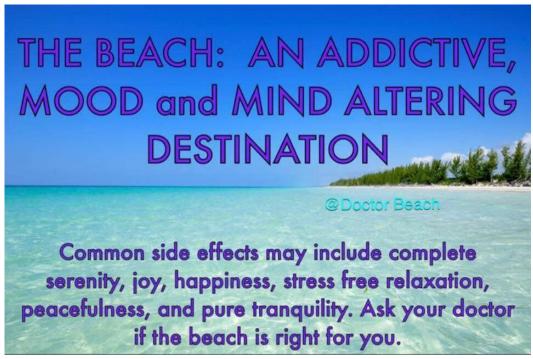




A LONGITUDINAL EVALUATION OF SURF ACTION'S IMPACT IN USING SURF THERAPY TO SUPPORT THE PHYSICAL & PSYCHOLOGICAL WELLBEING OF 315 YOUNG PEOPLE FROM THE ARMED FORCES

COMMUNITY: 2014-2018





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/green spaces. Surf Action has been at the vanguard of the development of ocean-based activities and its acceptance in the mainstream. It takes 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 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 immune to this however, they realise that a picture is only the encapsulation of emotions at that specific moment. This report seeks to examine the effects of their surf therapy programme over the longer term when there is not a façade in a photograph to consult. Surf Action has collected both quantitative and qualitative data throughout its delivery and this report is an examination of the aggregated data to examine the delivery, efficacy and outcomes of the Surf Action Surf Therapy model.

Surf Action not a surf school that provides unlimited free surfing! Through its 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 its 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 them for a spell, Surf Action 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 data-set and spreadsheet are included at the end of this report to demonstrate Surf Action's belief in the openness of their surf-therapy model and research. This report is deliberately written, and the data presented, in a way which can be easily understood by the wider community as well as the academic community.

This analysis was carried out with the hypothesis that 'Surf Action's surf therapy provision has a positive and sustainable affect on the wellbeing of young people'. The analysis looked for evidence which supported this and for evidence which might support the opposing null-hypothesis, namely that 'Any positive effect on the wellbeing of the young people identified as a result of participation can be attributed to other outside environmental/social factors'.

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 service users and their families in high intensity water-sports in the magnificent coastal environment with the resulting recognised physical and psychological health and resilience benefits.

Surf Action 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)



SERVICE FAMILIES

'Service children and their families have unique needs; they face challenges that often go beyond the experience of most of civilian families and children. Increased school mobility and the cycle of deployment can bring social, emotional and academic challenges for those children with parents in the armed forces' (Ofsted 2011). The Government recognises that children may still need some support even after their parents have left the forces.

In the Kings College London, Academic Department of Military Mental Health, Surgeon General's Review of Military Mental Health Research 2013-2015, paragraphs 40 – 44 referred to military families and stated; 40. Military service can have a detrimental impact on marital relationships if the civilian spouse

has a low perception of the value of military service. US research suggests that divorce rates are increasing among couples who married since the events of 9/11 and where a partner deployed. Engaging spouses and other family members in the deployment process may help to create a better understanding of missions and such a process may be particularly helpful to young couples who are at a high risk of separation.

- 41. High levels of PTSD symptoms are associated with frequent displays of hostile behaviour, low levels of couple functioning, intimate partner violence (IPV) and problems with family reintegration following deployment. PTSD symptom identification among partners should be a key feature of family support programmes.
- 42. Post-deployment support programmes for wounded, injured, or sick (WIS) military personnel should take account of the unique role that family members play in the recovery process and should seek to carry out continuous audit bridge any gaps in the care process wherever possible.
- 43. Children of military personnel prefer to cope with the stresses of parental deployment on their own and often display attitudes of self-reliance; however, adolescents struggle to adjust to their changed role in the family as their parent leaves and returns from deployment; these key points should be addressed in family support programmes.
- 44. Just as has been found with military personnel, military family members are reluctant to access medical services for mental health problems due to perceived mental health stigmatisation and concerns about confidentiality. Home-based or technology-based services may be helpful for some family members in these circumstances.

Many of the problems highlighted above can be further exacerbated by the inherently unstable current world situation, 24-hour news and social media

In his forward to the 'UK Armed Forces Families Strategy 2016-2020' Lt Gen Andrew Gregory, Chief of Defence People asked for engagement with Service Charities to help address these issues.

Surf Action defines recovery as 'living well despite any difficulties which people may have to face in their lives'. They view it as a journey, a movement from the place a person/family is in to places that are better to be in, learning and making use of new skills and understandings along the way. Research shows that when a life is working well, certain essential needs are being met within it and thus Surf Action aims to empower individuals and families to:

- o Build Connections: being involved counters isolation and builds a connection into a community
- Develop new competencies and feel 'stretched': This can happen either through surfing, being involved as a volunteer or through one of the organised activities
- Feel valued: Surf Action acts as a healthy peer group within which people are valued for their participation, contributions and recognised for the roles they fill
- Give and receive positive attention: Often attention can be all about problems. Surf Action focuses in equal measure on the positives and on achievements and fun
- Feel Secure: Surf Action provides a safe environment where people are respected, and their individual experiences understood.

Surfing is not a cure for all ills and problems, but it is a focus, a passion and an activity that requires determination, perseverance and above all the aspiration to succeed. You cannot change the way that waves break but you can learn to ride in tune with them. It is also fun, makes you laugh and smile and encourages mutual respect with your fellows. Surfing allows you to experience, appreciate and, most importantly, to respect the often-visceral natural strength, rapidly changing moods and ancient rhythm of tides of the ocean. It allows you to be an infinitesimal and vulnerable part of that power and makes you feel incredibly alive and instils the desire to succeed.

Surf Action encourages its service users to take these elements forward into everyday life. They can be the catalyst which inspires change and then anything becomes possible.

THE SURF ACTION RESILIENT CHILDREN AND FAMILIES PROGRAMME

This programme was designed to help support service families through the emotional cycle of service life and deployment by using the proven physical and psychological health benefits of the blue and green gym concepts by involving service and veteran families in surfing, surf lifesaving and other water-sports such as canoeing in the stunning coastal environment to help knit families closer together and boost community cohesion.

It is an evidence—based variation of their 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 were a series of vigorous 8-week (half a day a week for 8-weeks) water-based activity courses, including surfing, kayaking and stand-up paddle-boarding. Participants could 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. They sought 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-to-day 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 Surf Action 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 time together often, 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
- o **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 their courses give the opportunity for some

of the absent parent 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 they were asked to remain in the vicinity of the beach to watch, give encouragement and to engage in conversation with the other parents/carers and Surf Action's staff and volunteers. Surf Action was not there to provide a free child-minding service for the morning! Conversations on the beach were a very important part of the structure as they allowed parents/carers the opportunity to talk openly, but confidentially, to the professionals and volunteers on a regular basis in a natural environment when they were relaxed. From these conversations Surf Action 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.

THE WIDER COMMUNITY

Surf Action recognises that many of the problems encountered by the armed forces community are also present in the wider community because trauma is blind to the notion of 'separate communities'. In 2017 they were asked by Cornwall Council to work with a specific family who were enduring a very serious historic child protection situation and, as a result of those outcomes, they have had regular referrals from the Council's Family Officers as part of their 'Together for Families' provision. Many organisations/charities will only work with specific subsets/age groups of the population however Surf Action is inclusive and understands that everyone benefits from being active in the ocean/beach environments, so they are flexible in working with the wider community subject to safeguarding and appropriate risk/safety assessment being completed.



MEASURING WELLBEING

There is growing interest among political leaders, local statutory agencies and others in measuring something that really matters – people's wellbeing. This is reflected most clearly in the Government's 2010 commitment to measuring national well-being, which has led to the Office for National Statistics' (ONS) Measuring National Wellbeing programme

Surf Action took a well-being approach because it enabled them 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 inform thinking 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.

Once Surf Action understands what makes people's lives go well, sees the positive things people bring to situations, and understands 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.

Surf Action was already in receipt of funding from the National Lottery and opted to follow the recommendations of the NEF (New Economics Foundation) and Big Lottery Fund publication, 'Measuring Wellbeing, A guide for Practitioners'. Of the wellbeing measurement scales they recommended 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 of fourteen positively worded items, 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'). WEMWBS has been academically validated as having good psychometric properties, good validity and reliability with the ability to distinguish between population groups. There is also a SWEMWBS (shortened WEMWBS scale), a seven-question version of WEMWBS. 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 Surf Action's water-based activities was 7 so after consulting widely amongst their trustees and professionals, they 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, at the end and 2 months after their course. Surf Action initially used the 7-question abbreviated WEMWBS form for the children however in time they trialled the full 14-question form and found that children responded to it very well and it then became the standard wellbeing form to use.

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 WEM	WBS LIKERT SCALE I	FOR EACH OF THE Q	UESTIONS									
WEMWBS Score 1 2 3 4 5													
Qualitative meaning	None of the time	Rarely	Some of the time	Often	All the time								

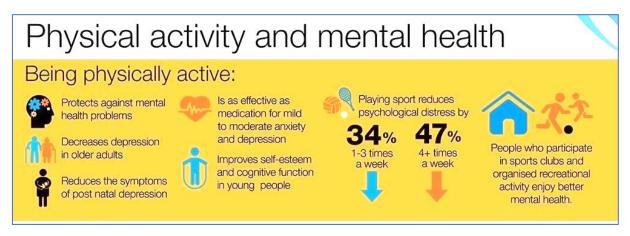
The parents/carers were also asked to complete some paperwork associated with Surf Action's adult provision in order to give them a further insight into their lives and situation. This could then be used as a catalyst for a directed conversation later in order to support them if they wanted it.

INCLUSIVITY

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



As was mentioned earlier, Surf Action started the project using the 7-question abbreviated WEMWBS form and they have the full data for 95 children (45 boys and 50 girls) using that measure. They then have the data for 220 children (126 boys and 94 girls) using the 14-question long WEMWBS form. This report has analysed the outcomes for each group separately and within each group, have also examined the outcomes by gender.

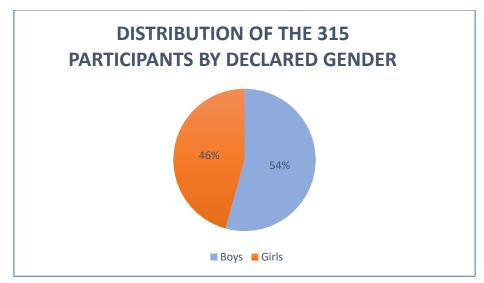


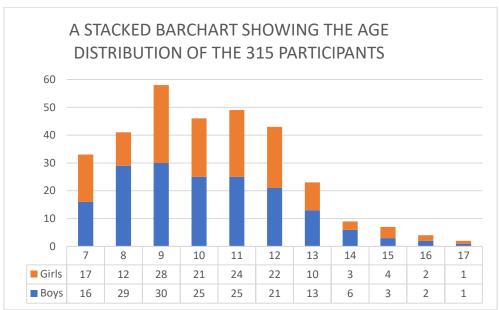
METHODOLOGY

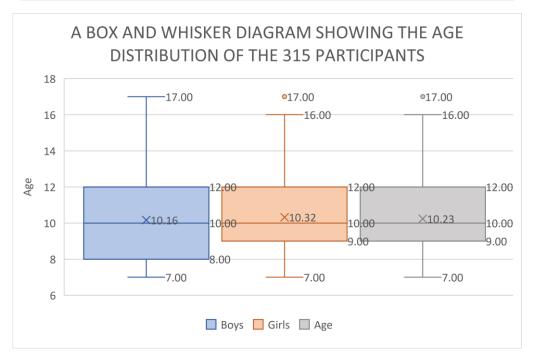
1. Participants

The project was comprehensively advertised through social media and the local military establishments and cluster schools. Numerous 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 from both boys and girls so there was no need to gender manage the project. Several withdrew during the project due to recent sporting injuries, but they were easily replaced from a reserve list.







Their age profiles were close to a normal distribution with their mean and median ages being very close, and the gender mix was also pleasing.

2. 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)

3. 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 the course combined surfing performance, focused group processing, and social participation to create opportunities for veterans to examine ways in which their individual values, abilities, and experiences could 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 Surf Action 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.

Ocean Therapy Courses were run each year consisting of

- Six, 8-week surfing courses held at beaches in west Cornwall and Newquay
- Two kayaking/windsurfing courses at Southwest Lakes Trust Activity Centre at Stithians Lake.

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

4. Evaluation Measures

Surf Action asked the adults to complete a 'Wheel of Life' evaluation tool (based on the recognised 'Emotional Needs Audit' developed by J. Griffin & I. Tyrrell and adapted for use with veterans by Surf Action). 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 children were asked to complete the WEMWBS questionnaire to measure their self-esteem, self-confidence, relationships and achievements as outlined below.

Results and Findings

5. Attendance

The overall attendance figure of 86% was very pleasing and this was indicative of how enjoyable the participants found their courses. Considering that courses were run through the early spring, summer and then well into the autumn with the attendant common problems such as bad weather, illness, school commitments and family holidays etc, this was most gratifying as was the fact that they only had to cancel 10 sessions during this period due to the weather making it unsafe to go into the water. As many cancelled sessions as possible were re-arranged.

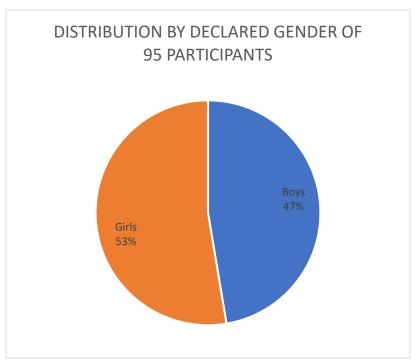
6. Participant WEMWBS

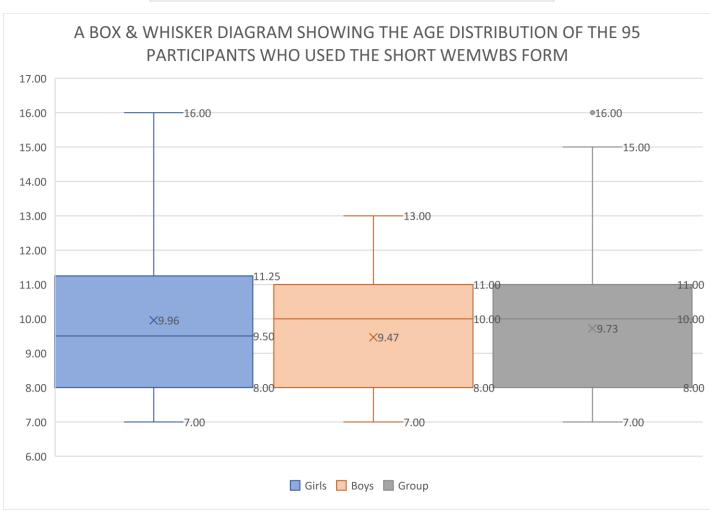
The children's WEMWBS scores on initial engagement with their courses were used as the baseline for measurement (T1) and then the Mean score (between 1 and 5), Standard Deviation (σ) and Variance (σ^2) were calculated across each of the 7/14 audit categories (vertically on the spreadsheet) and each child (horizontally on the spreadsheet. Their final WEMWBS scores were taken 2 months after their course in the 7 audit categories for the shortened WEMWBS form and in 14 audit categories for the long form. Then an Intervention mean score (T2) was calculated in each category and for each child along with their σ and σ^2 . The initial and intervention Mean, σ and σ^2 allowed for the better interpretation of the data particularly in terms of compactness and consistency. All data was entered onto a 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 paired t-test.

Most of the statistical analysis assumes the data to be approximately normally distributed so the data was checked to ensure this. Kurtosis and Skew were measured across all the data. The extensive use of box and whisker diagrams also allowed for visual indications 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 Coefficients of Determination. This allowed the calculation of the relevant degree of statistical significance.

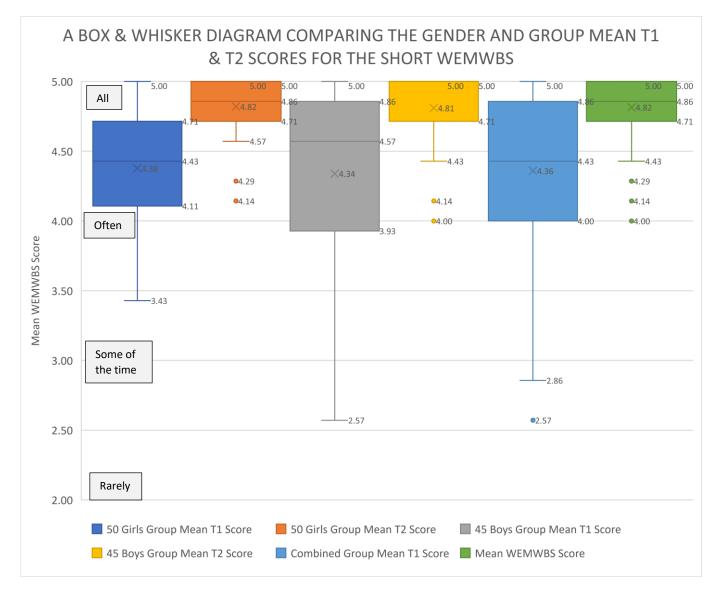


7. Outcomes for the 95 participants (45 boys and 50 girls) who completed the 7-question Short WEMWBS forms





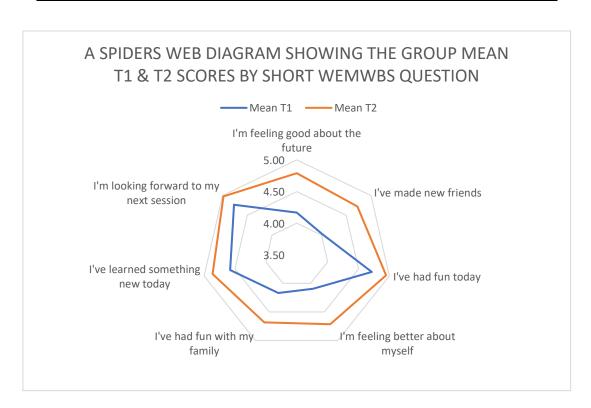
The diagrams above show that there was a good age and gender mix amongst the participants.



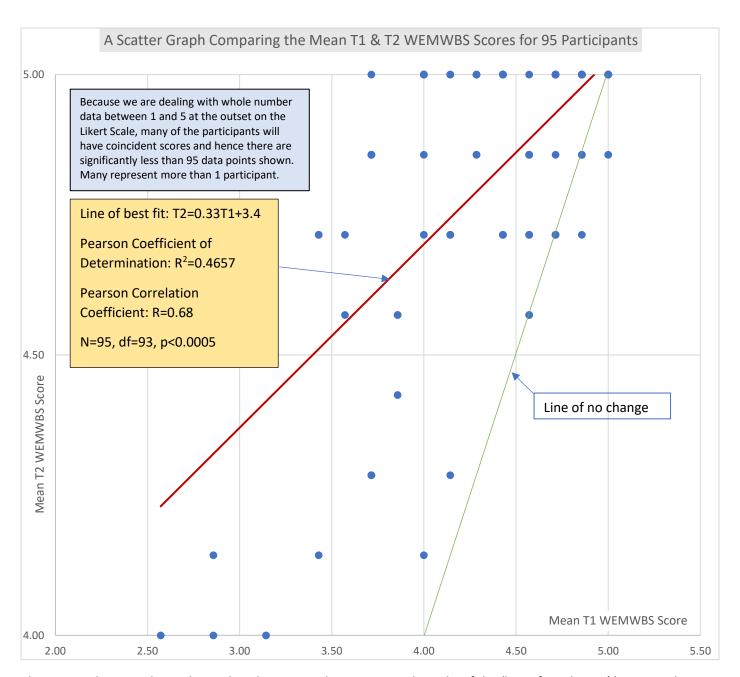
The Box & Whisker diagram analyses the mean scores at T1 and T2 for each of the 95 participants and is a visualisation of those scores all laid out in a long line from smallest to largest. The central box represents the scores of the central 50% of participants whilst the tails represent the 25% lowest and 25% highest scores of the remaining participants. Any score which is unusually high or low when compared with the other scores is shown as an 'outlier'. The diagram gives an excellent visualisation of how compact those scores are at T1 and T2. The boys exhibited a much wider range of T1 scores with some very low scores, this indicates some of them were less happy in their lives than the others. It is plain at T2 the scores are much more compact, and this is also confirmed by a reduction in their standard deviation measurements in the main data table. The girls showed a 10% and the boys an 11% increase in their mean scores. The group average was 10.6%. The diagram demonstrates that those with the lowest wellbeing scores at T1 benefited the most going from 'rarely' to 'often' in their answers in most cases and that is what we wanted to achieve.

The table below shows the percentage increase in scores at T2 for each of the 7 questions broken down by gender and then as a group. If a mean T1 score was very high (i.e. close to '5' signifying 'all the time') then there is little margin for an increase at T2 as it indicates good wellbeing at the outset in that question area. Where one gender shows a significantly bigger percentage improvement in a question area than the other, that score is shown in bold. The girls have 3 scores in bold and the boys have 4. Those for the girls refer to feeling better about themselves and the future and making friends. For the boys they are about enjoying themselves, time with their family and learning new things. The group scores show good progress in all areas.

MEAN	T1 & T2 S0	CORES & PI	ERCENTAC	GE INCREAS	SES BY WE	MWBS QUES	TION				
Short WEMWBS Question	I'm feeling good about the future	l've made new friends	I've had fun today	I'm feeling better about myself	l've had fun with my family	I've learned something new today	I'm looking forward to my next session				
			50 (GIRLS							
Mean T1	4.06	4.00	4.76	3.94	4.30	4.74	4.84				
Mean T2	4.82	4.76	4.94	4.68	4.70	4.86	4.98				
% Change	18.72	19.00	3.78	18.78	9.30	2.53	2.89				
			45 I	BOYS							
Mean T1	4.29	4.04	4.67	4.27	4.02	4.40	4.69				
Mean T2	4.76	4.69	4.96	4.76	4.67	4.87	4.98				
% Change	10.88	15.93	6.19	11.46	16.02	10.61	6.16				
95 PARTICIPANTS											
Mean T1	4.17	4.02	4.72	4.09	4.17	4.58	4.77				
Mean T2	4.79	4.73	4.95	4.72	4.68	4.86	4.98				
% Change	14.90	17.54	4.91	15.17	12.37	6.21	4.42				



The spiders web diagram above is a representation of the mean T1 & T2 data in the '95 Participants' section of the table above it. The inner blue irregular heptagon shows the mean T1 scores in each question area and is quite angular which means a variation in the scores. The T2 heptagon is much more rounded and this indicates more consistent scoring in each question area. The blue heptagon is entirely contained within the orange heptagon 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 this reports purposes this indicates that the outcomes were robust.



The scatter diagram above shows that there are 2 data points to the right of the 'line of no change' however they both had good mean wellbeing scores at T1 and still have good scores at T2. Most data points are significantly to the left and above that line demonstrating improved wellbeing. The line of best fit suggests we can estimate a T2 outcome by multiplying the T1 mean WEMWBS score by 0.33 and adding 3.4 WEMWBS points. The calculation of p<0.0005 indicates that we can reject the null hypothesis that the T1 and T2 scores are not positively related. Because we kept the outliers in the data, rather than ignore them, it is fair to say that had they been ignored the correlation would have been even more robust.

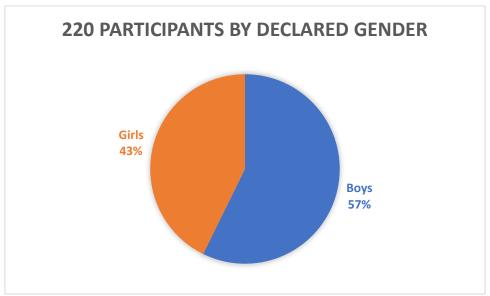
It was hoped that the programme would benefit those with the lowest initial wellbeing scores the most, so we also analysed the data in order to extract the relevant information to examine this. The outcomes by gender and group are summarised in the table below. It demonstrates that the programme does significantly benefit those with the lowest initial wellbeing scores the most when examined by both gender and group.

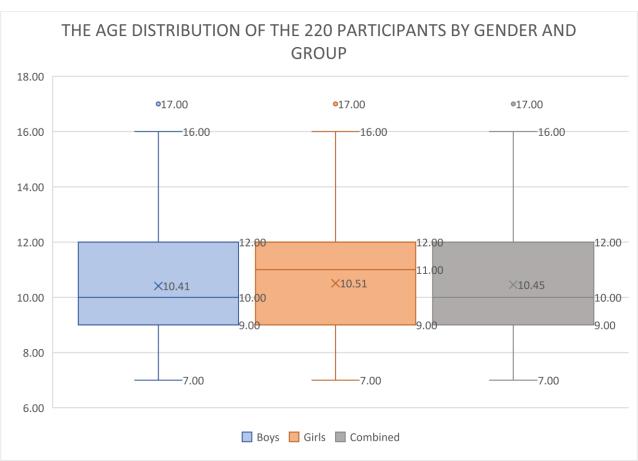
A TABLE COMPARING THE IMPROVEMENT IN MEAN WELLBEING SCORES AT T2 BY GRADED T1 SCORES **Short WEMWBS Boys Girls** Combined Number of participants with a mean T1 3 0 3 score<3 (some of the time) Mean % increase at T2 for those 46.60% 0 46.60% participants Number of participants with a mean T1 11 8 19 score<4 (often) Mean % increase at T2 for those 34% 22.60% 28.80% participants Number of participants with a mean T1 45 50 95 score ≤ 5 (all the time) Mean % increase at T2 for those 10.80% 10.20% 10.50% participants

This, along with the data in the previous diagrams is evidence that the mean T1 and T2 scores for the 95 participants who completed the short 7-question WEMWBS form are significantly correlated and relevant.

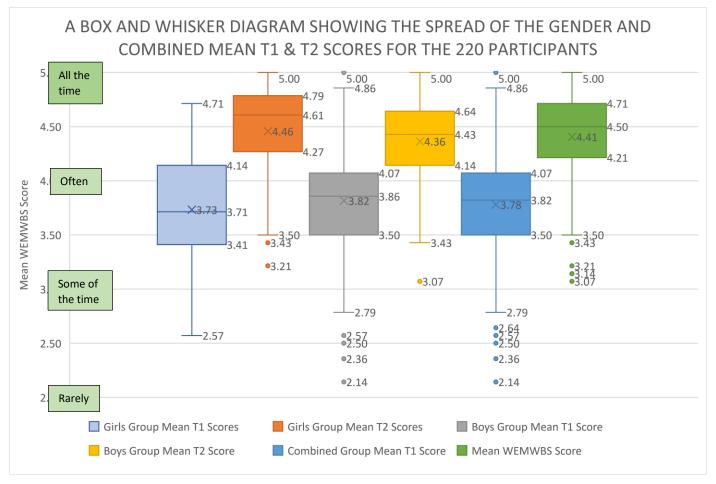


8. Outcomes for the 220 participants (126 boys and 94 girls) who completed the 14-question long WEMWBS forms.





The diagrams above show that there was a good age and gender mix amongst the participants. The two 17-year olds appear as outliers because they are outside the general age profile for the rest of the groups. The age spread is consistent amongst both genders.



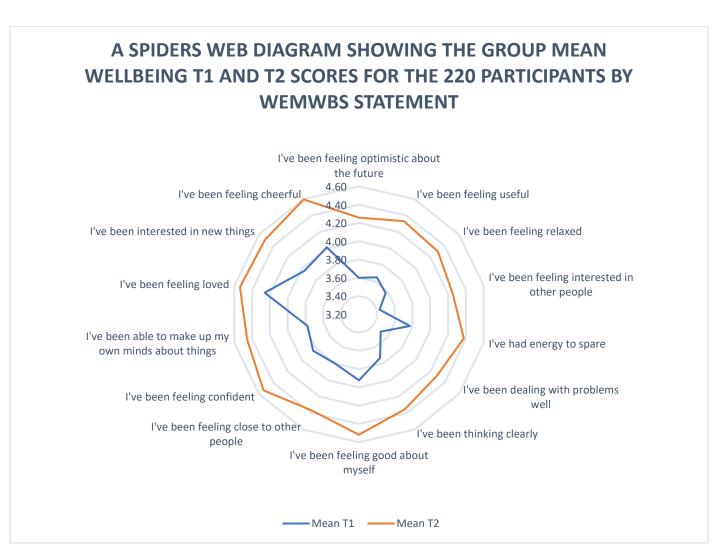


This shows that at T2, each population has moved significantly up the axis due to improved wellbeing scores. There are 6 outliers in the combined group at T1, but they have all increased their scores very significantly at T2 and this implies that they have seen the biggest increases in their wellbeing. This is what was hoped for. The populations are approximately normally distributed and cohesive. The girls showed a 19.6% and the boys a 14.1% increase in their mean wellbeing scores. The group average was a 16.7% increase. These are robust and pleasing figures.

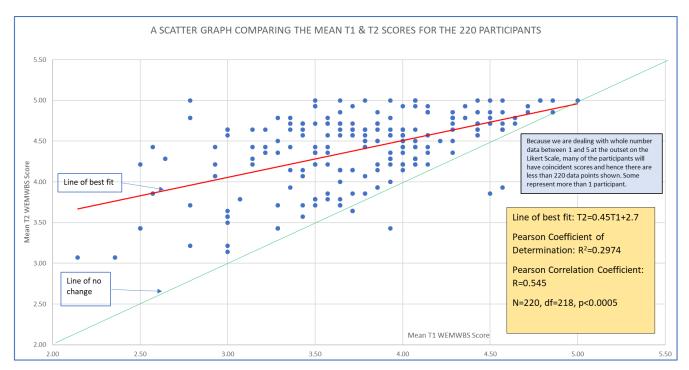
The table below shows the percentage increase in scores at T2 for each of the 14 questions broken down by gender and then as a group. If a mean T1 score was very high (i.e. close to '5' signifying 'all the time') then there is little margin for an increase at T2 as it indicates good wellbeing at the outset in that question area. Where one gender shows a significantly bigger

percentage improvement in a question area than the other, that score is shown in bold. It is immediately obvious that the girls have demonstrated significantly larger percentage increases than the boys in 12 of the WEMWBS statements. The boys have still shown good increases in their wellbeing scores.

	M	IEAN T1	AND T2	SCORE	S AND F	PERCEN [*]	TAGE IN	ICREASE	BY WE	MWBS	STATEN	IENTS		
WEMWBS Question	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	I'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	I'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
	94 Girls													
Mean T1														
Mean T2	4.35	4.36	4.32	4.28	4.40	4.38	4.39	4.55	4.38	4.55	4.55	4.68	4.56	4.64
% Change	19.24	22.39	21.92	30.10	18.97	22.62	21.11	15.36	17.38	19.89	23.34	10.28	15.95	16.89
						12	6 Boys							
Mean T1	3.56	3.71	3.60	3.54	3.83	3.45	3.81	3.90	3.85	3.87	3.84	4.27	3.98	4.05
Mean T2	4.19	4.31	4.28	4.21	4.36	4.21	4.33	4.49	4.37	4.52	4.38	4.41	4.48	4.56
% Change	17.59	16.03	18.98	19.06	13.90	22.07	13.54	15.04	13.40	16.80	14.05	3.35	12.35	12.75
						220 Pa	articipan	ts						
Mean T1	3.60	3.65	3.57	3.43	3.77	3.50	3.73	3.92	3.80	3.84	3.78	4.26	3.96	4.01
Mean T2	4.26	4.33	4.30	4.25	4.38	4.29	4.35	4.52	4.37	4.54	4.45	4.54	4.51	4.60
% Change	18.31	18.68	20.48	23.84	16.02	22.31	16.69	15.18	15.07	18.11	17.93	6.51	13.88	14.50



The spiders web diagram above is a representation of the mean T1 & T2 data in the '220 Participants' section of 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 scatter diagram above shows that there are 4 data points to the right of the 'line of no change' however they had satisfactory mean T1 scores and still have satisfactory mean scores at T2. Most data points are significantly to the left and above that line demonstrating improved wellbeing. The line of best fit suggests we can estimate a T2 outcome by multiplying the T1 mean WEMWBS score by 0.45 and adding 2.7 WEMWBS points. The calculation of p<0.0005 indicates that we can reject the notion that the T1 and T2 scores are not positively related. Because we kept the outliers in the data, rather than ignore them, it is fair to say that had they been ignored the correlation would have been even stronger.

It was hoped that the programme would benefit those with the lowest initial wellbeing scores the most, so we also analysed the data in order to extract the relevant information to examine this. The outcomes by gender and group are summarised in the table below.

A TABLE COMPARING THE IMPROVEMENT LONG V	IN WELLBEING SCORE VEMWBS QUESTIONN		SCORES FOR THE
	Boys	Girls	Combined
Number of participants with a mean T1 score<3	8	7	15
Mean % increase at T2 for those participants	45.80%	52.60%	49.10%
Number of participants with a mean T1 score<4	71	62	133
Mean % increase at T2 for those participants	21.70%	25.40%	23.50%
Number of participants with a mean T1 score ≤ 5	126	94	220
Mean % increase at T2 for those participants	14.40%	19.40%	16.60%

It demonstrates that the programme does significantly benefit those with the lowest initial wellbeing scores the most when examined by gender and group. The table below demonstrates that this was consistent across both versions of the WEMWBS questionnaire.

A TABLE COMPAR	ING THE IMPRO	VEMENT IN W	ELLBEING SCO	RES AT T2 BY	GRADED T1 SCC	ORES
	SI	nort WEMWBS	5		Long WEMWBS	
	Boys	Girls	Combined	Boys	Girls	Combined
Number of participants with a mean T1 score<3	3	0	3	8	7	15
Mean % increase at T2 for those participants	46.60%	0	46.60%	45.80%	52.60%	49.10%
Number of participants with a mean T1 score<4	11	8	19	71	62	133
Mean % increase at T2 for those participants	34%	22.60%	28.80%	21.70%	25.40%	23.50%
Number of participants with a mean T1 score ≤ 5	45	50	95	126	94	220
Mean % increase at T2 for those participants	10.80%	10.20%	10.50%	14.40%	19.40%	16.70%

In order to further check the outcomes, we examined any effect which there may have been by the inclusion of the 33 (16 in the SWEMWBS and 17 in the WEMWBS groups), 7-year old children, in the study when WEMWBS was only recommended for ages 8 and above. This was done by stripping out the relevant 33 lines of data and then generating new scatter graphs, lines of best fit, coefficients of determination and correlation for both the 7 and 14 question groups. The results were as follows;

Short WEMWBS excluding the 16, 7-year olds

Line of best fit: T2=0.35T1+3.27

Pearson Coefficient of Determination;

 $R^2 = 0.5133$

Pearson Correlation Coefficient;

R = 0.716

n=79, df=77, p<0.0005

Long WEMWBS excluding the 17, 7-year olds 7

Line of best fit: T2=0.46T1+2.64

Pearson Coefficient of Determination;

 $R^2 = 0.2977$

Pearson Correlation Coefficient;

R = 0.5456

n=203, df=201, p<0.0005

This demonstrates that the 33 children aged 7 who were included in the study did not distort the outcomes. For the long WEMWBS group there was no effect at all and for the short WEMWBS their removal further strengthened the correlation. This indicates that continuing to include 7-year old children is supported.

9. The thoughts of the parents/carers and others.

It is always difficult to select which bits of feedback to select for use in a report from a mountain of feedback gathered over several years. This report opted to use a selection of longer feedback which also gave context to the family dynamic alongside that of others with an interest in the courses/delivery and who hear feedback on Surf Action from other sources.

One parent wrote to Surf Action:

• "Given ******'s autism, sometimes it can be a real mission to motivate her to take part in activities. When we do go to the beach as a family, we do find ourselves worrying about her especially as she does her own thing without any real regard to her safety. "***** has sensory needs and in the past, we have taken her to the beach, and she has had no concerns about running off into the water. She never considered rip tides, or being out of her depth, and of course that was worrying for us. The wonderful thing about these sessions, is that she and the other children are meeting people; they're learning about discipline and safety in and out of the water. She understands the dangers and now, as a family, we feel much safer bringing her to the beach. ****** cannot wait to get involved in the Surf Action courses. She absolutely loves it and that's lovely to see."

Another said:

• 'As a father of 4 fully active boys aged between 6 and 13, I often find the demand to entertain them and maximise their development as much of a financial barrier as well as being time consuming. By being able to tap into the courses you have offered to armed forces community families, my wife and I have been able to give our children access to learning opportunities and skills development that would simply have been otherwise unachievable. This is particularly important as one of our sons has unique special and unpredictable requirements that can often get in the way of us supporting the other 3.'

A local base commander wrote:

'The continual cycle of deployments that many of our service personnel experience has a large emotional impact upon both them and their families so it is fantastic that Surf Action are addressing these important issues and actively supporting the emotional resilience of our service families. The feedback I receive from those taking part highlight how great it is to be involved in such a project, building the family bond, but also having the opportunity for their children to share these experiences with other service children, veterans and the wider local community.'

A local authority Senior Family Worker wrote;

'So, I've returned in one piece from my action-packed morning sampling the surfing sessions run for families by the charity Surf Action along with three colleagues. I can honestly say I had such an amazing time and it was not really just about surfing or being able to surf! The sessions were run by highly skilled and qualified professionals who encourage, confidence build and promote self-esteem by making things fun and light hearted. We played some beach games, learnt new skills including beach and water safety as well as surfing Yes, I really came away having surfed and stood on the board (albeit for about 1 second before I wiped out) - Yippee! Afterwards we had a chat with the whole team who explained the concept behind the charity and the sessions and what their team can offer to families and young people. Initially they supported military families but are now taking the lessons learned to support the wider community. They consist of a psychologist, a volunteer who has complex PTSD and has overcome so many obstacles in his life, a Royal Marine and *** who makes the contacts and supports the families (she also surfs with them!). Finally, there is a brilliant instructor, trained in 'Trauma Informed Practice', who instantly puts people at ease and makes you forget about what is going on around you, shuts out the white noise that trauma often creates and makes you believe in yourself. The bonus is they all enjoy the sea and surfing. The 8 sessions, run weekly, are totally free and all equipment, including wetsuits are provided for children and adults. Children can join in from aged 7+ and parents are encouraged to join in, although not forced to. The sessions are family based to help families going through conflict with each other to find common ground and support and help each other in a very subtle way. It aids communication skills, positivity and is done in an environment that is nonthreatening, with plenty of space. This is an amazing opportunity for some of our families'



CONCLUSIONS

The aim of this report was to evaluate the 'Surf Action Resilient Children and Families Programme' and its effect on the physical and psychological wellbeing of the young people who had participated.

The evaluation examined the data and gathered evidence to prove one of the following;

- The hypothesis that 'Surf Action's surf therapy provision has a positive and sustainable effect on the wellbeing of young people'
- The null-hypothesis, namely that 'Any positive effect on the wellbeing of the young people identified as a result of participation can be attributed to other outside environmental/social factors'.

The data was examined both by gender and group, and across all the 7 or 14 audit areas depending on which WEMWBS wellbeing assessment form was being used. It also compared the outcomes between the groups using the different WEMWBS forms. The data was also examined to establish the outcomes amongst those who exhibited the lowest wellbeing scores at the outset. In addition, it looked for any effect from allowing 7-year-old children complete a WEMWBS form when it is only recommended for use from age 8 upwards.

The evidence shown in sections 7 & 8 in the scatter-graphs, box and whisker diagrams, spiders web diagrams and tables justifies the rejection of the null hypothesis and ably demonstrates that the' Surf Action Resilient Children and Families Programme' has an identifiable and statistically significant effect on the physical and psychological wellbeing of the 315 young people who have participated.

The outcomes when assessing wellbeing using the long WEMWBS form are substantially higher than those using the short form which is interesting. This would seem to justify Surf Action's move to the long from the short WEMWBS form early on. The long form by having 14 audit areas gives more comprehensive data on which to assess outcomes. The group mean increase in wellbeing scores when measured 2-months after the end of their course was a pleasing 10.6% for the 95 participants who completed a short form and an excellent 16.7% for the 220 participants who completed the long form. Using the short-form, the outcomes were gender neutral however the outcomes using the long-form show that the girls benefited more (a 19.4% increase) than the boys (a 14.4% increase) and this is an interesting outcome. The girls showed markedly higher percentage increases in 12 of the 14 audit areas than the boys although the boy's increases were also good. The table on page 22 shows that those with the lowest initial wellbeing scores showed an excellent mean increase of 46% in their wellbeing score 2-months after their course. The programme is as inclusive as possible, and its group format allows participation by everyone.

The 'Surf Action Resilient Children and Families Programme' is a targeted surf therapy intervention that has achieved statistically significant outcomes. It provides a well-designed, physical and fun outdoor, supported group activity which is accessible to the whole family regardless of how the family is constituted. The children learn within a supportive and encouraging holistic environment where they can experience the proven physical and psychological benefits of being active in a beach/ocean environment. The relatively high number and percentage of girl

participants in the strenuous and challenging activity of surfing was most encouraging, particularly when the outcomes also show they benefited the most. The participants become more resilient within themselves as a result and this should help them to make the most of the life-opportunities/challenges they encounter. The programme is demonstrably inclusive and is successful in keeping peer groups together to encourage social connectedness rather than removing some for a separate and isolating provision. There is nothing to say that this will continue to be always possible but over the last 5-years it has been achieved. The programme is easily replicable around the coast and research suggests that activity in the green environment may achieve similar outcomes.

In parallel with the above the participating parents/carers undergo the same experience, and this gives them a unique common bond of having learned something new together with their children. It also gives a common reference point for relating to one another in their day to day relationship and a conversation point which can always be accessed. The use of the relaxed atmosphere of the beach environment to encourage adults to talk openly and frankly about their lives and worries in both groups and in private is also innovative and effective whilst and this feeds into an improved life and family dynamic and social connectedness.

Like an increasing proportion of the third sector, Surf Action relies heavily on an enthusiastic and dedicated band of professionals and volunteers who bring a unique level of lived experience and talent to the project.

In January 2017 'NHS Kernow Clinical Commissioning Group' and 'Cornwall Council' published updated health and social data for Cornwall which showed the significant physical and psychological health problems which exist in the community. In October 2018 Devon and Cornwall Police reported that 40% of their call-outs now involve people with mental health problems.

The 'Surf Action Resilient Children and Families Programme' is a well-designed and targeted provision with proven outcomes which is ideally suited to help combat the growing physical and psychological health worries within our society.

This report and its data-set will be available online shortly. All Surf Action's reports can be viewed online on their website at; www.surfaction.co.uk/Pages/downloads/downloads.php. The report's data-set is shown below.



											Short WEN	/IWBS Data									1		
	b0 ± a	a 49			nitial WEM I⊆				ı	1	b0 ± 41	a 4	⊆		rvention W					l			
	I'm feeling good about the future	I've made new friends	I've had fun today	I'm feeling better abou myself	I've had fu with my family	I've leamed something new today	I'm looking forward to my next session	Total	Mean T1 WEMWBS Score	Standard Deviation	I'm feeling good about the future	I've made new friends	I've had fun today	I'm feeling better abou myself	I've had fun with my family	I've leamed something new today	I'm looking forward to my next session	Total	Mean T2 WEMWBS Score	Standard Deviation	T1 Score	T2 Score	% Change
1	4	5	5	5	5	5	5	34	4.86	0.38	5	5	5	5	5	5	5	35	5.00	0.00	34	35	2.94
2	3	3	3	4	4	4	4	25	3.57	0.53	4	3	5	5	5	5	5	32	4.57	0.79	25	32	28.00
3	5	5	5	5	5	4	5	34	4.86	0.38	5	5	5	5	5	5	5	35	5.00	0.00	34	35	2.94
4	4	5	5	5	5	5	5	34	4.86	0.38	5	5	5	5	5	5	5	35	5.00	0.00	34	35	2.94
5 6	4	4	5 4	3 4	3	4 5	5 5	28 30	4.00 4.29	0.82	5 5	5 5	5 5	5 5	5	5 5	5	35 35	5.00 5.00	0.00	28 30	35 35	25.00 16.67
7	4	4	3	3	2	5	5	26	3.71	1.11	5	5	5	5	4	5	5	34	4.86	0.38	26	34	30.77
8	5	5	5	4	5	4	5	33	4.71	0.49	5	5	5	5	5	5	5	35	5.00	0.00	33	35	6.06
9	4	4	4	2	5	5	5	29	4.14	1.07	5	5	5	5	5	5	5	35	5.00	0.00	29	35	20.69
10	3	4	5	4	4	5	5	30	4.29	0.76	5	5	5	5	5	5	5	35	5.00	0.00	30	35	16.67
11	5	5	5	4	5	4	5	33	4.71	0.49	5	5	5	5	5	5	5	35	5.00	0.00	33	35	6.06
12	4	5	4	3	5	5	5	31	4.43	0.79	5	5	5	5	5	5	5	35	5.00	0.00	31	35	12.90
13	5	4	4	5	5	5	5	33	4.71	0.49	5	5	5	5	4	4	5	33	4.71	0.49	33	33	0.00
14 15	3	4	5 5	3	3	5 4	5 4	31 26	4.43 3.71	0.53 0.76	5 5	5 5	5 5	5 5	5 5	5 4	5	35 34	5.00 4.86	0.00	31 26	35 34	12.90 30.77
16	5	5	5	4	5	5	5	34	4.86	0.76	5	5	5	4	5	5	5	34	4.86	0.38	34	34	0.00
17	5	5	5	5	5	4	5	34	4.86	0.38	5	5	5	5	5	5	5	35	5.00	0.00	34	35	2.94
18	5	5	5	5	5	5	5	35	5.00	0.00	5	5	5	5	5	5	5	35	5.00	0.00	35	35	0.00
19	5	5	5	5	5	5	5	35	5.00	0.00	5	5	5	5	5	5	5	35	5.00	0.00	35	35	0.00
20	5	5	5	5	5	5	5	35	5.00	0.00	5	5	5	5	5	5	5	35	5.00	0.00	35	35	0.00
21	4	4	5	4	3	3	4	27	3.86	0.69	5	3	4	5	5	5	5	32	4.57	0.79	27	32	18.52
22	5	5	5	5	5	5	5	35	5.00	0.00	5	5	5	5	5	5	5	35	5.00	0.00	35	35	0.00
23	4	3	4	4	4	5	4	28	4.00	0.58	4	5	4	4	3	5	4	29	4.14	0.69	28	29	3.57
24 25	5	3	5 5	5 5	5 5	5 5	5	34 31	4.86 4.43	0.38	5 5	5 5	5 5	5 5	5 5	5 5	5 5	35 35	5.00 5.00	0.00	34 31	35 35	2.94 12.90
26	4 5	5	5	5	4	5	4 5	34	4.43	0.79	5	5	5	5	4	5	5	34	4.86	0.00	34	34	0.00
27	5	5	5	5	5	4	5	34	4.86	0.38	5	5	5	5	5	5	5	35	5.00	0.00	34	35	2.94
28	5	5	5	5	4	4	4	32	4.57	0.53	3	5	5	4	5	5	5	32	4.57	0.79	32	32	0.00
29	3	4	5	3	3	5	5	28	4.00	1.00	4	5	5	5	5	4	5	33	4.71	0.49	28	33	17.86
30	3	4	5	3	4	5	5	29	4.14	0.90	4	5	5	5	5	4	5	33	4.71	0.49	29	33	13.79
31	5	4	5	4	5	5	5	33	4.71	0.49	5	5	5	5	5	5	5	35	5.00	0.00	33	35	6.06
32	5	5	5	5	5	5	5	35	5.00	0.00	5	5	5	5	5	5	5	35	5.00	0.00	35	35	0.00
33	4	3 4	4	5 4	5 4	5 5	4 5	30 30	4.29 4.29	0.76 0.49	5 5	5 5	5 5	5 4	5	5 5	5 5	34 34	4.86 4.86	0.38	30 30	34 34	13.33 13.33
34 35	4	3	5	4	5	5	5	31	4.43	0.49	5	5	5	5	5	5	5	35	5.00	0.00	31	35	12.90
36	5	5	5	5	5	5	5	35	5.00	0.00	5	5	5	5	5	5	5	35	5.00	0.00	35	35	0.00
37	3	3	5	3	3	4	5	26	3.71	0.95	4	4	5	3	4	5	5	30	4.29	0.76	26	30	15.38
38	5	4	4	4	5	5	5	32	4.57	0.53	5	5	5	5	4	4	5	33	4.71	0.49	32	33	3.13
39	4	5	5	4	4	5	5	32	4.57	0.53	5	5	5	4	5	5	5	34	4.86	0.38	32	34	6.25
40	5	4	5	5	5	5	5	34	4.86	0.38	5	5	5	5	5	5	5	35	5.00	0.00	34	35	2.94
41	4	5	5	4	4	5	5	32	4.57	0.53	5	4	5	4	5	5	5	33	4.71	0.49	32	33	3.13
42	4 5	5	5 5	5 5	5 5	5 5	5 5	34 35	4.86 5.00	0.38	5	5 5	5 5	5 5	5 5	5 5	5 5	35 35	5.00 5.00	0.00	34	35	2.94 0.00
43	4	5 4	4	2	5	5	5	29	4.14	1.07	5 5	5	5	5	5	5	5	35	5.00	0.00	35 29	35 35	20.69
45	3	4	5	4	4	5	5	30	4.14	0.76	5	5	5	5	5	5	5	35	5.00	0.00	30	35	16.67
46	5	5	5	5	5	5	4	34	4.86	0.38	5	5	5	5	4	5	5	34	4.86	0.38	34	34	0.00
47	3	4	5	3	3	4	4	26	3.71	0.76	3	4	5	5	3	5	5	30	4.29	0.95	26	30	15.38
48	4	4	5	3	1	3	4	24	3.43	1.27	5	3	5	5	5	5	5	33	4.71	0.76	24	33	37.50
49	5	5	5	5	5	4	5	34	4.86	0.38	5	5	5	5	5	5	5	35	5.00	0.00	34	35	2.94
50	5	5	5	4	5	5	5	34	4.86	0.38	5	5	5	5	5	5	5	35	5.00	0.00	34	35	2.94
51	4	4	5	3	1	3	4	24	3.43	1.27	5	3	5	5	5	5	5	33	4.71	0.76	24	33	37.50
52 53	5 5	5 5	5 5	5 5	4 5	5 5	5 5	34 35	4.86 5.00	0.38	5 5	5 5	5 5	4 5	4 5	5 5	5 5	33 35	4.71 5.00	0.49	34 35	33 35	-2.94 0.00
54	5	5	5	5	5	5	5	35	5.00	0.00	5	5	5	5	5	5	5	35	5.00	0.00	35	35	0.00
55	5	3	5	5	5	5	5	33	4.71	0.76	5	5	5	5	5	5	5	35	5.00	0.00	33	35	6.06

56	3	3	4	3	3	3	3	22	3.14	0.38	4	4	4	4	4	4	4	28	4.00	0.00	22	28	27.27
57	3	1	3	3	3	4	3	20	2.86	0.90	4	4	5	4	3	4	5	29	4.14	0.69	20	29	45.00
58	5	4	5	4	5	5	5	33	4.71	0.49	5	5	5	5	5	5	5	35	5.00	0.00	33	35	6.06
59	4	4	5	4	4	5	5	31	4.43	0.53	5	5	5	5	5	5	5	35	5.00	0.00	31	35	12.90
60	3	4	5	3	3	4	4	26	3.71	0.76	5	5	5	5	5	4	5	34	4.86	0.38	26	34	30.77
61	4	5	5	4	5	5	5	33	4.71	0.49	5	5	5	4	5	5	5	34	4.86	0.38	33	34	3.03
62	4	5	5	4	4	5	5	32	4.57	0.53	5	5	5	4	5	5	5	34	4.86	0.38	32	34	6.25
63	5	3	5	4	4	5	5	31	4.43	0.79	5	4	5	4	5	5	5	33	4.71	0.49	31	33	6.45
64	3	1	5	3	4	5	5	26	3.71	1.50	5	5	5	5	4	5	5	34	4.86	0.38	26	34	30.77
65	4	5	5	5	5	5	5	34	4.86	0.38	5	5	5	5	5	5	5	35	5.00	0.00	34	35	2.94
66	5	5	5	4	4	5	5	33	4.71	0.49	5	5	5	4	4	5	5	33	4.71	0.49	33	33	0.00
67	3	3	5	2	1	1	5	20	2.86	1.68	4	3	5	4	3	4	5	28	4.00	0.82	20	28	40.00
68	4	4	5	3	3	4	5	28	4.00	0.82	5	5	5	5	5	5	5	35	5.00	0.00	28	35	25.00
69	3	1	5	2	1	1	5	18	2.57	1.81	4	3	5	4	3	4	5	28	4.00	0.82	18	28	55.56
70	4	3	4	5	3	4	4	27	3.86	0.69	5	5	4	5	3	4	5	31	4.43	0.79	27	31	14.81
71	4	5	5	3	5	5	5	32	4.57	0.79	5	5	5	4	5	5	5	34	4.86	0.38	32	34	6.25
72	5	3	5	4	4	5	5	31	4.43	0.79	5	4	5	4	5	5	5	33	4.71	0.49	31	33	6.45
73	5	5	5	5	5	5	5	35	5.00	0.00	5	5	5	5	5	5	5	35	5.00	0.00	35	35	0.00
74	3	4	5	3	4	5	5	29	4.14	0.90	4	5	5	5	5	4	5	33	4.71	0.49	29	33	13.79
75	3	5	4	5	4	3	5	29	4.14	0.90	3	5	5	4	4	4	5	30	4.29	0.76	29	30	3.45
76	5	4	5	5	4	5	5	33	4.71	0.49	5	4	5	5	4	5	5	33	4.71	0.49	33	33	0.00
77	5	5	5	5	4	4	4	32	4.57	0.53	3	5	5	4	5	5	5	32	4.57	0.79	32	32	0.00
78	4	3	5	4	5	5	5	31	4.43	0.79	5	5	5	5	5	5	5	35	5.00	0.00	31	35	12.90
79	3	3	3	4	4	4	4	25	3.57	0.53	4	4	5	5	5	5	5	33	4.71	0.49	25	33	32.00
80	3	4	4	4	3	5	5	28	4.00	0.82	5	5	5	5	5	5	5	35	5.00	0.00	28	35	25.00
81	4	5	4	3	5	5	5	31	4.43	0.79	5	5	5	5	5	5	5	35	5.00	0.00	31	35	12.90
82	5	3	4	5	4	5	5	31	4.43	0.79	5	5	5	4	4	5	5	33	4.71	0.49	31	33	6.45
83	3	3	5	3	4	5	5	28	4.00	1.00	5	5	5	5	4	5	5	34	4.86	0.38	28	34	21.43
84	5	3	5	5	5	5	4	32	4.57	0.79	5	5	5	5	4	5	5	34	4.86	0.38	32	34	6.25
85	3	3	4	4	4	5	5	28	4.00	0.82	5	5	5	5	5	5	5	35	5.00	0.00	28	35	25.00
86	5	5	5	5	5	5	5	35	5.00	0.00	5	5	5	4	5	5	5	34	4.86	0.38	35	34	-2.86
87	5	3	5	5	5	5	5	33	4.71	0.76	5	5	5	5	5	5	5	35	5.00	0.00	33	35	6.06
88	3	3	4	4	4	4	4	26	3.71	0.49	5	5	5	5	5	5	5	35	5.00	0.00	26	35	34.62
89	3	1	5	3	3	4	5	24	3.43	1.40	4	3	5	3	4	5	5	29	4.14	0.90	24	29	20.83
90	4	5	5	4	4	5	5	32	4.57	0.53	5	4	5	4	5	5	5	33	4.71	0.49	32	33	3.13
91	4	4	5	4	3	3	4	27	3.86	0.69	5	3	4	5	5	5	5	32	4.57	0.79	27	32	18.52
92	5	1	4	5	4	5	5	29	4.14	1.46	5	5	5	4	4	5	5	33	4.71	0.49	29	33	13.79
93	3	3	4	4	4	5	5	28	4.00	0.82	5	5	5	5	5	5	5	35	5.00	0.00	28	35	25.00
94	4	4	5	4	5	5	5	32	4.57	0.53	5	5	5	5	5	5	5	35	5.00	0.00	32	35	9.38
95	4	4	5	4	4	5	5	31	4.43	0.53	5	5	5	5	5	5	5	35	5.00	0.00	31	35	12.90
Mean	4.17	4.02	4.72	4.09	4.17	4.58	4.77	30.52	4.36	0.62	4.79	4.73	4.95	4.72	4.68	4.86	4.98	33.71	4.82	0.27	30.52	33.71	11.86

	Full WEMWBS - Initial WEMWBS Scores																	
	I've been feeling optimisticabou 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 clearly	I've been feeling good about myse	I've been feeling close 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
1	3	2	3	3	3	2	2	2	2	2	2	3	2	2	33	2.36	0.50	0.25
3	5 4	5 4	4	5 4	5 3	3	5 3	5 3	5 3	5 3	5 3	5 3	5 3	5 1	68 44	4.86 3.14	0.36 0.77	0.13 0.59
4	3	4	2	3	2	2	3	2	2	2	2	3	3	2	35	2.50	0.65	4.00
5	1	2	4	4	4 5	2	4	3	4	3	4	4	4	4	47	3.36	1.01	1.02
6 7	2	3 4	4	5 5	5	3	5 3	4	2 4	3	4	5 5	4	4	53 55	3.79 3.93	1.12 0.73	1.26 0.53
8	4	4	4	4	4	4	4	4	4	4	4	4	4	4	56	4.00	0.00	0.00
9	3 4	3 4	3	2 5	3 5	3 5	3 4	4	3	3 4	3 5	2 5	3 5	3 5	39 62	2.79 4.43	0.43 0.65	0.18 0.42
11	4	4	3	2	1	4	3	5	3	5	3	5	5	5	52	3.71	1.27	1.60
12 13	4	5 2	5 3	4	2	3	3 5	5 5	5 4	3 4	3 4	4 5	3 5	3 4	55 54	3.93 3.86	0.83 1.03	0.69 1.05
14	5	3	2	1	3	4	3	5	2	5	3	4	5	5	50	3.57	1.34	1.80
15	4	3	2	3	5	3	4	2	1	3	5	5	3	2	45	3.21	1.25	1.57
16 17	2	3	3	5 3	3	3	3	5 3	5 4	3 4	3	5 3	2	3	51 44	3.64 3.14	1.08 0.66	1.17 0.44
18	3	4	4	3	3	4	4	3	2	3	4	4	3	4	48	3.43	0.65	0.42
19 20	3	3	5 3	4	3	3 5	5 5	4	5 5	5 3	4 5	5 5	4	2 4	56 56	4.00 4.00	1.04 0.88	1.08 0.77
21	2	4	5	4	4	3	5	4	5	5	4	5	4	2	56	4.00	1.04	1.08
22	4	3	4	4 2	5	4	3	3	4	4	4 2	3	4	4	53 2	3.79	0.58	0.34
23 24	2 5	4	4	3	1 5	3	5	3	5	4	3	1 5	4	4	59	3.00 4.21	1.00 0.70	2.00 0.49
25	5	4	3	1	5	4	4	3	5	5	4	5	5	5	58	4.14	1.17	1.36
26 27	4 5	4	3 4	5 1	4 5	3	5 4	4 5	5 4	3 5	3	5 4	5 5	5 5	57 57	4.07 4.07	1.14 1.14	1.30 1.30
28	5	5	4	3	3	4	3	4	5	5	5	3	4	5	58	4.14	0.86	0.75
29	5	4	5	5	5	4	5	4	5	5	4	5	4	4	64	4.57	0.51	0.26
30 31	4	4	5 3	3	3	5 3	3	3	3	3	4	4	4	3	54 49	3.86 3.50	0.66 0.52	0.44 0.27
32	5	4	3	4	3	4	4	5	4	4	3	5	5	3	56	4.00	0.78	0.62
33 34	3	4	5 2	3 5	3	4	2	5 5	4 5	3 5	3	5 3	5 5	5 2	58 49	4.14 3.50	0.77 1.40	0.59 1.96
35	5	2	3	3	5	3	5	5	3	3	4	4	3	4	52	3.71	0.99	0.99
36 37	5 2	5 4	3 5	5 4	5 4	3	5 5	4	5 5	5 5	4	5 5	4	5 2	62 56	4.43 4.00	0.94 1.04	0.88 1.08
38	4	3	4	4	5	4	3	3	4	4	4	3	4	4	53	3.79	0.58	0.34
39	5	2	1	5	5	5	2	5	5	5	5	5	5	5	60	4.29	1.44	2.07
40 41	5 2	5 3	3 2	3	5 3	3	3	3	3	3 4	3 4	4	5 3	3	53 42	3.79 3.00	0.89	0.80
42	4	3	4	3	5	3	2	4	5	3	5	5	5	4	55	3.93	1.00	0.99
43	5 4	4 5	5 3	5 4	5 2	4	3	5 5	5 5	3 4	4	5 5	5 4	5 5	64 57	4.57 4.07	0.65 0.92	0.42 0.84
45	4	3	5	3	4	3	5	5	1	3	4	5	5	5	55	3.93	1.21	1.46
46 47	5	3	4	3	3	4	4	5	4	5	5	5	4	4 5	58	4.14	0.77	0.59
47	3	5 4	3	4	2 4	2	3	5 3	5 5	4	3	5 5	4	4	57 50	4.07 3.57	0.92 0.94	0.84 0.88
49	5	4	5	5	5	4	4	5	5	3	4	5	5	5	64	4.57	0.65	0.42
50 51	4	5 3	3 5	3	4	3	3 5	5 5	5 1	3	4	5 5	4 5	5 5	57 55	4.07 3.93	0.92 1.21	0.84 1.46
52	5	4	5	5	3	4	5	4	5	5	5	4	5	5	64	4.57	0.65	0.42
53 54	5 2	4	2	2	3	5 3	2	2	5 3	5 2	5 2	5	3	5 3	63 35	4.50 2.50	0.52 0.52	0.27 0.27
55	5	5	5	3	5	5	5	5	5	5	5	5	5	5	68	4.86	0.52	0.27
56	5	4	3	3	5	4	5	5	4	5	4	5	5	5	62	4.43	0.76	0.57
57 58	4	4 5	3	4 5	2	4 5	4	5 5	4	5	5 1	4 5	5 5	5 5	57 61	4.07 4.36	0.83 1.08	0.69 1.17
59	4	3	5	5	4	4	4	3	5	4	3	4	4	4	56	4.00	0.68	0.46
60 61	3	3	4	4	4 5	2	3 4	3 5	4 5	<u>4</u> 5	4 5	4 5	3 5	4 5	51 61	3.64 4.36	0.50 0.93	0.25 0.86
62	2	4	4	5	5	5	5	5	5	5	5	5	5	5	65	4.64	0.84	0.71
63 64	3	4	5 4	3	5 3	3	5 4	3	5 3	5 3	4	5 3	3	3	58 47	4.14 3.36	0.95 0.50	0.90 0.25
65	4	4	4	3	5	4	5	4	4	3	5	3	4	5	57	4.07	0.50	0.25
66	4	3	3	4	3	3	4	3	4	4	3	4	4	4	50	3.57	0.51	0.26
67 68	3	4	2	3	4 5	3	4	3	2	3	2	4	3	4 5	56 46	4.00 4.00	0.00 5.00	0.00 5.00
69	5	4	5	5	3	4	5	4	5	5	5	4	5	5	64	4.57	0.65	0.42
70 71	3	3	3	3	5 3	3	3	3	3	3 4	3	5 3	2	3	50 42	3.57 3.00	0.85 0.55	0.73 0.31
72	4	5	3	4	2	4	3	5	5	4	4	5	4	5	57	4.07	0.55	0.84
73	5	3	4	3	3	4	4	5	4	5	5	5	4	4	58	4.14	0.77	0.59
74 75	3	3	3	3	5 3	3	2	3	3	3 4	3	5 3	2	3	50 42	3.57 3.00	0.85 0.55	0.73 0.31
	-				-			-			-		•			P	age 2 8	8 of 33

76	5	3	4	3	3	4	4	5	4	5	5	5	4	4	58	4.14	0.77	0.59
77	4	5	3	4	2	4	3	5	5	4	4	5	4	5	57	4.07	0.92	0.84
78	4	3	5	3	4	3	5	5	1	3	4	5	5	5	55	3.93	1.21	1.46
79	4	4	2	4	5	2	4	4	5	2	4	5	5	4	54	3.86	1.10	1.21
80	3	4	4	2	3	4	4	3	2	3	3	4	3	4	46	3.29	0.73	0.53
81	4	4	3	3	4	3	4	4	4	4	4	5	4	5	55	3.93	0.62	0.38
82	4	4	4	5	3	4	5	5	5	4	4	5	4	4	60	4.29	0.61	0.37
83	5	5	5	5	5	4	4	4	4	4	4	5	5	5	64	4.57	0.51	0.26
84	4	5	3	2	5	5	5	5	5	5	4	5	5	5	63	4.50	0.94	0.88
85	5	4	5	2	1	4	3	5	4	5	5	3	5	5	56	4.00	1.30	1.69
86	5	4	5	5	3	5	4	5	5	4	3	5	5	5	63	4.50	0.76	0.58
87	3	3	3	2	3	3	4	4	4	3	4	3	3	4	46	3.29	0.61	0.37
88	4	4	4	2	4	3	4	4	4	4	4	4	5	4	54	3.86	0.66	0.44
89	3	4	3	3	3	4	3	4	3	3	3	5	4	4	49	3.50	0.65	0.42
90	4	4	4	3	4	4	5	5	4	5	4	5	5	4	60	4.29	0.61	0.37
91	4	3	5	4	3	4	5	5	5	4	5	5	5	5	62	4.43	0.76	0.57
92	3	4	3	4	3	3	5	4	4	3	4	5	4	4	53	3.79	0.70	0.49
93	5	5	5	5	5	5	5	5	5	5	5	5	5	5	70	5.00	0.00	0.00
94	5	5	5	4	5	5	4	5	5	4	5	5	5	5	67	4.79	0.43	0.18
95	3	3	3	4	4	2	2	2	2	4	4	4	4	4	45	3.21	0.89	0.80
96	4	4	4	3	3	3	4	4	3	3	3	4	4	3 5	49	3.50	0.52	0.27
97	4	4	4	5	3	4	4	3	5	5	4	5	5		60	4.29	0.73	0.53
98 99	4 5	4 5	3	3	5 5	3	4	3	3	3	5 3	5 4	4 5	4	56 53	4.00 3.79	0.68	0.46 0.80
100	2	5	1	4	2	2	3	5	3	4	3	4	2	4	44	3.79	1.23	1.52
100	5	4	5	5	3	5	4	5	5	4	3	5	5	5	63	4.50	0.76	0.58
101	3	2	4	4	4	2	3	2	4	2	4	5	5	4	48	3.43	1.09	1.19
102	4	4	4	4	3	4	4	4	5	4	3	4	4	3	54	3.45	0.53	0.29
103	5	3	4	1	4	4	5	5	5	5	4	4	5	3	57	4.07	1.14	1.30
105	3	4	3	4	3	3	5	3	5	2	3	5	2	3	48	3.43	1.02	1.03
106	4	4	4	4	3	4	4	4	5	4	3	5	4	4	56	4.00	0.55	0.31
107	3	3	4	4	4	3	4	4	4	3	3	4	4	5	52	3.71	0.61	0.37
108	2	3	3	3	3	4	4	3	3	3	3	2	3	3	42	3.00	0.55	0.31
109	3	5	5	5	4	5	3	4	4	5	4	5	5	3	60	4.29	0.83	0.68
110	4	4	4	3	4	4	4	3	4	4	3	3	4	4	52	3.71	0.47	0.22
111	5	4	2	3	2	4	4	5	4	5	4	5	5	5	57	4.07	1.07	1.15
112	3	4	3	2	4	4	3	4	4	4	4	4	3	4	50	3.57	0.65	0.42
113	5	4	4	4	5	5	4	5	5	4	4	5	5	5	64	4.57	0.51	0.26
114	3	4	4	3	4	3	3	4	4	5	4	5	5	5	56	4.00	0.78	0.62
115	3	3	4	3	5	3	4	3	2	4	4	3	4	4	49	3.50	0.76	0.58
116	4	4	3	4	3	3	4	4	4	3	4	4	4	4	52	3.71	0.47	0.22
117	3	3	2	3	4	3	3	2	3	3	3	4	3	3	42	3.00	0.55	0.31
118	5	3	4	3	5	4	4	5	4	5	4	5	4	5	60	4.29	0.73	0.53
119	3	3	4	3	5	3	4	3	2	4	4	3	4	4	49	3.50	0.76	0.58
120	3	4	4	3	4	3	3	4	4	5	4	5	5	5	56	4.00	0.78	0.62
121	3	3	4	3	5	3	4	3	2	4	4	3	4	4	49	3.50	0.76	0.58
122	3	4	1	2	5	3	2	2	2	3	4	5	4	3	43	3.07	1.21	1.46
123	5	5	4	5	5	4	5	5	5	5	4	5	4	5	66	4.71	0.47	0.22
124	3	3	4	3	4	4	5	4	4	4	4	5	5	5	57	4.07	0.73	0.53
125	3	5	4	5	3	4	4	5	3	4	3	5	4	4	56	4.00	0.78	0.62
126	5	4	5	4	5	5	5	5	4	5	5	5	5	5	67	4.79	0.43	0.18
127	4	3	4	3	3	4	3	3	3	4	4	3	4	4	49	3.50	0.52	0.27
128	4	4	3	4	2	3	4	5	4	4	5	5	5	4	56	4.00	0.88	0.77
129	3	4	3	4	5	3	3	4	4	4	5	5	3	4	54	3.86	0.77	0.59
130	3	3	2	3	3	2	3	3	4	3	3	4	2	3	41	2.93	0.62	0.38
131	1	4	5	3	2	4	3	5	5	4	2	5	3	5	51	3.64	1.34	1.79
132	3	4	4	2	5	4	5	4	5	5	5	5	4	5	60	4.29	0.91	0.84
133	4	4	4	3	2	3	5	5	4	4	4	5	5	5	57	4.07	0.92	0.84
134	4	5	4	5	5	4	4	5	4	4	5	5	4	4	62	4.43	0.51	0.26
135	5 3	4	5 3	3	5 2	2	5 3	5 3	5 3	5 4	2	5 4	5 2	4	62 42	4.43 3.00	0.94 0.78	0.88
136 137	5	3	4	3	5	4	4	5	4	5	4	5	4	5	60	4.29	0.78	0.62
137	4	5	4	5	5	4	4	5	4	4	5	5	4	4	62	4.43	0.73	0.53
139	5	4	5	3	5	2	5	5	5	5	4	5	5	4	62	4.43	0.51	0.26
140	3	4	3	3	2	2	3	3	3	4	2	4	2	4	42	3.00	0.78	0.62
141	5	3	4	3	5	4	4	5	4	5	4	5	4	5	60	4.29	0.78	0.53
142	3	3	4	3	5	3	4	3	2	4	4	3	4	4	49	3.50	0.76	0.58
143	4	4	3	4	4	3	4	3	3	4	3	4	4	4	51	3.64	0.50	0.25
144	4	4	4	3	4	4	3	4	4	5	5	4	5	5	58	4.14	0.66	0.44
145	4	3	2	3	4	4	5	2	2	3	4	5	4	3	48	3.43	1.02	1.03
146	4	4	2	2	5	2	3	4	4	4	4	4	5	4	51	3.64	1.01	1.02
147	1	3	5	1	5	4	3	4	4	3	3	5	4	4	49	3.50	1.29	1.65
148	3	3	3	2	3	2	2	2	3	3	3	4	4	2	39	2.79	0.70	0.49
149	3	3	3	3	4	5	5	4	3	3	3	5	4	3	51	3.64	0.84	0.71
150	5	4	5	4	3	5	5	5	5	5	5	5	5	5	66	4.71	0.61	0.37
151	4	4	4	4	5	4	4	5	5	4	4	5	4	4	60	4.29	0.47	0.22
152	4	4	3	4	5	5	5	5	4	4	4	5	5	5	62	4.43	0.65	0.42
153	3	4	2	5	5	3	3	5	5	4	3	5	3	4	54	3.86	1.03	1.05
154	4	4	3	3	5	3	3	4	3	4	4	5	4	3	52	3.71	0.73	0.53
155	4	4	4	3	5	4	4	4	3	4	4	2	5	3	53	3.79	0.80	0.64
156	4	3	4	4	3	3	4	4	4	3	4	4	3	3	50	3.57	0.51	0.26
157	3	4	2	5	5	3	3	5	5	4	3	5	3	4	54	3.86	1.03	1.05
158	5	4	5	4	5	5	5	5	4	5	5	5	3	5	65	4.64	0.63	0.40
159	3	4	2	5	5	3	3	5	5	4	3	5	3	4	54	3.86	1.03	1.05
160	3	4	4	5	3	4	3	4	5	3	3	4	4	4	53	3.79	0.70	0.49

161	2	3	4	3	3	3	4	3	3	3	4	4	4	4	47	3.36	0.63	0.40
162	3	4	3	5	3	4	2	3	4	4	4	4	4	4	51	3.64	0.74	0.55
163	4	3	3	3	5	4	5	3	3	3	5	4	4	3	52	3.71	0.74	0.53
164	4	3	3	4	3	3	3	4	3	4	4	3	3	4	48	3.43	0.83	0.26
165	3	2	4	3	3	3	3	4	3	4	4	5	4	4	49	3.50	0.76	0.58
166	4	4	4	3	4	3	3	3	4	4	4	3	4	4	51	3.64	0.50	0.25
167	4	3	4	3	4	3	4	4	3	4	4	4	4	4	52	3.71	0.30	0.23
168	5	5	3	5	5	5	5	3	5	5	5	5	3	5	64	4.57	0.47	0.73
169	3	4	2	2	2	5	4	4	3	5	4	2	4	3	47	3.36	1.08	1.17
170	4	3	3	2	5	4	2	4	2	4	5	2	2	3	45	3.21	1.12	1.17
171	5	4	3	5	5	4	4	4	4	4	4	4	5	5	60	4.29	0.61	0.37
171	3	4	4	5	3	4	3	4	5	3	3	4	4	4	53	3.79	0.70	0.37
173	2	3	4	3	3	3	4	3	3	3	4	4	4	4	47	3.36	0.70	0.49
174		3	4	5	5	3						5		4	55		1	
175	3	4	2	5	5	3	3	4 5	4 5	3 4	3	5	5 3	4	54	3.93 3.86	0.83 1.03	0.69 1.05
176	2	3	4	3	3	4	4	4	4	3	3	3	4	4	48	3.43	0.65	0.42
177	4	5	3	2	5	5	5	5	4	5	5	5	5	5	63	4.50	0.63	0.42
177	4	4	4	1	4	4	4	5	3	5	5	5	5	5	58	4.14	1.10	1.21
178	3	3	3	2	3	3	3	4	3	3	2	3	3	3	41	2.93	0.47	0.23
180	4	4	4	4	3	4	4	4	4	4	4	5	3	5	56	4.00	0.47	0.23
181	4	3	4	4	4	4	4	4	4	4	4	4	4	4	55	3.93	0.55	0.31
182	1	2	3	1	4	2	3	3	3	3	3	5	3	3	39	2.79	1.05	1.10
183	3	3	3	4	4	3	3	3	3	3	3	3	3	3	44	3.14	0.36	0.13
184	3	3	3	3	2	4	3	4	4	3	2	5	4	3	46	3.14	0.83	0.13
184	3	3	5	4	3	4	3	4	3	4	3	5	3	4	51	3.29	0.83	0.55
186	2	3	3	2	3	3	3	3	3	4	3	4	2	4	42	3.00	0.74	0.55
187	3	2	2	2	2	2	2	2	2	2	2	3	2	2	30	2.14	0.86	0.46
188	2	3	3	2	3	3	3	3	3	4	3	4	2	4	42	3.00	0.68	0.15
189	2	2	3	3	2	3	2	2	3	2	3	4	3	2	36	2.57	0.65	0.46
_	4	4	4	4	4	3	3	3	4	4	4	4	4	4	53	3.79	0.63	0.42
190 191	3	3	3	3	3	3	3	4	3	3	4	4	4	3	46	3.79	0.43	0.18
192	3	4	3	3	4	2	4	3	3	4	4	3	4	3	47	3.36	0.63	0.40
193	4	5	3	4	5	4	4	3	4	2	5	4	4	4	55	3.93	0.83	0.69
194	3	3	3	3	3	5	5	4	5	4	3	4	5	5	55	3.93	0.83	0.84
195	3	3	3	3	4	3	4	4	3	4	4	4	5	4	51	3.64	0.63	0.40
196	2	2	3	3	2	3	2	2	3	2	3	4	3	2	36	2.57	0.65	0.42
197	3	3	4	3	4	4	3	4	3	4	4	3	3	3	48	3.43	0.51	0.42
198	3	3	2	2	2	3	3	2	3	2	3	3	3	3	37	2.64	0.50	0.25
199	3	4	4	2	4	4	4	4	1	4	4	4	4	4	50	3.57	0.94	0.88
200	3	3	3	4	3	2	2	2	3	3	4	3	3	3	41	2.93	0.62	0.38
201	4	4	3	3	4	4	4	4	3	4	3	3	3	4	50	3.57	0.51	0.36
202	3	3	4	4	4	3	3	4	4	4	4	4	4	4	52	3.71	0.31	0.22
202	2	3	4	3	3	4	3	3	2	2	4	3	5	5	46	3.71	0.47	0.99
203	3	4	4	3	4	3	4	4	4	4	4	4	3	4	52	3.71	0.47	0.22
205	2	4	4	2	3	5	4	4	3	5	4	1	4	3	48	3.43	1.16	1.34
206	3	2	3	2	2	2	2	2	3	3	3	3	3	2	35	2.50	0.52	0.27
207	3	4	4	3	4	3	4	4	4	4	4	4	3	4	52	3.71	0.32	0.27
208	2	3	4	3	3	4	4	4	4	4	3	5	4	4	51	3.64	0.74	0.55
209	4	4	4	3	4	4	4	4	4	5	4	3	4	4	55	3.93	0.47	0.23
210	3	3	3	3	4	3	3	3	4	3	3	4	3	4	46	3.29	0.47	0.22
211	3	3	4	3	5	3	3	4	4	3	4	5	3	4	51	3.64	0.74	0.55
212	3	3	4	3	5	3	3	4	4	3	4	5	3	4	51	3.64	0.74	0.55
213	3	4	3	4	5	4	4	4	5	4	4	5	4	4	57	4.07	0.62	0.38
214	3	3	4	3	3	3	4	4	4	4	3	4	3	4	49	3.50	0.52	0.38
215	3	3	4	3	5	3	3	4	4	3	4	5	3	4	51	3.64	0.74	0.55
216	3	3	3	3	2	2	3	3	2	3	3	3	3	3	39	2.79	0.74	0.33
217	4	3	4	4	5	4	4	4	3	4	4	4	5	5	57	4.07	0.43	0.18
	4			3		3	4	4	3	3	4	3	3	4	49	3.50	0.62	0.38
	Λ	1					. 4	. 4			. 4		. 3	4	49	3.50	0.32	0.27
218	4	4	4		3									Л	E7		1	0 04
218 219	4	3	3	4	2	4	4	5	4	5	5	5	5	4 5	57 55	4.07	0.92	0.84
218														4 5 4.01	57 55 52.70		1	0.84 0.84 0.67

						F	ull W/FMW	RS Interve	ntion WEN	1WBS Score	95								% Change	
I've been feeling optimistic abou the future	I've been fee ling use ful	I've been feeling relaxed	I've been fee ling inte rested in oth people	I've had energy to spare	I've been dealing with problems well	I've been thinking clearly	I've been feeling good about myse	I've been fee ling close to other	I've been fee ling confident	I've been able to make up my ow minds a bout things	I've beenfeeling loved	I've been inte rested in ne w thing	I've been fee ling cheerful	Total Intervention WEMWBS Scor	We an Intervention WEMW 65 Sco	Intervention Standard Deviation	Inte rve ntion Variance	Total Initial WENW BS Score	Total Intervention WEMWBS Score	% Change
3	3	3	3	4	3	3	3	3	3	3	3	3	3	43	3.07	0.27	0.07	33	43	30.30
5	5	3	5	5	5	5	5	5	5	5	5	5	5	68	4.86	0.53	0.29	68	68	0.00
5	4	3	5	5	4	4	5	3	5	4	3	5	5	60	4.29	0.83	0.68	44	60	36.36
3	4 5	5	3	5	3 4	4	4	4 5	4 5	4 5	5	5 4	5 3	59 58	4.21 4.14	0.58 0.95	0.34 0.90	35 47	59 58	68.57 23.40
4	5	4	5	5	4	5	5	4	5	4	4	5	4	63	4.14	0.52	0.90	53	63	18.87
4	5	5	5	5	4	4	5	4	4	5	4	5	5	64	4.57	0.51	0.26	55	64	16.36
4	5	5	5	4	5	4	5	5	5	4	4	5	5	65	4.64	0.50	0.25	56	65	16.07
5	5	5	5	5	5	5	5	5	5	5	5	5	5	70	5.00	0.00	0.00	39	70	79.49
5 4	5 5	5	5	5 4	5	5 4	5 4	5 4	5	5 4	5	5	5	70 64	5.00 4.57	0.00	0.00	62 52	70 64	12.90 23.08
5	5	5	4	4	5	5	5	4	5	5	5	5	5	67	4.57	0.51	0.28	55	67	21.82
4	4	4	4	5	5	5	5	5	5	5	5	5	4	65	4.64	0.50	0.25	54	65	20.37
4	3	5	3	5	4	5	5	4	4	5	5	2	5	59	4.21	0.97	0.95	50	59	18.00
3	5	5	4	5	4	5	4	3	5	5	5	3	5	61	4.36	0.84	0.71	45	61	35.56
4	5 4	3 5	3 4	4	5	3 4	4	5	5	4 5	5 4	3 4	3 5	56 62	4.00 4.43	0.88 0.51	0.77 0.26	51 44	56 62	9.80 40.91
4	5	5	5	5	4	4	4	5	5	5	5	5	5	66	4.43	0.51	0.20	48	66	37.50
5	4	5	4	5	4	4	5	4	5	5	4	4	5	63	4.50	0.52	0.27	56	63	12.50
4	4	4	5	4	5	5	5	4	5	4	5	4	4	62	4.43	0.51	0.26	56	62	10.71
4	4	5	5	5	4	4	5	5	5	5	5	4	4	64	4.57	0.51	0.26	56	64	14.29
5 2	4	5 2	2	5	3	4	5 4	4 5	5 2	5 3	4	3	5 2	63 44	4.50 3.14	0.52 1.10	0.27 1.21	53 33	63 44	18.87 33.33
5	5	5	4	4	5	5	5	4	3	5	5	4	4	63	4.50	0.65	0.42	59	63	6.78
5	5	4	4	5	4	4	5	4	5	3	5	4	5	62	4.43	0.65	0.42	58	62	6.90
5	4	3	4	5	3	5	4	5	5	5	5	4	3	60	4.29	0.83	0.68	57	60	5. 26
5 4	5 5	5	5	5 4	5 4	5	5	5 4	5 4	5	5	5 4	5	70	5.00 4.57	0.00	0.00	57	70 64	22.81 10.34
5	5	5	5	5	5	5	5	5	5	5	5	5	5	64 70	5.00	0.51	0.26	58 64	70	9.38
5	5	5	4	4	5	5	5	4	5	4	4	4	4	63	4.50	0.52	0.27	54	63	16.67
4	4	4	5	4	4	5	4	4	5	4	4	5	5	61	4.36	0.50	0.25	49	61	24.49
4	4	5	5	5	4	4	5	5	5	5	4	4	4	63	4.50	0.52	0.27	56	63	12.50
4	5 4	4 5	4 5	5	4 5	- 4 - 5	3	4	5 4	4	5 3	5	5	61 61	4.36 4.36	0.63	0.40 0.55	58 49	61 61	5.17 24.49
4	4	4	4	4	5	4	3	4	5	4	4	4	5	58	4.14	0.53	0.29	52	58	11.54
4	4	5	5	5	4	5	5	4	5	4	4	5	5	64	4.57	0.51	0.26	62	64	3.23
5	4	5	4	5	4	4	5	4	5	5	4	4	5	63	4.50	0.52	0.27	56	63	12.50
4 5	4 5	4 5	4 5	4 5	5 4	5	5	5	5 4	4 5	4 5	4 5	5	62 68	4.43 4.86	0.51 0.36	0.26 0.13	53 60	62 68	16.98 13.33
4	4	3	4	5	3	3	4	4	4	3	4	5	4	54	3.86	0.66	0.44	53	54	1.89
3	3	3	2	4	3	3	3	4	3	4	3	4	3	45	3.21	0.58	0.34	42	45	7.14
5	4	4	5	4	4	5	4	5	5	5	5	5	4	64	4.57	0.51	0.26	55	64	16.36
4	4	4 5	5 4	4	4	5	5 4	5 4	5 4	5 4	5 4	5	5	65 60	4.64 4.29	0.50 0.47	0.25 0.22	64 57	65 60	1.56 5.26
5	5	3	4	2	3	5	5	4	5	5	4	5	5	60	4.29	0.47	0.22	55	60	9.09
5	5	5	5	5	5	4	5	4	5	5	5	5	5	68	4.86	0.36	0.13	58	68	17.24
5	5	3	4	2	3	5	5	4	5	5	4	5	5	60	4.29	0.99	0.99	57	60	5. 26
4	5	4	4	5	4	3	4	5	5	4	5	4	5	61	4.36	0.63	0.40	50	61	22.00
4	4	4 5	5 4	4	4	5	5 4	5 4	5 4	5 4	5 4	5	5	65 60	4.64 4.29	0.50 0.47	0.25	64 57	65 60	1.56 5.26
5	5	3	4	2	3	5	5	4	5	5	4	5	5	60	4.29	0.47	0.99	55	60	9.09
4	3	4	4	4	4	4	3	3	4	4	4	5	5	55	3.93	0.62	0.38	64	55	-14.06
5	4	5	4	5	5	5	5	4	5	5	5	5	5	67	4.79	0.43	0.18	63	67	6.35
2	3	4	2	5	3	3	4	3	4	3	3	5	4	48	3.43	0.94	0.88	35	48	37.14
5 4	5	5 4	5	5 5	5 4	5 4	5 4	5 5	5	5 4	5 5	5	5	70 64	5.00 4.57	0.00	0.00	68 62	70 64	2.94 3.23
4	5	3	4	2	4	5	5	4	4	4	5	5	5	59	4.21	0.89	0.80	57	59	3.51
5	5	4	5	5	5	5	5	3	5	5	5	5	5	67	4.79	0.58	0.34	61	67	9.84
4	4	4	4	5	5	5	5	5	4	4	5	5	5	64	4.57	0.51	0.26	56	64	14.29
<u>4</u> 5	4 5	5	5	5 5	5	- 4 - 5	- 4 - 5	5	5	4 5	4	5	5	64 69	4.57 4.93	0.51	0.26	51 61	64 69	25.49 13.11
5	5	5	4	4	4	5	5	5	5	5	5	5	5	67	4.79	0.43	0.18	65	67	3.08
5	4	4	3	5	4	4	4	5	4	4	5	4	4	59	4.21	0.58	0.34	58	59	1.72
5	4	5	5	4	5	4	4	5	5	5	5	5	5	66	4.71	0.47	0.22	47	66	40.43
4	5 4	5	4 5	5 5	4	5 4	4	5 5	4 5	5 5	4	- 4 - 5	5	62 64	4.43 4.57	0.51 0.51	0.26 0.26	57 50	62 64	8.77 28.00
5	5	4	5	5	5	4	5	5	5	4	4	4	5	65	4.64	0.50	0.25	56	65	16.07
4	4	5	5	4	4	5	5	5	4	4	5	5	5	64	4.57	0.51	0.26	46	64	39.13
5	4	3	5	4	5	5	5	5	5	5	5	5	5	66	4.71	0.61	0.37	64	66	3.13
5	4	4	4	5	5	5	5	5	4	5	5	5	5	66	4.71	0.47	0.22	50	66	32.00
4	4	5	4	5 4	4	5	5 4	5 4	5 4	5 4	5 4	5	5	65 60	4.64 4.29	0.50	0.25	42 57	65 60	54.76 5.26
5	5	5	5	5	5	4	5	4	5	5	5	5	5	68	4.86	0.36	0.13	58	68	17.24
5	4	4	4	5	5	5	5	5	4	5	5	5	5	66	4.71	0.47	0.22	50	66	32.00
4	4	4	4	5	4	5	5	5	5	5	5	5	5	65	4.64	0.50	0.25	42	65	54.76

S	5	5	5	5	5	5	4	5	4	5	5	5	5	5	68	4.86	0.36	0.13	58	68	17.24
Color										_											
C	4	3	4	3	4	3	3	4	3	3	3	4	3	4	48	3.43	0.51	0.26	55	48	-12.73
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S	3	3	3	4		4	4			3	4				52	3.71	0.47	0.22	49	52	6.12
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5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 7 7 200 331 70 3220 341 11 4 1 5 4 4 1 4 4 1 5 5 5 5 5 5 5 5 5 6 3 3 4 4 1 6 1 6 4 4 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 3 5 5 5 4 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>																					
4	4	4	4	4	5	4	5	4	4	4	4	4	4	4	58	4.14	0.36	0.13	56	58	3.57
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4 4 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5																					
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5 4 4 5 5 4 4 5 5 4 4 5 5 4 4 5 5 4 4 5 6 9 9 20 10 10 10 10 10 10 10 10 10 10 10 10																					
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5 4 4 4 5 5 5 5 5 4 4 5 5 65 464 0.50 0.25 60 65 8.83 5 5 4 5 6 4.71 0.61 0.37 62 66 6.45 4 3 3 3 3 4 4 4 5 5 5 6 4.71 0.61 0.37 62 66 6.45 4 3 3 3 3 4 4 4 5 5 5 5 5 5 5 66 4.71 0.61 0.37 62 66 6.45 4 4 5 5 5 5																					
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4	4	4	4	4	4	4	3	3	3	4	3	3	3						50	4.17
		5	5		4	5		5	5	5	4	5		50 68	3.57 4.86	0.51 0.36	0.26	48		
5	5 5	5	4	5	5	5	5 5	4	5	5	5	5	5	68	4.86	0.36	0.13	63 58	68 68	7.94 17.24
4	4	5	3	4	5	5	4	3	5	5	5	5	5	62	4.43	0.36	0.13	41	62	51.22
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3	4	4	2	4	3	3	3	2	3	3	5	3	3	64 45	3.21	0.51 0.80	0.26 0.64	39	45	15.38
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3	3	3	3	4	3	3	3	3	3	3	3	3	3	43	3.07	0.76	0.57	30	43	43.33
3	3		3	3	3	3	4	4	5	3	5	4	4	50	3.57	0.76	0.07	42	50	19.05
4	4	3 4	5	5	4	4	4	4	5	5	5	4	5	62	4.43	0.76	0.37	36	62	72.22
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4	4	4	3	3	3	3	3	3	3	3	4	4	4	48	3.43	0.51	0.36	46	48	4.35
4	5	4	4	4	4	4	5	4	5	5	4	5	5	62	4.43	0.51	0.26	47	62	31.91
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4	3	4	4	4	4	4	3	4	4	4	3	5	4	54	3.86	0.53	0.22	36	54	50.00
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4	4	3	3	3	4	4	4	3	4	4	5	4	4	53	3.79	0.58	0.34	50	53	6.00
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3	4	4	3	3	4	4	4	3	4	4	4	3	4	51	3.64	0.50	0.25	52	51	-1.92
4	4	4	4	4	5	4	4	4	4	4	5	4	4	58	4.14	0.36	0.13	51	58	13.73
5	5	5	4	4	5	5	5	4	4	5	5	4	5	65	4.64	0.50	0.15	55	65	18.18
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3	3	4	5	3	4	3	4	4	4	3	5	3	4	52	3.71	0.73	0.53	51	52	1.96
4	4	4	5	4	3	4	4	5	5	5	4	5	4	60	4.29	0.61	0.37	57	60	5.26
5	5	4	4	5	5	5	4	4	5	5	5	5	5	66	4.71	0.47	0.22	49	66	34.69
4	5	5	5	5	4	4	4	5	5	5	5	5	5	66	4.71	0.47	0.22	51	66	29.41
3	4	3	3	4	4	4	4	4	4	4	4	4	3	52	3.71	0.47	0.22	39	52	33.33
5	5	4	4	5	5	5	5	4	5	4	4	5	5	65	4.64	0.50	0.25	57	65	14.04
5	5	4	3	5	5	4	5	3	5	4	5	4	5	62	4.43	0.50	0.25	49	62	26.53
4	4	4	4	3	4	4	5	4	5	5	4	5	4	59	4.43	0.78	0.34	57	59	3.51
4	5	4	4	5	4	5	5	4	5	5	5	5	4	64	4.57	0.51	0.34	55	64	16.36
4.26	4.33	4.30	4.25	4.38	4.29	4.35	4.52	4.37	4.54	4.45	4.54	4.51	4.60	61.69	4.41	0.51	0.26	52.84	61.69	18.37
4.20	4.33	4.30	4.23	4.30	4.23	4.33	4.32	4.37	4.54	4.45	4.54	4.31	4.00	01.03	4.41	0.32	0.51	32.04	01.03	10.37



