Optimising challenges for positive educational change; active components of outdoor adventure programming for building resilient learners in Higher Education

SP3.6c

Dr. John Allan

j.allan@lleedsbeckett.ac.uk
Acknowledgements

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Dr. John Allan

Prof. Jim McKenna

j.allan@leedsbeckett.ac.uk
Higher Education (HE) in the UK

More UG students accessing HE
2017

32.6%

University College & Advisory Service, 2018

j.allan@leedsbeckett.ac.uk
Higher Education (HE) in the UK

More WP students accessing HE

2017

24%

WP students achievement 18% lower than non-WP students

Department for Education

j.allan@leedsbeckett.ac.uk
Higher Education (HE) in the UK

More UG students achieving in HE (2003/4 – 2013/14)

UG first degrees

37.6%

25% Firsts, over 50% 2.1

Higher Education Statistics Agency, 2018

j.allan@leedsbeckett.ac.uk
Higher Education (HE) in the UK

Female students achieve in HE

• 35% more likely than males to start degree in HE

• 2% more males drop-out

• 4% more females gain “Good degrees” (Firsts or 2:1)

UCAS, 2016;
Higher Education Statistics Agency, 2017

j.allan@leedsbeckett.ac.uk
New HE students

5 times as many students 10 years ago disclose mental health condition related in part to HE stresses; inductees more vulnerable than comparative populations

Drop out rates increasing 6% non-WP, 8.2% WP

9 in 10 inductees find it difficult to make transitions to HE, feelings of isolation, staff remoteness; lack of feedback

Institute for Policy Research 2017; Conley et al; 2015


Guardian University Student Survey 2017; Coutts et al; 2011
The tightrope of Higher Education (HE)

• Low resilience linked to mental ill-health in students
  McIntosh & Shaw, 2017

• Need for resilience in HE inductees; fragile, expectant incoming students
  Kandiko & Mawer, 2013; Thomas, 2016

• Resilience: Balance and shifting along a continuum
  Calhoun & Tedeschi, 2004

• Resilience linked to academic competence and growth in HE
  Allan et al, 2013; Hartley, 2011

• Empirical EBP strategies for building resilience (21st Century Skills)

• Implementation Science
  Bauer et al., 2015

j.allan@leedsbeckett.ac.uk
What is RESILIENCE?

Score (1-10) 1 – not very good at this, 10 – very good at this

----- I am compassionate and contribute to society
----- I am empathetic
----- I am stress hardy
----- I establish realistic goals and expectations
----- I feel in control of my life
----- I feel special (not self-centred) and I help others to feel the same
----- I learn from both success and failure
----- I live responsibly based on considered values
----- I use effective communication and interpersonal skills
----- I use solid problem-solving and decision-making skills

j.allan@leedsbeckett.ac.uk
Four hallmarks of resilience (assets and resources)

Emotional competence
- e.g. I am empathetic

Cognitive competence
- e.g. I use solid problem-solving and decision-making skills

Social connectedness
- e.g. I use effective communication and interpersonal skills

Physical dynamics
- e.g. I am stress hardy

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j.allan@leedsbeckett.ac.uk
Resilience – Interactive process of walking the tightrope

The Person
Emotional, Social, Cognitive, Physical capability

The Pole
Balance positive x3 with negative experiences x1 (3:1)

Strength, width of rope
From questionnaire
Q: How strong is your rope?
Q: What is your resilience profile?

Readiness
Resilience
Adaptation

Strength, width of rope
Interwoven assets & resources from experience enabling stable movement

From the questionnaire
Q: What is your resilience profile?
Optimised neuro-chemical & psychosocial diet

Brain is the driver of health & performance (neural growth readiness-resilience-adaptation)  
e.g. Allan, McKenna & Hind, 2012

j.allan@leedsbeckett.ac.uk
Adventure philosophy – Optimising the load for students (Hormetic Stress Dosing, embodied cognition)

Balance

- Sharing, Support, Fun
- Dissonance/ Novelty / Authenticity

Preview and Review → Rope → HE

social
physical
cognitive
emotion
Outdoor Adventure residential use in HE for student orientation

Need for diagnostic and on-going assessment of new students
Cooke et al., 2006

Skill-training programs for HE students most effective for preventive mental health
Conley et al., 2015

Apparent fit between the stated goals of OA and experiences that may build promotive and protective (resilience) factors in students
Rickinson et al, 2004; Ungar, 2005, Scarfe et al., 2016

US Outdoor Orientation Programmes (OOPs) help optimise student integration into a new environment Bell et al, 2016

It takes 90 hours of quality time - laughing, joking - to develop a meaningful friendship – not just working together (Langley, 2018)
Adventure Learning – A mystical process?
Inside the box: Components of adventure learning

(McKenzie, 2000)
Purpose

- Establish the immediate changes to inductees’ psychological resilience following 40+ five-day OA residential programme across 5 annual cohorts (16 different HE Sports courses)

- Compare the magnitude and direction of resilience change to inductees accessing induction programmes at university

- Identify the most powerful OA residential experiences and students' perceived attributes of resilience
Design – Stage 1

- Establish the immediate changes to inductees’ psychological resilience following 40+ five-day OA residential programmes across 5 annual cohorts (16 different HE Sports courses)
Measuring Psychological Resilience

A validated scale for young people (Connor-Davidson Scale, CD-RISC, 2003)

‘How have you felt about yourself over the PAST WEEK?’

I could deal with whatever came along

<table>
<thead>
<tr>
<th>Not at all true</th>
<th>True nearly all the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>1</td>
<td>3</td>
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<tr>
<td>2</td>
<td>2</td>
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<tr>
<td>3</td>
<td>1</td>
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<td>4</td>
<td>0</td>
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</tbody>
</table>

Provides a single score (range 0 to 100)

Baseline profiles (total score & 5 subscales)

j.allan@leedsbeckett.ac.uk
Strands of the rope and capacity for balance

5 subscales CD-RISC (2003)

Competence

12 When things look hopeless, I don’t give up

Control

13 Know where to turn for help

Trust in oneself

19 Can handle unpleasant feelings

Change

2 Close and secure relationships

Spirituality

9 Things happen for a reason

What is RESILIENCE?

Score (1-10)
1 = not very good at this, 10 = very good at this

- I am compassionate and contribute to society
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- I establish realistic goals and expectations
- I feel in control of my life
- I feel special (not self-centred) and I help others to feel the same
- I learn from both success and failure
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j.allan@leedsbeckett.ac.uk
CONSISTENT mean resilience increases Year-on-Year

Effect size .38
(range .13 to .86)
6.29% increment
N=2547

Effect sizes .2 small .3 educationally significant .5 moderate .8 large

j.allan@leedsbeckett.ac.uk
Mean resilience differences by gender

CD-RISC and Subscales

Resilience
Competence
Trust
Change
Control
Spirit

% differences

n=1309  n=1238

Mean age
18.70 SD 1.66

F(1,2547)=8.35, p<0.00

j.allan@leedsbeckett.ac.uk
Design – Stage 2

- Compare the magnitude and direction of resilience change to inductees accessing induction programmes at university
OA programme inductees achieved a 8.35% greater increase in resilience compared to similar inductees who reported negative outcomes following a university based induction programme (ES difference = -0.526)

MANOVA F(1, 2678) = 46.42, p < .001
Sharpest increases in all subscales for OA intervention group

MANOVA $F(1, 2678) \ast = 49.55, p < .001$, $\ast\ast = 14.99, p < .001$, $\ast\ast\ast = 17.15, p < .001$, $\ast\ast\ast\ast = 39.96, p < .001$, $\ast\ast\ast\ast\ast = 5.21, p < .05$
Design – *Stage 3*

- Identify the most powerful OA residential experiences and students' perceived attributes of resilience
<table>
<thead>
<tr>
<th>Activity</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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</thead>
<tbody>
<tr>
<td>With people of my age</td>
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<tr>
<td>Got on well with people in my group</td>
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<tr>
<td>Learned and mastered new skills</td>
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<td>Solved my own problems</td>
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<td>Took responsibility for things</td>
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<tr>
<td>Left behind usual unhealthy habits</td>
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<tr>
<td>Able to laugh at myself</td>
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<tr>
<td>Motivated by the activities I did</td>
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<tr>
<td>Took part in formal team building exercises</td>
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<tr>
<td>Good connections with residential staff</td>
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<tr>
<td>Free to make my own decisions</td>
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<td>Could act in an independent way</td>
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<tr>
<td>Enjoyed social and academic activities</td>
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<tr>
<td>Experienced camp leaders</td>
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<tr>
<td>Took part in Adventure Activities</td>
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<tr>
<td>Inspired by the countryside</td>
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<tr>
<td>Able to choose activities I did</td>
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<tr>
<td>Cooked for myself and the group</td>
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<tr>
<td>Felt homesick</td>
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</tbody>
</table>
### Perceived Competencies Scale, Mean (SD) responses

<table>
<thead>
<tr>
<th></th>
<th>Much worse</th>
<th>A lot better</th>
</tr>
</thead>
<tbody>
<tr>
<td>My social relationships now</td>
<td></td>
<td></td>
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<tr>
<td>My coping with unfamiliar events now</td>
<td></td>
<td></td>
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<tr>
<td>My motivation to study now</td>
<td></td>
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<tr>
<td>My mental strength now</td>
<td></td>
<td></td>
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<tr>
<td>My level of optimism now</td>
<td></td>
<td></td>
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<tr>
<td>My resourcefulness now</td>
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<td></td>
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<tr>
<td>How well I know myself now</td>
<td></td>
<td></td>
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<tr>
<td>My creativity now</td>
<td></td>
<td></td>
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<tr>
<td>My ability to predict how others will react</td>
<td></td>
<td></td>
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<tr>
<td>Forgive others shortcomings now</td>
<td></td>
<td></td>
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<tr>
<td>My personal growth now</td>
<td></td>
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<tr>
<td>My connection to the world now</td>
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<td></td>
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<tr>
<td>Manage life's ups and downs now</td>
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<td></td>
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<tr>
<td>Forgive own shortcomings now</td>
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<td></td>
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<tr>
<td>My level of hostility now</td>
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</tr>
</tbody>
</table>

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Markers for change / Active Ingredients

Multiple stepwise linear and binary logistic regressions revealed the **strongest predictors** of resilience of all field week experiences was the frequency of students.

- Getting along with others
- Acting independently
- Experiencing positive emotion
- Making improvements in personal competencies associated with adaptive functioning (personal decision-making, social interaction, managing uncertainties, leaving behind old habits)
- Being female

j.allan@leedsbeckett.ac.uk
Interaction of factors in building resilience

- Realisation of strengths
- Learning new skills
- Signature Strengths
- Readiness
- Pole (situation)
- Person (baseline)
- Context (residential)
- Optimum Balance Resilience
- Rope (outcome)

Domains of competence:
- Adaptation
- Social relationships
- Managing ups and downs
- Optimism
- Motivation to study
- Mental strength
- Leave behind old habits
- Free to make own decisions
- Acting in an independent way
- Having to get along with others
- Support on entry and beyond
- Identify & meet needs
- Realistic expectations
- Support on entry and beyond

Signature Strengths Readiness:

- +
- -

Optimum Balance Resilience:

- j.allan@leedsbeckett.ac.uk
Strengths & Limitations

- Clear chains of inferential reasoning, rigorous objective analysis
- Largest study of its kind
- Self-report measures sensitive to participants needs
- Powerful findings underpin evidence-based practice
- Generalisations difficult across HE
- Insight into a complex area – resilience single element, multiple routes to adaptability
- Non-longitudinal or qualitative
- Smaller comparison group

j.allan@leedsbeckett.ac.uk
So What?

- Mental health of students biggest challenge for HE
- Resilience not panacea for fixing all ills
- Resilience and mental health intertwined
- Resilience can be learned through interactive processes in HE
- OA microcosm for transitional stressors and adaptive responses “grounded positivity”
- Gender issue
- Resilience is a paradox and personal – authentic challenges confronted across contexts
- First Year sets the tone – develop habits that feed success

j.allan@leedsbeckett.ac.uk
Thank you for your attention

j.allan@leedsbeckett.ac.uk


References


Institute for Policy Research (2017) Not by Degrees, Improving Student Mental Health in the UK’s Universities, IPPR


Langley, E. (2018) This is how long it takes to make a new friend https://www.msn.com/en-gb/lifestyle/loneliness/this-is-how-long-it-takes-to-make-a-new-friend/ar-AAyy0Hf?ocid=spartandhp


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