

# student perspectives

Roger Scrutton explores student perceptions of their personal effectiveness



## Author profile

Roger Scrutton is an Honorary Research Fellow in Outdoor and Environmental Education at the University of Edinburgh, previously Reader in Geophysics at Edinburgh. He uses quantitative methodologies to evaluate outdoor education for the personal, social and academic benefits for young people. Amongst other things, he is Chair of Trustees of Friends of Benmore Outdoor Centre, a member of the Public Engagement Committee of the Royal Society of Edinburgh and heavily involved in the delivery of orienteering in the UK.

## Introduction

We are well aware of the large volume of quantitative and qualitative research that demonstrates the value of residential outdoor learning (OL) for young people. The ‘residential’ is a different and exciting learning environment where well-planned activities deliver affective, cognitive and interdisciplinary learning opportunities. The benefits that accrue from these experiences feed back into participants’ perceptions of their own personal, social and academic effectiveness (perceived abilities). This article discusses one way in which these benefits manifest themselves in quantitative research data and what this tells us about young peoples’ self-perceptions, with the intention of developing a more informed understanding of the context under which residential OL takes place.

## Working with the quantitative research data

Quantitative research on the impact of residential OL typically takes an experimental approach, measuring the change between participants’ self-report scores (usually through a questionnaire) in tests before and after the residential course (pre-test and post-test). Respondents’ scores from each aspect of the questionnaire (usually called dimensions, e.g. *self-confidence*, *self-efficacy*, *stress management* – see Table 1) are then used to calculate a mean average, which becomes the reported statistic. However, very rarely published is the order of these mean scores from highest to lowest in each of the tests - that is, their rank order from highest scoring dimension at the top to lowest scoring dimension at the bottom. Using the Review of Personal Effectiveness (ROPE) questionnaire (1) with students on residentials I became aware that the rank orders of mean scores are remarkably similar from test to test. By way of an example, Table 2 shows the rank order of dimensions from tests conducted by Loynes et al. (2) with students from schools in England.

## Checking the validity of the pattern

A next step was to find out if this rank order, which seems to be much the same from test to test, is more widespread in the quantitative research literature than just a few instances. Although the rank order of mean scores is rarely published, a literature search yielded another fifty sets of mean scores using the

ROPE questionnaire from which rank orders could be established. Source material related to students ranging in age from ten to twenty years, males and females, several residential course types and in different countries - well in excess of 1000 students altogether. The rank orders were all more-or-less the same. The averaged results are presented in Table 3.

TABLE 3 - RANK ORDER OF DIMENSIONS FROM ROPE QUESTIONNAIRE HAVING AVERAGED THEIR RANK POSITIONS ACROSS FIFTY-FOUR TESTS.

DIMENSION	COLUMN A (RANK ACROSS FIFTY-FOUR SETS)	COLUMN B (% OF TESTS DIMENSION RANKED IN TOP THREE)	COLUMN C (% OF TESTS DIMENSION RANKED IN BOTTOM THREE)
QUALITY SEEKING (QS)	1.9	80%	0%
ACTIVE INVOLVEMENT (AI)	2.8	72%	0%
OPEN THINKING (OT)	3.6	57%	0%
SELF-CONFIDENCE (SC)	3.7	59%	0%
COOPERATIVE TEAMWORK (CT)	4.8	24%	0%
LEADERSHIP ABILITY (LA)	5.6	9%	2%
SOCIAL EFFECTIVENESS (SOCE)	7.2	4%	28%
COPING WITH CHANGE (CC)	7.9	0%	39%
SELF-EFFICACY (SELFE)	8.8	0%	91%
STRESS MANAGEMENT (SM)	9.7	0%	91%
TIME EFFICIENCY (TE)	10.1	0%	94%

It should be noted that these are average ranking positions for the dimensions across many tests: moreover, it is to be expected that individual student rankings would deviate from this average, but clearly not so different as to break down the overall pattern. To be confident that the rank order is meaningful and to make sure after averaging that, for example, *active involvement* really is above *self-confidence* in the rankings, it was necessary to conduct some statistical tests. Tests found that any dimensions more than two or more rank positions apart are indeed in the right rank order. Further, it is seen that the rank orders do not change very much from pre-test scores to post-test scores, indicating that despite residentials delivering positive benefit (as reflected in higher questionnaire scores in the post-test) this benefit is sufficiently positive across all dimensions so as not to create large changes in rank order. And, finally, the rank order where a control group was used in the experiment is much the same as the order in the experimental group (see Table 2 for example). The picture really does seem to be universal.

## What are the implications?

The following is a brief consideration of what the average rank order (Table 3) tells us about students’ self-perception of their abilities and personal/social/academic effectiveness, which is the aim of the ROPE questionnaire. There seems to be a high-ranking group comprising *quality seeking*, *active involvement* and *open thinking*, conveying a sense of motivation and determination, and a low-ranking group comprising more personal abilities, such as *coping with change*, *self-efficacy*, and *stress management*. Finally, in-between the high and low-ranking groups there are the more social abilities of *cooperative teamwork*, *leadership ability* and *social efficacy*. The high-ranking group is tentatively interpreted as students perceiving themselves as having greatest effectiveness in their abilities related to achievement, probably academic achievement, given that they are all young people in education. Although *self-efficacy* is considered to lie behind an individual’s perception of their ability to achieve (3), because it has a low rank position here it is possible that *self-confidence*, rather than perceived *self-efficacy*, is the more likely determinant of students’ self-perception as achievers.

*Self-efficacy* sits within the low-ranking group, where students appear to feel less confident of their abilities in areas related to the personal or affective dimensions of life, such as *coping with change*

and *stress management*. Given that the rationale behind so many residential OL courses is to foster self-efficacy, resilience and what is generally called personal and social development or even ‘character building’, it is surprising that these dimensions are not more highly ranked or move up the rankings from pre-test to post-test. However, rankings are relative, and while scores on these affective dimensions are, on average, rather low on the ROPE scale, they are in most instances seen to increase from pre-test to post-test, yet by no more than the scores given to other dimensions. It is also important to note that our years in education are the years of our greatest emotional development (4), which might lead students to be cautious in allocating high scores on the affective dimensions of life. Be that as it may, there is now a strong view that the greatest benefit from residential OL is realised when learning in both the affective and cognitive domains takes place and then interact in a mutually reinforcing way to produce a positive outcome (5).

The position of *time efficiency*, firmly anchored at the bottom of the rankings, is of particular interest. Even in surveys where *time efficiency* has delivered a large increase in scores between pre- and post-tests it remains very low in the rankings. This seems at odds with the high ranking of dimensions such as *quality seeking* and *active involvement*, areas in which time management is seen as desirable (6). A possible explanation in this case is that young people have very few opportunities to learn and practice time management, given that they have classes, work submissions and possibly social commitments at established times. This is an area that requires further research to establish why students feel so clearly that they are less effective at *time efficiency* than all other listed dimensions.

## Conclusion

Despite all the caveats discussed here, it does seem that students perceive themselves as more effective in areas that might lead to achievement as opposed to personal abilities as a result of residential OL. Taken overall, this could be seen as a canvas upon which we plan and deliver effective residential OL courses. The rankings are relative, however, and there is plenty of research to show that personal and social abilities interact with cognitive abilities to underpin academic progress, achievement and effectiveness – it’s important to remember that all dimensions are important ▲

## References

- Richards, G.E., Ellis, L.A. & Neill, J.T. (2002). The ROPELOC: Review of personal effectiveness and locus of control: A comprehensive instrument for reviewing life effectiveness. Paper presented at Self Concept Research: Driving international research agendas, 6-8 August 2002, Sydney.
- Loynes, C., Dudman, J. & Hedges, C. (2021). The impact of residential experiences on pupils’ cognitive and non-cognitive development in year six (10–11 year olds) in England. *Education* 3-13, 49(4), 398-411.
- APA Dictionary of Psychology. Self-esteem. <https://dictionary.apa.org/self-esteem>, accessed September, 2024.
- Backes, E. P., Bonnie, R. J., & National Academies of Sciences, Engineering, and Medicine. (2019). Adolescent Development. In *The Promise of Adolescence: Realizing Opportunity for All Youth*. National Academies Press (US).
- Scrutton, R.A. (2020). Investigating the process of learning for school pupils on residential outdoor education courses. *Journal of Outdoor and Environmental Education*, 23(1), 39-56
- Adams, R. V., & Blair, E. (2019). Impact of Time Management Behaviours on Undergraduate Engineering Students’ Performance. *SAGE Open*, 9(1). <https://doi.org/10.1177/2158244018824506>, accessed September, 2024