



A LONGITUDINAL EVALUATION OF THE SURF ACTION
'COMMUNITY INTEGRATION AND WELLBEING PROJECT'
2020, USING SURF THERAPY TO SUPPORT THE PHYSICAL
& PSYCHOLOGICAL WELLBEING OF MEMBERS OF THE
ARMED FORCES COMMUNITY DURING COVID-19



**KINDLY FUNDED BY** 





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#### **Foreword**

There is overwhelming scientific evidence that being physically active leads to a healthier and happier life and that these benefits are even more prevalent when activity takes place in or near the ocean and/or green spaces. Surf Action has been at the vanguard of the development of ocean-based activities and its acceptance in the mainstream. It is a complimentary therapeutic approach that enables an element of space, creativity and fun that is often lacking in traditional therapy options. Surf Action has been delivering surf therapy to the armed forces community for over five years and latterly, it has also been asked to work with vulnerable families and individuals from the wider civilian community.

There is a common tendency when reporting on services for children to use a lot of pictures showing the children active and smiling and to 'let the picture tell a thousand words' and Surf Action is not totally immune to this however, we realise that a picture is only the encapsulation of emotions at that specific moment. This report seeks to examine the effects of our surf therapy programme when there is not a photograph to consult.

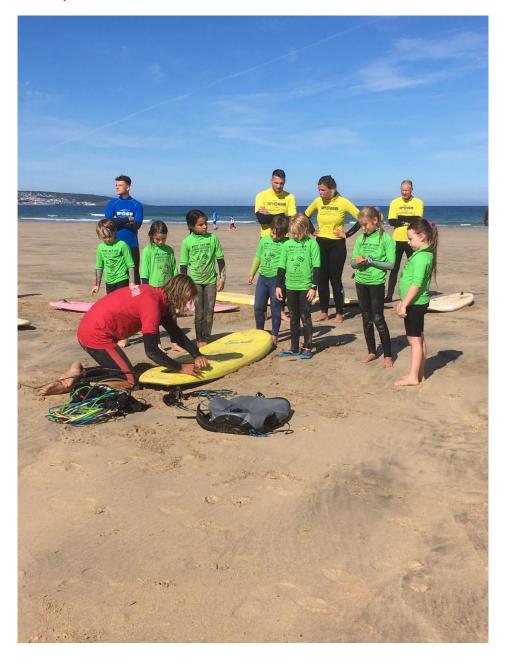
Surf Action has collected both quantitative and qualitative data throughout the Community Integration and Wellbeing project and this report is an examination of that aggregated data to examine the delivery, efficacy, and outcomes of the Surf Action Surf Therapy model over the duration of the project.

We are not a surf school that provides free surfing! Through our funding streams and ethos, Surf Action uses surf therapy as a therapeutic tool but wants its service users to be able to move on in their lives and are delighted when this means they don't need our help anymore. Those who wish to take up surfing as a sport as a result of their participation are taught all the necessary health and safety considerations and encouraged to do so however it needs to be done at their own expense either individually or by joining a surf school. Similarly, if someone has moved on in their life but feels the need to return to us for a spell, we will always try to accommodate them.

Surf Action is very fortunate in benefitting from a wide range of skills possessed by its invaluable and dedicated volunteers and these include the degree-level mathematical and statistical skills necessary to arrange and amalgamate the data, design a tailored excel spreadsheet and to carry out the

associated statistical analysis and the generation of the appropriate diagrams. The full, anonymised dataset and spreadsheet are included at the end of this report to demonstrate our belief in the openness of our surf-therapy model and research.

This analysis was carried out with the hypothesis H<sub>1</sub>: that 'Surf Action's Community Integration and Wellbeing Project had a positive and sustainable effect on the wellbeing of young people'. The analysis looked for evidence which supported this and for evidence which might support the opposing null-hypothesis H<sub>0</sub>: that 'Any effect on the wellbeing of the young people identified as a result of participation can be attributed to other outside environmental/social factors'.



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#### **EXECUTIVE SUMMARY**

2020 has been an interesting year with many challenges for the population and society as a whole. At one point we were unsure if we would be able to run any courses due to the uncertainty and plethora of limiting regulations however once the lockdown was eased, we were proactive in trying to achieve something within the time left and through flexibility and good liaison with our volunteers and 'Global Boarders', our specialist surf provider, we have achieved what looked to be impossible.

We successfully ran six, six-week armed forces community ocean therapy courses whilst meeting all the relevant social distancing and health regulations and engaged with a large number of families and children. Most of the children had not been at school for 4 months and many of the parents were tired from home schooling and the general uncertainty. Some parents were back at work, some were still furloughed whilst others had been busy trying to support their wider family. This made our Community Integration and Wellbeing Project more important and relevant than ever and may help account for its excellent outcomes. Many of the children knew one another from school but had not seen one another since lockdown and the same went for many of the parents and this resulted in a 'Dunkirk Spirit' amongst many and meant they appreciated the courses even more.

A TABLE COMPARING THE IMPRO	VEMENT IN WELLB 2 BY GRADED T1 S		YOUNG PEOPLE
	Boys	Girls	Combined
Number of participants with a mean T1 score<2 (Meaning 'Rarely')	0	0	0
Mean % increase at T2 for those participants	0	0	0
Number of participants with a mean T1 score<3 (Meaning 'Some of the time')	4	1	5
Mean % increase at T2 for those participants	59%	41.5%	56%
Number of participants with a mean T1 score<4 (Meaning 'Often')	21	8	29
Mean % increase at T2 for those participants	28%	30%	29%
Number of participants with a mean T1 score ≤ 5 (Meaning 'All of the time)	32	23	55
Mean % increase at T2 for those participants	21%	12.3%	17%

The outcomes of the armed forces community children are summarised in the table above.

- The boys showed an average increase in wellbeing scores of 21% and this may indicate they had been very frustrated during lockdown and used their time with us to rid themselves of it in a healthy manner.
- The girls showed a more measured but very pleasing, wellbeing score increase of 12.3% and this may indicate that they dealt with the challenges of lockdown better than the boys.
- The group scores for the 55 children showed a statistically significant wellbeing increase of 17% with a greater than 95% certainty that the outcomes are accountable due to participation in our Community Integration and Wellbeing programme and not to other environmental factors.
- The children who showed the lowest initial wellbeing scores benefited the most and exhibited an average increase in their wellbeing scores of 56% by the end of their courses.
- None of the children reported experiencing Covid 19 anxiety.
- The children came from a record number of 18 schools including Torpoint and this shows that people are prepared to go to some lengths to attend.

The outcomes from the Emotional Needs Audit (ENA) from the 36 parents/carers who completed them showed that:

- As a population they were mostly stable and satisfied in the most important areas of their lives.
- Several participated in private talks with the on-site counsellor and asked for advice on specific subjects.
- 2 separate adults showed relatively low ENA scores and are working with us on ways to increase them in the medium term.

The feedback from the participants was excellent and demonstrates that Surf Action is providing practical and valuable services to the armed forces community at this difficult time in a successful and safe manner. This was backed up by the letter of thanks from the Captain of RNAS Culdrose thanking us for our efforts. (Annex A)

We are happy that the outcomes demonstrate that 'The Surf Action Community Integration and Wellbeing Project' is a well-designed and targeted provision with proven and sustained wellbeing outcomes which is ideally suited to help combat the growing physical and psychological health worries within the armed forces community in these challenging times.



**ARMED FORCES** We thank the Armed Forces Covenant Trust for their **COVENANT** funding which made this successful project possible.

### **Background**

Surf Action is the trading name of Combat Surfers, a Cobseo registered military charity (Charity Number: 1140191). Surf Action promotes good physical and mental health through personal development, good personal choices, solution focused therapy, education and empowers its service users to lead healthy, fulfilled, and independent lives and to become valued and active members of their community. Core to achieving this is the use of progressive lifestyle medicine and the blue and green gym concepts and involving our service users and their families in high intensity water-sports in the magnificent coastal environment around us with the resulting recognised physical and psychological health and resilience benefits.

Surf Action has developed a pioneering and highly cost-effective physical and mental health, wrap-around, 'Joined-Up Recovery Programme' for the armed forces community, working with individuals and families many of whom have complex physical and/or psychological problems including PTSD, depression and anxiety in particular as a result of their service.

The wraparound recovery programme was developed because Surf Action believes that recovery:

- Does not necessarily mean getting back to where you were before
- Happens in 'fits and starts' and, like life, has many ups and downs
- Is profoundly influenced by people's expectations and attitudes
- Requires a well organised system of support from family, friends and/or professionals
- Requires services to embrace new and innovative ways of working.

The efficacy of Surf Action's surf-therapy for adults has been independently examined, researched and its outcomes endorsed by several universities. The resulting published papers include

- Caddick, N., Smith, B., & Phoenix, C. (2015). The effects of surfing and the natural environment on the well-being of combat veterans. Qualitative Health Research, 25, 76-86.
- 'Exercise is medicine for mental health in military veterans: A qualitative commentary' (2017) by Dr Nick Caddick (Veterans and Families Institute, Anglia

Ruskin University) and Professor Brett Smith (School of Sport, Exercise and Rehabilitation Sciences, University of Birmingham)

# THE SURF ACTION COMMUNITY INTEGRATION AND WELLBEING PROJECT

Surf Action applied to the 'Armed Forces Covenant Trust' in March 2019 for funding for this project as part of their small grants programme. In August 2019 we were delighted to receive the funding.

The aim of the project was to support the physical/psychological wellbeing of the armed forces and local communities around RNAS Culdrose by helping local families best deal with the emotional effects of the current heavy deployment cycle by involvement in healthy activities in the blue and green gyms in the magnificent Cornish coastal environment.

RNAS Culdrose is the largest and busiest naval air-station in Europe and has a higher proportion of its personnel deployed at any one time than virtually any other base. An already hectic schedule has been further strained by the commissioning of two large aircraft carriers and the demands of current unstable world situation. This is having a commensurate effect on service families with increased demands on the base welfare services and reports from local schools of noticeable changes in some of the children whilst being exacerbated by social media and the 24-hour news cycle. An increasing number of military personnel are choosing to live further away from the main military housing areas and amongst the local community. They are also choosing to keep their families in the local area when they are posted away from Cornwall. Their families can then become rather isolated and struggle to integrate easily within the local community as shown in the 'UK Armed Forces Continuous Attitude Survey 2017' in these areas; Section 1 (Morale, Commitment and Engagement), Section 9 (Work/Life Balance), Section 11 (Health, Fitness and Welfare) and Section 13 (Family Life and Being Part of Society).

The Surf Action Community Integration and Wellbeing Project is an evidence—based variation of our adult surf-therapy programme, an experiential learning opportunity to help address the problems outlined above by the provision of supportive activities for children, young-people and families to take part in within Cornwall's stunning natural, outdoor environment. It was tailored for

families and children who were facing challenges and experiencing difficulties in everyday life to support their resilience, ability to cope and to boost wellbeing.

At the core are a series of vigorous water-based activity courses. Participants experience the benefits of being active in the outdoor environment and an exhilarating physical, emotional, and social experience, which could act as the foundation for improvement in long-term health, wellbeing, lifestyle, and family relationships. We wanted to harness the research-endorsed physical and psychological health benefits of being regularly active in the ocean for the children and their parents/carers. These include:

- Improved Vitamin D levels from being active in sunlight
- Improved quality of sleep due to boosted Melatonin levels
- Improved core body strength
- Stronger muscles
- Improved balance
- Improved sense of self-worth
- Improved relaxation and mindfulness
- Being a respected part of a friendship group
- Feeling satisfaction and pride in their achievements
- Better social integration & reduced isolation
- Better able to discuss their situations with others
- Improved anger management
- An active lifestyle
- A reduction in the severity of the symptoms in some life-long health conditions such as cystic fibrosis by strengthening the lung function and the immune system, thus aiding the clearing of mucus and boosting the quality of life
- Helping some who are on the autistic spectrum by helping reduce sensory overload and interrupting obsessive-compulsive routines thus improving their quality of life

- A reduction in the severity of the symptoms in PTSD and a wide range of related mild to moderate depressive mental health conditions.
- Being in an atmosphere which is very different from that of the day-today life
- The opportunity to identify and concentrate on and develop one's own recovery path
- Being more receptive to learning new things
- Enhanced peer support relationships
- Enhanced self-confidence and self-esteem.
- Learning from the experiences of others and offering their own experiences
- Improved physical and psychological resilience
- Learning about new adjustment strategies
- Learning about new coping skills and education within a group setting
- Learning about the benefits of, education, work and volunteering opportunities
- Improved family cohesion, relationships and understanding

## **Involving parents/carers**

From the outset we wanted to encourage parents/carers to join their children in the water and to experience the programme together because it is recognised that spending quality time together as a group, and especially as a family, can have beneficial outcomes for everyone and especially children. The recognised benefits include

- Bonding Time: Spending quality time together as a family allows everyone to bond. Whether this is partaking in everyday activities or going on holiday, creating warm memories is so valuable for children. In fact, strong child-parent bonds are only formed through consistent communication and meaningful time spent together.
- Happier children: Even though the entire family benefits from being together, it can have really a positive effect on children's general

wellbeing and happiness and it's the quality of interactions not the quantity that really count. Making small changes when spending time as a unit can make all the difference. Putting aside distractions and listening to each other can help make everyone feel loved and appreciated.

- o Improved self-esteem: When children feel as though they're valued by their parents and spend regular, quality time together, it helps build up a positive sense of self-worth. This self-esteem often translates across to their social and school lives. Even better, family time doesn't have to be expensive activities such as going for a walk or a bike ride hold just as much worth. The important part is spending time together and enjoying each other's company
- Improved mental health: The importance of family time on children's mental health is significant. Children who feel engaged and connected in their family dynamic are more likely to be sociable, perform better in school and have less behavioural issues. In fact, recent reports have shown that teens who have infrequent family dinners are twice as likely to use tobacco and alcohol.

Surf Action recognises that there are many different family structures however the benefits of being active together remain the same. In the case of families which are no longer together, our courses give the opportunity for absent parents to be positively involved in their children's life in a structured way over 8-weeks which would not be otherwise possible. Of course, it was not possible for some parents/carers to participate for many good reasons, but we still ask them to remain in the vicinity of the beach to watch, give encouragement and to engage in conversation with the other parents/carers and our own staff and volunteers. We were not there to provide a free child-minding service for the morning! Conversations on the beach are an important part of our structure as they allowed parents/carers the opportunity to talk openly, but confidentially, to our professionals and volunteers on a regular basis in a natural environment when they were relaxed. From these conversations we learned about their lives and what was working well and what was not. This became the foundation on which to help support them in addressing the areas of worry where it was possible through advice and/or referral.

## **Measuring Wellbeing**

Surf Action has always taken a well-being approach in its delivery and in assessing outcomes because it enables us to:

- Move beyond a narrow focus on what can go wrong in people's lives, to look also at what makes people's lives go well.
- Move beyond looking only at what people lack or need and look at the positive things people bring to situations and communities their assets. This in turn can help us think about the ways that people can be empowered to contribute to improvements in their own lives.
- Move beyond just focusing on economic circumstances to include the important areas of people's emotional and social needs.

When we understand what makes people's lives go well, see the positive things people bring to situations, and understand people's emotional and social needs, projects and services can be better designed to respond to the many aspects that make up people's lives.

In 2014 Surf Action opted to use the WEMWBS scale, a positively worded measure developed by Warwick and Edinburgh Universities in 2006 in conjunction with NHS Scotland, measuring emotional and psychological wellbeing, validated with children aged 8 upwards.

The Warwick-Edinburgh Mental Well-being Scale (WEMWBS) is a scale with five response categories on a Likert scale, which have been specifically designed to measure both the feeling and functioning aspects of positive mental well-being. These questions meet various statistical tests of robustness, and they also have 'face validity' as measures of aspects of flourishing within the dynamic model, i.e. on the face of it, the questions really are about wellbeing! For example, good feelings ('feeling relaxed'), sense of meaning ('feeling useful') and good relationships ('feeling close to other people'). Warwick and Edinburgh Universities were commissioned to develop this in 2006, and it has been academically validated as having good psychometric properties, good validity, and reliability with the ability to distinguish between population groups. WEMWBS has been widely used in population surveys in the UK and elsewhere, including in the Health Survey for England in 2011.

Although the scale is validated for children aged 8 and above, the minimum age for participation in our water-based activities was 7 so after consulting

widely amongst our trustees and professionals, we decided to let the 7-year olds complete the forms. There was a 'neutral' Surf Action volunteer available to them during this process to further explain questions and to find examples in day to day life which helped explain the various concepts.

The children were asked to complete a WEMWBS form at the start, in the middle and at the end of their courses.

Throughout this report we will be using mean (average) WEMWBS scores for individual children and groups because this allows us to easily translate a score into a meaningful word statement linking the quantitative and qualitative data using the WEMWBS Likert scale table below.

	The WEMWBS Likert scale for each of the questions												
WEMWBS	1	2	3	4	5								
Score													
Qualitative	None of the	Rarely	Some of	Often	All the time								
meaning	time		the time										

The parents/carers were also asked to complete an emotional needs audit during the course associated with our adult provision to give us a snapshot of their lives and situation. This could then be used as a catalyst for a directed conversation later to support them if they wanted. They were also asked to complete a comprehensive feedback sheet at the end of their course.

## **Inclusivity**

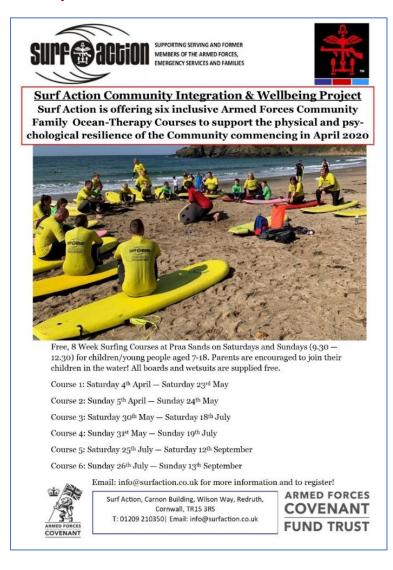


We wanted the project to be as inclusive as possible and made the decision to, unlike many organisations, integrate any participants with special needs with their peers whenever possible taking into consideration our

duty of care and safeguarding requirements. We were delighted that this was achieved in its entirety.

#### **METHODOLOGY**

## 1. Preparation

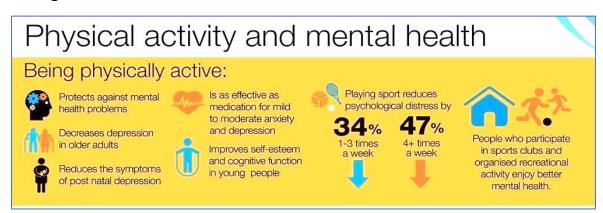


The community integration Oceantherapy courses were comprehensively advertised from Christmas 2019 onwards through social media and the local military establishments and cluster schools. Several parents saw our advertising and booked places for their children whilst they were still deployed overseas which was good to see.

There were plenty of applications and the courses were quickly filled and in fact over-subscribed. All applicants also completed relevant 'Photographic Consent' and 'Disclaimer' forms. There was a good age and gender

mix amongst the participants which was very pleasing.

Each course could accommodate 10 children so there were 60 places available during 2020.







Surf Action Community Integration & Wellbeing Project Surf Action is offering several inclusive Armed Forces Community Family Ocean-Therapy Courses to support the physical and psychological resilience of the Community commencing in July 2020



Post Covid-19, free 6-week surfing courses at Praa Sands on Saturdays and Sundays for children/young people aged 7-18. Parents are encouraged to join their children in the water! All boards and wetsuits are supplied free.

Course 1: Saturday 4th July - Saturday 8th August-Morning (09.30-12.00)

Course 2: Sunday 5th July - Sunday 9th August-Morning (09.30-12.00)

Course 3: Saturday 4th July - Saturday 8th August-Afternoon (13.00-15.30)

Course 4: Sunday 5th July - Sunday 9th August - Afternoon (13.00-15.30)

We hope to run some additional courses commencing in mid August.

Email: info@surfaction.co.uk for more information and to register!



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Surf Action Community Integration & Wellbeing Project Surf Action is offering two extra Armed Forces Community Family Ocean-Therapy Courses to support the physical and psychological resilience of the Community



We are already running four armed forces community families courses and can now offer two more free, 6-week surfing courses at Gwithian on Saturday mornings for children/young people aged 7-18. Parents are encouraged to join their children in the water! All boards and wetsuits are supplied free.

Course 5: Saturday 15th August — Saturday 19th Sept—Morning (09.00-12.30)

Course 6: Saturday 15th August — Saturday 19th Sept—Morning (09.00-12.30)

Email: info@surfaction.co.uk for more information and to register!



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#### 2. Covid 19

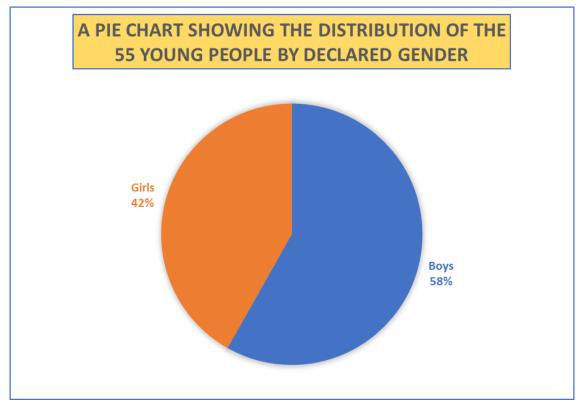
The onset of the nationwide lockdown on 24th March 2020, 10 days before our courses were due to commence resulted in our cancelling the first two courses and we then kept a watching brief as the situation evolved. It became apparent that the plan we had envisaged for 2020 was not going to be viable so we went back to the drawing board. We were adamant that if it were humanly possible, we would run the courses for the armed forces community in 2020 as they would be more relevant than ever. As the situation developed and restrictions were eased, we kept track of all the social distancing requirements and stayed in regular contact with the directors of 'Global Boarders', the specialist surf provider we use, regarding updates on what was allowable in terms of numbers and social distancing from Surf England. This allowed us to formulate a new plan and we made an educated guess as to a viable start date for our courses of 4th July 2020 and then advertised them accordingly.

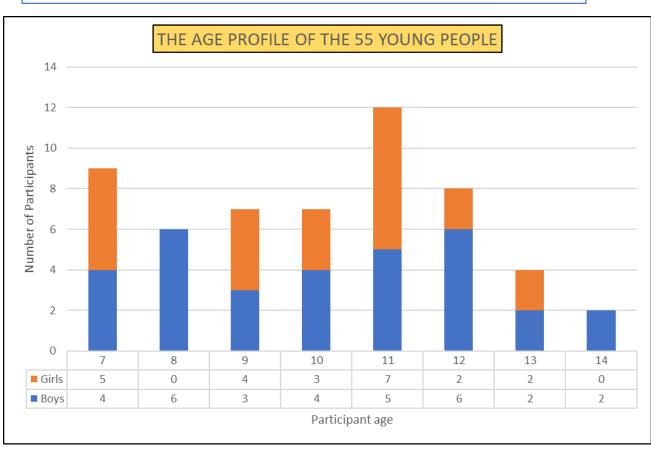
We restructured our traditional format from 8-weeks to 6-weeks due to the delayed start, reduced the number of courses from 6 to 4 and moved the venue from Praa

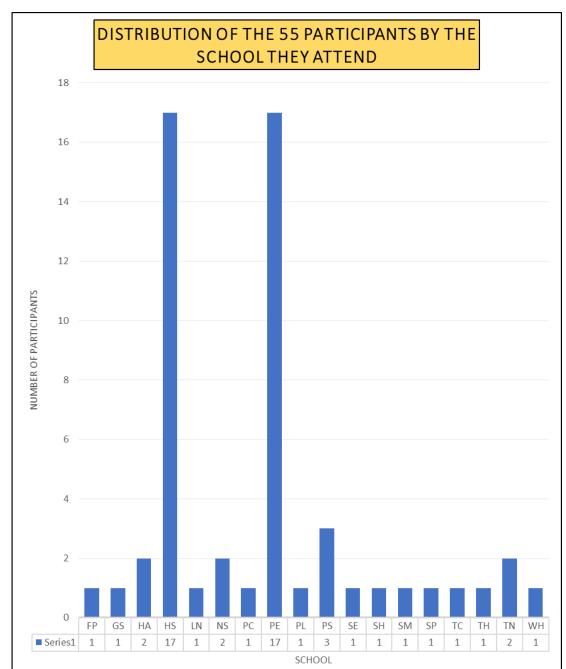
Sands to Gwithian on the north coast of Cornwall. The Surf England guidance at the time allowed one surf instructor to look after 6 people in the water with the appropriate distancing so we had to increase the number of instructors however, shortly before commencement this was increased from 6 to 8 persons. All four courses were over-subscribed again. The only other change we had to make was to move all courses to the morning after the first couple of weeks due to the carpark at Gwithian being full by lunchtime in good weather! Good communication with families was vital and was done weekly prior to the start of a course to answer any questions and to address any worries which were expressed. Everything ran smoothly when the courses started with everyone working hard to ensure the necessary restrictions were obeyed. We then felt confident enough to offer a further couple of courses and the appropriate planning and advertising was undertaken. These were filled quickly. On the final session of each course we held a certificate presentation for the young people to celebrate their achievements followed by lunch.



## 3. PARTICIPANTS







18 \$	chools
Letters	School
- FD	Falmouth
FP	Primary
GS	Godolphin
GS	Primary
НА	Hayle
ПА	Acadamy
HS	Helston
113	School
LN	Leedstown
LIV	Primary
NS	Nansloe
143	Primary
PC	Penryn
10	College
PE	Parc Eglos
	Primary
PL	Porthleven
	Primary
PS	Penoweth
	Primary
SE	St Erth
	Primary
SH	St Hillary
	Primary
SM	St Michael's
	Primary
SP	Sithney
	Primary
TC	Torpoint
	College
TH	Truro High
	School
TN	Trannack
	Primary
WH	Weeth
	Primary

# 4. Client Ethnicity

The declared ethnic mix of participants was consistent with the demographic of Cornwall in which 98.7% of the population define themselves as white (ONS 2008)

#### 5. Activities

Surf Action adapted its research backed, community-based, sports-oriented, fully risk assessed occupational therapy course (Ocean Therapy) which uses the high-intensity water-sports such as surfing and kayaking etc in an experiential, skills-based experience specifically adapted for military personnel and veterans seeking mental health services. Consistent with conceptualizations of the transformative nature of engagement in meaningful occupations and the dynamic influence of environment on a person's performance this course combines surfing performance, focused group processing, and social participation to create opportunities for veterans to examine ways in which their individual values, abilities, and experiences can support successful transition to civilian life.

By providing individual support in the water for each child, preferably from one or both of their parents/carers, to help build confidence and by adding extra fun challenges and games in the water we hoped that it would have similar beneficial effects on the children as well as their parents/carers. Parents/carers who did not go into the water but who remained on the beach whilst their child was in the water then had the opportunity to chat to other parents from the civilian and military community for a couple of hours and to discuss a wide range of common issues etc in a very welcoming atmosphere and environment.

The six Ocean Therapy Courses in 2020 were run at Gwithian beach which is just north east of Hayle, it is a beautiful surfing beach and is easy to access for all the participants. It has a popular beach café which acted as the focus of many of the beach discussions and allowed privacy for those who wanted to ask for advice or to discuss problems.

The courses were free to participants and all equipment such as wetsuits, boots, gloves, and surf boards were provided by Surf Action. Fully trained surf and water-sports instructors and lifeguards oversaw the water-based activities. The courses were run at weekends to make them as inclusive as possible.

Each session started with a general welcome followed by a comprehensive and necessary physical warm-up which included a wide range of activities which all young people, parents, carers, staff, and volunteers participated. It was made as much fun as possible and each week every young person was given the opportunity to pick a warm-up exercise. These sessions became an excellent

scene-setter and a superb way in which to get people working together within a fun atmosphere. After the warm-up there was a recap of lessons already learned and discussions on beach safety, the environment etc before the introduction of the weeks theme. All the lessons and discussions were then put into practical use in the water sessions.

#### 6. Evaluation Measures

Adults and children completed the wellbeing paperwork that was described earlier on pages 8-9. The adults were also engaged in conversation by the Surf Action volunteers and qualitative data was gathered about what changes they had experienced as each course progressed.

The young people's WEMWBS Form



STATEMENTS	None of the time	Rarely	Some of the time	Often	All of the time
I've been feeling optimistic about the future	1	2	3	4	5
I've been feeling useful	1	2	3	4	5
I've been feeling relaxed	1	2	3	4	5
I've been feeling interested in other people	1	2	3	4	5
I've had energy to spare	1	2	3	4	5
I've been dealing with problems well	1	2	3	4	5
I've been thinking clearly	1	2	3	4	
I've been feeling good about myself	1	2	3	4	5
I've been feeling close to other people	1	2	3	4	5
I've been feeling confident	1	2	3	4	
I've been able to make up my own mind about things	1	2	3	4	5
I've been feeling loved	1	2	3	4	
I've been interested in new things	1	2	3	4	5
I've been feeling cheerful	7	2	3	4	





# Community Integration and Wellbeing Project Emotional Needs Audit

#### How well are your innate emotional needs being met?

Nature has programmed all of us with physical and emotional needs. These are the 'human givens' that cannot be avoided. How stressed we are depends on how well our needs are being met, and how well we deal with the situation when they are not. Rate, in your judgement, how well the following emotional needs are being met in your life now, on a scale of one to seven (where 1 means not met at all, and 7 means being very well met), by ticking the appropriate boxes.

		NO		so	METI	MES		YE
1.	Do you feel secure in all major areas of your life (such as your home, work, environment)?	1	2	3	4	5	6	7
2.	Do you feel you receive enough attention?	1	2	3	4	5	6	7
3.	Do you think you give other people enough attention?	1	2	3	4	5	6	7
١.	Do you feel in control of your life most of the time?	1	2	3	4	5	6	7
	Do you feel connected to some part of a wider community?	1	2	3	4	5	6	7
	Can you obtain privacy when you need to?	1	2	3	4	5	6	7
	Do you feel an emotional connection to others? For instance, do you have an intimate relationship in your life, one where you are totally physically and emotionally accepted for who you are by at least one person (this could be a close friend)?	1	2	3	4	5	6	7
1.	Do you feel you have status that is acknowledged?	1	2	3	4	5	6	7
).	Are you achieving things and feeling competent in at least one major area of your life?	1	2	3	4	5	6	7
0	Are you being mentally and/or physically stretched in ways which give you a sense that life is meaningful?	1	2	3	4	5	6	7

C Human Givens Institute. For more information visit: www.hgi.org.uk



Surf Action, Room 6, Carnon Building, Wilson Way, Redruth, Cornwall, TR15 3RS T: 01209 210350 | Email: info@surfaction.co.uk www.surfaction.co.uk | Registered Charity No. 1140191





SUPPORTING SERVING AND FORMER MEMBERS OF THE ARMED FORCES, EMERGENCY SERVICES AND FAMILIES



#### Surf Action Community Integration and Wellbeing Project Feedback Form

Surf Action values your feedback and uses it to further improve its services and for data collection which is then incorporated in its reports and funding bids.

Please answer the questions as honestly as possible. The more information we get, the more help it is to us!

You can complete the form anonymously or if you are happy, include your name and contact details.

Name (Optional);

Course Number;

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. The courses were well advertised.					
<ol><li>Surf Action was easy to contact.</li></ol>					
<ol><li>The paperwork was simple to fill in.</li></ol>					
<ol><li>The joining letter contained enough information.</li></ol>					
<ol><li>The aims of the course were well explained.</li></ol>					
<ol> <li>The Surf Action staff; volunteers and surf instructors were friendly and easy to talk to.</li> </ol>	0		0		
<ol><li>We were made to feel welcome on the first day.</li></ol>					
<ol> <li>The children's WEMWBS paperwork was easy for them to understand.</li> </ol>					
<ol><li>The surf instructors were professional and explained everything well.</li></ol>					
10. We felt safe in the water.					
11. If we had a problem, there was someone to talk to.					
<ol><li>We looked forward to each week.</li></ol>					
<ol><li>The children benefited from the course.</li></ol>					
14. The parents/carers benefited from the course.					
15. Our family benefited from the course.					
16. We would recommend the course to other families.					

Please use the back of the form for any additional comments/thoughts on what benefits you have got from the course as a family.



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## 7. Participant WEMWBS and Data Analysis

The children's WEMWBS scores on initial engagement with their courses were used as the baseline for measurement (T1) and then the Mean score (between 1 and 5), Standard Deviation ( $\sigma$ ) and Variance ( $\sigma^2$ ) were calculated across each of the 14 audit categories (vertically on the spreadsheet) and for each child (horizontally on the spreadsheet). Their final/intervention WEMWBS scores (T2) were taken at the end of their course. If a person was absent at the end of their course their mid-point WEMWBS score was used as their T2 score. The initial and intervention Mean,  $\sigma$  and  $\sigma^2$  allowed for the better interpretation of the data particularly in terms of compactness and consistency. All data was entered onto a Surf Action spreadsheet so both individual data and group data was always preserved. This also allowed the generation of the necessary analytical data diagrams. The analysis was carried out as a series of paired t-tests. The t-test calculated whether the difference in mean scores across the whole sample pre-intervention was significantly different from the mean score post-intervention.

As stated earlier, this analysis was carried out with the hypothesis H<sub>1</sub>: that 'Surf Action's Community Integration and Wellbeing Project had a positive and sustainable effect on the wellbeing of young people'. The analysis looked for evidence which supported this and for evidence which might support the opposing null-hypothesis H<sub>0</sub>: that 'Any effect on the wellbeing of the young people identified as a result of participation can be attributed to other outside environmental/social factors'.

We chose to work with mean WEMWBS scores rather than total scores as it kept the numbers smaller and allowed for comparison of outcomes on a 1-5 continuous scale which allowed for comparison within the meaning of the Likert scale. This allowed an assessment of the trend and spread in mean scores which is perfectly valid even for Likert data. The parametric statistical analysis assumes the data to be approximately normally distributed, so we made extensive use of box and whisker diagrams to display data giving an additional visual assessment of normality.

Some of the analysis can also be highly susceptible to 'outliers' in the data so this was also checked. Where outliers were identified the effect of inclusion and exclusion was examined. It was determined that no outliers needed to be excluded. This was confirmed by scatter diagrams. Correlations were calculated using Pearson's Coefficient of Determination (r). This allowed the calculation of the relevant degree of statistical significance.

The data was analysed by gender and then as a group.

#### 8. Data Protection

Surf Action is registered with the Information Commissioner's Office under the registration number Z3463898 and is GDPR compliant. All information and data collected during this project was treated and stored in accordance with current data protection regulations.



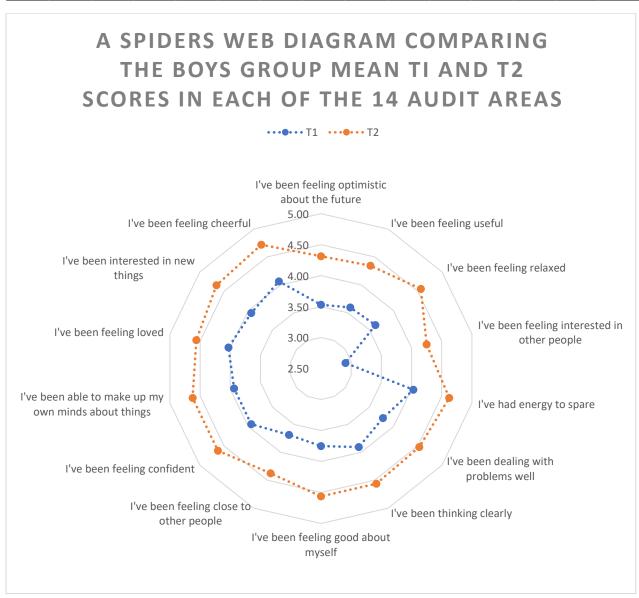
# **Results and Outcomes**

#### 9. Attendance

The overall attendance figure of 87% was very pleasing and this was indicative of how enjoyable the participants found their courses. Several people withdrew due to unforeseen illness/injury but were mostly replaced provided it was in the early weeks of the course.

## 10. Outcomes for 32 Boys in 2020

	PERCENTAGE CHANGES IN SCORES BY AUDIT AREA FOR 32 BOYS														
	I've been feeling optimistic about the future	I've been feeling useful	I've been feeling relaxed	I've been feeling interested in other people	I've had energy to	l've been dealing with problems well	I've been thinking clearly	I've been feeling good about myself	I've been feeling close to other people	I've been feeling confident	l've been able to make up my own minds about things	I've been feeling loved	I've been interested in new things	I've been feeling cheerful	
T1	3.53	3.59	3.63	2.91	4.03	3.78	3.91	3.75	3.69	3.94	3.94	4.03	3.94	4.06	
T2	4.31	4.34	4.56	4.25	4.63	4.53	4.56	4.56	4.38	4.63	4.63	4.56	4.66	4.72	
% Increase	22.12	20.87	25.86	46.24	14.73	19.83	16.80	21.67	18.64	17.46	17.46	13.18	18.25	16.15	



The spiders web diagram above is a representation of the mean T1 (mean WEMWBS score at the start) & T2 (mean WEMWBS score at the end) data for the 32 boys shown in the table above it. The inner blue irregular tetradecagon shows the T1 scores in each question area and is quite angular which means a variation in the scores. The T2 irregular tetradecagon is much more rounded and this indicates more consistent scoring in each question area. The blue

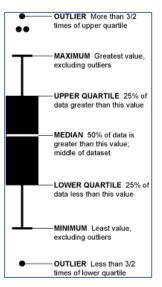
shape is entirely contained within the orange and this shows that the mean T2 scores were higher than the mean T1 scores in all question areas. The bigger the distance between the two in each question area shows a larger percentage increase at T2. For our purposes this indicates that the outcomes are robust. The percentage increases in each area are shown in the bottom line of the table above.

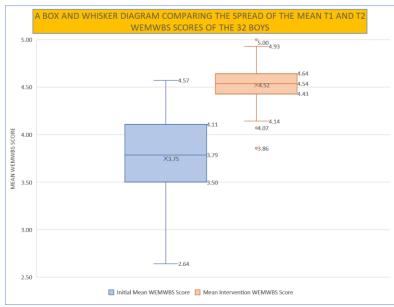
WEMWBS Likert Scale											
None of the time	Rarely	Some of the time	Often	All the time							
1	2	3	4	5							

	PERCENTAGE CHANGES IN SCORES BY AUDIT AREA FOR 32 BOYS ARRANGED IN ASCENDING ORDER														
	I've been feeling loved	I've had energy to spare	I've been feeling cheerful	I've been thinking clearly	I've been feeling confident	I've been able to make up my own minds about things	I've been interested in new things	I've been feeling close to other people	l've been dealing with problems well	I've been feeling useful	I've been feeling good about myself	I've been feeling optimistic about the future	I've been feeling relaxed	I've been feeling interested in other people	
T1	4.03	4.03	4.06	3.91	3.94	3.94	3.94	3.69	3.78	3.59	3.75	3.53	3.63	2.91	
T2	4.56	4.63	4.72	4.56	4.63	4.63	4.66	4.38	4.53	4.34	4.56	4.31	4.56	4.25	
% Increase	13.18	14.73	16.15	16.80	17.46	17.46	18.25	18.64	19.83	20.87	21.67	22.12	25.86	46.24	

The table above shows excellent outcomes in all audit areas but especially in those concerning feeling good about themselves, optimism, relaxation, and interest in other people. The areas showing the smallest increases are, unsurprisingly, all ones where the mean T1 scores were high.

We will now examine the individual results of the 32 boys.





The diagram above represents all 32 individual T1 and T2 wellbeing scores laid out in order from the smallest to the largest as per the diagram on the left of it. It clearly shows that the Intervention/T2 box plot is higher up the mean WEMWBS scale. The Range in scores (the difference between the highest and lowest) is also smaller so the shape is more compact. The Mean and Median in each case are close and indicative of the data being approximately normally distributed. There are two boys at T2 whose scores are outside the cohesiveness of the other 30 and they are shown as outliers. Further investigation shows this is because the boy with the T2 score of 3.86 showed a 12.5% increase on his T1 score whilst the other boy with a T2 score of 4.07 only showed a small increase of 3.64% on his T1 score when compared to the average increase of 21% for the rest of the group. Their T2 scores however still show they answered mostly 'sometimes' or 'often' on the WEMWBS questions and were not a cause for worry.

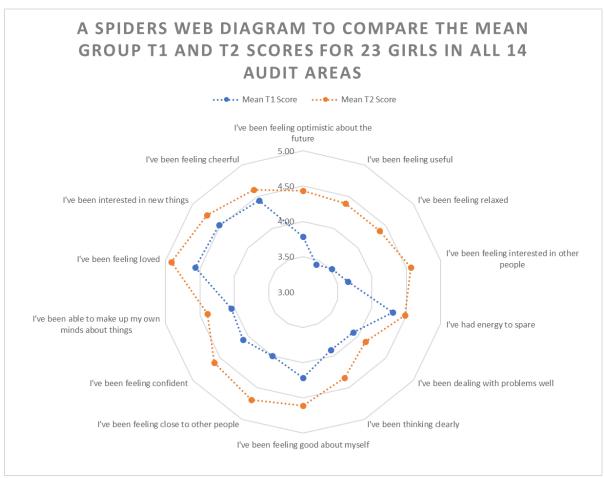
•		ores in inc y their T1 s											
T1 Score	T1 Score <3 <4 ≤5												
Number of boys	4	21	32										
Mean T1	2.86	3.47	3.75										
Mean T2	4.55	4.45	4.52										
% Increase at T2	59	28	21										

When we looked at the boys who scored lowest at T1 (indicating lower levels of wellbeing) we were delighted to see that they showed the greatest benefit at the end of the course with a 59% increase in their wellbeing scores. The 4 boys concerned went from mostly answering 'rarely' to answering 'often' to the wellbeing questions.



#### 11. Outcomes for 23 Girls in 2020

	PERCENTAGE CHANGES IN SCORES BY AUDIT AREA FOR 23 GIRLS														
	I've been feeling optimistic about the future	I've been feeling useful	I've been feeling relaxed	I've been feeling interested in other people	I've had energy to spare	l've been dealing with problems well	I've been thinking clearly	I've been feeling good about myself	I've been feeling close to other people	I've been feeling confident	l've been able to make up my own minds about things	I've been feeling loved	I've been interested in new things	I've been feeling cheerful	
Mean T1 Score	3.78	3.43	3.52	3.65	4.30	3.91	3.91	4.22	4.00	4.09	4.04	4.57	4.52	4.43	
Mean T2 Score	4.43	4.39	4.39	4.57	4.48	4.13	4.35	4.61	4.70	4.61	4.39	4.91	4.74	4.61	
% Change	17.24	27.85	24.69	25.00	4.04	5.56	11.11	9.28	17.39	12.77	8.60	7.62	4.81	3.92	



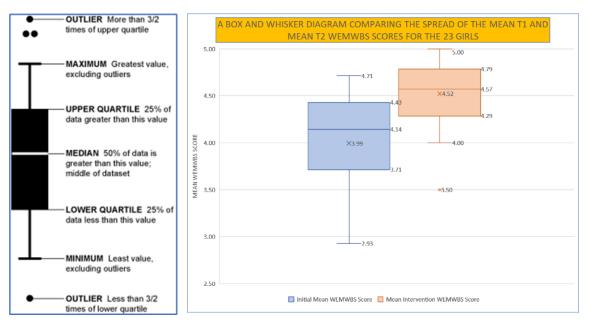
The spiders web diagram above is a representation of the mean T1 & T2 data for the 23 girls shown in each of the 14 wellbeing areas in the table above it. The inner blue irregular tetradecagon shows the T1 scores in each question area and is quite angular which means a variation in the scores. The T2 irregular tetradecagon is much more rounded and this indicates more consistent scoring in each question area. The blue shape is entirely contained within the orange and this shows that the mean T2 scores were higher than the mean T1 scores in all question areas. The bigger the distance between the two in each question area shows a larger percentage increase at T2.

	WEM	WBS Likert	Scale	
None of the time	Rarely	Some of the time	Often	All the time
1	2	3	4	5

			PERCENT	AGE CHAN	GES IN SCO	RES BY AU	DIT AREA F	OR 23 GIRL	S FROM SI	//ALLEST TC	LARGEST			
	I've been feeling cheerful	I've had energy to spare	interested in new things	I've been dealing with problems well	I've been feeling loved	l've been able to make up my own minds about things	I've been feeling good about myself	I've been thinking clearly	I've been feeling confident	I've been feeling optimistic about the future	I've been feeling close to other people	I've been feeling relaxed	I've been feeling interested in other people	I've been feeling useful
Mean T1	4.43	4.30	4.52	3.91	4.57	4.04	4.22	3.91	4.09	3.78	4.00	3.52	3.65	3.43
Mean T2 Score	4.61	4.48	4.74	4.13	4.91	4.39	4.61	4.35	4.61	4.43	4.70	4.39	4.57	4.39
% Change	3.92 4.04		4.81	5.56	7.62	8.60	9.28	11.11	12.77	17.24	17.39	24.69	25.00	27.85

The wellbeing areas in which the girls have showed the largest increases in are those concerning being optimistic, close to other people, being relaxed, interested in others, and feeling useful. The average increase in wellbeing scores in each of the 14 audit areas is 12%. The areas showing the smallest increases are, unsurprisingly, all ones where the mean T1 scores were high.

We will now examine the individual scores of the 23 girls.



The diagram above represents all 23 individual T1 and T2 wellbeing scores laid out in order from the smallest to the largest as per the diagram on the left. It clearly shows that the Intervention T2 box plot is higher up the mean WEMWBS scale. The Range in scores (the difference between the highest and lowest) is also smaller so the shape is more compact. The Mean and Median in each case are close and indicative of the data being approximately normally

distributed. There is one girl at T2 whose scores are outside the cohesiveness of the other 22 and is shown as an outlier. Further investigation shows that her mean T1 score of 3.0 was the second lowest of the group and increased to 3.5 at T2, an increase of 16.5%. The other girls with similar T1 scores all showed significantly larger increases. Her T1 and T2 scores show she answered mostly 'sometimes' on the WEMWBS questions and that her overall wellbeing scores are not a cause for concern.

Girls T1	WEMWBS S	Score in ind	creasing
	010	101	
T1 Score	<3	<4	≤5
Number of girls	1	8	23
Mean T1	2.93	3.37	3.99
Mean T2	4.14	4.38	4.52
% Increase at T2	41.5	30	12.3

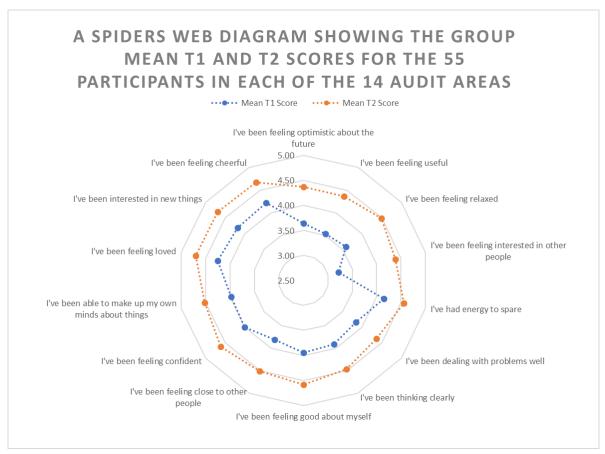
When we looked at the girl who scored lowest at T1 (indicating lower levels of wellbeing) we were delighted to see that she showed the greatest benefit at the end of the course with a 41.5% increase in her wellbeing scores. She went from mostly answering 'rarely' to answering 'often' to the wellbeing questions. Similar results can be seen for the 8 girls with a mean T1 score

smaller than 4. Those with the lowest initial wellbeing scores benefited the most from the courses and the outcomes are robust.



## 12. Group Outcomes for 55 Participants in 2020

			Р	ERCENTAG	E CHANGE	S IN SCORE	S BY AUDI	T AREA FOR	R ALL 55 PA	RTICIPANT	'S			
	I've been feeling optimistic about the future	I've been feeling useful	I've been feeling relaxed	in other people	I've had energy to spare	l've been dealing with problems well	l've been thinking clearly	I've been feeling good about myself	I've been feeling close to other people	l've been feeling confident	l've been able to make up my own minds about things	I've been feeling loved	I've been interested in new things	I've been feeling cheerful
Mean T1 Score	3.64	3.53	3.58	3.22	4.15	3.84	3.91	3.95	3.82	4.00	3.98	4.25	4.18	4.22
Mean T2 Score	4.36	4.36	4.49	4.38	4.56	4.36	4.47	4.58	4.51	4.62	4.53	4.71	4.69	4.67
% Change	20.00	23.71	25.38	36.16	10.09	13.74	14.42	16.13	18.10	15.45	13.70	10.68	12.17	10.78



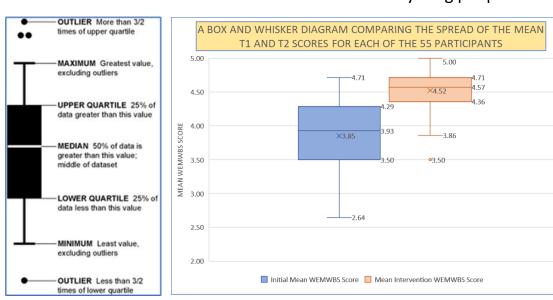
The spiders web diagram above is a representation of the mean T1 & T2 data for the 55 youngsters shown in each of the 14 wellbeing areas in the table above it. The inner blue irregular tetradecagon shows the T1 scores in each question area and is quite angular which means a variation in the scores. The T2 irregular tetradecagon is much more rounded and this indicates more consistent scoring in each question area. The blue shape is entirely contained within the orange and this shows that the mean T2 scores were higher than the mean T1 scores in all question areas. The bigger the distance between the two in each question area shows a larger percentage increase at T2. These are robust outcomes.

	WEM	WBS Likert	Scale	
None of the time	Rarely	Some of the time	Often	All the time
1	2	3	4	5

		PERCI	ENTAGE CH	HANGES IN	SCORES BY	AUDIT AR	EA FOR ALI	. 55 PARTIC	CIPANTS FR	OM SMALL	EST TO LAF	RGEST		
	I've had energy to spare	I've been feeling loved	I've been feeling cheerful	I've been interested in new things	make up my own	I've been dealing with problems well	I've been thinking clearly	I've been feeling confident	I've been feeling good about myself	I've been feeling close to other people	I've been feeling optimistic about the future	I've been feeling useful	I've been feeling relaxed	I've been feeling interested in other people
Mean T1 Score	4.15	4.25	4.22	4.18	3.98	3.84	3.91	4.00	3.95	3.82	3.64	3.53	3.58	3.22
Mean T2 Score	4.56	4.71	4.67	4.69	4.53	4.36	4.47	4.62	4.58	4.51	4.36	4.36	4.49	4.38
% Change	10.09	10.68	10.78	12.17	13.70	13.74	14.42	15.45	16.13	18.10	20.00	23.71	25.38	36.16

The above table shows the 14 wellbeing areas arranged in 'percentage increase' order from smallest to largest. The wellbeing areas in which the group have showed the largest increases are those concerning feeling optimistic, useful, relaxed, and interested in other people. The average increase in wellbeing scores in each of the 14 audit areas is a pleasing 17%. The areas showing the smallest increases are, unsurprisingly, all ones where the mean T1 scores were high.

We will now examine the individual results of the 55 young people.

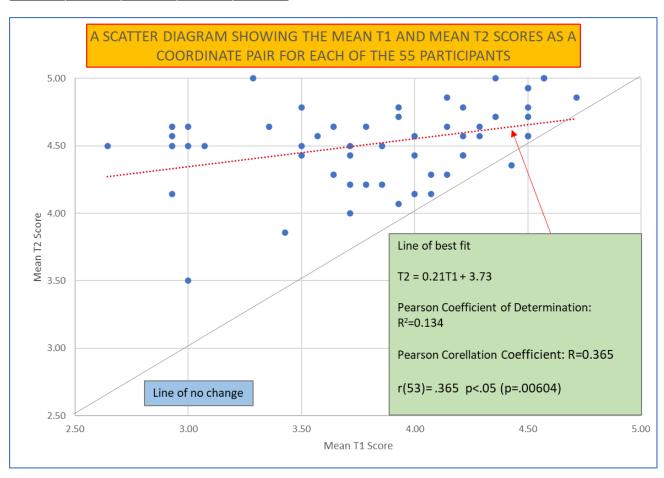


The diagram above represents all 55 individual T1 and T2 wellbeing scores laid out in order from the smallest to the largest as per the diagram on the left. It clearly shows that the Intervention T2 box plot is higher up the mean WEMWBS scale. The Range in scores (the difference between the highest and

lowest) is also smaller so the shape is more compact. The Mean and Median in each case are close and indicative of the data being approximately normally distributed. There is one young person at T2 whose score is outside the cohesiveness of the other 54 and is shown as an outlier. Further investigation shows that it is the girl who appeared as an outlier earlier with a mean T1 score of 3.0 which increased to 3.5 at T2, an increase of 16.5%. Her T1 score was one of the 6 lowest and the young people with similar T1 scores all showed significantly larger increases at T2. Her T1 and T2 scores show she answered mostly 'sometimes' on the WEMWBS questions and that her overall wellbeing scores are not a cause for concern.

Group	WEMWBS	Scores in	Increasing	Order
T1 Score	<2	<3	<4	≤5
Number of participants	0	5	29	55
Mean T1	0	2.87	3.44	3.85
Mean T2	0	4.47	4.43	4.52
% Increase at T2	0	56	29	17

This table clearly shows that those with the lowest initial wellbeing scores benefited the most from the courses with an average 56% increase in their scores. These outcomes are robust.



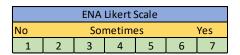
Each blue dot represents the mean (T1,T2) WEMWBS score for one of the 55 participants as a coordinate pair. Any dot on or below the 'Line of No Change'

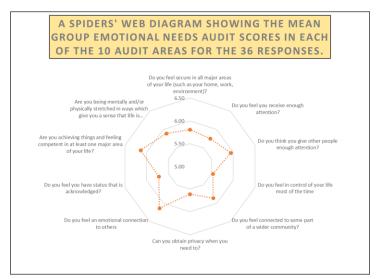
shows participants whose scores either did not increase or reduced. The bottom blue dot at coordinate (3.0,3.5) is the outlier discussed in the box and whisker diagram above. The line of best fit indicates that we can estimate a T2 score by multiplying the T1 score by 0.21 and adding another 3.73 WEMWBS points.

The p value shows that these outcomes are statistically significant in that we can be more than 95% certain that the wellbeing increases experienced are due to participation in our project and not due to external factors.

## 13. The Adults' Emotional Needs Audit (ENA)

36 adults completed an Emotional Needs Audit during the project with responses measured on a Likert indicative scale.

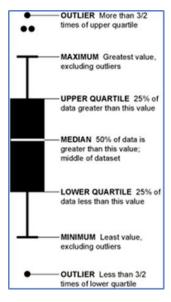


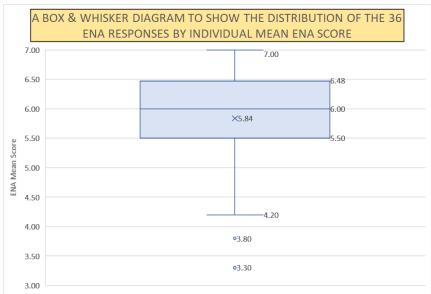


	Emotional Needs Audit Question	Mean Score
1	Do you feel secure in all major areas of your life (such as your home, work, environment)?	5.81
2	Do you feel you receive enough attention?	5.75
3	Do you think you give other people enough attention?	5.94
4	Do you feel in control of your life most of the time	5.53
5	Do you feel connected to some part of a wider community?	5.86
6	Can you obtain privacy when you need to?	5.61
7	Do you feel an emotional connection to others	6.14
8	Do you feel you have status that is acknowledged?	5.72
9	Are you achieving things and feeling competent in at least one major area of your life?	6.14
10	Are you being mentally and/or physically stretched in ways which give you a sense that life is meaningful?	5.89

The mean scores in each of the 10 question areas are above 5 (the high end of 'Sometimes') and indicate that the adults who responded were quite well grounded and relatively happy within these areas of their lives as a group. None of the mean scores is as low as just 'Sometimes' and are mostly well towards being satisfied within that area of their life.

We will now look at the 36 individual mean scores.

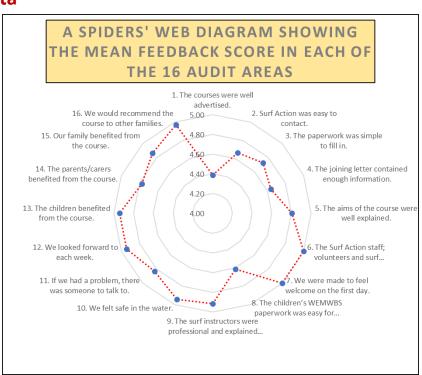




The diagram above represents all 36 individual ENA scores laid out in order from the smallest to the largest as per the diagram on the left. The main part of the diagram is well up the ENA scale and indicates a relatively stable and satisfied population. The Mean and Median in each case are close and indicative of the data being approximately normally distributed. There are 2 scores which are significantly different from the rest of their peers and they are shown as outliers. The two individuals concerned have agreed to work with us further to try and help them in the longer term.

### 14. The Feedback Data

Feedback Form Questions	Mean Score
1. The courses were well advertised.	4.39
2. Surf Action was easy to contact.	4.67
3. The paperwork was simple to fill in.	4.72
4. The joining letter contained enough information.	4.64
5. The aims of the course were well explained.	4.81
<ol><li>The Surf Action staff; volunteers and surf instructors were friendly and easy to talk to.</li></ol>	5.00
7. We were made to feel welcome on the first day.	5.00
8. The children's WEMWBS paperwork was easy for them to understand.	4.61
9. The surf instructors were professional and explained everything well.	4.92
10. We felt safe in the water.	4.94
11. If we had a problem, there was someone to talk to.	4.83
12. We looked forward to each week.	4.94
13. The children benefited from the course.	4.94
14. The parents/carers benefited from the course.	4.78
15. Our family benefited from the course.	4.86
16. We would recommend the course to other families.	4.97



Li	kert Scale	for the Fee	edback For	m
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

The feedback was incredibly pleasing with all responses either 'Agree' or above. There were a few minor niggles which came to light and we have already or will try, to address them prior to 2021.

# Amongst the qualitative feedback written on the back of the forms were the following,

Such an amazing opportunity for us all, we feel very lucky to have been able to take part. It has made us all smile together each week and it is something we intend to keep doing each week as a family (Mrs W)

Thank you very much, our 4 children loved the surf course and would love to attend again. The instructors were so lovely and were brilliant with the children and my husband loved being in the sea and taking part with them. Thank you once again. (Mrs C)

The instructors were particularly good, and it was run superbly. (Mr W)

The organisers and the surf instructors were all excellent and a real credit.  $(Mr\ G)$ 

The staff and surf instructors have been outstanding in their coaching and instruction of the children making it enjoyable, interesting, and fun. Very many thanks to all. (The D family)

A Fantastic course, Thank you! (The P family)

A Great course, well organised and supported. The Surf Action team are amazing, and I will spread the word about them (Lt Cdr L)

This course was amazing, and the instructors were fantastic. Wish it hadn't ended! (Mr  $\top$ ).

Fabulous course and instructors superb! (Mr M)

The instructors and support staff were amazing and deserve massive praise for their work. (Mr  $\mathbb{R}$ ).

We thoroughly enjoyed taking part and had a great time in the water together as a family. (Mr I)

My son has special needs and loved it. He managed to make friends within his group which he normally struggles to do. Thankyou so much for a fantastic 6 weeks. (Mr C)

In late September we were delighted to receive a letter of thanks from the Captain of RNAS Culdrose for our efforts at this difficult time as he had received incredibly positive reports from personnel on base. (Annex A)



## 15. Summary

2020 has been an interesting year with many challenges for the population and society as a whole. At one point we were unsure if we would be able to run any courses due to the uncertainty and plethora of limiting regulations however once the lockdown was eased, we were proactive in trying to achieve something within the time left and through flexibility and good liaison with our volunteers and 'Global Boarders', our specialist surf provider, we have achieved what looked to be impossible.

We successfully ran six, 6-week armed forces community ocean therapy courses whilst meeting all the relevant social distancing and health regulations and engaged with a large number of families and children. Most of the children

had not been at school for 4 months and many of the parents were tired from home schooling and the general uncertainty. Some parents were back at work, some were still furloughed whilst others had been busy trying to support their wider family. This made our Community Integration and Wellbeing Project more important and relevant than ever and may help account for its excellent outcomes. Many of the children knew one another from school but had not seen one another since lockdown and the same went for many of the parents and this resulted in a 'Dunkirk Spirit' amongst many and meant they appreciated the courses even more.

A TABLE COMPARING SCORES OF 55 YOUNG			
	Boys	Girls	Combined
Number of participants with a mean T1 score<2 (Meaning 'Rarely')	0	0	0
Mean % increase at T2 for those participants	0	0	0
Number of participants with a mean T1 score<3 (Meaning 'Some of the time')	4	1	5
Mean % increase at T2 for those participants	59%	41.5%	56%
Number of participants with a mean T1 score<4 (Meaning 'Often')	21	8	29
Mean % increase at T2 for those participants	28%	30%	29%
Number of participants with a mean T1 score ≤ 5 (Meaning 'All of the time)	32	23	55
Mean % increase at T2 for those participants	21%	12.3%	17%

The outcomes of the armed forces community children are summarised in the table above.

 The boys showed an average increase in wellbeing scores of 21% and this may indicate they had been very frustrated during lockdown and used their time with us to rid themselves of it in a healthy manner.

- The girls showed a more measured but very pleasing, wellbeing score increase of 12.3% and this may indicate that they dealt with the challenges of lockdown better than the boys.
- The group scores for the 55 children showed a statistically significant wellbeing increase of 17% with a greater than 95% certainty that the outcomes are accountable due to participation in our Community Integration and Wellbeing programme and not to other environmental factors.
- The children who showed the lowest initial wellbeing scores benefited the most and exhibited an average increase in their wellbeing scores of 56% by the end of their courses.
- None of the children reported experiencing Covid 19 anxiety.
- The children came from a record number of 18 schools including Torpoint and this shows that people are prepared to go to some lengths to attend.

The outcomes from the Emotional Needs Audit from the 36 parents/carers who completed them showed that:

- As a population they were mostly stable and satisfied in most of the important areas of their lives.
- Several participated in private talks with the on-site counsellor and asked for advice on specific subjects.
- 2 separate adults showed relatively low ENA scores and are working with us on ways to increase them in the medium term.

The feedback from the participants was excellent and demonstrates that Surf Action is providing practical and valuable services to the armed forces community at this difficult time in a successful and safe manner.

We are happy that the outcomes demonstrate that 'The Surf Action Community Integration and Wellbeing Project' is a well designed and targeted provision with proven and sustained wellbeing outcomes which is ideally suited to help combat the growing physical and psychological health worries within the armed forces community in these challenging times.



**ARMED FORCES** We thank the Armed Forces Covenant Trust for **COVENANT** their funding which made this successful project possible.

#### Annex A-RNAS Culdrose letter of thanks



Mr D Bell Surf Action Chairman Room 6, The Carnon Building Wilson Way Redruth TR15 3RS HMS SEAHAWK Royal Naval Air Station Culdrose HELSTON TR12 7RH

Tel: 01326 557623 Email: navycu-commandingofficer @mod.gov.uk

14 September 2020

Dear Douglas,

I wanted to take this opportunity to write and say a huge thank you to you and your charity for the very important work you have been doing with significant numbers of personnel from my team here at RNAS Culdrose. I understand you have supported over 60 Culdrose Service families this summer alone and I am also aware you have been supporting our people for over 10 years.

We live and work in a wonderful part of the Country with excellent natural resources and your charity certainly makes the most of this and uses it as a force for good. With the continued uncertainty caused by Covid 19 the roles conducted by those employed at the Air Station have never been so vital to our Nation. These require our people to deploy, often at short notice and for long periods; support from a local charity like yours is particularly important in maintaining morale amongst our Service men and women and their families; it is hugely appreciated – thank you.

Yours age, Stuat Sim

C A Eine

S A Finn Captain Royal Navy Commanding Officer

# Annex B – Boys Data

	Community Integration and Wellbeing Project 2020: Initial WEMW8S Scores														Community Integration and Wellbeing Project 2020: Intervention WEMWBS Scores												% Change															
School	l Gende	er Age	I've been feeling optimistic abou the future	I've been feeling useful	I've been feeling relaxed	I've been feeling interested in oth people	I've had energy to spare	I've been dealing with problems			I've been feeling good about myse	I've been feeling dose to other people	I've been feeling confident	I've been able to make up my ow minds about things	I've been feeling loved	I've been interested in new thing	I've been feeling cheerful	Total Initial WEMWBS Score	Initial Mean WEMWBS Score	Initial Standard Deviation	Initial Variance	I've been feeling optimistic abou the future	I've been feeling useful	I've been feeling relaxed	I've been feeling interested in oth people	I've had energy to spare	I've been dealing with problems well	I've been thinking dearly	I've been feeling good about myse	I've been feeling dose to other people	I've been feeling confident	I've been able to make up my ow minds about things	I've been feeling loved	I've been interested in new thing	I've been feeling cheerful	Total Intervention WEMWBS Scor	Mean Intervention WEMWBS Sco	Intervention Standard Deviation	Intervention Variance	Total Initial WEMWBS Score	Total Intervention WEMWBS Score	% Change
1			3	3	4	2	4	3			4	3	3	3	4	4	4	48	3.43	0.62	0.39	3		4	3	4	3	4	5	3	4	4	4	5	5	54	3.86	0.74	0.55	48	54	12.50
2			3	4	3	5	3	3	_		5	3	5	3	5	3	3	51	3.64	0.89	0.80	4	5	5	3	4	4	4	5	4	5	4	5	4	4	60	4.29	0.59	0.35	51	60	17.65
3	-		3	3	3	2	5	3		_	2	4	2	2	3	5	2	41	2.93	1.03	1.07	5	4	4	4	5	4	5	5	4	4	5	5	5	5	64	4.57	0.49	0.24	41	64	56.10
4	_		5	4	3	3	4	4	- 4		3	5 4	3	4	4	5	3	56 49	4.00 3.50	0.53	0.29	4	4	4	4	5	5	5 4	4	4	4 5	5	5 4	5	5	62 62	4.43	0.49	0.24	56 49	62 62	10.71 26.53
6	_	+	2	4	3	4	- 4	3			3	5	5	4	5	5	5	59	4.21	0.82	0.88	4	4	5	4	4	5	4	5	4	4	5	4	- 4	5	62	4.43	0.49	0.24	59	62	5.08
7			2	3	5	2	2	5	_		3	3	5	5	5	5	5	54	3.86	1.19	1.41	3	4	4	4	5	4	4	4	5	4	4	4	5	5	59	4.43	0.49	0.24	54	59	9.26
8		+	3	3	4	3	4	3	_	_	3	3	3	4	5	4	4	49	3.50	0.63	0.39	5	5	5	5	5	4	5	4	5	5	4	5	5	5	67	4.79	0.41	0.17	49	67	36.73
9			3	4	4	2	5	3	-	_	3	4	5	4	5	5	3	54	3.86	0.91	0.84	4	_	5	4	4	5	4	4	5	5	5	4	5	5	63	4.50	0.50	0.25	54	63	16.67
10			4	3	5	1	3	3			4	1	3	2	1	3	5	41	2.93	1.28	1.64	4	4	5	5	5	5	5	4	4	5	5	5	4	5	65	4.64	0.48	0.23	41	65	58.54
11			1	5	4	1	5	5		5	4	4	5	5	4	5	5	58	4.14	1.36	1.84	5	5	5	4	5	5	5	5	4	5	5	5	5	5	68	4.86	0.35	0.12	58	68	17.24
12			5	4	3	2	5	5	4	4	4	2	4	5	5	4	4	56	4.00	1.00	1.00	4	4	5	4	3	4	5	3	4	4	5	5	4	4	58	4.14	0.64	0.41	56	58	3.57
13			3	4	4	3	4	5	4	4	4	4	4	4	5	3	4	55	3.93	0.59	0.35	4	4	4	4	3	4	4	4	4	4	4	5	5	4	57	4.07	0.46	0.21	55	57	3.64
14			4	4	3	4	3	4	4		4	5	4	4	4	3	5	55	3.93	0.59	0.35	5	5	4	4	5	5	5	5	5	5	4	4	5	5	66	4.71	0.45	0.20	55	66	20.00
15			3	4	5	2	3	3		_	3	3	3	3	3	2	3	43	3.07	0.70	0.49	4	4	4	4	5	5	5	4	5	5	5	5	4	4	63	4.50	0.50	0.25	43	63	46.51
16			3	5	5	5	5	3	4		5	5	4	5	4	5	5	63	4.50	0.73	0.54	5	4	4	4	5	5	4	4	5	5	5	5	4	5	64	4.57	0.49	0.24	63	64	1.59
17			3	3	4	4	3	3	4		4	4	3	4	4	3	4	50	3.00	0.49	0.24	5	5	4	4	5	5	5	5	5	4	4	5	5	4	65	4.64	0.48	0.23	50	65	30.00
18			5	2	4	5	5	5	- 4	_	4	5		5	1	1	3	50	3.57	1.59	2.53	4	4	5	5	4	4	4	5	5	5	5	4	5	5	64	4.57	0.49	0.24	50	64	28.00
19	_	+	4	4	4	3	4	4		-	4	4	4	4	4	5	4	56 53	4.00 3.79	0.38	0.14	4	4	5	5	4	4	4	5	5	5	5	4	5	5	64 65	4.57 4.64	0.49	0.24	56 53	64	14.29 22.64
20	+	+	4	2	3	4	3	3	4	4	4	5	4	3	5 4	4	5	53	3.79	0.86 1.26	1.60	5	4	5	4	4	5 4	4	4	4	4	- 4	4	5	5	59	4.64	0.48	0.23	53	59	11.32
22	_	+	4	4	3	2	5	- 5	-	4	2	2	5	4	3	4	5	52	3.71	1.10	1.20	4	5	3	4	5	5	5	5	3	5	5	4	4	5	62	4.43	0.73	0.53	52	62	19.23
23			3	4	4	3	3	3	_		4	3	3	4	4	3	4	49	3.50	0.50	0.25	4	4	5	4	5	4	5	5	4	5	4	4	5	5	63	4.50	0.73	0.25	49	63	28.57
24			3	3	2	2	3	3			2	2	3	4	3	2	2	37	2.64	0.61	0.37	4	4	5	5	5	4	5	5	5	5	4	4	4	4	63	4.50	0.50	0.25	37	63	70.27
25	_	1	4	4	3	3	4	4	-	4	4	3	4	3	3	5	4	52	3.71	0.59	0.35	4	4	5	3	5	4	4	5	4	4	5	4	4	4	59	4.21	0.56	0.31	52	59	13.46
26			4	4	3	3	3	3	- 4	4	4	3	4	4	4	4	4	51	3.64	0.48	0.23	4	4	5	5	5	5	4	4	4	5	5	5	5	5	65	4.64	0.48	0.23	51	65	27.45
27			5	5	5	1	5	1		5	5	5	5	4	5	5	5	61	4.36	1.39	1.94	5	5	5	5	5	5	5	5	5	5	5	5	5	5	70	5.00	0.00	0.00	61	70	14.75
28			5	4	3	5	5	4		5	5	5	5	5	4	4	4	63	4.50	0.63	0.39	5	5	5	5	5	5	4	5	5	4	5	5	4	5	67	4.79	0.41	0.17	63	67	6.35
29			2	2	2	4	5	5		5	5	5	5	5	5	5	5	60	4.29	1.22	1.49	4	4	5	5	5	5	5	5	4	4	5	5	4	4	64	4.57	0.49	0.24	60	64	6.67
30			5	5	4	3	5	4		5	5	4	5	5	5	3	5	63	4.50	0.73	0.54	5	5	5	5	5	5	5	5	5	5	4	5	5	5	69	4.93	0.26	0.07	63	69	9.52
31	1		3	2	5	2	4	4		2	2	2	3	2	4	4	2	41	2.93	1.03	1.07	4	5	4	4	5	5	5	4	4	5	5	4	5	4	63	4.50	0.50	0.25	41	63	53.66
32	1	4	4	4	4	4	4	5		5	5	5	5	5	4	5	5	64	4.57	0.49	0.24	5	5	5	5	5	5	5	5	5	5	5	5	5	5	70	5.00	0.00	0.00	64	70	9.38
	Mean	(-)	3.53	3.59	3.63	2.91	4.03	3.78	B 3.	91	3.75	3.69	3.94	3.94	4.03	3.94	4.06	52.72	3.75	0.85	0.82	4.31	4.34	4.56	4.25	4.63	4.53	4.56	4.56	4.38	4.63	4.63	4.56	4.66	4.72	63.31	4.52	0.48	0.25	52.72	63.31	20.09
	ST Dev ( Var.P	(P)	1.00	0.86	0.89	1.21	0.85	0.99	9 0.	84	0.94	1.13	1.03	0.93	1.05	1.09	0.97	6.89	0.51	0.31	0.60	0.58	0.54	0.61	0.66	0.60	0.56	0.50	0.56	0.60	0.48	0.48	0.50	0.47	0.45	3.63	0.26	0.15	0.12	6.89	3.63	17.48
	Var.P		1.00	0.74	0.80	1.46	0.72	0.98	s 0.	71	U.88	1.28	1.06	0.87	1.09	1.18	0.93	47.45	0.26	0.10	0.36	0.34	0.29	0.37	0.44	0.36	0.31	0.25	0.31	0.36	0.23	0.23	0.25	0.23	0.20	13.15	0.07	0.02	0.01	47.45	13.15	$\perp$

## Annex C – Girls Data

	Community Integration and Wellbeing Project 2020: Initial WEMWBS Scores														Community Integration and Wellbeing Project 2020: Intervention WEMWBS Scores % Change														$\neg \neg$												
Schoo	l Gender	Age	I've been feeling optimistic abou the future	I've been feeling useful	I've been feeling relaxed	I've been feeling interested in oth people	I've had energy to spare	I've been dealing with problems well	I've been thinking dearly	I've been feeling good about myse	I've been feeling dose to other people	I've been feeling confident	I've been able to make up my ow minds about things	I've been feeling loved	I've been interested in new thing	I've been feeling cheerful	Total Initial WEMWBS Score	Initial Mean WEMWBS Score	Initial Standard Deviation	Initial Variance	I've been feeling optimistic abou the future	I've been feeling useful	I've been feeling relaxed	I've been feeling interested in oth people	I've had energy to spare	I've been dealing with problems well	I've been thinking dearly	I've been feeling good about myse	I've been feeling dose to other people	I've been feeling confident	I've been able to make up my ow minds about things	I've been feeling loved	I've been interested in new thing	I've been feeling cheerful	Total Intervention WEMWBS Scor	Mean Intervention WEMWBS Sco	Intervention Standard Deviation	Intervention Variance	Total Initial WEMWBS Score	Total Intervention WEMWBS Score	% Change
1			4	4	4	5	5	4	4	4	5	4	4	4	4	4	59	4.21	0.41	0.17	5	5	4	5	5	4	5	5	5	5	4	5	5	5	67	4.79	0.41	0.17	59	67	13.56
2			3	1	3	3	5	5	5	4	2	5	5	5	5	4	55	3.93	1.28	1.64	5	4	5	5	5	4	5	5	5	5	4	5	5	5	67	4.79	0.41	0.17	55	67	21.82
3			5	5	4	4	5	4	4	4	4	4	5	5	5	4	62	4.43	0.49	0.24	4	5	4	4	4	4	5	4	4	4	5	5	5	4	61	4.36	0.48	0.23	62	61	-1.61
4			4	4	3	2	3	4	4	3	4	4	4	5	4	4	52	3.71	0.70	0.49	4	4	4	4	3	4	4	4	4	4	4	5	4	4	56	4.00	0.38	0.14	52	56	7.69
5			5	4	4	5	5	4	5	4	5	5	5	5	5	5	66	4.71	0.45	0.20	5	5	5	5	5	5	4	4	5	5	5	5	5	5	68	4.86	0.35	0.12	66	68	3.03
6			5	3	2	4	5	3	3	4	5	4	5	5	5	5	58	4.14	0.99	0.98	4		4	5	5	4	3	4	5	4	5	5	5	4	60	4.29	0.70	0.49	58	60	3.45
7			5	3	2	2	5	4	4	5	5	5	3	5	5	5	58	4.14	1.12	1.27	4	4	4	4	5	5	5	4	5	5	5	5	5	5	65	4.64	0.48	0.23	58	65	12.07
8			4	3	3	4	4	4	4	4	4	4	4	5	5	5	57	4.07	0.59	0.35	5	5	5	3	4	4	4	4	4	3	3	5	5	4	58	4.14	0.74	0.55	57	58	1.75
9			4	3	5	4	5	4	3	4	5	4	4	5	4	5	59	4.21	0.67	0.45	5	3	4	4	5	4	3	5	5	5	5	5	4	5	62	4.43	0.73	0.53	59	62	5.08
10			4	4	4	5	4	4	4	4	5	4	4	4	5	5	60	4.29	0.45	0.20	5	5	4	4	5	4	4	5	5	5	5	5	5	4	65	4.64	0.48	0.23	60	65	8.33
11			2	4	3	5	5	4	4	4	5	4	4	5	5	5	59	4.21	0.86	0.74	5	4	5	5	5	4	4	4	4	5	4	5	5	5	64	4.57	0.49	0.24	59	64	8.47
12			3	3	3	3	3	3	3	3	3	4	3	4	4	4	46	3.29	0.45	0.20	5	5	5	5	5	5	5	5	5	5	5	5	5	5	70	5.00	0.00	0.00	46	70	52.17
13			2	2	4	1	4	2	4	5	1	3	3	4	4	3	42	3.00	1.20	1.43	3	3	4	4	3	4	3	3	4	4	3	5	3	3	49	3.50	0.63	0.39	42	49	16.67
14			2	3	4	2	5	4	5	4	2	3	3	3	4	3	47	3.36	0.97	0.94	4	5	4	5	5	4	5	5	4	5	4	5	5	5	65	4.64	0.48	0.23	47	65	38.30
15			4	4	3	5	4	3	3	3	3	4	4	4	4	4	52	3.71	0.59	0.35	4	5	4	4	5	5	4	5	4	5	4	5	4	5	63	4.50	0.50	0.25	52		21.15
16			3	4	2	3	4	5	4	5	4	3	2	5	5	4	53	3.00	1.01	1.03	4	4	4	5	4	4	5	5	5	4	5	5	5	4	63	4.50	0.50	0.25	53	63	18.87
17			4	4	5	3	4	5	3	5	5	5	5	5	5	5	63	4.50	0.73	0.54	5	5	5	5	4	4	5	5	5	4	4	5	5	5	66	4.71	0.45	0.20	63	66	4.76
18			4	4	5	3	4	5	3	5	5	5	5	5	5	5	63	4.50	0.73	0.54	4	4	5	5	5	4	4	5	5	5	4	4	5	5	64	4.57	0.49	0.24	63	64	1.59
19			5	3	5	4	4	5	5	5	4	4	4	5	4	4	61	4.36	0.61	0.37	5	5	5	5	5	4	5	5	5	4	4	5	5	4	66	4.71	0.45	0.20	61		8.20
20			4	4	3	3	4	4	4	5	4	4	4	5	4	5	57	4.07	0.59	0.35	4	4	3	4	4	4	4	5	5	5	4	5	4	5	60	4.29	0.59	0.35	57	60	5.26
21			5	5	4	4	5	5	4	4	5	5	5	4	4	5	64	4.57	0.49	0.24	5	5	5	5	5	5	5	5	5	5	5	5	5	5	70	5.00	0.00	0.00	64	70	9.38
22			3	1	3	5	2	1	3	4	2	3	3	3	4	4	41	2.93	1.10	1.21	4	4	4	5	2	1	4	5	5	5	5	4	5	5	58	4.14	1.19	1.41	41	58	41.46
23			3	4	3	5	5	4	5	5	5	4	5	5	5	5	63	4.50	0.73	0.54	4	5	5	5	5	5	5	5	5	5	5	5	5	5	69	4.93	0.26	0.07	63	69	9.52
	Mean		3.78	3.43	3.52	3.65	4.30	3.91	3.91	4.22	4.00	4.09	4.04	4.57	4.52	4.43	56.39	3.99	0.75	0.63	4.43	4.39	4.39	4.57	4.48	4.13	4.35	4.61	4.70	4.61	4.39	4.91	4.74	4.61	63.30	4.52	0.49	0.29	56.39		12.26
	ST Dev (P)		0.98	1.01	0.93	1.17	0.80	0.97	0.72	0.66	1.22	0.65	0.86	0.65	0.50	0.65	6.81	0.53	0.26	0.43	0.58	0.71	0.57	0.58	0.83	0.80	0.70	0.57	0.46	0.57	0.64	0.28	0.53	0.57	4.84	0.35	0.23	0.28	6.81		13.42
	Var.P		0.95	1.03	0.86	1.36	0.65	0.95	0.51	0.43	1.48	0.43	0.74	0.42	0.25	0.42	46.33	0.28	0.07	0.18	0.33	0.50	0.33	0.33	0.68	0.64	0.49	0.33	0.21	0.33	0.41	0.08	0.28	0.33	23.43	0.12	0.05	0.08	46.33	23.43	

## Annex D – Group Data

															DATA	TABLE SH	OWING TH	E T1 AND T	2 DATA FOR	R 55 YOUN	G PEOPLE V	VHO PART	ICIPATED IN	N 2020															
	een feeling optimistic abou the future	I've been feeling useful	I've been feeling relaxed	been feeling interested in oth people	I've had energy to spare	I've been dealing with problems well	I've been thinking clearly	been feeling good about myse	I've been feeling close to other people	I've been feeling confident	been able to make up my ow minds about things	I've been feeling loved	been interested in new thing	I've been feeling cheerful	Total Initial WEMWBS Score	ial Mean WEMWBS Score	Initial Standard Deviation	Initial Variance	be en fee ling optimistic abou the future	I've been feeling useful	I've been feeling relaxed	e been feeling interested in oth people	I've had energy to spare	been dealing with problems	I've been thinking clearly	've been feeling good about myse	've been feeling close to other people	I've been feeling confident	been able to make up my ow minds about things	I've been feeling loved	been interested in new thing	re been feeling cheerful	Intervention WEMWBS Scor	an Intervention WEMW BS Sco	vention Standard Deviation	Intervention Variance	tal Initial WEMWBS Score	ntervention WEMWBS Score	% Change
	I've b	-	-	've be	-	l've	-	l've be	l've	2	l've b	_	I've b	2	ē	Ē	=		I've b	_	-	've be	-	-Ve	-	l've be	l'e	2	l've b	-	I've b	₹.	Total	Mean	Inter		Total	Total	
1	3	3	4	2	4	3	4	4	3	3	3	4	4	4	48	3.43	0.62	0.39	3	3	4	3	4	3	4	5	3	4	4	4	5	5	54	3.86	0.74	0.55	48	54	12.50
2	3	4	3	5	3 5	3	2	5	3	5	2	5	3 5	3	51 41	3.64 2.93	0.89 1.03	0.80 1.07	4 5	5	5	3	4 5	4	4 5	5	4	5 4	4 5	5	4 5	4 5	60 64	4.29 4.57	0.59	0.35	51 41	60 64	17.65 56.10
4	4	4	3	3	4	4	4	4	5	4	4	4	5	4	56	4.00	0.53	0.29	4	4	4	4	5	5	5	4	4	4	4	5	5	5	62	4.43	0.49	0.24	56	62	10.71
5	5	3	3	3	5	3	3	3	4	3	3	5	3	3	49	3.50	0.82	0.68	4	4	5	5	5	4	4	4	4	5	5	4	4	5	62	4.43	0.49	0.24	49	62	26.53
6 7	2	3	3 5	2	3	5	5	3	5	5	5	5	5	5	59 54	4.21 3.86	0.94 1.19	0.88 1.41	4	4	5	4	4 5	5 4	4	5 4	5	4	5 4	4	5	5	62 59	4.43 4.21	0.49	0.24	59 54	62 59	5.08 9.26
8	3	3	4	3	4	3	3	3	3	3	4	5	4	4	49	3.50	0.63	0.39	5	5	5	5	5	4	5	4	5	5	4	5	5	5	67	4.79	0.41	0.17	49	67	36.73
9	3	4	4	2	5	3	4	3	4	5	4	5	5	3	54	3.86	0.91	0.84	4	4	5	4	4	5	4	4	5	5	5	4	5	5	63	4.50	0.50	0.25	54	63	16.67
10 11	4	3	5	1	3 5	3 5	3	4	4	3 5	5	4	3 5	5	41 58	2.93 4.14	1.28	1.64 1.84	4 5	4 5	5	5 4	5	5	5	4 5	4	5	5	5	4 5	5	65 68	4.64 4.86	0.48	0.23	41 58	65 68	58.54 17.24
12	5	4	3	2	5	5	4	4	2	4	5	5	4	4	56	4.00	1.00	1.00	4	4	5	4	3	4	5	3	4	4	5	5	4	4	58	4.14	0.64	0.12	56	58	3.57
13	3	4	4	3	4	5	4	4	4	4	4	5	3	4	55	3.93	0.59	0.35	4	4	4	4	3	4	4	4	4	4	4	5	5	4	57	4.07	0.46	0.21	55	57	3.64
14 15	4	4	3 5	2	3	3	3	4	5	4	3	3	3	5	55 43	3.93 3.07	0.59	0.35	5	5	4	4	5	5	5	5	5	5	4 5	5	5 4	5 4	66 63	4.71 4.50	0.45	0.20 0.25	55 43	66 63	20.00 46.51
16	3	5	5	5	5	3	4	5	5	4	5	4	5	5	63	4.50	0.70	0.49	5	4	4	4	5	5	4	4	5	5	5	5	4	5	64	4.57	0.49	0.23	63	64	1.59
17	3	3	4	4	3	3	4	4	4	3	4	4	3	4	50	3.00	0.49	0.24	5	5	4	4	5	5	5	5	5	4	4	5	5	4	65	4.64	0.48	0.23	50	65	30.00
18	5 4	4	4	5 3	5 4	5	4	4	5	4	5	4	5	3	50 56	3.57 4.00	0.38	2.53 0.14	4	4	5	5	4	4	4	5	5	5	5	4	5	5	64 64	4.57 4.57	0.49	0.24	50 56	64 64	28.00 14.29
19 20	4	2	3	4	3	3	4	4	4 5	4	3	5	4	5	53	3.79	0.86	0.14	5	5	5	4	4	5	5	4	4	5	4	5	5	5	65	4.64	0.49	0.24	53	65	22.64
21	4	3	2	1	3	5	5	3	3	5	5	4	5	5	53	3.79	1.26	1.60	5	4	3	3	4	4	4	5	4	4	5	4	5	5	59	4.21	0.67	0.45	53	59	11.32
22	4	4	3	2	5	5	4	2	2	5	4	3	4	5	52	3.71	1.10	1.20	4	5	3	4	5	5	5	5	3	5	5	4	4	5	62	4.43	0.73	0.53	52	62	19.23
23 24	3	4	2	3	3	3	4	4	3	3	4	3	3	4	49 37	3.50 2.64	0.50 0.61	0.25	4	4	5	4 5	5	4	5	5	5	5	4	4	5 4	5 4	63 63	4.50 4.50	0.50 0.50	0.25 0.25	49 37	63 63	28.57 70.27
25	4	4	3	3	4	4	4	4	3	4	3	3	5	4	52	3.71	0.59	0.35	4	4	5	3	5	4	4	5	4	4	5	4	4	4	59	4.21	0.56	0.31	52	59	13.46
26	4	4	3	3	3	3	4	4	3	4	4	4	4	4	51	3.64	0.48	0.23	4	4	5	5	5	5	4	4	4	5	5	5	5	5	65	4.64	0.48	0.23	51	65	27.45
27 28	5	5 4	5	5	5	4	5	5	5	5	5	5 4	5 4	5 4	61 63	4.36 4.50	1.39 0.63	1.94 0.39	5	5	5	5	5	5 5	5 4	5	5	5 4	5	5	5 4	5	70 67	5.00 4.79	0.00	0.00 0.17	61 63	70 67	14.75 6.35
29	2	2	2	4	5	5	5	5	5	5	5	5	5	5	60	4.29	1.22	1.49	4	4	5	5	5	5	5	5	4	4	5	5	4	4	64	4.57	0.49	0.24	60	64	6.67
30	5	5	4	3	5	4	5	5	4	5	5	5	3	5	63	4.50	0.73	0.54	5	5	5	5	5	5	5	5	5	5	4	5	5	5	69	4.93	0.26	0.07	63	69	9.52
31 32	3	4	5 4	2	4	5	5	5	5	3 5	5	4	4 5	2 5	41 64	2.93 4.57	1.03 0.49	1.07 0.24	4	5	5	4 5	5	5	5	5	5	5	5 5	4 5	5	4 5	63 70	4.50 5.00	0.50	0.25	41 64	63 70	53.66 9.38
33	4	4	4	5	5	4	4	4	5	4	4	4	4	4	59	4.21	0.41	0.17	5	5	4	5	5	4	5	5	5	5	4	5	5	5	67	4.79	0.41	0.17	59	67	13.56
34	3	1	3	3	5	5	5	4	2	5	5	5	5	4	55	3.93	1.28	1.64	5	4	5	5	5	4	5	5	5	5	4	5	5	5	67	4.79	0.41	0.17	55	67	21.82
35 36	5 4	5 4	3	2	5	4	4	4	4	4	5 4	5	5 4	4	62 52	4.43 3.71	0.49	0.24	4	5	4	4	3	4	5 4	4	4	4	5 4	5 5	5 4	4	61 56	4.36 4.00	0.48	0.23	62 52	61 56	-1.61 7.69
37	5	4	4	5	5	4	5	4	5	5	5	5	5	5	66	4.71	0.45	0.49	5	5	5	5	5	5	4	4	5	5	5	5	5	5	68	4.86	0.35	0.14	66	68	3.03
38	5	3	2	4	5	3	3	4	5	4	5	5	5	5	58	4.14	0.99	0.98	4	3	4	5	5	4	3	4	5	4	5	5	5	4	60	4.29	0.70	0.49	58	60	3.45
39 40	5 4	3	2	2	5 4	4	4	5 4	5	5 4	3 4	5	5	5	58 57	4.14	1.12 0.59	1.27 0.35	4 5	4 5	5	3	5	5 4	5 4	4	5 4	5 3	5 3	5	5	5 4	65 58	4.64 4.14	0.48	0.23	58 57	65 58	12.07 1.75
41	4	3	5	4	5	4	3	4	5	4	4	5	4	5	59	4.07	0.59	0.45	5	3	4	4	5	4	3	5	5	5	5	5	4	5	62	4.14	0.74	0.53	59	62	5.08
42	4	4	4	5	4	4	4	4	5	4	4	4	5	5	60	4.29	0.45	0.20	5	5	4	4	5	4	4	5	5	5	5	5	5	4	65	4.64	0.48	0.23	60	65	8.33
43	2	4	3	5	5	4	4	4	5	4	4	5	5	5 4	59 46	4.21	0.86	0.74	5	4	5	5	5	4	4	4	4	5	4	5	5	5	64 70	4.57 5.00	0.49	0.24	59 46	64 70	8.47 52.17
44 45	3	2	3	3	3 4	2	3	3 5	3	4	3	4	4	3	46 42	3.29 3.00	0.45 1.20	0.20 1.43	3	5	5 4	5	5 3	5	3	5 3	5	4	5	5	5	5	49	3.50	0.00	0.00	46	49	16.67
46	2	3	4	2	5	4	5	4	2	3	3	3	4	3	47	3.36	0.97	0.94	4	5	4	5	5	4	5	5	4	5	4	5	5	5	65	4.64	0.48	0.23	47	65	38.30
47	4	4	3	5	4	3	3	3	3	4	4	4	4	4	52	3.71	0.59	0.35	4	5	4	4	5	5	4	5	4	5	4	5	4	5	63	4.50	0.50	0.25	52	63	21.15
48 49	3	4	2 5	3	4	5	3	5	4 5	3 5	2 5	5	5	4 5	53 63	3.00 4.50	1.01 0.73	1.03 0.54	4 5	4 5	4 5	5	4	4	5	5	5	4	5 4	5	5	4 5	63 66	4.50 4.71	0.50 0.45	0.25	53 63	63 66	18.87 4.76
50	4	4	5	3	4	5	3	5	5	5	5	5	5	5	63	4.50	0.73	0.54	4	4	5	5	5	4	4	5	5	5	4	4	5	5	64	4.57	0.49	0.24	63	64	1.59
51	5	3	5	4	4	5	5	5	4	4	4	5	4	4	61	4.36	0.61	0.37	5	5	5	5	5	4	5	5	5	4	4	5	5	4	66	4.71	0.45	0.20	61	66	8.20
52 53	4 5	4 5	3	3	4 5	4 5	4	5 4	4	4	4 5	5 4	4	5	57 64	4.07 4.57	0.59	0.35	4	4 5	3 5	4 5	4 5	4 5	4	5	5	5	4	5	4	5	60 70	4.29 5.00	0.59	0.35	57 64	60 70	5.26 9.38
54	3	1	3	5	2	1	3	4	2	3	3	3	4	4	41	2.93	1.10	1.21	4	4	4	5	2	1	4	5	5	5	5	4	5	5	58	4.14	1.19	1.41	41	58	41.46
55	3	4	3	5	5	4	5	5	5	4	5	5	5	5	63	4.50	0.73	0.54	4	5	5	5	5	5	5	5	5	5	5	5	5	5	69	4.93	0.26	0.07	63	69	9.52
Mean ST Dev (F	3.64	3.53 0.93	3.58 0.91	3.22 1.25	4.15 0.84	3.84 0.99	3.91 0.79	3.95 0.86	3.82 1.18	4.00 0.89	3.98 0.90	4.25 0.94	4.18 0.94	4.22 0.87	54.25 7.09	3.85 0.53	0.81	0.74	4.36 0.58	4.36 0.61	4.49 0.60	4.38 0.65	4.56 0.71	4.36 0.70	4.47 0.60	4.58 0.56	4.51 0.57	4.62 0.52	4.53 0.57	4.71 0.45	4.69 0.50	4.67 0.51	63.31 4.18	4.52 0.30	0.48	0.27	54.25 7.09	63.31 4.18	16.69
Var.P	1.00	0.87	0.83	1.55	0.71	0.97	0.63	0.74	1.39	0.80	0.82	0.88	0.88	0.75	50.26	0.33	0.09	0.29	0.34	0.38	0.36	0.42	0.50	0.49	0.36	0.32	0.32	0.32	0.32	0.43	0.25	0.26	17.45	0.09	0.04	0.04	50.26	17.45	



