



a centre manager I really wanted to know whether the level of challenge during residential adventure education makes a difference to the outcomes for young people. Using Randall Williams' questionnaire to survey just under a thousand young people across the four centres belonging to Sandwell Residential Outdoor Service allowed me to study the impact of challenge across centres that offered different levels of challenge. The findings show that the level of challenge does not have a large effect on outcomes.

Randall Williams¹ published a questionnaire to measure the impact of a residential adventurous experiences (RAE) on primary age children and suggested that a residential was comprised of four interwoven elements:

The impact of living with others

The impact of challenge

The impact of teacher relationships

The impact of learning about self

Williams developed the questionnaire for all adventurous residential centres to measure the impact that they have in these four categories. Use of this tool is slowly being adopted; Play Dol y Moch were one of the first in order to demonstrate the impact their services have. But, the tool, is still very young and has still been largely untested or has been quickly diluted or adapted.

As a centre head and practitioner I was keenly interested in the impact of challenge. Could I tinker with this, or perhaps any of the other elements and create better (or worse) outcomes for young people? It is long held that adventure is a keystone of our industry^{2,3,6} and it comes with controversy - from the claims of fake pre packaged adventure⁴, debates about its educational validity⁵ and the ability of practitioners to find the right level^{6,8}. Williams asks:

It is interesting to ask what is the most appropriate level of challenge for primary school pupils? There is no doubt that much provision takes place either at the play or adventure stage and that frontier adventure is relatively rare.¹

Could this challenge element be met by the arts, pre packaged adventure, onsite activities or do we need the mountains, kayaks and catamarans? My view was that high risk activity might give better outcomes but I recognised that 'challenge' for the individual participant exists along a long sliding scale of adventure but must include the social and emotional risks we find prebuilt into any residential trip.

The experiment

Williams proposed that his questionnaire could be put to use in the outdoor community....

- 1. To discover whether the degree of impact varies across the different types of centre.
- 2. Compare the impact of courses that take place entirely within the grounds of a centre with those that take place in surrounding countryside.
- 3. Discover whether there is any difference between the use of physical challenge and the intellectual challenge that might be found on a field study course. ¹

Proposal 1 gave me an idea for an experiment. As part of Sandwell Metropolitan Borough Council the Residential Education Service (SRES) has a quartet of residential centres. Each has a clear and distinctive role based on several factors such as location and activities offered. However, all four work with a similar client base, under the same service leadership, management, direction, employment and quality framework but separated by levels of physical risk, terrain and activity making it possible to test this.



Plas Gwynant (PG) is a centre which provides traditional mountain based, high risk, off site activities in the heart of the Snowdonia National Park. AALA licensed.



Ingestre Hall (IH) - an expressive arts centre set in a wonderful Staffordshire Jacobean mansion.



Edgmond Hall (EH) - a centre with a curriculum, rural, historical and countryside focus focusing on themed outdoor education



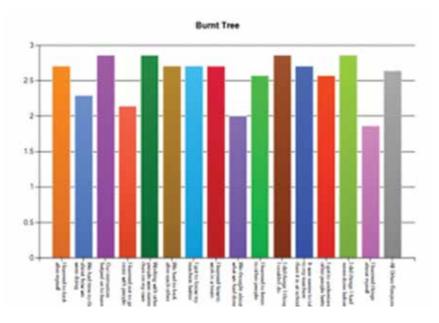
Frank Chapman Centre (FCC) - onsite, medium risk multi activity adventure and environmental centre based in woodland. AALA licensed.

My project sought to determine if the differing level and nature of challenge at these centres would lead to different outcomes that could be directly attributed to the centre - a tough job considering the multitude of factors that determine a residential course. If adventure was a determining factor for improved impact I hoped to see some clear ranking in impact for the more adventurous centres, or will other factors have a greater bearing on the outcomes for the primary school participant at this level.

Data Collection

Data collection took place shortly after or at the end of a residential course. I used the corporate survey monkey or good old fashioned paper, resulting in nearly a thousand responses across the four centres. Each school was promised their own results and the centre staff avidly awaited the responses from the children - sometime more so than the leaders feedback. Lots of schools were happy to help especially when they saw example results that they too could use.

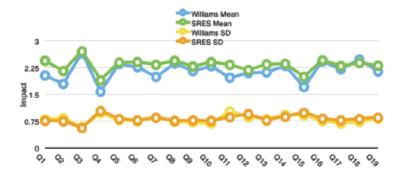
Key 0 - No Impact, 1 = A Little, 2 = Quite a bit, 3 = A lot of impact



Results:

Statistical analysis or indeed numbers is not my strong suit! With just a hard fought CSE grade 1 in Maths gained in 1987, long forgotten, the University Of Worcester who helped me understand simple stats design and testing, need praising for their patience, but dealing with objective data in volume gives a rare clarity to the results not often found in our field.

First step: I needed to check our overall data 'looked' the same as the original study - it did with our mean results and the standard deviations hardly deviating at all.



SRES centres as compared to the original Williams¹ study.

Next the data was then subjected to a 'Kruskal-Wallis One Way Analysis of Variance' which is cited' as the best test to do on this type of data - the process is not hard but interpreting the results was.

For those now frightened by the thought of such number crunching, basically each centre is compared against the other to see if having attended that centre created a difference in the outcome for a young person that was outside the realms of just being statistical chance. It also showed me what effect that difference, if any, had on the outcome.

The test showed there was a small but statistical difference between the outcomes from Ingestre when compared to both Edgmond Hall and Frank Chapman that was not subject to chance but was a direct result of attending that centre rather than the other.

Centre	Centre	Significance	Number	Chi Square	Effect Size %
IH	FCC	0.000	662	23.132	3.50
IH	EH	0.000	583	25.614	4.40
IH	PG	0.171	No Significance		
FCC	PG	0.336	No Significance		
FCC	EH	0.320	No Significance		
PG	EH	0.135	No Significance		

So - the arts centre had the least impact! But where was the mountain centre? Why was Edgmond, traditionally seen a very low risk, coming top?

But any ranking was then quickly quashed by a look at the effect size. Yes there was a statistical difference between the centres, they do create a different level of impact to each other, but the size of this effect is so small to be negligible - just a 4.4% rise in in the best case!

A quick analysis of the other categories: 'Living with others' and 'Learning about Self' showed the very same patterns as 'Challenge' for significance between the same centres, and the same small effect sizes, however the category 'Teacher Relationships' showed no single centre's impact was significant from another. I assume the residential just facilitates the relationship developing but the key drivers in this are the children and teachers themselves so the centre has much less impact.

Conclusions

The analysis showed two main results

- That two outdoor based centres had differing levels of impact to the arts.
- 2. The effect size of this impact is negligible.

Whilst the arts centre was fractionally lowest, the centre with a focus on themed curriculum and with mainly non-adventurous activities was ranked highest. The mountain centre sat in the middle!

Without a clear ranking and significant effect size from adventurous to non adventurous centre, the case for adventurous risk activities at a SRES residential centre for primary school children remains an unproven case.

Initial discussions with the Centre heads on these results brought forward the view that the Edgmond centre would often be the first experience for many children and the Ingestre Arts centre, usually the second or third residential trip. The initial away trip might prove to be the more challenging due to it being the first.

As Williams¹ recognised, Mortlock's⁵ 'peak adventure' need not be at the heart of a residential experience and that the web of other elements combined with a reasonable and well pitched level of challenge will produce excellent outcomes. It would seem that this may be the case - the majority of Key Stage 1 students find bedmaking a very challenging activity and results demonstrates the power of the social, emotional challenges that an arts residential experience produces stacked up against all those canoes.

What Have I Learnt?

This study challenged my underlying belief in the power of adventure which I have held as a valued and central tenant to my practice for many years and whilst it does not discredit it, it does move my focus away from the tool of adventure to a wider challenge in the development of the experience we produce for young people. But key is placing of a young persons voice at the centre of what we do - allowing them to tell us what impact we have made for, and with them - is the best result.

With the Association of Heads of Outdoor Centres now funding a project at Plas Dol y Moch to create a system based on Randall Williams' work to create a system accessible to members to run their own questionnaires and contribute to a wider national collection of this type of data, the opportunity arises to continue and widen the research to include many differing types of providers. Nationwide data with many tens of thousand of returns across a greater spread of organisations, ideologies and delivery methods would provide a rich resource and don't you want to know what impact you had on last weeks course?

References

Abridged from a work based project undertaken as part of a Masters in Outdoor Education with the University of Worcester. Full paper, data and references etc available on request.

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About the Author

Stuart Meese is the Head of the Frank Chapman Centre, one of the oldest outdoor centres in the UK and based in forested rural Worcestershire.

Originally a windsurf bum he has been working in sailing centres and outdoor education since 1995 with occasional distractions into youth work, youth participation and teaching.