

A group of eight children, dressed in colorful winter sports gear including helmets, goggles, and snow suits, are sitting on a snowy mountain slope. They are arranged in a loose line, some looking towards the camera. The background shows a vast, snow-covered mountain range under a bright, slightly cloudy sky. The sun is visible, casting long shadows on the snow.

by Kevin O'Byrne

Increasing resilience by going downhill

Can taking part in a winter sports programme contribute to the development of resilience in children?

Located close to the Alps in Switzerland, my school is able to offer primary students (ages 5-11yrs) the opportunity to take part in a winter sports programme. Some parents grab the opportunity and register their children immediately. Some are rather more hesitant. Our school has a relatively high student turn-over and a very international intake (over 90 nationalities); not all students and families have any interest in, or understanding and appreciation of, winter sports.

We offer anecdotal evidence to hesitant parents, of students making great progress in their skiing/snowboarding skills but also growing in self-confidence and self-esteem, developing improved relationships and experiencing moments of 'soft fascination'¹. We claim that participation offers the opportunity to develop resilience through overcoming challenges, taking risks appropriate to their ability in a supportive environment.

However, the 'Neo-Hahnian'² presumption that benefits of outdoor learning are always present should be challenged, not taken for granted. Therefore, as anecdotal evidence is not enough, I conducted a piece of research to look at whether students really can develop resilience by taking part in a winter sports programme.

Finding a common definition of the word 'resilience' is somewhat complicated. There are many studies into resilience, each describing it in slightly different ways. A clinical definition of resilience is offered as, "The maintenance of competent functioning despite an interfering emotionality...the ability to get back in balance after being pushed out of it....to tolerate greater challenges without breaking down".³

There is some debate in literature as to whether resilience is one distinct quality or rather a series of related traits. However there is agreement that the development of resilience involves a person going through an experience that is somewhat stressful or traumatic, and following that, being able to change/adapt in some way that makes it less likely they will suffer from stress in similar events later in life.

An analogy often made is that of inoculation or immunisation, in that some exposure to stress in a controlled context can benefit people when they encounter stressful events in the future. The suggestion therefore would be that this controlled exposure is something that parents and those who work with children should provide.

A student simply participating in a winter sports (or any other) programme would not be sufficient for anyone to say that they have automatically developed increased resilience. Resilience is not simply getting through an event rather than some growth/change occurs because of the experience. The ability to return to 'normal' after a stressful event is recovery, whereas resilience can be described as maintaining stability during that stressful event and in the future. How a student perceives the experience afterwards, as being a positive experience or one never-to-be-repeated, is more important than merely being a participant.

Outdoor education, due to its challenge-based, risk-taking nature would seem well placed to develop resilience in children. There have been a number of studies looking at the potential for resilience to be developed through outdoor education which have reported



finding increased resilience in participants following various outdoor challenges; none that I have been able to find have looked at winter sports.

To complete my research, I used 'resilience scale' surveys. The 'resilience scale' was developed by researchers Wagnild & Young⁴ to be used with adults in a healthcare setting. It has since been adapted to be used in research into resilience with school students.

Because of some challenging language, I used it with primary students in, years four, five, and six rather than younger pupils. Willing students completed a 'resilience scale survey' before and after the ski programme. I also conducted group interviews with open-ended questions.

The resilience scale results showed that resilience levels increased in students who had taken part in the programme. Resilience levels went down in those students who did not. Therefore it may appear to be very straightforward; skiing/snowboarding increased resilience levels and not skiing decreased them. However, the results give the averages from the samples. There were deviations from this pattern (one or two children who took part in the programme whose resilience level went down and likewise, there were children who did not take part whose resilience level increased), however on average the increase in resilience in our participating students was very evident.

It seemed apparent from the results that levels of resilience grow as the students grow, being at their highest in Year 6, and at their lowest in Year 4 both before and after the programme. Sceptics might suggest that increases in resilience occur naturally in students over time, with increased age and experience; part of normal development, regardless of any programmes offered by schools or outdoor centres. However, the fact that this research took place over such a short time span (just before and just after a five-week ski season) would lend weight to the idea that the programme itself played a part in the gains in resilience found.

When separating the results by gender, it is clear that the gains made by female students were greater than those by the male students, in all age groups. The group who made the biggest gains on resilience were the youngest girls (Year 4). A possible explanation for this could be that girls make greater gains in resilience because they can escape conformity and discover new sides to themselves.

Looking at children's former experience of winter sports, the greatest increase in resilience by far was seen in those children who had no prior experience. This would suggest that gaining a new skill, doing something for the first time, might contribute to resilience more than taking in part in an activity that is more familiar.

In group interviews, several themes became apparent as important areas of learning and personal growth for students. The themes were very similar to those identified as 'resilience-related' by Ewert & Yoshino (2011)⁵:

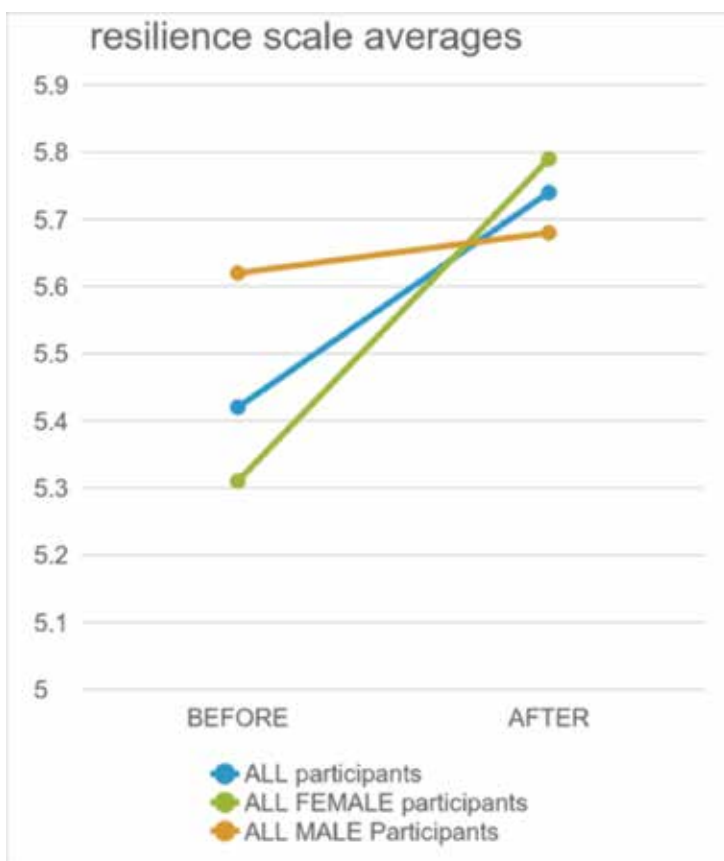
- Perseverance
- Social support
- self-awareness
- confidence
- achievement
- responsibility to others.

● PERSEVERANCE ●

The idea most often referred to when students were asked to reflect on their participation, was that of having overcome fears and that students had learned that, even though something appears difficult initially, if they persevered they could make improvements.

"Even if I had a few big tumbles I kept going and lots of people did that." Year 4 Girl

"When I put myself to something, I get much better at it.... sometimes you have to be scared because being scared makes you improve even better – and when you put yourself to something you can achieve it." Year 6 girl



When asked what advice they would offer to new, perhaps nervous students it was to not be deterred by one's fears, and that the experience will become easier and not be intimidating 'once you get used to it'. Perseverance was alluded to in the numerous responses that mentioned trying to learn skiing for more than one day,

"It's not that scary and that after you get the hang of it, and it just takes a few days," Year 6 boy

"...all of us here, we have also had our first time and we were all nervous, so they should think that they are not the only ones who are going for the first time. We have all gone for the first time too. If you fall its fine, just get back up and keep going. I would say, just try." Year 6 girl

When questioned further, this child stated that the idea of other frightening challenges in the future was "exciting" to her.

● SELF-AWARENESS ●

Students gave several responses in which they showed an improving understanding of themselves and how they were changing, linked to participating in the ski programme.

"I think I've changed because I found that I don't always need an adult or someone older than you to tell you what to do. You can be responsible enough and independent enough to do it by yourself." Year 6 girl

"Before when there was something hard, I would avoid it, but now because when we went skiing on icy days, I know I can do hard things." Year 4 girl

This last quote, and others referring to bad conditions, suggest that children feeling as though they had overcome adverse weather conditions also helped develop a sense of resilience.

I also found through interviewing, to the students' great credit, that when asked to describe their memories of the programme, many children told anecdotes in a self-deprecating way, of funny or embarrassing events that happened to them. They did not give anecdotes about other students falling or making mistakes, showing the sensitivity not to make fun of someone else's misfortune but showing modesty, humour and the ability to laugh at oneself.

● ACHIEVEMENT ●

Many children spoke of the good feeling that comes with knowing that one has developed/improved expertise in a specific skill, be it skiing or snowboarding, or just the ability to walk in ski boots carrying all the equipment, or to be away from home. These achievements were apparent to students and were clearly a source of great satisfaction.

"This year I learned to get up by myself if I fall, last year I couldn't do it. I've got more muscles now." Year 5 boy

Giving children challenges with a high chance of success is fundamental to developing resilience. Appropriate grouping of students is a very important aspect in terms of achievement. This sense of achievement that children describe was possible if they were challenged appropriately. If the levels of challenge, as set by the ski instructor, were inappropriate, it could be frustrating or demoralising.

"I'm proud of myself, and of everyone else. No-one in my group had skied before and look what we can do after just a few lessons." Year 4 boy

● CONFIDENCE ●

When asked about how they feel they have changed as a result of taking part in the programme, increased confidence was reported by most students,



"I became more confident, I didn't ski much with my parents I was really nervous and now I'm more confident." Year 6 Girl

When asked to choose their own words to describe how they felt about themselves, 'Proud', 'Confident', and 'Happy' were most frequently offered by students.

● SOCIAL SUPPORT ●

Making or improving quality relationships with other was often mentioned in response to questions on what was memorable about the programme. Getting to know classmates better was frequently offered as a positive impact of the programme, particularly for the Year 6 students who had a residential experience as opposed to the series of day trips offered to younger students. For them, the dynamics in the bedrooms and at bedtime seemed to be particularly important (perhaps more-so than skiing) to students, who described the importance of being able to get along with each other in an atmosphere of respect; 'getting used to what other people like' with less adult intervention.

(I learned about)... "Respecting each other in the rooms because, not everyone has the same routines when they sleep so you get to learn how to live with each other and be really independent." Year 6 girl

"I learned about (name) because I was never really close to her but we were in the same group and we would wait for each other. She's a really nice friend." Year 5 Girl

Younger students who had not taken part in a residential experience, and new students, showed appreciation of being able to develop better relationships with people from other classes who they had not spent much time with before.



"I'm new to the school and I thought it was a good opportunity to get to know each other a little more," Year 6 boy

"I learned to respect other people and how they felt." Year 6 girl

Positive social interactions were clearly very important to the students. The importance of social support in nurturing and developing resilience should be emphasised, both between students and staff as well as between students.

● RESPONSIBILITY ●

Students also appeared to enjoy the opportunity to be able to show that they could be caring towards their peers. Helping people if they dropped something, waiting with people who fell and caring for a classmate who was sick were mentioned as areas of personal learning and change.

" 'Cos someone got sick in our room, I learned how to help other people without an adult around" Year 6 Girl

In interviews such as this, there could be the potential for children to tell the teacher what they think he/she wants to hear. All students are aware that I organise the ski programme, and have heard me speak very positively about winter sports and know that I thoroughly enjoy skiing with them. It is possible that they could be influenced by wishing to please the teacher. However, 'Student voice', gathering student feedback, is a regular part of our school life for many different reasons, such as course evaluations, redesigning the school environment, appraisals etc. Students are used to being asked for their honest opinions, are listened to and are always forthright, so I think I can rely on the honesty of the students' answers.

The terms 'resilient' or 'resilience' were not specifically mentioned by any children. However, the responses from students described how they have sensed achievement and accomplishment in overcoming fears, not just relief in having survived the programme, shows resilience – and their advice to new, nervous students was to encourage resilience in their peers.

It is clear, that participating in a winter sports programme, either as a residential trip or in the form of individual ski/snowboard days, offers a great opportunity for children to develop personal qualities, including resilience. Consistencies were found with results from other research into other outdoor experiences and resilience in

RESILIENCE SCALE RESULTS

CATEGORY	BEFORE	AFTER	CHANGE +
ALL participants	5.42	5.74	0.32
Year 6 participants	5.61	5.87	0.26
Year 5 Participants	5.36	5.73	0.37
Year 4 Participants	5.31	5.63	0.32
ALL FEMALE participants	5.31	5.79	0.48
FEMALE Y6 Participants	5.52	5.87	0.35
FEMALE Y5 Participants	5.3	5.8	0.5
FEMALE Y4 Participants	4.66	5.68	1.02
ALL MALE Participants	5.62	5.68	0.06
MALE Y6 Participants	5.87	5.9	0.03
MALE Y5 Participants	5.49	5.66	0.17
MALE Y4 Participants	5.63	5.64	0.01
Participants with 0 YRS EXPERIENCE	4.88	5.7	0.82
Participants with 1 YRS EXPERIENCE	6.07	6.2	0.13
Participants with 2 YRS EXPERIENCE	4.99	5.22	0.23
Participants with 3 YRS EXPERIENCE	5.16	5.76	0.6
Participants with 4 YRS EXPERIENCE	5.39	5.66	0.27
Participants with 5 YRS EXPERIENCE	5.62	5.87	0.25
Participants with 6 YRS EXPERIENCE	5.53	5.91	0.38
NON-PARTICIPANTS	4.88	4.67	-0.21

terms of: increased resilience, particularly the greater gains seen in resilience for girls. The similarity in the interview responses to Ewert & Yoshino's resilience-related themes, are clear.

Developing resilience through winter sports may not quite as simple as these results would suggest. The individual child needs to be taken into consideration in any programme designed to enhance resilience, rather than a 'one size fits all' winter sports programme for all children.

However, the interview responses, coupled with the results from the 'resilience scale' exercise, lead me to believe that, despite the limitations of the study, a winter sports programme is very beneficial for students, particularly for those who have not experienced winter sports before, and can lead to increased resilience, as well as confidence, independence, self-esteem and, crucially, the ability to laugh at oneself.

At our school, we shall continue to encourage maximum participation in winter sports and would encourage other schools and organisations to do the same. ■

NOTES

1. Kaplan, R. and Kaplan, S., 1989. The experience of nature: A psychological perspective. CUP Archive.
2. Brookes, A., 2003. A critique of Neo-Hahnian outdoor education theory. Part one: Challenges to the concept of "character building". Journal of Adventure Education & Outdoor Learning, 3(1), pp.49-62.
3. Newmann, T., & Blackburn, S. (2002) 'Transitions in the lives of children and young people: Resilience factors. Edinburgh: The Scottish Government Education Department, Inerchange 78.
4. Wagnild, G. & Young, H., 1993. Development and Psychometric Evaluation of the Resilience Scale. Journal of Nursing Management Vol. 1, No. 2, p165-176
5. Ewert, A. and Yoshino, A., 2011. The influence of short-term adventure-based experiences on levels of resilience. Journal of Adventure Education and Outdoor Learning, 11(1), pp.35-50

About the Author

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