

**Down to Earth**  
**Evaluation Findings**  
**May – December 2016**

**Purpose**

The purpose of this report is twofold: a) to report the pragmatics of the evaluation format and b) to present a brief summary of the findings from the pilot.

**Format**

The evaluation is currently based on four brief pen and paper measures which address social connectedness, wellbeing, resilience and screen for anxiety and depression. The measures are presented early in the programme (week 1 or 2) and again towards the end (week 7 or 8). Participants consent to complete the forms as part of the D2E evaluation consent procedure and are supported where necessary to work through the questions. The forms take between 5 and 15 mins to complete. In addition participants are asked to rate activity, food choices and to select emotions to represent how they feel both generally and at the scheme.

**Participants**

The data reported represents 122 participants across 14 different D2E groups run at Murton and Little Bryn Gwyn. This was comprised of 87 men, 28 women and 7 not answered with an average age of 27 (age range 16-61). The average number of sessions attended was 6.4. 78 people (64%) provided at least some data, however the 12 individuals who did not provide follow up questionnaire data tended to be younger (23.5 yrs vs 28.4 yrs).

**Evaluation pragmatics**

The measures used were chosen because of their validity and their brevity. Staff supporting the evaluation noted that generally participants appeared to concentrate on providing accurate information although some individuals clearly had difficulty with the self report questionnaires. In addition, participants were asked to provide information on their level of exercise, diet and to complete an emotional experience card selection exercise. Staff also reported that it was easy to include the evaluation within the planned programme. In total, the data collection took between 10 and 25 minutes on each occasion.

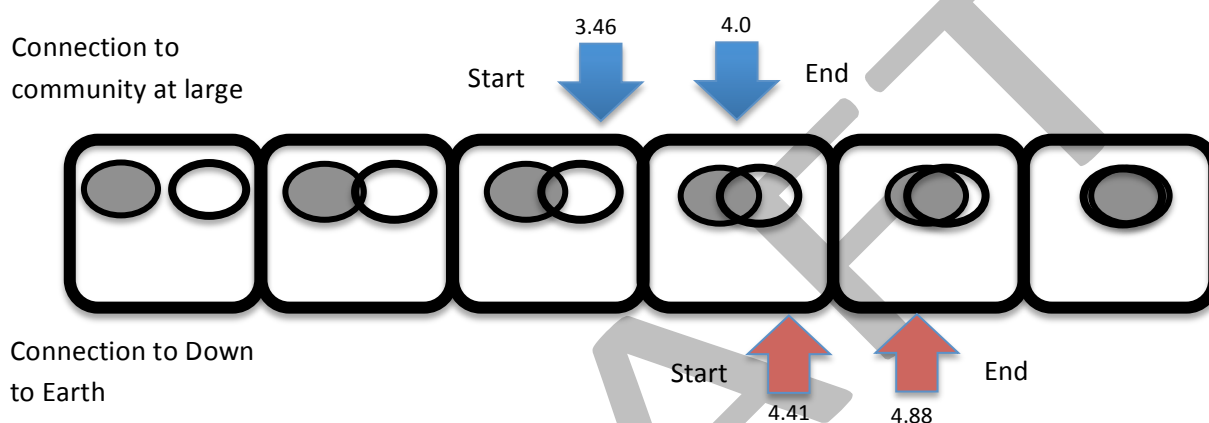
From this it appears that the pack of measures was practical and easy to administer.

## Findings

The findings presented here focus on trying to determine what, if any, measurable impact D2E has on participants self report in a range of areas. Those who participated represent a reasonable section of group types and participants who attend D2E projects.

### *Social Connection*

Social connection was assessed using an adaptation of the Inclusion of Community in the Self Scale (Mashek et al, 2007). This is the first time this scale has been used to assess outcome. Overall participants showed a significant improvement in their connection to the “community at large” and within Down to Earth. This is shown in the figure below.



### *Wellbeing*

Wellbeing was assessed using the widely used Short Warwick-Edinburgh Mental Well-being Scale. In this group the scale showed good measurement properties (Cronbach’s alpha = .84). Overall the participants showed an increase of one point on this scale however this was not significant (average score of 22.8 at week two rising to 23.7 by week 7). When compared to the Health Survey for England (2011) this represents a move from just below to equal to the English average. However, when only those who score one standard deviation or below at the start of their project are analysed (i.e. those scoring at or below 20) they show statistically significant improvements over the course of their involvement (n=27; score starting at 18 rising to 19.5;  $t_{26}=-2.838$ ,  $p=.001$ ).

### *Mental health*

Mental health was assessed using the Patient Health Questionnaire (Kroenke et al, 2009). In this group the scale showed good measurement properties (Cronbach’s alpha = .806). For the group as a whole, there was a very slight improvement overall, (from 2 to 1.87). However, when the sample only included those who scored above the threshold for possible depression or anxiety (score of 3 or more) there were significant improvements. Fifty two people scored at or above the threshold for anxiety; overall their scores reduced from 5.57 to 4.46 ( $t_{51}=3.567$ ,  $p=.001$ ). Importantly 61.5% of

those who met the anxiety cut-off showed improvements in their scores over time. For depression, 56 people scored at or above the threshold for depression; overall their scores reduced from 4.58 to 3.81 ( $t_{55}=3.298$ ,  $p=.002$ ). Of these, 55% showed an improvement in their depression scores with 18 people falling below the cut off at time 2.

### *Resilience*

Resilience was assessed using the Brief Resilience Scale (Smith et al, 2008). In this group the scale showed reasonable measurement properties (Cronbach's alpha = .693). Overall, there was little change in resilience scores over time. However, when only the 24 people who showed low resilience at baseline (1 sd below the lowest of the published means; 2.9) were included, this group showed a significant rise in their resilience over time (from 2.39 to 2.85;  $t_{23}=3.727$ ,  $p=.001$ ).

### *Lifestyle – diet and exercise*

The simple measure of food category selection revealed only very slight changes in reported food choice. However, for exercise, participants reported an increase in their use of green spaces (11.6 to 13.9) and urban spaces (10.7 to 18.0). [CHECK]

### *Number of people showing change across the measures*

Another way to think about change is to examine the number of people who show improvement, deterioration or no change over the course of the programme. In the table below, the number (and percentage) of people in each of these categories for each measure is presented. As can be seen in the table below, for all the measures more people showed gain than remained the same or deteriorated.

Scale	Number of participants	Number deteriorated	No change	Number improved
Community connection	78	13 (17%)	29 (37%)	36 (50%)
D2E Connection	78	19 (24%)	28 (36%)	31 (40%)
Wellness	72	20 (28%)	12 (17%)	40 (56%)
PHQ – Anxiety*	80	20 (25%)	28 (35%)	32 (40%)
PHQ – Depression*	79	27 (34%)	22 (28%)	30 (38%)

Table 1: People who improved, stayed the same or deteriorated over the course of their project time

\* For these scales improvement signals a reduction in score on the measure

### **Emotional reports**

Participants completed a task in which they were asked to select 3 cards from an array of 10 to represent their general feelings and those experienced when at Down to Earth. Table 2 shows the number of people selecting each emotion as one of their three choices at each time.

	Generally Time 1 (n=90)	Generally Time 2 (n=56)	Down to Earth Time 1 (n=85)	Down to Earth Time 1 (=51)
	N(%)	N(%)	N(%)	N(%)
Relaxed	40 (44)	28 (50)	39 (46)	21 (41)
Lonely	20 (22)	5 (9)	6 (7)	3 (6)
Happy	56 (62)	42 (75)	61 (72)	38 (75)
Good about self	31 (34)	26 (46)	54 (64)	34 (67)
Connected to others	27 (30)	16 (29)	46 (54)	26 (51)
Bored	35 (39)	15 (27)	9 (11)	2 (4)
Anxious	25 (28)	9 (16)	5 (6)	3 (6)
Failure	10 (11)	4 (7)	2 (2)	2 (4)
Sad	16 (18)	6 (11)	5 (6)	1 (2)
Valued	8 (9)	14 (25)	25 (29)	21 (41)

Level of endorsement when asked to select 3 from 10 emotions to describe themselves at each time point.

As can be seen in the table, the general feelings of loneliness and boredom is endorsed by far fewer participants over time whilst, happiness, feeling good about one's-self and feeling valued increase (all by 10% or more). Within Down to Earth the most noteworthy change is to feeling valued – this appears to be generalised as shown by the time 2 general rating. In addition, whilst at Down to Earth more participants report feeling good about themselves, more connected to others, less bored, less sad and less anxious than in general.

### Conclusions

The brief measures reveal that participants generally feel significantly more connected to others after spending time at Down to Earth. In addition, individuals who might be considered to be most 'at need' (i.e. low wellbeing, poor mental health, low resilience), showed significant improvements in the respective areas despite this being hidden when the data for all respondents is included.

Participants report an average increase in their use of outside space (rural and urban) although diet (which is not targeted specifically during the projects) does not show notable changes. Finally, there are some promising changes in the ways in which individuals report their emotional experiences.

Over time, fewer people reported loneliness and more reported feeling valued with high numbers reporting feeling good about themselves during the project.

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