THE UNIVERSITY of EDINBURGH

Edinburgh Research Explorer

Personal development through expeditions

Interim report

Citation for published version:
Allison, P, Martindale, R, Stott, T, Gray, S, MacArthur, N & Wang, J 2014, *Personal development through expeditions: Interim report*. University of Edinburgh.

Link:
Link to publication record in Edinburgh Research Explorer

Document Version:
Publisher's PDF, also known as Version of record

Publisher Rights Statement:
© Allison, P., Martindale, R., Stott, T., Gray, S., MacArthur, N., & Wang, J. (2014). Personal development through expeditions: Interim report. The University of Edinburgh.

General rights
Copyright for the publications made accessible via the Edinburgh Research Explorer is retained by the author(s) and / or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy
The University of Edinburgh has made every reasonable effort to ensure that Edinburgh Research Explorer content complies with UK legislation. If you believe that the public display of this file breaches copyright please contact openaccess@ed.ac.uk providing details, and we will remove access to the work immediately and investigate your claim.

Download date: 17. Nov. 2026

Personal Development *Through* Expeditions: An Exploratory Study

Dr Pete Allison – The University of Edinburgh
Dr Russell Martindale – Edinburgh Napier University
Prof Dr Tim Stott – Liverpool John Moore's University
Dr Christine Nash – The University of Edinburgh
Dr Shirley Gray – The University of Edinburgh
Prof Dr John Wang – National Institute of Education, Singapore
Nikki MacArthur, The University of Edinburgh

Executive Summary

A key aim of many expeditions is to facilitate personal development, however, while there is much anecdotal evidence that this is the case, there is less empirical work that explores the exact nature of such benefits. As such, this exploratory study examined three summer BES expeditions (Norway, Namibia & Amazon) on 122 young people (aged between 16 and 22) using mixed methods methodology. Open ended and likert scale survey questions (on line) and interviews were used alongside the measurement of four psychological attributes associated with effective character development and motivation – mental toughness, coping skills, GRIT and leadership skills. Surveys were filled out at 3 stages; 1) pre expedition, 2) immediately post expedition and 3) three months post expedition, with interviews completed post final survey. Results indicated that the expeditions impacted positively on the psychological attributes of young people, with lasting effects. Specifically, the quantitative analysis revealed a significant difference and large effect size for increased 'use of coping strategies' ($P< 0.05$; ηp^2 .29) and large effects were also found for improved leadership (ηp^2 .23), GRIT (ηp^2 .17) and mental toughness (ηp^2 .16). Furthermore, data suggested there might be a differential impact of 5-week over 3-week expeditions. However, due to the exploratory nature of this work and the small numbers involved in analysis, interpretation needs to be taken with caution and further work is advised.

Qualitative data indicated that young people experienced enriching expeditions and were positive about the science, adventure and social elements of the expeditions in particular.

Introduction and Context

Every year BES expeditions send over 200 young people on expeditions to various locations around the world. The expeditions involve fundraising, science and adventure in extreme environments for the purposes of youth development. This pilot study involved all young people going on summer expeditions for three or five weeks during the summer of 2012. Expeditions were to the Amazon, Namibia and Norway. The overarching aim of the expeditions can be characterised as 'personal development', which occurs through the medium of science and adventure. This central principle of BES comes from the founder (Murray Levick) and has been the core of the society since 1932 when it was founded (see www.bes.org).

This research focused on the way in which young people understand their experiences on BES expeditions and the ways in which this might translate and inform their lives after they return from the expedition. Previous research on youth expeditions is limited but has consistently found that there are benefits that can be broadly classified as internal (values and beliefs), external (interpersonal relationship), upward (spiritual and religious) and downward (environmental). Previous research is summarised at www.expeditionresearch.co.uk and by Stott et al. (in press).

Expeditionary learning is assumed to enhance young people's motivation in learning and contribute to their personal development, however, the nature of such benefits are not clearly understood. Furthermore, Self Determination Theory (SDT) (Deci & Ryan, 1985) highlights that the quality of the motivation that is fostered is crucial in order to gain maximum benefits. Specifically, intrinsic motivation has been shown to be related to many positive outcomes such as effective learning, enhanced performance, improved confidence, problem solving and coping skills, and better quality relationships, communication and collaboration (c.f. Deci & Ryan, 2002; Grolnick & Ryan, 1989; Field & Hoffman, 1994). This type of motivation is facilitated by three key factors, perceived competence (how effective we think we are), self-determination (the control we perceive we have) and relatedness (the quality of the connection we have to others). As such, whenever these three factors are enhanced, so is intrinsic motivation. Building on this, research has also shown that key psychological skills and attributes underpin our ability to take control of our lives and aspire to achieve our ambitions, partly through an increased ability to effectively mange our emotions, thoughts and behaviours - particularly through challenging circumstances. It is these skills and attributes that enable us to make the most of situations which offer opportunities for growth and personal development. As such, this project aimed to examine the influence of BES expeditions both in general terms, and also more specifically on key psychological skills and attributes associated with successful character/personal development and motivation.

Methods

Participants

The population of each of the summer expeditions is detailed in table 1. All young people who volunteered to participate in the research were aged between 15 and 22 years old who had chosen to take part in a summer expedition. Ethical approval was sought and received through The University of Edinburgh School of Education ethics committee.

Table 1. Total Participants in the three expeditions by location, sex and expedition length.

Expedition	Number of participants in the three week expedition	Number of participants in the five week expedition	Trainee Leaders
Amazon	Male 8 Female 7	Male 13 Female 21	N/A
Namibia	Male 6 Female 14	Male 23 Female 13	Male 7 Female 5
Norway	Male 7 Female 13	Male 15 Female 11	Male 8 Female 4

Procedure

The research involved both quantitative (established questionnaires) and qualitative methods (open ended survey questions and interviews). All those on expeditions were invited to complete the survey pre expedition (June 2012), post expedition (August-September 2012) and three months after returning from expedition (December 2012-January 2013). As participants come from all over the UK an online questionnaire was designed for use with Bristol on line Survey (BoS) tool. This is a secure system that can be accessed via the Internet. To facilitate engagement, reminders via email, letter and Facebook were directed to all involved in the three summer expeditions at each of the three

data collection points. Furthermore, those who completed all three surveys were entered into a raffle for society clothing.

Once all the surveys were completed, invites for a 30 minute Skype interview were sent to those who had completed all three surveys and to a sample of people who had completed one or two surveys. Those who responded with an interest in taking part were interviewed. One further follow up email was sent to encourage maximum engagement in the interview process. Further follow up to this was deemed to be coercive, and inappropriate.

Responses Rate

A total of 22 people completed all three surveys. All respondents are summarised in appendix 1. All 22 people who completed all three surveys were invited to interview. A further 21 people were invited who had completed one or two surveys. Only three people responded and two made themselves available for interview.

Questionnaires

The survey consisted of four questionnaires that measured leadership skills (18 items), GRIT (17 items), coping strategies use (28 items), and mental toughness (18 items). Additionally there was opportunity to write open-ended responses in relation to expectations, goals, and impact.

To provide some context to what was measured, the leadership score was underpinned by three factors - interpersonal skills (e.g. managing/understanding people, motivation, conflict, team dynamics); conceptual skills (e.g. problem solving, managing change, values and strategic thinking) and administration skills (e.g. attention to detail, managing resources and time). The GRIT score was underpinned by three factors – ambition, persistence and consistency of effort over time. The COPE questionnaire measured the extent to which different coping strategies (problem and emotion focussed) were attempted in response to challenge. Note - effective coping has been shown to be multi-faceted and context specific, where no one strategy is necessarily better than any other. As such, the extent to which coping attempts were made in general was presented. Finally, mental toughness is underpinned by perceptions of challenge, commitment, confidence in ability, interpersonal confidence, control of emotions and life control.

Note - it is important to point out that these statistics are based on the 22 people who completed all three surveys. As such, the data needs to be interpreted with caution.

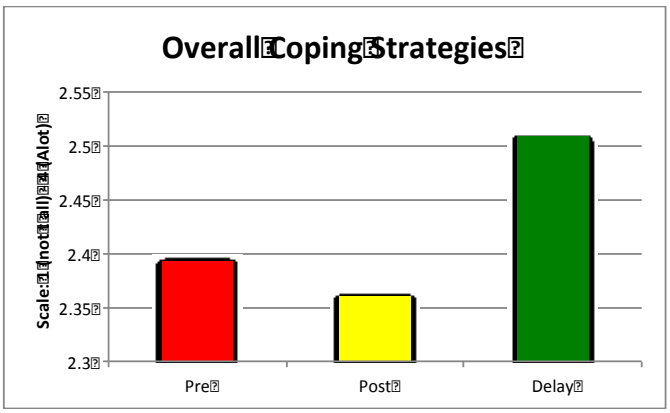
Interview

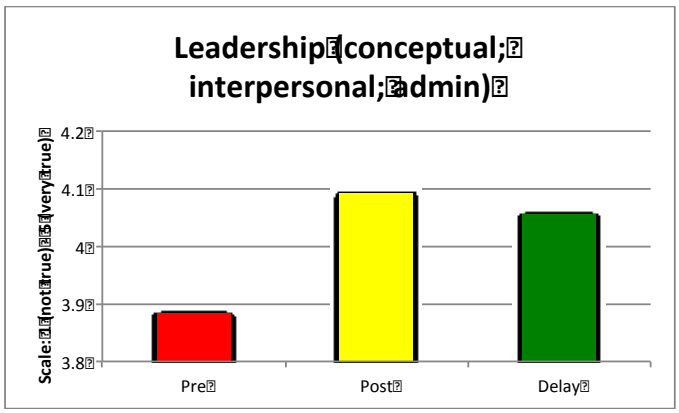
The interview lasted approximately 30 minutes and consisted of 5 main questions related to: 1) background 2) expectations and goals pre expedition 3) expedition experience and what was learned 4) Personal impact of expedition experience and extent to which any change has transferred to life in general 5) Any other comments. Qualitative data presented below is from the surveys and interviews.

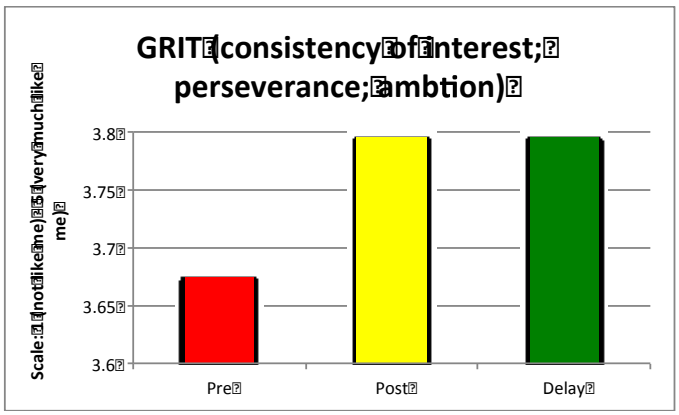
Results

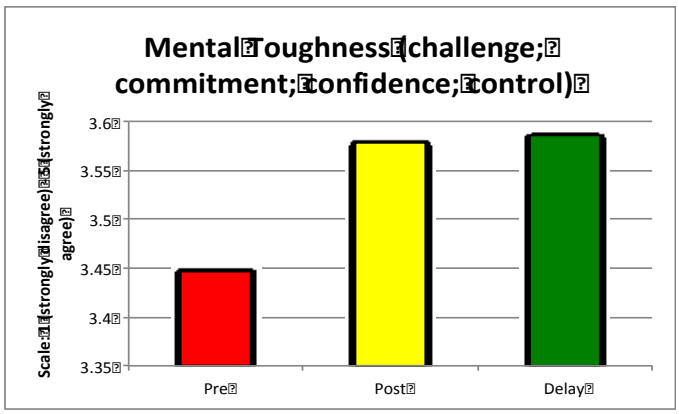
All four of the psychological skills and attributes were improved after going on expedition, as indicated by increased scores from pre expedition to three months post expedition. Specifically, a statistically significant difference and large effect was found for the use of coping strategies ($P< 0.05$; ηp^2 .29) and large effects were also found for improved leadership (ηp^2 .23), GRIT (ηp^2 .17) and mental toughness (ηp^2 .16). Interestingly, leadership, GRIT and mental toughness all showed

immediate positive changes post expedition, which were maintained over time. However, use of coping strategies dipped immediately post expedition, increasing to above pre expedition levels three months post later (Allison et al., 2011).









Below we have selected some quotations to characterise these four aspects of the research and arranged them on the basis of the time that the comments were made (pre, post, delayed post). Not all people made these comments but from our analysis these comments are representative of the dominant themes that emerged.

Leadership

Help me to progress myself/help towards my end goal of joining the army/ I originally wanted to go to the Amazon but there were no 5 week spots available and Namibia is too hot for me so Norway it was. (Pre)

I learned so many new skills and improved my teamwork and leadership abilities. I don't think I have changed that much but I have learned a lot about my strengths and weaknesses and have become a lot more sharing in terms of my thoughts and feelings. (Post)

I really developed my sense of leadership whilst on the expedition and since I've returned I have strived to do more adventurous things in life and put myself up for things I would probably not have done before such as talking in front of large groups of people. (Delayed post)

Coping

I chose Namibia because in the future this would be the terrain of war/ I want to take the pain of living in such extreme conditions, so that when pushed and under pressure in the military, living there will be as easy as breathing/experience. (Pre)

The expedition definitely met my expectations in all the above aspects. I learnt many new physical skills but I also feel that I learnt a lot about myself and how to cope in very difficult situations. (Post)

Learnt many skills of how to live in the jungle, build fires use machetes and basic survival. Learnt about our own strengths and weaknesses and how to work on them. Changed outlook on life at home and that I can do anything I want if I put my mind to it and work for it. (Delayed post)

GRIT

To experience something extraordinary, removed from school and friends/to develop myself through overcoming any challenges/on, or in fundraising preparation for, the expedition. (Pre)

From the expedition I learned that geography is a course that I should strongly consider doing at university. The expedition has encouraged me and motivated me to look at a completely different career choice. I underestimated how much I would learn from the expedition science wise, I came back wanting to learn more and it even motivated me to do more on my own at home. The expedition fed my love of geography and left me wanting more. (Post)

The expedition not only met but exceeded itself in the impact it has had on my life. I now feel much more content within myself as well as having clearer goals. I learnt a lot about myself and others and generally feel like I am a better, stronger person because of it. I am surprised at the daily impact the expedition has on my life. (Delayed post)

Mental Toughness

To test myself both physically and mentally/challenge/I have chosen BSES because they are a well known and well respected organization. (Pre)

I've learnt not to concern myself with what is out of my hands, but enjoy and push through what I'm taking part in. Dealing with the same people 24/7 I knew would also be a challenge - especially when they are all strangers you have to learn to get along with, though I had a great group. Being forced into such a contrasting situation compared to what I enjoy in my home life has shaped my personality dramatically; I've learnt to come out my shell more, though I wait until I know the group is safe. (Post)

I developed as a person a lot more than I expected - I didn't imagine that I would come out the other end of the 5 weeks and feel like such a different person. I'm a lot more confident in myself and I've realised that I make a good leader. (Delayed post)

Three or five weeks?

With regards to 3 and 5-week expeditions, 'interaction' effects were found for each of the psychological attributes (leadership - ηp^2 .095; GRIT - ηp^2 .151; mental toughness - ηp^2 .122; coping - ηp^2 .107). In other words, the nature of change could be considered different depending on the length of the expedition, where average changes for 5-week expeditions were more positive than 3-week expeditions.

Caution: these statistics are based on the people who completed all three surveys - only 5 people on 3-week and 17 people on 5-week expeditions.

	Leadership		**GRIT**		**Mental Toughness**		**Coping Strategies**	
	3-Week	***5-Week***	***3-Week***	***5-Week***	***3-Week***	***5-Week***	***3-Week***	***5-Week***
PRE	3.96	3.86	3.90	3.61	3.49	3.43	2.51	2.36
POST	4.11	4.09	3.90	3.76	3.56	3.59	2.34	2.37
DELAY	3.94	4.09	3.75	3.81	3.41	3.64	2.59	2.49

Conclusions

This research aimed to consider expeditions in the light of four categories (Leadership, coping, GRIT and mental toughness). Qualitative and quantitative data were collected and analysed pre, post and delayed post summer 2012 expeditions. Throughout the research we looked for themes relating to current issues for the society – motivation to participate, the role of science and adventure and the differences between 3 and 5 week expeditions.

We found that there were changes reported both quantitatively and qualitatively with regard to personal development and can conclude that for most people the experiences are significant in influencing confidence, mental toughness, belief in self, motivation to succeed and ability to work as part of a team. The latter appears to be influenced positively by the recruitment of individuals rather than intact groups. From the four instruments that we used it was clear that the greatest gains were in GRIT and Mental Toughness.

Some differences were found with relation to 3 and 5 week expeditions but the numbers are too small to be conclusive. We could detect no differences or patterns between ages or sex as to the benefits gained. None of the expeditions reported greater or lesser benefits than others.

Motivations to go can be characterised as being about science, adventure and wanting a challenge. Interestingly very few were motivated to learn about leadership but were attracted to the country (e.g. glaciers, biodiversity). However, several reported that their leadership skills had developed after returning and having had chance to reflect.

The following two quotes summarise the comments throughout the research:

The expedition really did meet my expectations in respect to learning, personal development and change and I feel that I have grown as a person in many aspects of my life. Such as improved

confidence, a better understanding of group dynamics, and a better ability to communicate and resolve conflicts within a group. (post)

I expected to come back a different person, and the expedition did not disappoint in that respect. I have much more of a 'can-do' outlook now, and I don't shy away from things, I just deal with them and get on with the task. (post)

References

Allison, P., Davis-Berman, J., & Berman, D. (2011). Changes in latitude, changes in attitude: Analysis of the effects of reverse culture shock - a study of students returning from youth expeditions. *Leisure Studies, 31*(4), 487-503. Doi.org/10.1080/02614367.2011.619011British Exploring (2013) www.bes.org, accessed 21-4-13

Deci, E.L. and Ryan, R. M. (1985) The general causality orientations scale: Self-determination in personality. *Journal of Research in Personality* 19 (2), 109–134.

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self determination in human behavior*. New York: Plenum.

Deci, E.L. and Ryan, R. M. (2008) Self-Determination Theory: A Macrotheory of Human Motivation,Development, and Health. *Canadian Psychology 49* (3), 182–185.

Expedition Research (2013) www.expeditionresearch.co.uk, accessed 21-4-13

Standage, M., Duda, J.L. and Ntoumanis, N. (2005) A test of self-determination theory in school physical education. *British Journal of Educational Psychology 75* (3), 411-433.

Stott, T.A., Felter, J., Allison, P. and Beames, S. (in press) Personal; Growth on Youth Expeditions: A Literature Review and Thematic Analysis, *Leisure Studies.*

Van Ryzin, M.J., Gravely, A. A. and Roseth, C. J. (2009) Autonomy, Belongingness, and Engagement in School as Contributors to Adolescent Psychological Well-Being. *Journal of Youth and Adolescence 38*(1), 1-12.

Reference this research report as:

Allison, P., Martindale, R., Stott, T., Nash, C., Gray, S., MacArthur, N. & Wang, J. (2013). *Personal development through expeditions: An exploratory study.* Edinburgh: The University of Edinburgh.

Please direct any enquiries to Pete Allison (Peter.Allison@ed.ac.uk).

Appendix 1.

Table 2. Summary of responses to the survey.

	Location	3 or 5 weeks?	Sex	Age
Pre N=122	34 Amazon 40 Namibia 48 Norway	41 on 3 week expeditions 81 on 5 week expeditions	64 Females 58 Males	2 15yrs old 33 16yrs old 51 17yrs old 26 18yrs old 5 19yrs old 1 20yrs old 2 21yrs old 2 22yrs old
Post N=43	14 Amazon 13 Namibia 16 Norway	9 on 3 week expeditions 34 on 5 week expeditions	24 Females 19 Males	2 15yrs old 11 16yrs old 17 17yrs old 9 18yrs old 2 19yrs old 0 20yrs old 1 21yrs old 1 22yrs old
Post-Post N=29	9 Amazon 8 Namibia 12 Norway	9 on 3 week expeditions 20 on 5 week expeditions	18 Females 11 Males	1 15yrs old 6 16yrs old 14 17yrs old 5 18yrs old 1 19yrs old 1 20yrs old 1 21yrs old 0 22yrs old

Table 3. Summary of respondent information for those who completed all three stages (N=22)

Location	3 or 5 weeks?	Sex	Age
5 Amazon 6 Namibia 11 Norway	5 on 3 week expeditions 17 on 5 week expeditions	12 Females 10 Males	1 15yrs old 4 16yrs old 11 17yrs old 4 18yrs old 1 19yrs old 0 20yrs old 1 21yrs old 0 22yrs old