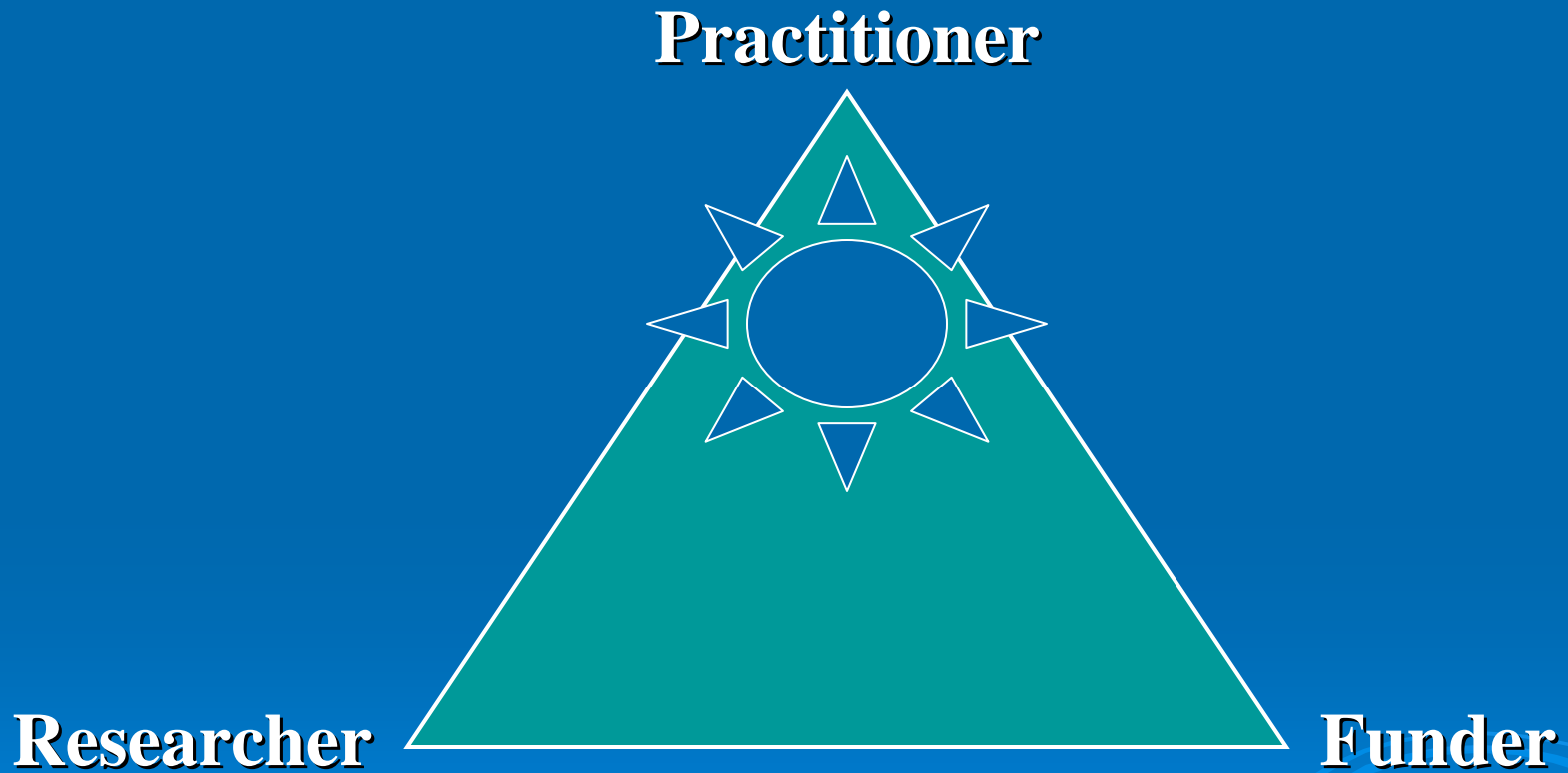
Background

- Rich history of research
 - Varying quality
- 2007...Outward Bound Training Institute
 - New commitment to research
- Research System Purpose & Goals
 - Establish that Outward Bound is reaching our educational outcomes as defined in our new Educational Framework.
 - Collect objective data to inform program related decisions and potential funders.
 - Align and collaborate with the academic experiential education community.
 - Be an active contributor to research in the outdoor industry.
- Internal and External Research

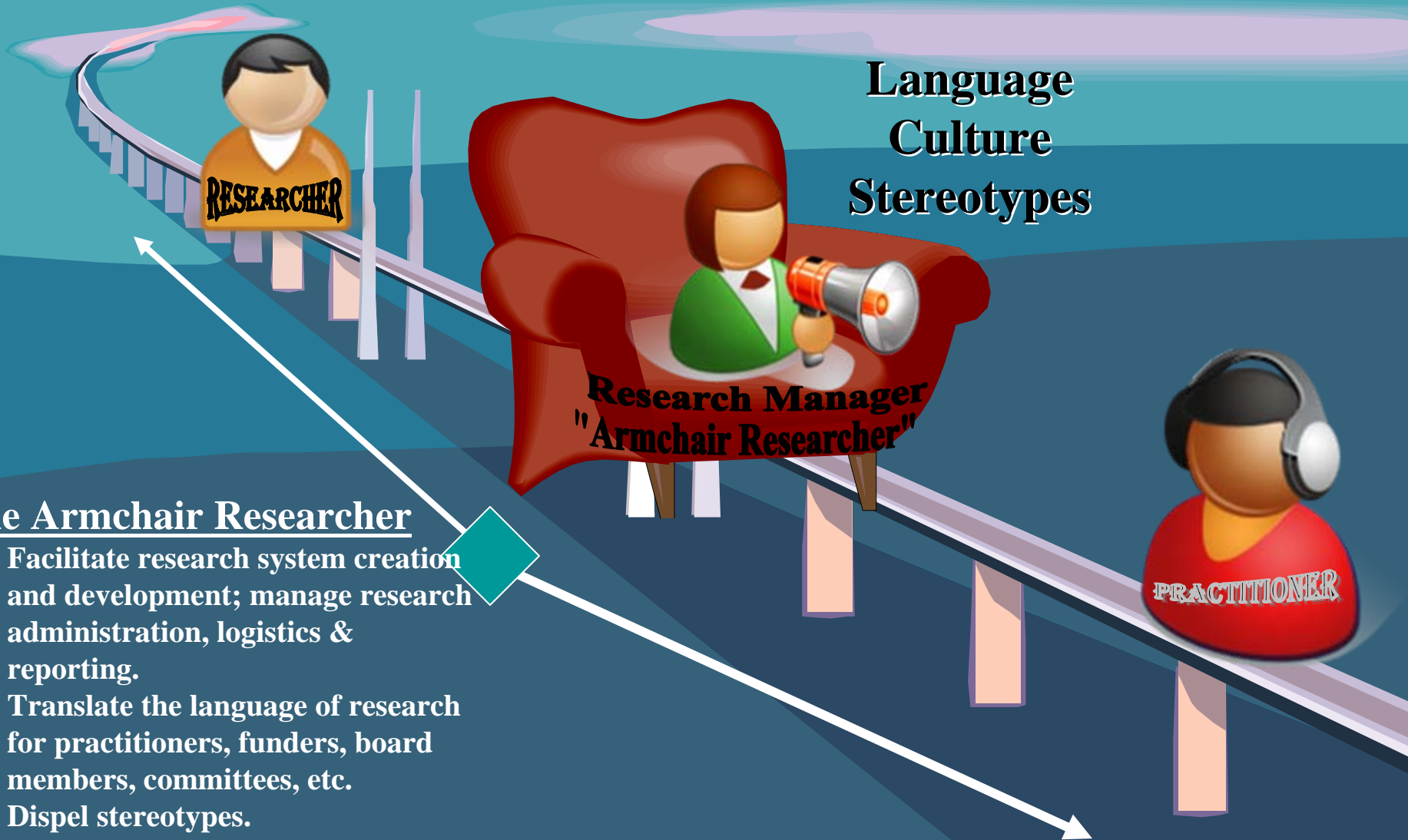
Collaboration

- To work together, especially in a joint intellectual effort; to join forces.
- Advisory Committee
- Indiana University
- Collaboration...
 - Helps align programs with academia
 - Helps move the industry forward by fostering rigorous research...not junk science
 - Lends external credibility to a program's research initiatives

Research Triangle



Bridging the Gap



The Armchair Researcher

1. Facilitate research system creation and development; manage research administration, logistics & reporting.
2. Translate the language of research for practitioners, funders, board members, committees, etc.
3. Dispel stereotypes.

Collaboration Tips

- Make contact and build a team
- Communicate and be honest
- Researchers...be patient
- Research Managers/Practitioners...be confident
- Ongoing, evolving process

Instrument Development

- No existing scale fit our needs perfectly.
- Outward Bound Outcomes Instrument (OBOI).
- 24-items developed in two different ways:
 - 1) 12 questions derived from the definition of each factor
 - 2) 12 questions culled and modified from existing scales
 - LEQ (Life Effectiveness Questionnaire)
 - ROPELOC (Review of Personal Effectiveness with Locus of Control)
 - DAP (Developmental Assets Profile)
 - CNS (Connectedness to Nature Scale)
 - GSE (The General Self-Efficacy Scale)
 - PWB (Psychological Well-Being Scales)

Educational Framework

VALUES

We teach to and work by these values:

COMPASSION

- Demonstrating concern and acting with a spirit of respect and generosity in service to others

INTEGRITY

- Acting with honesty, being accountable for your decisions and actions

EXCELLENCE

- Being your best self, pursuing craftsmanship in your actions, and living a healthy and balanced life

INCLUSION AND DIVERSITY

- Valuing and working to create communities representative of our society that support and respect differences

DESIGN PRINCIPLES

We use these principles to design and deliver programs:

LEARNING THROUGH EXPERIENCE

- Facilitating engaging, relevant, sequential experiences that promote skill mastery and incorporate reflection and transference
- Learning from success as well as failure

CHALLENGE AND ADVENTURE

- Using unfamiliar settings to impel students into mentally, emotionally and physically demanding experiences
- Utilizing and managing appropriate risk

SUPPORTIVE ENVIRONMENT

- Designing an experience that supports physical and emotional safety
- Developing a caring and positive group culture



**OUTWARD
BOUND**

OUTCOMES

These are the outcomes common to all of our programs and what we measure:

CHARACTER DEVELOPMENT

- Demonstrating increased self-confidence and self-actualization
- Demonstrating compassion toward others and living a healthy and balanced life

LEADERSHIP

- Demonstrating the ability to set goals and inspire and guide others to achieve them
- Demonstrating the ability to collaborate, communicate, solve problems and resolve conflicts effectively

SERVICE

- Demonstrating social and environmental responsibility
- Actively engaging in service to others

Subscales & Factors

Character Development

- Self-Confidence
- Self-Actualization
- Compassion
- Healthy & Balanced Life

Leadership

- Goal Setting
- Group Collaboration
- Effective Communication
- Conflict Resolution
- Problem Solving

Service

- Social Responsibility
- Environmental Responsibility
- Active Engagement

Results

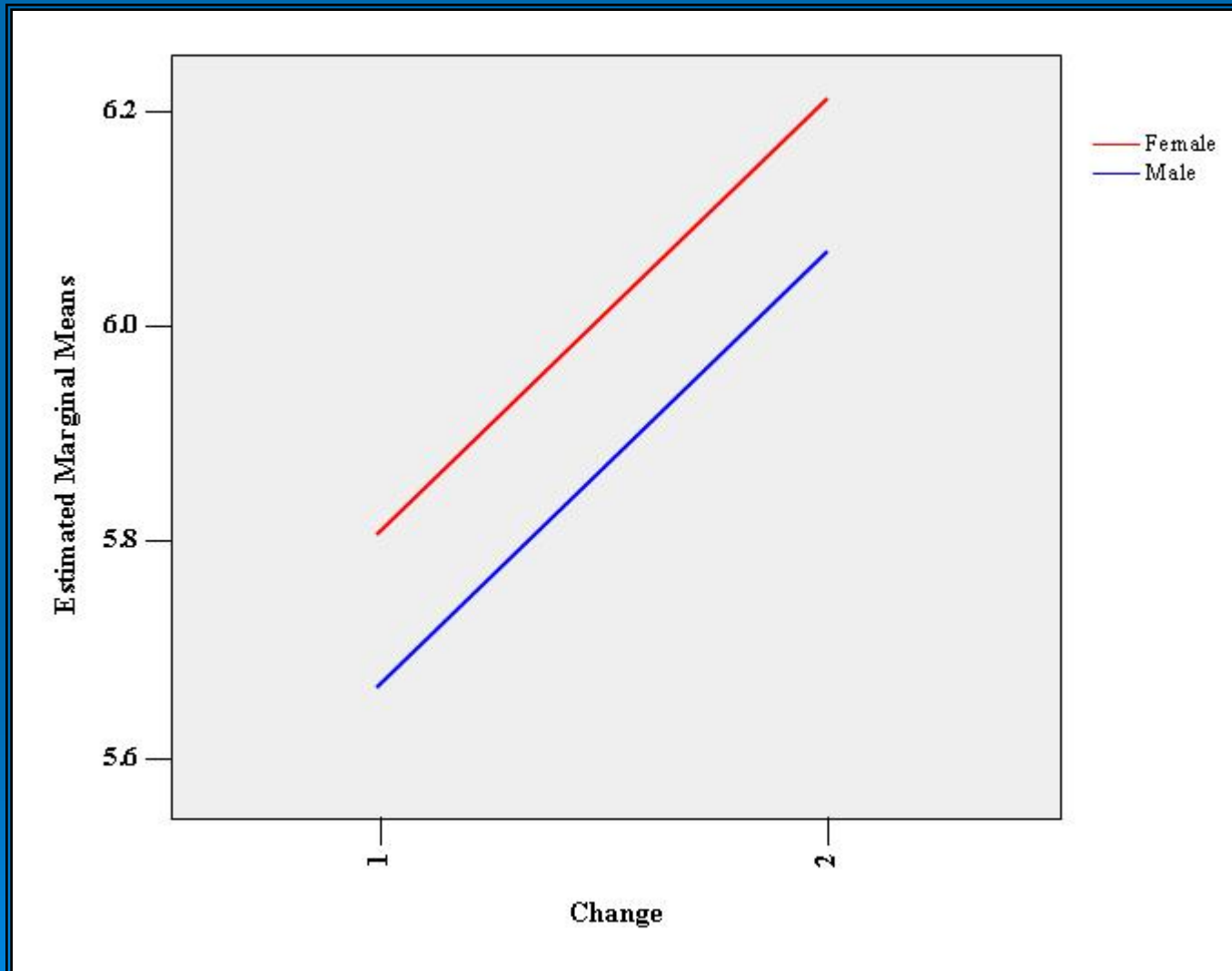
- Pre and Post administered on paper by OB Staff.
- Data analyzed through collaboration with researchers at Indiana University.
- Sample
 - N = 577; 61.2% male, 38.8% female; 12 – 56 years old

Overall, initial results point to statistically significant increases in student responses on the subscale dimensions of Character Development, Leadership and Service.

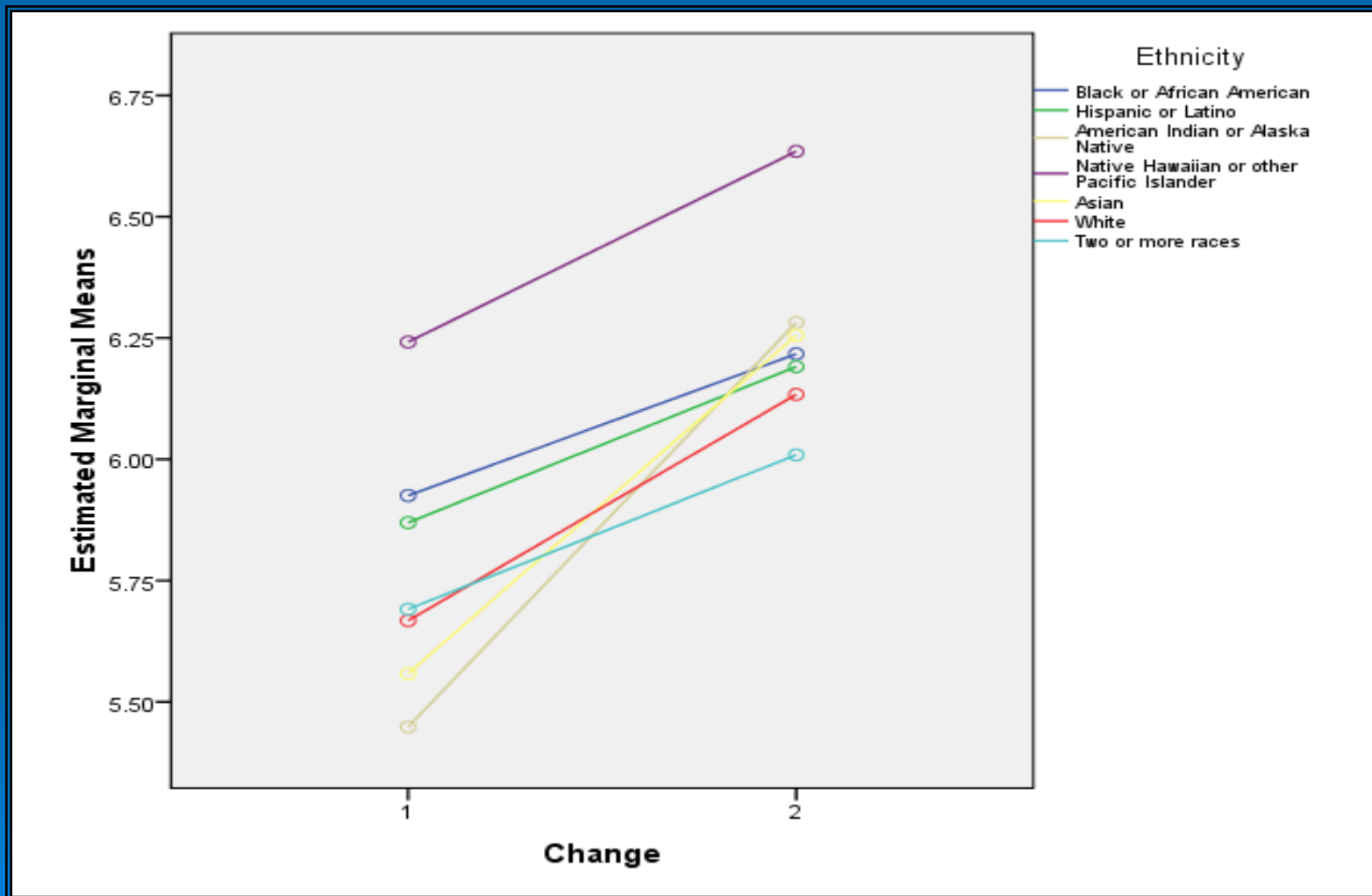
Individual & Course Level Variables

- Age, Gender, Ethnicity, Course length, Basecamp location, Activity type
- No significant difference based on:
 - Student age
 - Course length

Change Over Time and Gender



Change Over Time and Ethnicity



Change Over Time and White/Non-White

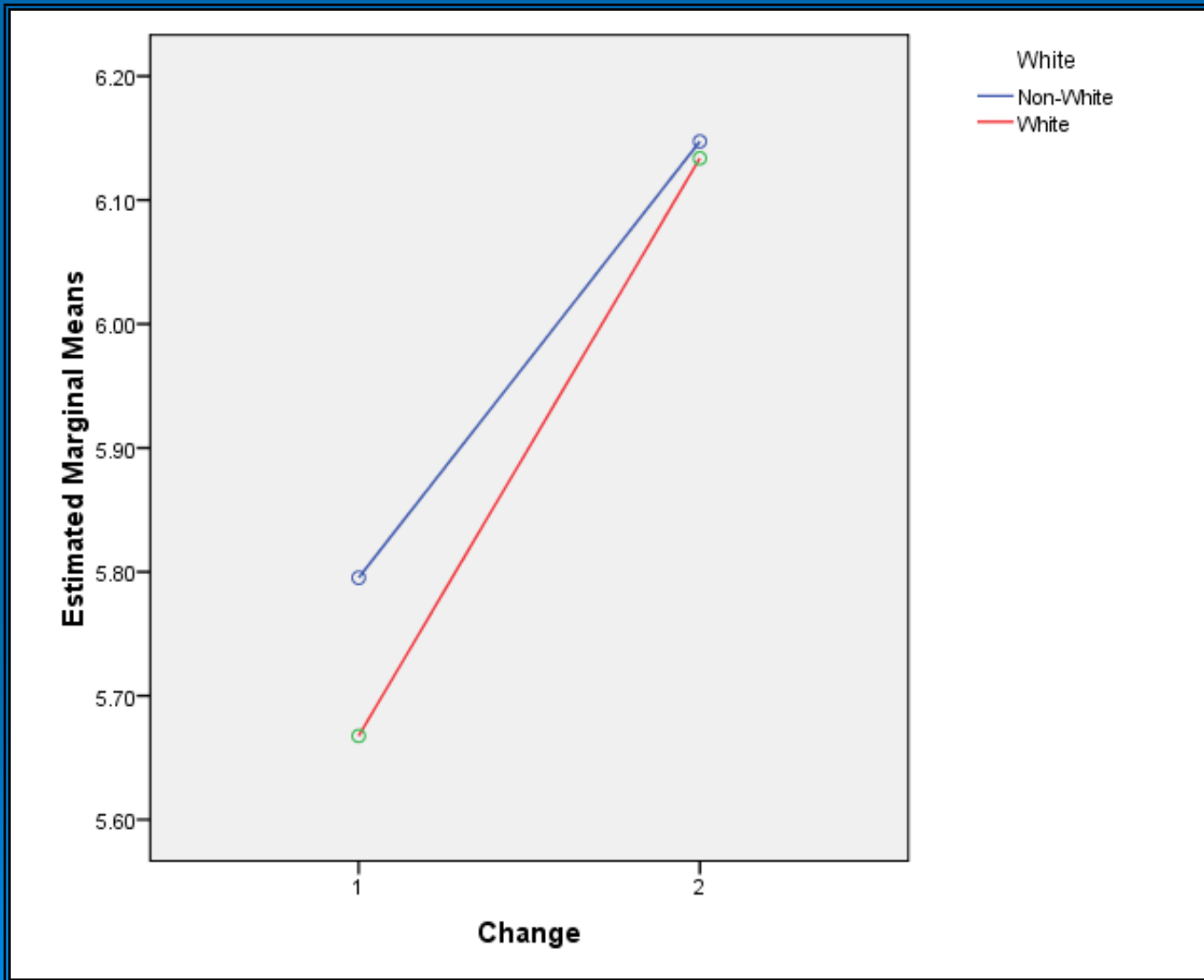


TABLE E – Pairwise Comparisons for Basecamps

(I) Base	(J) Base	Mean Difference (I-J)	Sig.^a
ALA	BALT	-.693	.003
	GNV	-.500	.018
	LA	-.448	.032
	LDV	-.485	.007
	MN	-.482	.015
	MRB	-.398	.036
	MT	-.780	.001
	OR	-.481	.016
	PHIL	-.512	.015
	WB	-.530	.006
BALT	AK	.344	.047
	CA	.344	.043
	DEN	.379	.044
	MOA	.384	.029
	WA	.351	.039
MT	AK	.431	.013
	CA	.431	.011
	DEN	.466	.013
	MOA	.472	.008
	MRB	.382	.028
NWY	WA	.438	.010
	AK	-.440	.002
	BALT	-.784	.000
	CA	-.440	.001
	DEN	-.405	.010
	GNV	-.592	.000
	LA	-.540	.001
	LDV	-.577	.000
	MN	-.573	.000
	MOA	-.400	.005
	MRB	-.489	.000
	MT	-.871	.000
	OR	-.572	.000
	PHIL	-.603	.000
	WA	-.433	.001
WB	-.621	.000	
Yuke	-.452	.039	

Based on estimated marginal means

^a Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

* The mean difference is significant at the .05 level.

TABLE F – Pairwise Comparison Between Activity Types

(I) Course Type	(J) Course Type	Mean Difference	Sig.
5 day Golden Trout	9 day Golden Trout	.4682*	0.043
	Community Prep	.5413*	0.019
	Rafting/Backpack	.4550*	0.023
Backpack (women)	9 day Golden Trout	.5659*	0.012
	Backpack	.3199*	0.049
	Canoe/Backpack	.4133*	0.016
	Canoe/Rock	.4037*	0.035
	Community Prep	.6390*	0.005
	Rafting	.3907*	0.044
	Rafting/Backpack	.5527*	0.004
	Rock Climbing	.4171*	0.030
	Vets	.4635*	0.035
Backpack/Rock	5 day Golden Trout	-.5090*	0.008
	Backpack	-.2868*	0.010
	Backpack (women)	-.6067*	0.001
	Heroic Journey	-.2791*	0.030
	Mountain/Raft	-.3076*	0.028
	Mountaineering	-.2871*	0.018
	Sailing/Backpack	-.3417*	0.026
	Sailing/Rock	-.4243*	0.034
	Sea Kayak/Mountain	-.2845*	0.023
GOAL Backpack	9 day Golden Trout	.7202*	0.009
	Adjudicated	.5734*	0.046
	Backpack	.4741*	0.035
	Backpack/Rock	.7609*	0.002
	Canoe/Backpack	.5676*	0.014
	Canoe/Rock	.5579*	0.024
	Community Prep	.7933*	0.004
	Heroic Journey	.4819*	0.039
	Mountaineering	.4738*	0.039
	Rafting	.5449*	0.028
	Rafting/Backpack	.7070*	0.004
	Rock Climbing	.5713*	0.021
	Sea Kayak/Mountain	.4764*	0.04
	Vets	.6178*	0.022

TABLE A – Cronbach's Alpha by Subscale and Individual Item of OBOI

	Pre	Post		Pre	Post		Pre	Post
Character Development	0.67	0.73	Leadership	0.73	0.73	Service	0.69	0.78
SCI	0.54	0.6	GS1	0.52	0.55	SR1	0.62	0.69
SC2	0.62	0.63	GS2	0.61	0.63	SR2	0.65	0.7
SA1	0.54	0.62	GC1	0.52	0.53	ER1	0.57	0.69
SA2	0.63	0.63	GC2	0.6	0.66	ER2	0.69	0.7
CO1	0.49	0.61	EC1	0.61	0.59	AE1	0.59	0.65
CO2	0.51	0.61	EC2	0.55	0.62	AE2	0.64	0.74
HL1	0.58	0.57	CR1	0.56	0.63			
HL2	0.49	0.54	CR2	0.44	0.45			
			PS1	0.59	0.61			
			PS2	0.55	0.6			

TABLE B – *T* test and Effect Size for Subscales and Factors

Subscales	Factors	<i>t</i>-score	Effect Size
Character Development		<i>18.4**</i>	<i>0.72</i>
	Self-Confidence	14.9**	0.62
	Self-Actualization	13.8**	0.58
	Compassion	10.0**	0.42
	Healthy & Balanced Life	10.9**	0.46
Leadership		<i>14.7**</i>	<i>0.61</i>
	Goal Setting	15.4**	0.64
	Group Collaboration	8.6**	0.36
	Effective Communication	10.4**	0.43
	Conflict Resolution	2.7**	0.11
	Problem Solving	12.8**	0.53
Service		<i>18.6**</i>	<i>0.77</i>
	Social Responsibility	14.8**	0.62
	Environmental Responsibility	11.0**	0.46
	Active Engagement	14.9**	0.62
Total		<i>20.3**</i>	<i>0.85</i>

p*< .05; *p*< .01



Outcomes Questionnaire

*Pre- Course

Thank you for participating in an Outward Bound course. This questionnaire helps us evaluate our programs. Please remember that this is not a test. There are no correct or incorrect answers, and everyone will have different responses. It is important that you give your own views, that you are honest with your answers, and that you do not talk to others while you fill out the questionnaire. Be sure to answer the statements as you feel now—even if you have felt differently at some other time in your life. Please do not leave any statements blank.

Your responses will remain completely anonymous and confidential.

Course #: _____ Ethnicity: Black or African American Asian
 Hispanic or Latino White
Name (First, Last Initial): _____
Date of Birth (mm/dd/yy): _____
 American Indian or Alaska Native Two or more races
Gender: F M Native Hawaiian or other Pacific Islander


Using a scale of 1 to 7, where 1 means you strongly disagree and 7 means you strongly agree, please indicate your level of agreement with each statement by filling in the appropriate box.

1= Strongly Disagree; 2=Disagree; 3=Somewhat Disagree; 4= Neutral; 5=Somewhat Agree; 6= Agree; 7=Strongly Agree

- 1) When I apply myself, I am confident I will succeed.
- 2) I motivate others when a task needs to be accomplished.
- 3) I believe in my ability to make the world a better place.
- 4) I have a sense of direction and purpose in life.
- 5) I believe cooperating with others is important.
- 6) I have an understanding of how my actions affect the natural world.
- 7) I strive to be sensitive to the needs and feelings of others.
- 8) I listen when people talk to me.
- 9) I give of myself without being asked.
- 10) Being in good physical condition is important to me.
- 11) If there is a conflict, I try to improve the situation peacefully.
- 12) I know I have the ability to accomplish most things I set my mind to.
- 13) I am flexible in my thinking and ideas.
- 14) I believe that humans must live in harmony with nature in order to survive.
- 15) I contribute when I work in a group.
- 16) I strive to be a better person.
- 17) I have difficulty dealing with conflict.
- 18) I feel compelled to help others when I believe they are experiencing hardship.
- 19) I communicate effectively with other people.
- 20) It is important for me to be actively involved in serving my community.
- 21) I find enough time for both school/work and play.
- 22) I believe setting goals for myself is important.
- 23) I understand how my actions affect others.
- 24) I have confidence in my ability to deal effectively with unexpected events.

	1	2	3	4	5	6	7
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Issues to Address

- Reliability
 - Variability
 - Social Desirability
 - Confounding Variables
 - Validity
- 

Dealing With the Ceiling Effect

- Use extreme responses
- Increase variability of response (e.g., 1-5, 1-10)
- Data transformation
- Consider Regression Discontinuity designs
- Retrospective self-reporting
 - Post + retrospective pretest
 - Perceived change (post-then-only)
 - Post + perceived change
 - Post – only

Next Steps

- Further development/testing of instrument
 - Review items with low Cronbach Alpha values.
 - Address the variability/ceiling effect issues.
 - Assess readability and interpretation of items.
 - Development and implementation of longitudinal assessment.
- Pilot Test 2
 - Beginning Spring 2009
 - Larger sample of all OB course types and populations
- Testing and analysis in Fall 2009

Questions...

<http://research.outwardbound.org/>