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My Character Pilot and Feasibility Cluster Randomised Trial

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Report on the My Character pilot and feasibility cluster randomised trial

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Introduction

This report describes the rationale, aims and findings of the randomised controlled trial (RCT) of the My Character project. A summary of the literature regarding character education is available in the main report entitled 'My Character: Enhancing Future Mindedness in Young People', which can be viewed at: www.jubileecentre.ac.uk/mycharacter. This website contains further information and background to the project, with papers on future-mindedness, self-reflection, character education and new technology.

The My Character project has been a great success in that five out of the six pilot schools are so pleased that they have embedded My Character into their curriculum. In addition, many new schools, both in Britain and internationally, have started to use the website and / or journal. We know that teachers and students are positive about the programme; but, it is much more difficult to demonstrate what students gain from participation in My Character.

The My Character pilot and feasibility cluster RCT described in this section sought greater understanding of how rigorous methods might be harnessed to measure the impact of character interventions. This is a first step towards providing a better understanding of 'what works' in character education and helps to make the case for character education to both policy makers and practitioners.

Randomised controlled trials (RCTs) are the best way to determine 'what works' in education (Cook, 2012). An important aspect of well conducted trials is to be entirely transparent about the procedures used; these should be specified in advance in a protocol (Moher et al., 2010). See the protocol (Appendix 1) for this study: Research Protocol for a Pilot and Feasibility Cluster Randomised Trial into the Effectiveness of a Website or Journaling to Enhance Future-Mindedness.

Details of the trial design are in the protocol. Here we simply note key aspects of the design:

- There were three arms to the trial: website group, journal group and control group.
- Groups were randomised within schools i.e. to take part in the trial, a school needed to indicate (groups of) three classes and their teachers that were then randomly allocated to the three arms of the trial.
- A major issue with undertaking trials in schools is that children affect each other's behaviour i.e. they cannot be viewed as acting independently as is assumed for most statistical tests. Therefore, we view children as being clustered in classes which, in turn, are clustered within schools. Multilevel modelling is a statistical technique that can take account of this clustering.
- As only six schools were involved, this is a pilot trial i.e. to see if the results suggest that it is worth conducting a larger trial with more schools.
- This is a feasibility trial as the materials and methods are novel, i.e. can we successfully address the practical issues of recruitment and retention? Are the outcome measures suitable?

It should also be noted that classes not involved in the trial also completed the pre- and post-test questionnaires. This was to gain more reliable information about the response characteristics of the research instruments.

Aim and Objectives

As described elsewhere in this report, the website and journal activities are regarded positively by teachers and children. The aim of this pilot and feasibility trial is to explore how to determine whether there are tangible, positive outcomes. The three research objectives are:

1. Investigate the feasibility of undertaking a cluster randomised controlled trial into future-mindedness in Key Stage 3 within six schools
2. Pilot the suitability of two outcome measures
3. Estimate the impact of the interventions (website and journal) using the two outcome measures

Methods

Procedure

I Believe

See Appendix 3 for the I Believe questionnaire which was specifically developed in consultation with pupils, teachers and others to investigate attitudes to eight future-mindedness traits: Being determined; Having courage; Helping others; Working together; Having patience; Saving for the future; Having a dream; and Thinking creatively. Wikipedia defines 'trait' as "habitual patterns of behaviour, thought and emotion". We use this term, as we are seeking habitual patterns although we acknowledge that our evidence for this is limited. See Appendix 2 for definitions of these traits.

There are five questions associated with each trait i.e. $5 * 8 = 40$ questions in all, all of which have the stem: 'I believe'. Responses were on a 5-point Likert scale that was scored as follows: 1 = strongly agree, 2= agree, 3= neither agree nor disagree, 4= disagree, and 5= strongly disagree. For each trait, two of the questions were phrased to be negative; for example "(I believe) In finding ways to express my creativity" is a positive example of creativity whereas "(I believe) People who use their imagination don't get much done" is intended to be negative i.e. someone who strongly agrees with the first of these questions may disagree with the second. However, we took an empirical approach to this, so where questions were negatively correlated with the majority of questions within the same trait, they were reverse coded i.e. 5 = strongly agree etc. To create overall trait scores, the average score is taken if the young person responded to at least three of the five questions.

The plausibility of the questionnaire for analysing these traits was considered in two ways: first using factor analysis; second, by looking at correlations within and between traits. All analyses were undertaken in SPSS version 21. Exploratory factor analysis used principle component analysis and Varimax rotation. Kendall tau_b was used for all correlations; cases were omitted pairwise.

Money Now or Later

See Appendix 4 for the Money now or Later? questionnaire which followed the Kirby et al (1999) monetary choice questionnaire. The same potential rewards were used, except in pounds rather than dollars, as this allows computation of an “impulsiveness parameter” (P79 *ibid.*). However, the likelihood of receiving the reward was greatly reduced with only one pupil in each school or year group being randomly selected to receive one prize both times the questionnaire was completed: in their experiment, if a participant rolled a ‘6’, they won a reward.

In so far as we were able, we followed the procedure described by Kirby et al (1999). However, they give no procedure for dealing with missing data, so we assume all participants were included so long as they gave enough responses for results to be computed. Inspection of their reported degrees of freedom indicates they have sufficient data for all but one of their 116 participants. The size of rewards and delays are such that for each size of reward (small, medium and large), the nine choices had the following indifference ks = 0.00016, 0.0004, 0.001, 0.0025, 0.006, 0.016, 0.041, 0.1 and 0.25. Higher values of k correspond to higher impulsiveness. For example, k= 0.00016 when £35 is offered after 186 days instead of £34 immediately: in this example, even a very non-impulsive person may choose to take the immediate reward. k= 0.25 when £30 is offered after just 7 days instead of £11 immediately: in this case it is assumed that someone must be very impulsive indeed to choose the immediate reward. An entirely consistent respondent is defined as someone who chooses the immediate reward up until a certain k, then chooses the delayed reward for all greater ks. To estimate their indifference k, the geometric mean between the last ‘immediate’ and first ‘delayed’ choice is calculated. If they only choose immediate (or delayed) rewards, then they are assigned the greatest (or smallest) k. Therefore, respondents would be assigned one of the following indifference ks: 0.00016, 0.00025, 0.00063, 0.0016, 0.0039, 0.0098, 0.026, 0.064, 0.16 or 0.25. However, responses may not neatly fit this pattern. Therefore, for each student, the proportion of responses that fitted each of these 10 possible indifference ks is calculated and the student is assigned the one with the highest proportion (or the geometric mean if more than one point has equal highest proportion). The consistency of a student’s responses is this proportion turned into a percentage. These calculations of each student’s indifference k and consistency were performed separately for the three sizes of reward. As all calculations are undertaken using the geometric mean, to average across pupils, it is necessary to calculate the (arithmetic) mean of the natural logarithm of k ($\ln k$), then convert the calculated mean back into k.

Data Cleaning/ Initial Analysis

1145 children completed at least some of the I Believe or Money questionnaire at baseline.

I Believe

Table 1 shows the number of missing responses per young person to the 40 I Believe Likert scale questions. If a quarter or more (i.e. 10+) of the responses were missing, then this questionnaire was not analysed further: this applied to 100 (8.7%) of the children, so that 1045 were deemed to have completed the pre-test I Believe questionnaire sufficiently for subsequent analyses. For the post-test, many classes were not eligible (see Figure 1 pg 8) resulting in 490 young children not doing the questionnaire. Another 15 did not complete it sufficiently, leaving 640 post-test questionnaires for further analysis.

Table 1: Number of Missing Responses to I Believe Questions

	Pre-test			Post-test		
	Frequency	Percent	Cumulative Percent	Frequency	Percent	Cumulative Percent
0	794	69.3	69.3	454	39.7	39.7
1	146	12.8	82.1	83	7.2	46.9
2	41	3.6	85.7	34	3.0	49.9
3	19	1.7	87.3	11	1.0	50.8
4	5	.4	87.8	3	.3	51.1
5	4	.3	88.1	3	.3	51.4
6	1	.1	88.2	3	.3	51.6
7	31*	2.7	90.9	37	3.2	54.8
8	3	.3	91.2	7	.6	55.5
9	1	.1	91.3	5	.4	55.9
10				1	.1	56.0
11	2	.2	91.4			
12	3	.3	91.7	1	.1	56.1
13	4	.3	92.1	1	.1	56.2
14	1	.1	92.1	1	.1	56.2
15				2	.2	56.4
16	4	.3	92.5			
17	2	.2	92.7			
18	2	.2	92.8	1	.1	56.5
20				1	.1	56.6
21	2	.2	93.0			

22				1	.1	56.7
23	2	.2	93.2	1	.1	56.8
24	1	.1	93.3	3	.3	57.0
25	2	.2	93.4			
26	1	.1	93.5			
27	2	.2	93.7			
28				1	.1	57.1
29	1	.1	93.8			
33				1	.1	57.2
39	2	.2	94.0			
40	69	6.0	100.0	490	42.8	100.0
Total	1145	100.0		1145	100.0	

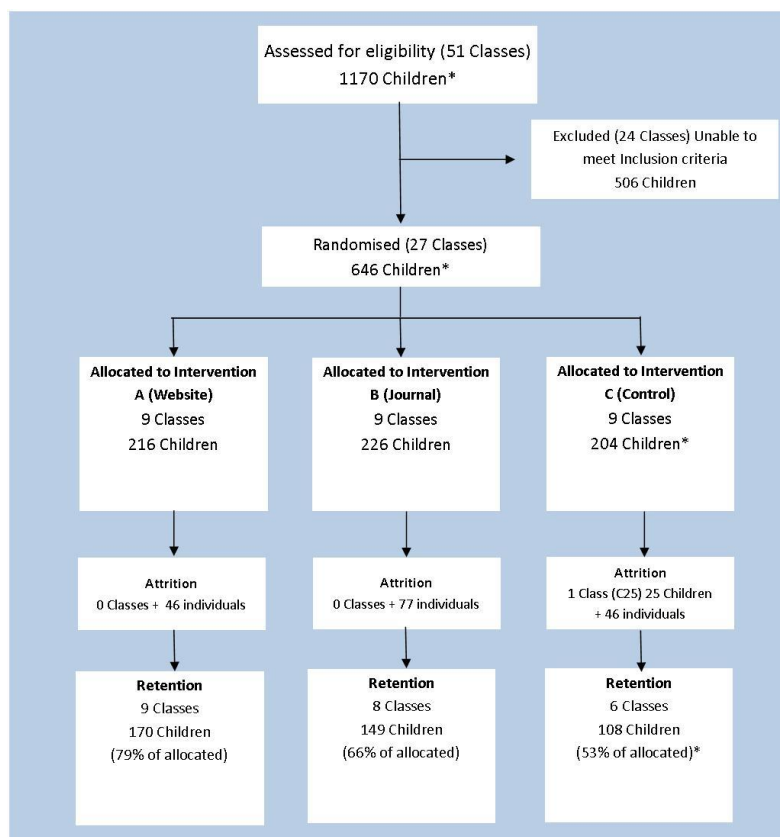
* Didn't complete the seven questions on the last page

Table 2 below splits the included and excluded young people down by trial arm for the I Believe questionnaire. Much of the same information is displayed in Figure 1.

Table 2: Inclusion in Analysis of I Believe Questionnaire by Trial Arm

		Trial Arm				Total
		Not in trial	Control	Journal	Website	
Pre-test	exclude	13	38	37	12	100
	include	493	141	189	222	1045
Post-test	exclude	346	44	69	46	505
	include	160	135	157	188	640
Both pre- and post-	Exclude	353	71	77	52	553
	include	153	108	149	182	592
Total		506	179	226	234	1145

Figure 1: Recruitment and Retention of Classes and Children for the I Believe Questionnaire



* assuming 25 in the class that didn't return any questionnaires

Please note that one website class (n=18) was not randomised to the trial but undertook all the website activities. Data for this class are not included in Figures 1 and 2, but are included in subsequent calculations.

Money Now or Later

Table 3 shows the number of valid responses per child to the nine Money now or later questions in each of the reward sizes (large, medium and small). In each group, around 90% completed all nine questions. Post-test, the missing data were largely due to classes not being involved.

Table 3: Valid Responses to the Money Questionnaire by Reward Size

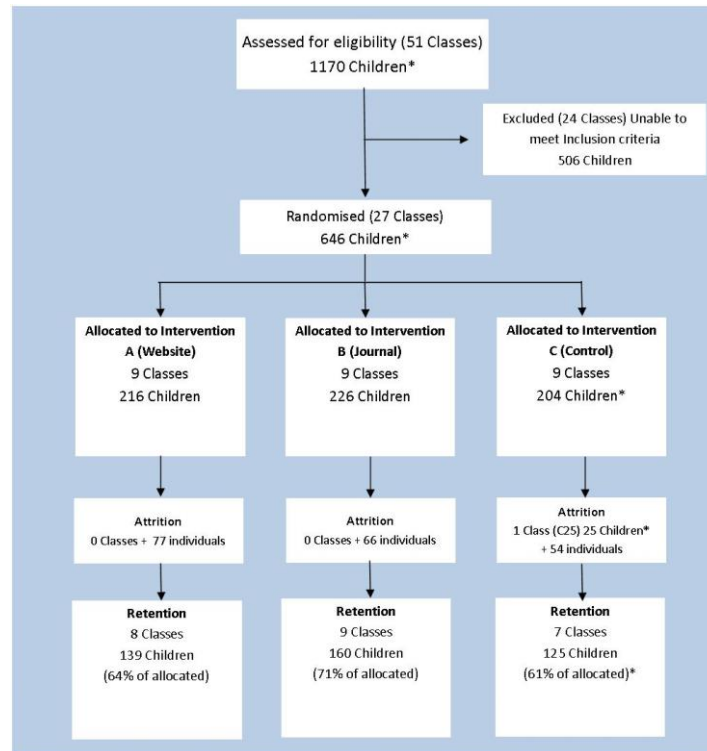
Responses	Pre-test						Post-test					
	Large	%	Medium	%	Small	%	Large	%	Medium	%	Small	%
1	17	1.6	16	1.5	13	1.3	16	2.5	9	1.4	12	1.9
2	25	2.4	20	1.9	9	.9	5	.8	6	1.0	6	1.0
3	7	.7	7	.7	8	.8	6	.9	7	1.1	8	1.3
4	8	.8	7	.7	8	.8	5	.8	4	.6	3	.5
5	13	1.2	10	1.0	6	.6	7	1.1	3	.5	3	.5
6	12	1.1	5	.5	9	.9	5	.8	3	.5	4	.6
7	5	.5	10	1.0	8	.8	10	1.6	13	2.1	9	1.4
8	27	2.5	32	3.1	41	4.0	24	3.8	25	4.0	22	3.5
9	945	89.2	936	89.7	925	90.1	558	87.7	554	88.8	554	89.2
Total	1059	100.0	1043	100.0	1027	100.0	636	100.0	624	100.0	621	100.0

A respondent needed at least one response related to each of the three reward sizes to be included in the analyses. So, the young people meeting these inclusion criteria are displayed in the next table and figure.

Table 4: Inclusion in Analysis of Money Questionnaire by Trial Arm

		Trial Arm				Total
		Not in trial	Control	Journal	Website	
Pre-test	Excluded	43	16	16	50	125
	Included	463	163	210	184	1020
Post-test	Excluded	377	51	57	49	534
	Included	129	128	169	185	611
Both pre- and post-	Excluded	382	54	66	85	587
	Included	124	125	160	149	558
Total		506	179	226	234	1145

Figure 2: Recruitment and Retention of Classes and Children for the Money Questionnaire



* assuming 25 in the class that didn't return any questionnaires

Table 4a shows the number of young people in each trial class that completed both the pre- and post-test questionnaires sufficiently to be included in subsequent analyses. Of the 27 classes recruited, in 23 (85%) some young people completed both the I Believe questionnaires, and in 24 (89%) classes there were sufficient responses to the Money questionnaire. The two classes that did not participate at all were both in the control group: this is probably unsurprising as there is no direct benefit of being in the trial, for them. The three other classes that didn't complete either the I Believe or the Money questionnaires were one from each arm of the trial.

Table 4a: Retention of trial classes

	I Believe		Money Questionnaire		Total
	Excluded	Included	Excluded	Included	
A2	1	26	1	26	27
A3	2	25	2	25	27
A4	3	21	3	21	24
B1	2	24	1	25	26
B2	2	27	2	27	29
B3	3	24	7	20	27
C1	7	17	8	16	24
C12	21	0	7	14	21
C13	7	17	11	13	24
C15	11	12	15	8	23
C2	7	17	10	14	24
C22	9	17	9	17	26
C23	1	13	14	0	14
C25*	25	0	25	0	25
C3	11	15	11	15	26
D1	15	14	11	18	29
D2	18	0	18	0	18
D3	11	18	4	25	29
D4	4	27	11	20	31
D5	11	16	16	11	27
D6	1	22	3	20	23
E1	20	0	6	14	20
E2	11	13	11	13	24
E4	5	5	3	7	10
F1		22	2	20	22
F2	5	18	4	19	23
F3	6	17	7	16	23
Total young people	194	427	197	424	621
Total classes	26	23	27	24	27
Mean**	8.42	18.57	8.22	17.67	23.93

*Estimated as no data returned. **excluding zero responses

Results

I Believe Questionnaire

The I Believe questionnaire consisted of 40 questions, with five on each of the eight character areas. Responses were on a 5-point Likert scale ranging from strongly agree to strongly disagree. Inspection of these frequencies indicated that all questions were unimodal, with a wide variation between strongly positive, neutral and strongly negative; also some had more than 60% in the most common response, whereas others had less than 30%. Newby suggests that these good attributes for questions to be included in an attitudinal scale (2010). For example, questions with bimodal response frequency distributions are likely to be ambiguous.

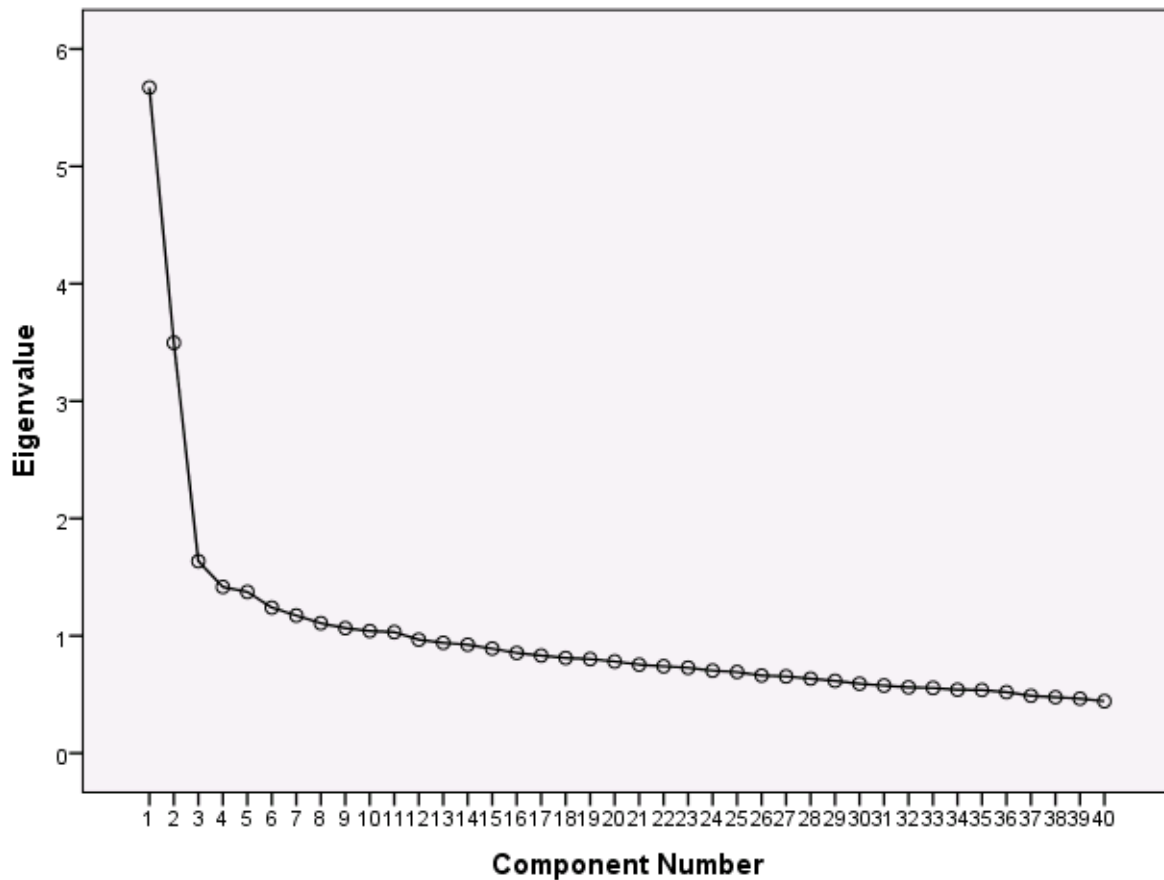
Factor analysis of pre-test questionnaire

As indicated above, this analysis was undertaken with the 1045 young people who answered 31 or more questions.

As the determinant = 0.001, KMO= .865, and Bartlett's test of sphericity is highly significant, the data are suitable for factor analysis. Communalities range from 0.345 (courage1) to 0.667 (patience5) with eigenvalues greater than 1 extracted. We could possibly remove courage1, as it is the only communality lower than 0.4; but given the high KMO, this was not considered necessary.

The scree plot gives justification for extracting 1, 2, 3, 5 or 11 factors (Figure 3). However, the questionnaire was designed to find out about young people's self-reported views on eight character traits. Therefore, for this exploratory factor analysis, we investigated the five and eight factor solutions.

Figure 3: Scree Plot for the Pre-test I Believe Questionnaire



With eight factors, the rotated solution accounts for 43% of the variance, whereas the five factor solution accounts for 34% of the variance. Neither solution separates the hypothesised traits particularly well into the factors (Tables 5 and 6).

Table 5: Rotated Component Matrix with Eight Extracted Factors

	Component							
	1	2	3	4	5	6	7	8
A1DET1		0.47						
A1DET2	0.664							
A1DET3		0.584						
A1DET4								
A1DET5	0.563							
A2COU1			0.419					
A2COU2	0.43							
A2COU3	0.599							
A2COU4		0.466						
A2COU5						0.561		
A3HEL1			0.519					
A3HEL2	0.407							

A3HEL3		0.576						
A3HEL4						0.531		
A3HEL5		0.671						
A4TEA1	0.525							
A4TEA2			0.429					
A4TEA3								0.684
A4TEA4								0.522
A4TEA5			0.586					
A5PAT1						0.543		
A5PAT2	0.496							
A5PAT3				0.622				
A5PAT4							0.498	
A5PAT5							0.584	
A6SAV1				0.624				
A6SAV2				-0.544				
A6SAV3					0.553			
A6SAV4	0.479							
A6SAV5								
A7HAD1						0.412		
A7HAD2								
A7HAD3				0.617				
A7HAD4	0.557							
A7HAD5					0.493			-0.407
A8CRE1			0.42					
A8CRE2		0.528						
A8CRE3					0.449			
A8CRE4		0.51						
A8CRE5					0.459			

Principal Component Analysis; Varimax with Kaiser Normalisation. Rotation converged in 42 iterations. Factor loading less than 0.4 have been suppressed.

Table 6: Rotated Component Matrix with Five Extracted Factors

	Component				
	1	2	3	4	5
A1DET1		0.463			
A1DET2	0.477				
A1DET3		0.584			
A1DET4	0.561				
A1DET5					
A2COU1	0.438				
A2COU2	0.603				
A2COU3	0.466		0.454		
A2COU4		0.491			
A2COU5					
A3HEL1			0.47		
A3HEL2	0.469				
A3HEL3		0.552			
A3HEL4			0.5		
A3HEL5		0.673			

A4TEA1	0.414		0.421		
A4TEA2					
A4TEA3	0.496				
A4TEA4					
A4TEA5					
A5PAT1					
A5PAT2	0.543				
A5PAT3				0.643	
A5PAT4					0.552
A5PAT5			-0.431		
A6SAV1				0.573	
A6SAV2				-0.475	
A6SAV3					
A6SAV4					
A6SAV5	0.457				
A7HAD1					
A7HAD2					
A7HAD3				0.541	
A7HAD4	0.576				
A7HAD5					0.567
A8CRE1	0.408				
A8CRE2		0.556			
A8CRE3	0.562				
A8CRE4		0.548			
A8CRE5	0.496				

Principal Component Analysis; Varimax with Kaiser Normalisation. Rotation converged in 10 iterations. Factor loading less than 0.4 have been suppressed.

Looking at the two factor solution (Table 7), it is noticeable that the second component consists entirely of 11 of 16 negatively written questions (n has been added to the question codes to indicate negatively written questions). Therefore, we decided to pursue this analysis in two ways:

- Use this two factor solution to create two factors based on the average of the components indicated in the table below. Our hypothesis is that the My Character programme will encourage young people to disagree with the second factor items
- Re-run the factor analysis for the pre-test items excluding all negatively written questions. This is because it may be that some young people found these negatively written questions confusing.

Table 7: Rotated Component Matrix with Two Extracted Factors

	Component	
	1	2
A1DET1n		.437
A1DET2	.589	
A1DET3n		.556
A1DET4	.486	
A1DET5	.417	
A2COU1		
A2COU2	.620	
A2COU3	.616	
A2COU4n		.514
A2COU5n		

A3HEL1	.500	
A3HEL2	.586	
A3HEL3n		.478
A3HEL4	.459	
A3HEL5n		.597
A4TEA1	.524	
A4TEA2		
A4TEA3n		
A4TEA4n		
A4TEA5		
A5PAT1		
A5PAT2	.505	
A5PAT3n		.474
A5PAT4		
A5PAT5n		
A6SAV1n		.525
A6SAV2		
A6SAV3n		
A6SAV4	.405	
A6SAV5	.541	
A7HAD1n		.497
A7HAD2		
A7HAD3n		.520
A7HAD4	.599	
A7HAD5		
A8CRE1		
A8CRE2n		.563
A8CRE3	.576	
A8CRE4n		.520
A8CRE5	.528	

Principal Component Analysis; Varimax with Kaiser Normalisation. Rotation converged in 3 iterations. Factor loading less than 0.4 have been suppressed.

Two Factor Solution

To use the two factor solution, factors were estimated by taking the average scores of the questions shown in Table 7, so long as at least four of the questions were answered. In addition, the questions that are not in either factor were average to be a third 'factor'. This should include 592 young people (table below).

Table 8: Young People Included in Factor Analysis

		Post Factor Analysis		Total
		Exclude	Include	
Pre Factor Analysis	Exclude	52	48	100
	Include	453	592	1045

Total		505	640	1145
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The table below indicates that responses to the three factors vary considerably (Table 9). Factor 1 has a mean of approximately 1.8 both pre- and post-test i.e. just more positive than 'agree'. Factor 2's mean of approximately 3.4 is around mid-way between 'neither agree or disagree' and 'disagree', and Factor 3 with a mean of 2.3 is less positive than 'agree'. However, there are no obvious patterns in the differences between the arms of the trial.

Table 9: Mean Score on Factors by Trial Arm

Trial Arm		First factor: pre-test	First factor: post-test	Second factor: pre-test	Second factor: post-test	Not in 2 factors: pre-test	Not in 2 factors: post-test
Not in trial	Mean	1.82	1.80	3.48	3.50	2.38	2.22
	N	153	153	153	153	153	153
	s.d.	0.42	0.43	0.55	0.56	0.36	0.40
Control	Mean	1.82	1.82	3.32	3.53	2.19	2.24
	N	108	108	108	108	108	108
	s.d.	0.48	0.43	0.55	0.58	0.38	0.40
Journal	Mean	1.87	1.89	3.41	3.36	2.33	2.27
	N	149	149	149	149	149	149
	s.d.	0.49	0.47	0.58	0.67	0.42	0.45
Website	Mean	1.75	1.80	3.42	3.47	2.20	2.26
	N	182	182	182	182	182	182
	s.d.	0.41	0.46	0.63	0.61	0.42	0.44
Total	Mean	1.81	1.83	3.42	3.46	2.28	2.25
	N	592	592	592	592	592	592
	s.d.	0.45	0.45	0.58	0.61	0.40	0.42

In addition, potential differences in these three factors were investigated with respect to year and school, using young people who satisfactorily completed both questionnaires (n=592).

By school, using analysis of variance (ANOVA) with repeated measures for both Time (pre- and post- trial) and Factor (the three factors, above) gave highly significant differences for School ($F(5, 586)=17.2, p<0.001$), Factor ($F(2, 585) =1170, p<0.001$), Factor by School interaction ($F(10, 1172)=3.3, p<0.001$), Time by School ($F(5, 586)= 4.4, p=0.001$), Factor by Time ($F(2, 585)= 7.0, p=0.001$) and the three-way Factor by Time by School interaction ($F(10, 1172)=2.5, p=0.005$). Given the complexity of these results, post-hoc ANOVAs were undertaken for the three factors, separately.

With Factor 1, the School ($F(5, 586)= 17.3, p<0.001$) and the School by Time interaction ($F(5, 586)=4.3, p=0.001$) were both highly significant. In terms of overall ratings of Factor 1 (i.e. averaged over pre- and post-test), Schools 1 and 3 were significantly more positive than School 6, which in turn was significantly more positive than the other three schools. We note that the two most positive schools were those with the majority of young people from ethnic minority

backgrounds, and the third is a relatively deprived rural school. Table 10 also shows that unlike the other schools, the pre- to post- change in ratings was substantially negative in Schools 2 and 6 (i.e. ratings become more positive): this is presumably the reason for the significant interaction.

Table 10: Factor 1 by Schools

	N	pre-	post-	change
School 3	168	1.65	1.69	0.04
School 1	109	1.70	1.79	0.09
School 6	31	1.90	1.76	-0.14
School 4	137	1.90	1.91	0.02
School 5	75	1.97	2.03	0.06
School 2	72	2.01	1.85	-0.16
Total	592	1.81	1.83	0.01

Ordered by pre-test ratings

With Factor 2, Time is marginally significant ($F(1, 586) = 4.4, p = 0.04$), the interaction is not significant, but there is a highly significant School difference ($F(5, 586) = 6.9, p < 0.001$). The QREGW post hoc test suggests Schools 2, 4 and 5 had significantly more negative ratings than the other three schools (Table 11): young people in these three schools are mainly white heritage.

Table 11: Factor 2 by Schools

	N	pre-	post-	change
School 6	31	3.25	3.34	0.08
School 3	168	3.30	3.27	-0.03
School 1	109	3.35	3.48	0.13
School 4	137	3.51	3.53	0.02
School 5	75	3.51	3.60	0.08
School 2	72	3.59	3.64	0.05
Total	592	3.42	3.46	0.04

Ordered by pre-test ratings

With Factor 3, Time ($F(1, 586) = 6.8, p = 0.009$), Schools ($F(5, 586) = 5.5, p < 0.001$), and the Time by School interaction ($F(1, 586) = 5.1, p < 0.001$) were all significant. Post hoc tests showed that School 3 had significantly more positive ratings than Schools 2, 4 and 5. The change in ratings from pre- to post-test in Table 12 suggests the interaction is due to School 6 and possibly School 3 becoming more positive, whilst School 1 became more negative (lower numbers are more positive).

Table 12: Factor 3 by Schools

	N	pre-	post-	change
School 1	109	2.1675	2.2988	0.13
School 3	168	2.2193	2.1386	-0.08
School 6	31	2.3132	2.0234	-0.29
School 2	72	2.3362	2.2912	-0.04
School 5	75	2.3550	2.3352	-0.02
School 4	137	2.3637	2.3228	-0.04
Total	592	2.2795	2.2481	-0.03

Ordered by pre-test ratings

The above analysis suggests that young people in Schools 1 and 3 (with mainly ethnic minority backgrounds) tended to more strongly agree with all statements whether or not they were intended to be negatively phrased. School 6's ratings have improved relative to the other schools and possibly Schools 2 and 3, too.

Table 13: Year Groups Involved by School

	Years involved	Classes
School 1	9	6
School 3	7	3
	8	3
	9	3
School 6	7	3
School 2	7	3
School 5	8	3
School 4	8	3

Ordered by pre-test ratings

When re-running this ANOVA using school Year instead of School, Factors ($F(2, 588) = 1590$, $p < 0.001$), Time by Year ($F(2, 589) = 7.2$, $p = 0.001$), Factors by Time ($F(2, 588) = 4.9$, $p = 0.008$) and Year ($F(2, 589) = 4.4$, $p = 0.01$) were all significant. For Year to be an explanatory variable, interactions with Year would need to be significant. Therefore the Time by Year interaction was explored using separate ANOVA for the three Factors. For Factor 1, the Time by Year interaction ($F(2, 589) = 3.7$, $p = 0.03$) reached significance, presumably because Year 7 students were tending towards 'strongly agree' whereas the other Year groups were tending in the other direction (Table 14). With Factor 2, the Time by Year interaction fell short of significance ($F(2, 589) = 2.5$, $p = 0.09$) although Year 9 was tending to disagree more strongly with the negatively phrased questions (which is positive). Factor 3's Time by Year interaction was significant ($F(2, 589) = 5.5$, $p = 0.005$): like Factor 1, this is probably due to Year 7's ratings becoming lower i.e. more positive.

Table 14: Factors by Year Groups

		Year 7	Year 8	Year 9	Total
	N	196	211	185	592
Factor 1	pre	1.8071	1.8656	1.7613	1.8136
	post	1.7524	1.9050	1.8149	1.8263
	change	-0.05	0.04	0.05	0.01
Factor 2	pre	3.4567	3.4651	3.3198	3.4169
	post	3.4556	3.4802	3.4383	3.4590
	change	0.00	0.02	0.12	0.04
Factor 3	pre	2.3007	2.3094	2.2230	2.2795
	post	2.1870	2.2900	2.2651	2.2481
	change	-0.11	-0.02	0.04	-0.03

Running the above ANOVA whilst including both School and Year (i.e. Factor by Time by School by Year ANOVA) gives significant effects for Year, School and their interactions with Time. This suggests the effects are independent. Furthermore, undertaking this same ANOVA but including Trial Arm, with just those involved in the trial, gives significant Time by Trial Arm ($F(2, 437)= 4.3, p=0.02$) and Time by Trial Arm by Year ($F(2, 437)= 6.0, p=0.003$) interactions suggesting that differences between arms of the trial are being masked by School or Year effects. However, all of the above analyses should be treated with caution due to the complexity of the interactions and the small number of schools involved. Also, these analyses have been undertaken without accounting for the multilevel nature of the data, and it must be remembered that the trial was designed so that effects of Year and School would be balanced across the three arms of the trial.

Factor Analysis without Negatively Written Questions

Determinant = 0.015, KMO = 0.89 and highly significant Bartlett's test of sphericity all indicate that factor analysis is appropriate. The Scree plot below shows that there is only one substantial factor, indicating young people really only responded positively or less positively to these 24 positively worded questions. 17 of the 24 questions loaded onto this single factor at 0.4 or higher. Different arms of the trial did not interact significantly with Time, and so this analysis was not progressed further.

Figure 4: Scree Plot of Positive I Believe Questions

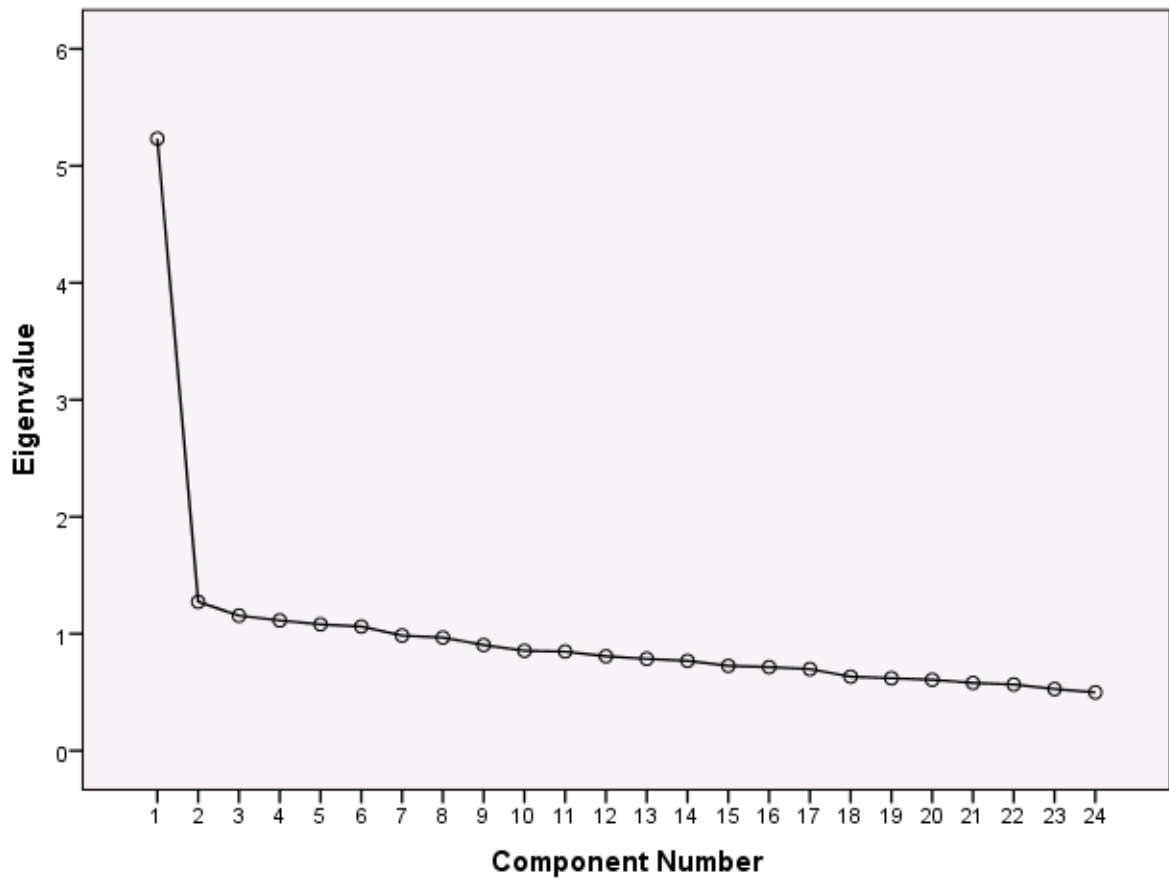


Table 15: One Factor Solution for Positive I Believe Questions

	Component
A1DET2	0.617
A1DET4	0.474
A1DET5	0.411
A2COU1	
A2COU2	0.626
A2COU3	0.618
A3HEL1	0.534
A3HEL2	0.603
A3HEL4	0.45
A4TEA1	0.487
A4TEA2	0.428
A4TEA5	
A5PAT1	
A5PAT2	0.541

A5PAT4	
A6SAV2	
A6SAV4	0.403
A6SAV5	0.575
A7HAD2	
A7HAD4	0.636
A7HAD5	
A8CRE1	0.4
A8CRE3	0.584
A8CRE5	0.521

Extraction Method: Principal Component Analysis.

Correlations within the Eight Hypothesised Traits

1. Being determined- the ability to keep going whatever happens

Table 16: Determine Correlations

		A1DET1	A1DET2	A1DET3	A1DET4	A1DET5
A1DET1	tau_b	1.000	-.256	.348	-.214	-.140
	p		.000	.000	.000	.000
	N	1038	1022	1027	996	998
A1DET2	tau_b	-.256	1.000	-.231	.260	.243
	p	.000		.000	.000	.000
	N	1022	1029	1018	987	989
A1DET3	tau_b	.348	-.231	1.000	-.196	-.113
	p	.000	.000		.000	.000
	N	1027	1018	1034	994	994
A1DET4	tau_b	-.214	.260	-.196	1.000	.217
	p	.000	.000	.000		.000
	N	996	987	994	1003	996
A1DET5	tau_b	-.140	.243	-.113	.217	1.000
	p	.000	.000	.000	.000	
	N	998	989	994	996	1005

All correlations are between 0.11 and 0.35. Questions 1 and 3 need to be reverse coded. Cronbach's alpha = 0.543. Corrected Item-Total Correlations varied from 0.25 (DET5, so this is the least good item) to 0.376 (DET2) (but deleting DET5 doesn't improve alpha).

2. Having courage – the ability to do the right thing even when it is difficult

Table 17: Courage Correlations

		A2COU1	A2COU2	A2COU3	A2COU4	A2COU5
A2COU1	tau_b	1.000	.193	.215	-.119	.055
	p		.000	.000	.000	.032
	N	1041	1034	1035	1039	1040
A2COU2	tau_b	.193	1.000	.310	-.125	.125
	p	.000		.000	.000	.000
	N	1034	1038	1032	1035	1036
A2COU3	tau_b	.215	.310	1.000	-.126	.157
	p	.000	.000		.000	.000
	N	1035	1032	1039	1036	1037
A2COU4	tau_b	-.119	-.125	-.126	1.000	.115
	p	.000	.000	.000		.000
	N	1039	1035	1036	1042	1042
A2COU5	tau_b	.055	.125	.157	.115	1.000
	p	.032	.000	.000	.000	
	N	1040	1036	1037	1042	1043

All correlations are between 0.06 and 0.31. Question 4 needs to be reverse coded; however, this means that questions 4 and 5 will be negatively correlated, indicating that there is not a simple data structure.

Cronbach's alpha = 0.286. Corrected Item-Total Correlations varied from 0.00 (COU4) and 0.03 (COU5) to 0.322 (COU3). Deleting COU4 and 5 improves alpha to 0.447.

3. Helping others - make it easier or possible for someone to do something by offering them help

Table 18: Helping Correlations

		A3HEL1	A3HEL2	A3HEL3	A3HEL4	A3HEL5
A3HEL1	tau_b	1.000	.292	-.209	.266	-.119
	p		.000	.000	.000	.000
	N	1044	1030	1027	1043	1039
A3HEL2	tau_b	.292	1.000	-.190	.234	-.172
	p	.000		.000	.000	.000
	N	1030	1031	1014	1030	1026
A3HEL3	tau_b	-.209	-.190	1.000	-.120	.324
	p	.000	.000		.000	.000
	N	1027	1014	1028	1027	1024
A3HEL4	tau_b	.266	.234	-.120	1.000	-.149
	p	.000	.000	.000		.000
	N	1043	1030	1027	1044	1039
A3HEL5	tau_b	-.119	-.172	.324	-.149	1.000
	p	.000	.000	.000	.000	

	N	1039	1026	1024	1039	1040
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All correlations are between 0.12 and 0.32. Questions 3 and 5 need to be reverse coded. Cronbach's alpha = 0.551. Corrected Item-Total Correlations varied from 0.264 (HEL4 to 0.358 (HEL3) (but deleting HEL4 doesn't improve alpha).

4. Working together – the combined action of a group, especially when effective and efficient

Table 19: Teamwork Correlations

		A4TEA1	A4TEA2	A4TEA3	A4TEA4	A4TEA5
A4TEA1	tau_b	1	0.259	0.14	0.011	0.145
	p	.	0	0	0.665	0
	N	1039	1034	1029	1028	1006
A4TEA2	tau_b	0.259	1	0.094	0.049	0.221
	p	0	.	0	0.058	0
	N	1034	1039	1029	1027	1006
A4TEA3	tau_b	0.14	0.094	1	0.158	0.115
	p	0	0	.	0	0
	N	1029	1029	1035	1023	1002
A4TEA4	tau_b	0.011	0.049	0.158	1	0.017
	p	0.665	0.058	0	.	0.519
	N	1028	1027	1023	1033	1000
A4TEA5	tau_b	0.145	0.221	0.115	0.017	1
	p	0	0	0	0.519	.
	N	1006	1006	1002	1000	1012

All correlations are between 0.01 and 0.26. None of the questions need to be reverse coded, but three of the correlations are non-significant. Cronbach's alpha = 0.344. Corrected Item-Total Correlations varied from 0.101 (TEA4) to 0.228 (TEA2). Deleting TEA4 improves alpha to 0.384.

5. Having patience - the capacity to accept or tolerate delay, problems, or suffering without becoming annoyed or anxious

Table 20: Patience Correlations

		A5PAT1	A5PAT2	A5PAT3	A5PAT4	A5PAT5
A5PAT1	tau_b	1.000	.145	.060	.148	-.020
	p		.000	.026	.000	.451
	N	1040	1029	1024	1020	1036
A5PAT2	tau_b	.145	1.000	.035	.109	.031
	p	.000		.196	.000	.253
	N	1029	1034	1017	1015	1030
A5PAT3	tau_b	.060	.035	1.000	.003	.022

	p	.026	.196		.923	.393
	N	1024	1017	1028	1010	1024
A5PAT4	tau_b	.148	.109	.003	1.000	.106
	p	.000	.000	.923		.000
	N	1020	1015	1010	1025	1021
A5PAT5	tau_b	-.020	.031	.022	.106	1.000
	p	.451	.253	.393	.000	
	N	1036	1030	1024	1021	1041

All correlations are between 0.003 and 0.15, five of which are non-significant. None need to be reverse coded. Cronbach's alpha = 0.183. Corrected Item-Total Correlations varied from 0.022 (PAT5) and 0.046 (PAT3) to 0.137 (PAT4). Deleting PAT 3 and 5 improves alpha to 0.267.

6. Saving for the future – the quality of using money and other resources carefully and not wastefully

Table 21: Saving Correlations

		A6SAV1	A6SAV2	A6SAV3	A6SAV4	A6SAV5
A6SAV1	tau_b	1.000	-.161	.090	-.183	-.095
	p		.000	.000	.000	.001
	N	1003	1001	1000	986	992
A6SAV2	tau_b	-.161	1.000	.027	.240	.125
	p	.000		.301	.000	.000
	N	1001	1040	1036	1023	995
A6SAV3	tau_b	.090	.027	1.000	.064	.074
	p	.000	.301		.015	.007
	N	1000	1036	1041	1024	994
A6SAV4	tau_b	-.183	.240	.064	1.000	.165
	p	.000	.000	.015		.000
	N	986	1023	1024	1028	981
A6SAV5	tau_b	-.095	.125	.074	.165	1.000
	p	.001	.000	.007	.000	
	N	992	995	994	981	998

All correlations are between 0.03 and 0.24. Question 1 needs to be reverse coded, but this gives it a negative correlation with question 3, indicating that there is not a simple data structure. Cronbach's alpha = 0.358. Corrected Item-Total Correlations varied from 0.001 (SAV3) to 0.315 (SAV4). Deleting SAV3 improves alpha to 0.476.

7. Having a dream – having an aspiration, ambition or goal

Table 22: Dream Correlations

		A7HAD1	A7HAD2	A7HAD3	A7HAD4	A7HAD5
A7HAD1	tau_b	1	0.065	0.176	-0.01	-0.016
	p	.	0.011	0	0.721	0.532
	N	1026	1013	985	1022	1010
A7HAD2	tau_b	0.065	1	-0.005	0.218	0.025
	p	0.011	.	0.851	0	0.346
	N	1013	1032	991	1028	1016
A7HAD3	tau_b	0.176	-0.005	1	0.024	0.022
	p	0	0.851	.	0.388	0.402
	N	985	991	1004	1000	989
A7HAD4	tau_b	-0.01	0.218	0.024	1	0.034
	p	0.721	0	0.388	.	0.213
	N	1022	1028	1000	1041	1025
A7HAD5	tau_b	-0.016	0.025	0.022	0.034	1
	p	0.532	0.346	0.402	0.213	.
	N	1010	1016	989	1025	1029

All correlations are between 0.01 and 0.22 with 7 correlations non-significant. None need to be reverse coded as the negative correlations are non-significant. Cronbach's alpha = 0.191. Corrected Item-Total Correlations varied from -0.005 (HAD5) to 0.134 (HAD1). Deleting HAD5 improves alpha to 0.252.

8. Thinking creatively – the use of imagination or original ideas to create something new

Table 23: Creativity Correlations

		A8CRE1	A8CRE2	A8CRE3	A8CRE4	A8CRE5
A8CRE1	tau_b	1.000	.054	.210	-.078	.237
	p		.042	.000	.004	.000
	N	1036	1029	1027	998	1028
A8CRE2	tau_b	.054	1.000	.048	.165	.040
	p	.042		.067	.000	.130
	N	1029	1038	1029	1000	1029
A8CRE3	tau_b	.210	.048	1.000	-.143	.336
	p	.000	.067		.000	.000
	N	1027	1029	1036	998	1026
A8CRE4	tau_b	-.078	.165	-.143	1.000	-.115
	p	.004	.000	.000		.000
	N	998	1000	998	1007	997
A8CRE5	tau_b	.237	.040	.336	-.115	1.000
	p	.000	.130	.000	.000	
	N	1028	1029	1026	997	1035

All correlations are between 0.04 and 0.34. Question 4 needs to be reverse coded, but this gives it a negative correlation with question 2, indicating that there is not a simple data structure.

Cronbach's alpha = 0.276. Corrected Item-Total Correlations varied from -0.054 (CRE2) and 0.068 (CRE4) to 0.326 (CRE5). Deleting CRE2 and 4 improves alpha to 0.509.

If we look at all 40 questions (with some reverse coded, as above), then Cronbach's alpha is 0.735 for the 792 young people that completed all 40 questions pre-test.

Correlations between the Eight Hypothesised Traits

Correlations are shown below for the eight character traits for the pre- and post-tests (note that there are many more respondents for the pre-test). Highlighted cells are for the correlations between the pre- and post-test responses for the same trait. These are the highest correlations in each row, indicating that there is some consistency i.e. those who give high ratings before the trial tend to give high ratings afterwards. However, these correlations are quite low, ranging from 0.22 up to 0.38. These correlations are using all five questions in each trait.

Table 24: Correlations between Traits: All Questions

	determ, pre	determ, post	courage, pre	courage, post	help, pre	help, post	team, pre	team, post	patience, pre	patience, post	saving, pre	saving, post	dream, pre	dream, post	creative, pre	creative, post
determination, pre	1	.342	.264	.177	.325	.210	.158	.103	.112	.129	.225	.156	-.012	.068	.198	.120
courage, post	.342	1	.187	.299	.241	.342	.082	.119	.075	.211	.152	.225	.096	.072	.131	.216
courage, pre	.264	.187	1	.285	.260	.155	.234	.165	.141	.122	.199	.160	.159	.097	.273	.101
courage, post	.177	.299	.285	1	.181	.258	.121	.236	.097	.201	.099	.236	.159	.182	.199	.249
help, pre	.325	.241	.260	.181	1	.378	.094	.096	.084	.100	.160	.128	.020	.018	.205	.131
help, post	.210	.342	.155	.258	.378	1	.052	.154	.067	.157	.134	.198	.031	.012	.182	.180
teamwork, pre	.158	.082	.234	.121	.094	.052	1	.289	.182	.105	.151	.060	.166	.168	.179	.085
teamwork, post	.103	.119	.165	.236	.096	.154	.289	1	.098	.235	.093	.186	.151	.264	.161	.185
patience, pre	.112	.075	.141	.097	.084	.067	.182	.098	1	.216	.142	.143	.231	.151	.189	.104
patience, post	.129	.211	.122	.201	.100	.157	.105	.235	.216	1	.111	.165	.113	.258	.124	.234
saving, pre	.225	.152	.199	.099	.160	.134	.151	.093	.142	.111	1	.256	.054	.038	.202	.128
saving, post	.156	.225	.160	.236	.128	.198	.060	.186	.143	.165	.256	1	.112	.119	.137	.200
dream, pre	-.012	.096	.159	.159	.020	.031	.166	.151	.231	.113	.054	.112	1	.279	.147	.125
dream, post	.068	.072	.097	.182	.018	.012	.168	.264	.151	.258	.038	.119	.279	1	.103	.159
creative, pre	.198	.131	.273	.199	.205	.182	.179	.161	.189	.124	.202	.137	.147	.103	1	.285
creative, post	.120	.216	.101	.249	.131	.180	.085	.185	.104	.234	.128	.200	.125	.159	.285	1

Next we see if removing questions to increase Cronbach's alpha in each 'trait', increases the correlations between 'traits'. As there are now only three questions in some 'traits', only two or more scores are required to be included. The table below shows some improvement, but it isn't uniform. The average pre: post correlations (highlighted cells) increases from 0.291 to 0.326.

Table 25: Correlations between Traits with Maximum Alpha

best alpha	Determination pre	Determination post	Courage pre	Courage post	Help pre	Help post	Teamwork pre	Teamwork post	Patience pre	Patience post	Save pre	Save post	Dream pre	Dream post	Creative pre	Creative post
Determination pre	1	.341	.256	.208	.322	.202	.208	.139	.245	.194	.238	.16	-.011	.041	.291	.15
Determination post	.341	1	.16	.307	.238	.336	.123	.192	.191	.303	.155	.256	.082	.055	.171	.248
Courage pre	.256	.16	1	.367	.261	.161	.364	.238	.251	.164	.188	.129	.21	.165	.335	.181
Courage post	.208	.307	.367	1	.205	.258	.232	.384	.191	.3	.126	.212	.215	.223	.235	.343
Help pre	.322	.238	.261	.205	1	.381	.153	.151	.215	.195	.195	.169	.027	-.006	.269	.204
Help post	.202	.336	.161	.258	.381	1	.107	.215	.152	.237	.152	.226	.006	-.014	.229	.267
Teamwork pre	.208	.123	.364	.232	.153	.107	1	.281	.228	.119	.162	.104	.191	.167	.261	.106
Teamwork post	.139	.192	.238	.384	.151	.215	.281	1	.132	.286	.086	.197	.177	.236	.19	.294
Patience pre	.245	.191	.251	.191	.215	.152	.228	.132	1	.282	.225	.176	.139	.131	.261	.131
Patience post	.194	.303	.164	.3	.195	.237	.119	.286	.282	1	.125	.226	.104	.197	.16	.318
Save pre	.238	.155	.188	.126	.195	.152	.162	.086	.225	.125	1	.285	-.015	.005	.223	.155
Save post	.16	.256	.129	.212	.169	.226	.104	.197	.176	.226	.285	1	.112	.044	.171	.217
Dream pre	-.011	.082	.21	.215	.027	.006	.191	.177	.139	.104	-.015	.112	1	.321	.137	.112
Dream post	.041	.055	.165	.223	-.006	-.014	.167	.236	.131	.197	.005	.044	.321	1	.112	.142
Creative pre	.291	.171	.335	.235	.269	.229	.261	.19	.261	.16	.223	.171	.137	.112	1	.348
Creative post	.15	.248	.181	.343	.204	.267	.106	.294	.131	.318	.155	.217	.112	.142	.348	1

Money Now or Later?

The logic of the Money questionnaire is that respondents will choose immediate rewards if the increase in the amount of money is too small for the time delay. The consistency of responses is an indication of how true this is. Random responses will tend to reduce the consistency towards 50%. If the respondent has completed all 9 questions, then consistency will be 56, 67, 78, 89 or 100%. Table 26 shows these are most common. With the pre-questionnaire, for each reward size, 93 or 94% of children were either 89% or 100% consistent; the corresponding figures were 91 or 92% of young people in the post-questionnaire.

Table 26: Consistency of Response to Money Questionnaire

	AL	%	AM	%	AS	%	BL	%	BM	%	BS	%
50%	3	.3	1	.1					1	.2	1	.2
56%	4	.4	6	.6	4	.4	1	.2	3	.5	1	.2
60%			1	.1	1	.1			1	.2		
63%	1	.1	2	.2	3	.3	2	.3			1	.2
67%	15	1.4	11	1.1	11	1.1	8	1.3	17	2.7	13	2.1
71%	1	.1	1	.1					1	.2	3	.5
75%	1	.1	3	.3	3	.3	5	.8	3	.5	2	.3
78%	29	2.7	35	3.4	27	2.6	22	3.5	23	3.7	24	3.9
80%	1	.1	4	.4	2	.2	2	.3	1	.2	1	.2
83%	2	.2	4	.4	2	.2	2	.3	1	.2	2	.3
86%	2	.2	4	.4	2	.2	2	.3	3	.5	3	.5
88%	6	.6	3	.3	6	.6	9	1.4	5	.8	1	.2
89%	156	14.7	174	16.7	167	16.3	68	10.7	88	14.1	78	12.6
100%	838	79.1	794	76.1	799	77.8	515	81.0	477	76.4	491	79.1
Total	1059	100.0	1043	100.0	1027	100.0	636	100.0	624	100.0	621	100.0

A= pre-test, B=post-test, L= large, M=medium and S=small reward

The overall results of the Money Now or Later questionnaire are displayed in the Table below. At pre-test, the mean indifference k was about 0.005 for the large, 0.008 for medium, and 0.010 for small rewards. This 'magnitude effect' was also found by Kirby et al. (1999) i.e. respondents are more likely to choose the delayed reward if the reward is larger. The post-test follows the same pattern but with higher means: 0.007 for large, 0.010 for medium and 0.013 for small.

Table 27: Indifference k by Time and Reward Size

	N	ln k			K*			Days to lose half value**
		Mean	Std. Error	Std. Dev.	Mean	Std. Error	Std. Dev.	
preL	1059	-5.3	0.050	1.6	0.0048	1.05	5.0	208
preM	1043	-4.8	0.049	1.6	0.0082	1.05	4.9	122
preS	1027	-4.6	0.047	1.5	0.0102	1.05	4.5	98
postL	636	-4.9	0.066	1.7	0.0072	1.07	5.3	139
postM	624	-4.6	0.068	1.7	0.0105	1.07	5.5	95
postS	621	-4.4	0.066	1.6	0.0126	1.07	5.2	79
listwise total	558							

*simply the exponential of $\ln k$. ** i.e. the inverse of the mean of k

(Kirby et al., 1999) found that "patients had discount rates about twice as high as those of the controls ($k=0.025$ vs. 0.013)" i.e. money lost half its value in about 40 rather than 77 days. They quoted a previous study at a "highly selective liberal arts college" that found $k=0.007$ i.e. 143 days to lose half its value. Therefore at pre-test, the children in this study displayed very similar indifference k to the arts college students (the geometric mean of the three reward sizes is 0.0074). However, post-test, this overall k rises to 0.0099 i.e. overall, the children are **less** inclined to delay gratification at the end of the study. We need to compare the results between the different arms of the trial to see if this is because of the My Character intervention. To do this, we select the 558 young people with results in all parts of Table 27.

The table below shows the key descriptive data. An ANOVA was undertaken, but only included young people involved in the trial and using logarithms ($\ln k$) as ANOVAs assume linearity. The effect of reward size ($F(2,430)= 84, p<0.001$) was highly significant, time ($F(1, 431)= 6.3, p=0.01$) was significant, and the size by trial arm interaction was just significant ($F(4, 862)=2.7, p=0.03$). However, the time by trial arm interaction did not reach statistical significance ($F(2, 431)= 17, p=0.09$). It is this interaction that is needed to demonstrate whether the My Character intervention impacted upon the students' future-mindedness. Figures 5, 6 and 7 below indicate there is a non-significant **trend** for reduction in delaying gratification to be lower with website participants.

Table 28: Indifference k by Trial Arm, Time and Reward Size

Trial Arm		ALk	AMk	ASk	BLk	BMk	BSk
Not in trial	N	124	124	124	124	124	124
	Geometric Mean	.0055	.0097	.0116	.0070	.0116	.0162
	Std. Deviation	.0437	.0348	.0360	.0361	.0387	.0504
	Std. Error of Mean	.0039	.0031	.0032	.0032	.0035	.0045
Control	N	125	125	125	125	125	125
	Geometric Mean	.0060	.0085	.0104	.0082	.0100	.0107
	Std. Deviation	.0374	.0413	.0530	.0652	.0573	.0600
	Std. Error of Mean	.0033	.0037	.0047	.0058	.0051	.0054
Journal	N	160	160	160	160	160	160
	Geometric Mean	.0049	.0078	.0123	.0081	.0121	.0156
	Std. Deviation	.0333	.0341	.0521	.0470	.0541	.0524
	Std. Error of Mean	.0026	.0027	.0041	.0037	.0043	.0041
Website	N	149	149	149	149	149	149
	Geometric Mean	.0043	.0079	.0108	.0051	.0070	.0103
	Std. Deviation	.0563	.0580	.0589	.0514	.0540	.0470
	Std. Error of Mean	.0046	.0048	.0048	.0042	.0044	.0039
Total	N	558	558	558	558	558	558
	Geometric Mean	.0051	.0084	.0113	.0069	.0099	.0129
	Std. Deviation	.0435	.0435	.0512	.0510	.0518	.0524
	Std. Error of Mean	.0018	.0018	.0022	.0022	.0022	.0022

Figure 5: Change in $\ln k$ for Large Rewards

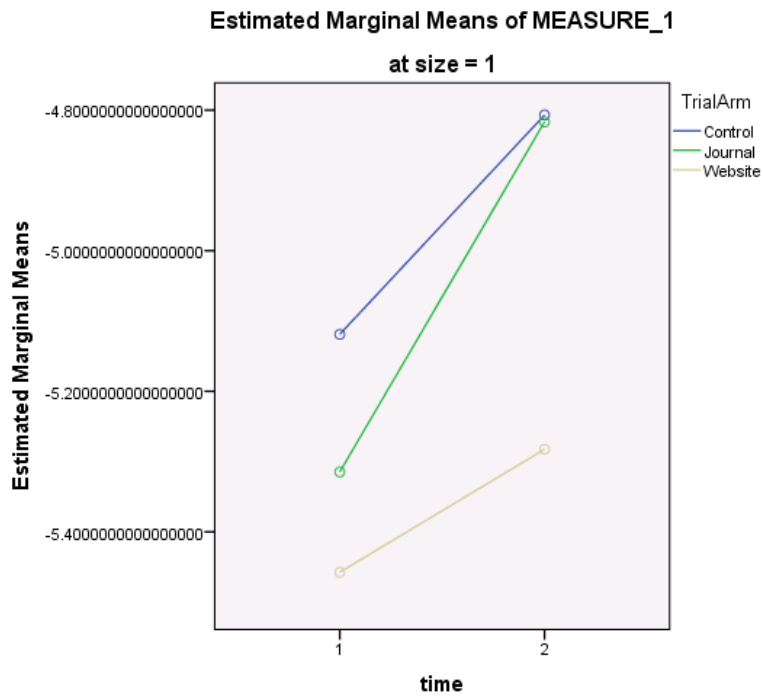


Figure 6: Change in $\ln k$ for Medium Rewards

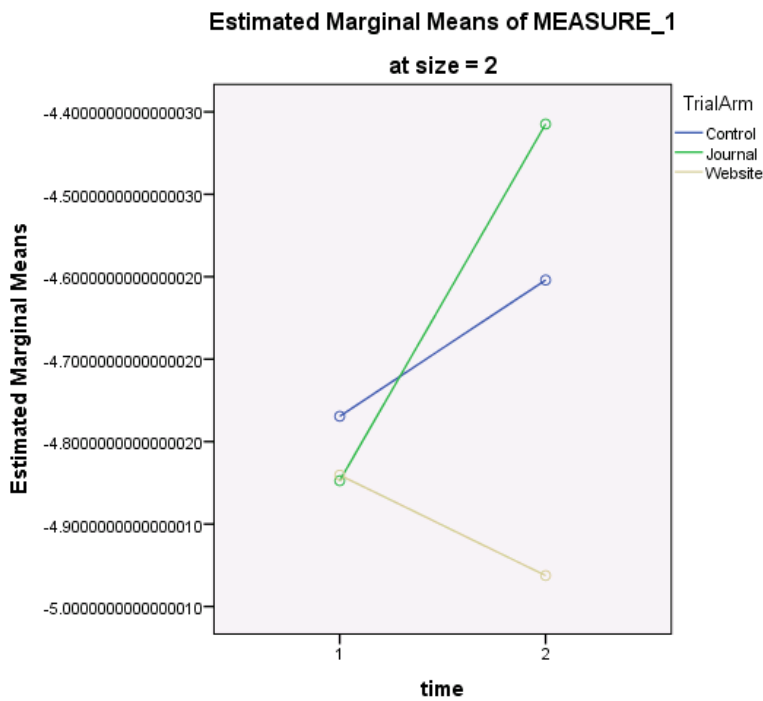
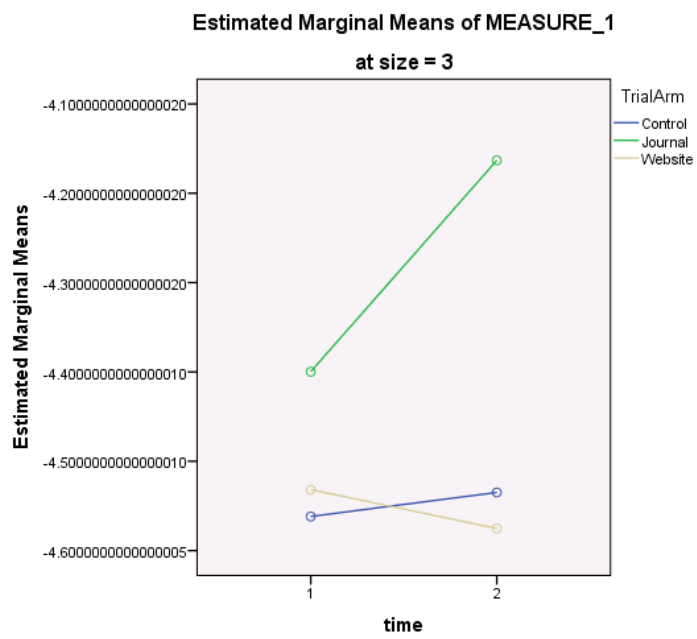


Figure 7: Change in ln k for Small Rewards



Discussion

The three research objectives were:

1. Investigate the feasibility of undertaking a cluster randomised controlled trial into future-mindedness in Key Stage 3 within six schools

Feasibility relates to how successfully the trial was designed and conducted; the recruitment and retention of schools, classes and young people are key indicators.

Feedback from the six pilot schools indicates that they spent anywhere between 7 – 12 hours delivering the My Character programme to the website and control groups over the year. 23 out of 27 (85%) of the classes completed both the pre- and post-test I Believe questionnaires and 24 (89%) classes completed both Money questionnaires. Retention of young people was around 66% with non-return from entire classes accounting for a substantial minority of attrition. Another problem was that two schools completed the post-test questionnaires after the summer holidays, so children may have moved classes or schools (and considerable forgetting may have occurred). A likely cause of this was that communication with these two schools was intermittent, in one case because the link teacher had left their post. This is in contrast with the other schools with which there was regular and positive communication.

The Money questionnaire indicated that “one person in your year group will actually get the amount of money they choose for one question”; urging young people to complete them carefully. Unfortunately, only two schools arranged for this money to be awarded pre-test, and one school post-test, despite it being previously agreed and being funded by the project. This lack of authenticity may have led to the small decline in the consistency of responses to the Money questionnaire, post-test. Even so, the response consistency compares well with those reported elsewhere, thus suggesting that the schools and young people were completing the outcome measures seriously.

2. Pilot the suitability of two outcome measures

The I Believe questionnaire was developed specifically for this trial with considerable involvement from many relevant stakeholders. However, its psychometric properties had not been investigated in advance. It was intended to capture views regarding the eight character traits that the My Character project seeks to improve. The individual questions appeared to have good psychometric properties, tapping the range of responses, without obvious ambiguity. We were keen to avoid re-writing essentially the same questions in slightly different ways which would have produced high inter-item correlations but would have low content validity. However, all the within-trait correlations were low (below 0.4) and the maximum test-retest correlation for a trait (i.e. average of the five questions) was just 0.38. There are a number of possible explanations for these findings. One is that the questionnaire is simply unreliable. Another is that the complexity of character virtues means that attitudes to (say) different aspects of a single virtue vary between young people. For example, “(I believe) I will always have the courage to stand up to bullies” and “(I believe) I always try to do the right thing, even when it is hard to do so” are both concerned with courage but the low correlation (0.22) is perhaps unsurprising given that the types of courage are so different. In addition, a year is a long time in young people’s lives, so it is also unsurprising that their attitudes may change considerably in that time.

Cronbach's alpha for the five questions related to each trait varied between 0.18 and 0.55 (mean = 0.34), whereas it is suggested that alpha should be between 0.7 and 0.9 for a good scale (Streiner and Norman, 2008). The factor analysis gave no evidence for these eight traits being distinct. Rather, it seemed there were two factors: most of the positively worded questions as the first factor, and most of the negatively worded questions as the second factor. Although not explored further, it seems probable that this difference is because some students continue to give positive ratings i.e. (strongly) agree whereas others give negative ratings i.e. (strongly) disagree. That is to say, the two factors may be caused by difference in wording rather than difference in self-perception of traits. The questionnaire as a whole had alpha of 0.74; as none of the inter-item correlation are high, this suggests the questionnaire is assessing a reasonably broad, single trait.

The lack of evidence for differences between the eight traits raises other issues. First, schools reported undertaking between 7 and 12 hours over the year i.e. up to 1.5 hours per trait. It perhaps was over-optimistic to envisage that such a small input would make a noticeable difference in attitude many months later. In addition, if differences in self-perception of these traits are educable, then it would be better to endeavour to promote one of them, whilst not educating for the other traits: then we would hope to see an increase in one, relative to the other traits.

The young people in this study responded with high consistency to the 'Money Now or Later?' questionnaire in that over 90% had only 0 or 1 out of 9 responses that were inconsistent within a reward size. At pre-test, they were prepared to wait up to 208 days on average for twice the reward if the reward was large, but only up to 98 days with a small reward. This 'magnitude effect' is in line with previous findings in the literature. Again it suggests reliable completion of the questionnaire by the young people.

This 'delayed gratification' questionnaire appears to be suitable for use in secondary schools.

3. Estimate the impact of the interventions (website and journal) using the two outcome measures

Analysis of variance (ANOVA) was undertaken with the two factor solution from the I Believe questionnaire. This analysis indicated that these factors (and the remaining questions grouped as a third factor) were significantly associated with Schools, pupil Year and probably ethnicity. There was also a significant Trial Arm by Time interaction suggesting that there **may** be an effect of the arm of the trial. However, it must be stressed that these analyses are exploratory, particularly as the clustered nature of the data was not taken into account. To explore this further would require consideration of the effects of ethnicity and pupil Year; greater understanding of these issues would be sensible before undertaking a full, suitably powered trial.

Analysis of variance of data from the Money questionnaire displayed a non-significant trend that the website intervention encouraged young people to delay gratification relative to the journal and control conditions. However, there was also a substantial, significant reduction in delaying gratification overall. Again, we note the exploratory, non-clustered nature of these analyses.

Conclusion and Recommendations

Feasibility

The overall feasibility aspects of this trial were successful with all six schools and 85% of classes undertaking the trial as website, journal or control groups as well as completing the 'I Believe' pre and post-test questionnaires. However, there were a few areas that challenged the integrity of the trial despite the best efforts of the research team:

- Maintaining contact with all schools, even when there were changes in staffing to ensure the trial was conducted in a timely manner
- Persuading the schools to award monetary prizes as described in the pre and post-test Money questionnaire
- Encouraging all classes to complete the questionnaires in a timely fashion; this was particularly challenging with the control group

I Believe Outcome Measure

The 40 item I Believe questionnaire appears to be assessing a single character trait, without discriminating between the eight virtues as was intended. Although the questionnaire demonstrated positive aspects, clearly development work would be required to create a useful scale. Perhaps it would be better to focus on (say) just two traits: with more questions relating to a single trait, more reliable scales would be produced. If an intervention was then designed to improve just one of these traits, then the differential impact could be assessed using a two-trait questionnaire.

The exploratory analyses conducted here suggested there **may** be an impact of the My Character intervention on self-reported character traits. However, the effects of School and Year were large making it difficult to disentangle the impact of the website and journal interventions. Any future study ought to take steps to reduce these effects, e.g. by using more schools and focussing on just one year group.

Money Mow or Later Outcome Measure

This questionnaire appears to be suitable for assessing the propensity to delay gratification by young people in secondary schools. In terms of ethics and to maintain realism and the integrity of the study, schools need to be persuaded to arrange for a reward to be given to one of the pupils each time the questionnaire is used.

There was a non-significant trend that the website intervention encouraged young people to delay gratification relative to the journal and control conditions. However, there was also a substantial, significant reduction in delaying gratification overall: further research would be required to understand whether this is due to maturation, time of year, absence of actual rewards (i.e. distrust) or other reasons.

Appendices

1. Trial Protocol
2. Definitions of Traits
3. I Believe Questionnaire
4. Money Now or Later? Questionnaire

1. Research Protocol for a Pilot and Feasibility Cluster Randomised Trial into the Effectiveness of a Website or Journalling to Enhance Future-Mindedness

Rigorous, well-trialled procedures for conducting randomised controlled trials (RCTs) have been developed by the CONSORT (Consolidated Standards of Reporting Trials) group; therefore the CONSORT statement and checklist provide the structure for this protocol (Moher et al., 2010). Two alterations to the standard CONSORT approach are required as this is a clustered study (Campbell et al., 2004) and is not a drug trial (Boutron et al., 2008).

Introduction

2.1 Scientific background and explanation of rationale

The hypothesis of the project is that guided self-reflection can be stimulated by carefully-planned social interactions, which in turn can lead to young people becoming more 'future-minded'. The belief is that self-reflection in the form of keeping a journal or interacting with a specifically designed social networking site will encourage young people to discuss goals, strategies, and performance, and this will lead to more accomplished and successful adults, in terms of character development.

Two new interventions, a social networking website and a hard-copy journal, will be developed in collaboration with both young people and educational professionals. Both the journal and social network will contain activities and stimulus materials that are designed to develop future-mindedness in 11-14 year olds and in particular an understanding of the following eight character traits: Being determined, Having courage, Having a dream, Thinking creatively, Having patience, Saving for the future, Helping others, and Working together.

Research previously carried out by the organisation Learning for Life in conjunction with the University of Birmingham has demonstrated that young people in the UK are not currently being supported to carry out sustained periods of 'future-mindedness' (Arthur, 2010). Although many have aspirations and dreams for the future, few are offered the opportunity to reflect on these and develop strategies for realizing them. Furthermore previous research has shown that many young people struggle to talk about their identity and have serious difficulties finding a language required to talk about their character, virtues and values.

Previous projects, managed by Learning for Life and the University of Birmingham, have demonstrated that well-developed resources, which appeal to young people, help them become more 'values aware' and better able to develop realistic aspirations for their own character development. The new website and journal will apply these principles and enable young people to reflect, over a sustained period, about whom they are and who they want to be.

In particular, it is envisaged that the interventions will assist in young people's character development because:

- It will provide young people with structured learning opportunities that encourage them to develop their own 'laws of life' which previous projects suggest can be very powerful. The interventions should enable young people to develop their practical

wisdom and have a sense of agency in their own character development (see, Lockwood, 2009).

- Previous research has discovered that young people lack a 'language of character'. The interventions will encourage young people to both learn and understand this language (for example Arthur, 2010, Layard and Dunn, 2009).
- Reflection on the self, based on inspiring stimuli, has been shown to help young people reflect on who they are and who they want to be (J. Moon, 1999a, J. Moon, 1999b).

To our knowledge, no trials of this nature have been previously undertaken. Due to the novel nature of this experiment we view this trial as a pilot which will not only seek to test the interventions but also the trial procedure itself.

2.2 Specific objectives or hypotheses

1. Investigate the feasibility of undertaking a cluster randomised controlled trial into Future-mindedness in Key Stage 3 within six schools.
2. Pilot the suitability of two outcome measures indicated in section 6, below.
3. Estimate the impact of the interventions (website and journal) using the two outcome measures.

3.1 Description of trial design (such as parallel, factorial) including allocation ratio

This is a multi-school randomised controlled trial (RCT) clustered at the class level, conducted in the United Kingdom (6 sites).

It is a superiority trial i.e. the statistical tests will test whether the website and journal groups are significantly different from the control group.

In terms of classes, the allocation ratios will be 1:1:1 i.e. the same number of classes will be in the website, journal and control groups. Beyond this, no attempt will be made to equalise the number of pupils in each group.

3.2 Important changes to methods after trial commencement (such as eligibility criteria), with reasons

None as yet!

4.1 Eligibility criteria for participants

Recruitment is a three stage processes. First, six schools were recruited to the study as a convenience sample prior to randomisation between September 2011 and January 2012. Next, in discussion with these schools, eligible classes of 25 or more pupils in Years 7, 8 and/ or 9 were identified between January and July 2012. To be eligible, they must have different teachers and equal possibility of being allocated to all three arms of the trial. None of the classes are setted, so should be representative of the school population. Random allocation of these classes was undertaken in July and August 2012. Finally, all pupils within the identified classes will be considered eligible and informed consent will be sought for their participation in September 2012.

4.2 Settings and locations where the data were collected

School	No. of pupils#	Age Range	Type	Setting	% free school meals	Ethnicity of pupils	5 or more A*-C Grades at GCSE (incl Maths & English) (2011)	Subject intervention will be delivered through	Number of classes recruited to trial	Year group of students in trial
School A	1400	11-18	Mixed	Semi-Rural	Well below national average	Mainly white British heritage	95%	ICT / PSHE / RE	3	7
School B	1700	11-19	Mixed	Semi-Rural	Higher than national average	Mainly white British heritage	65%	Ethics	3	8
School C	600	11-16	Mixed	Urban	Higher than national average	Mainly from minority ethnic backgrounds	70%	PSHE	9	7,8,9
School D	900	11-16	Mixed	Urban	Higher than national average	Mainly from minority ethnic backgrounds	75%	Form Tutor time	6	9
School E	1400	11-19	Mixed	Rural	Higher than national average	Mainly white British heritage	60%	Humanities	3	8
School F	900	11-16	Mixed	Urban	Average	Mainly white British heritage	60%	PSHCE	3	8
Total									36	

pupil numbers rounded to nearest 100 and A*-C to nearest 5% to aid anonymity

5. The interventions for each group

With sufficient details to allow replication, including how and when they were actually administered

The trial is to last from 1st October 2012 until June 2013. Before the trial commences, eligible classes are to be randomly assigned to the three arms of the trial:

1. Website Group
2. Journal Group
3. Control Group

The two intervention groups (Website and Journal) will work on the prepared activities for an average of about 15 to 30 minutes each week. The control group will not use the website or journal activities at any point during the year; it will have normal lessons which are likely to be PSHE, Citizenship or tutorial periods.

6. Outcomes

(details of pre-specified primary and secondary measures)

6.1 Primary outcome measure

Feasibility: the number of classes and proportion of pupils within these classes a) recruited and b) retained.

Pilot: the suitability of the two outcome measures will be investigated as follows:

- a. Delayed Gratification as ascertained by Kirby, Petry and Bickel's (1999) monetary choice questionnaire: see Appendix 1. The same potential rewards will be used, except in pounds rather than dollars, as this allows computation of an "impulsiveness parameter" (P79 *ibid.*). However, the likelihood of receiving the reward was greatly reduced with only one pupil in each school or year group being randomly selected to receive one prize both times the questionnaire is completed.
- b. The 'I Believe' Questionnaire was specifically developed in consultation with pupils, teachers and others to investigate attitudes to the 8 'future-mindedness' traits. The factor structure will be investigated using factor analysis to indicate whether the character traits are distinct for these pupils. The range of responses for each question will provide some evidence as to the plausibility of the scale being sensitive to an intervention i.e. not a floor or ceiling effect. See Appendix 2.

6.2 Secondary outcome measure

The two outcome measures are: a) delayed gratification and b) future-mindedness. For both measures, the change in response from each pupil from baseline to post-trial will be calculated; groups will then be compared.

7. Sample size

As this is a pilot and feasibility trial using a convenience sample of 6 schools, the numbers in the trial are not informed by a sample size calculation. Also, reasonable estimates of outcome measures were not available. Therefore, power calculations were undertaken to estimate the

likelihood of significant differences between groups for a 'medium' effect size of 0.5 using Cohen's criterion. Due to expected non-independence of scores within clusters, after estimating the required sample for a one-way analysis of variance, the sample size was "multiplied by $1 + (m - 1)p$, called the design effect, where m is the average cluster size" and p = the intra-cluster (class) correlation coefficient (Campbell et al., 2004). We know of no relevant analyses within education; however, within a range of health interventions, it has been reported that "At regional and district health authority level, p was generally below 0.01. For postcode sector level, p was generally less than 0.05, but at household level, p was mostly in the range 0.0–0.3" (Ukoumunne et al., 1999). Therefore, we assume the school effect is zero and the class effect is 0.2. For classes of 30, the design effect = $1 + (29 * 0.2) = 6.8$.

Let us assume 8 classes in each arm of the trial, $n=240$ per arm, 720 in total. Using Gpower 3.1, significance level of 0.05, power of 0.95 and effect size of 0.5, a total sample of 66 is required for one-way analysis of variance (Faul et al., 2007). With 6.8 as the design effect, the estimated total number of pupils required is 449. Working the other way, from $n=720$, the smallest effect size would be 0.39. Therefore, we anticipate sufficient numbers of pupils to detect medium effect sizes.

7.1 Randomisation

The method of allocation of classes to the three arms of this trial is of utmost importance: unless it is truly random, there is the possibility of selection bias e.g. more able students are allowed to use the computers. Random allocation depends on "unpredictable allocation sequence and concealment of that sequence until assignment occurs" (Moher et al., 2010). Therefore, all classes must have equal chance of being assigned to any of the three arms.

There is a hierarchical structure of Pupils nested within Classes which are nested in Year groups and within Schools. Therefore, to take part in the trial, there must be a multiple of 3 classes within a single school and year group i.e. it is a stratified design. This constraint has been imposed "to minimise imbalance across treatment groups" (Campbell et al., 2004, p705).

8. Sequence generation

The trial coordinator was given codes of classes for allocation within each school. The random number generator in Excel was used to allocate. Therefore, each year group in each school will have the same number of classes in each arm of the trial, randomly allocated. As allocation in one school is independent of allocation in other schools, they will be undertaken separately. This happened in July and August 2012, after teachers and classes had been confirmed.

Therefore allocation happened after recruitment of classes and teachers but before baseline assessment of pupils. There is a potential issue of selection bias of pupils as they are all pre-allocated to groups. This threat is not considered serious as high participation is anticipated; and to minimize this issue, teachers are told not to let pupils know which group they are in prior to recruitment. The non-participation rates in all groups will be reported to ascertain the likelihood of selection bias.

9. Allocation concealment mechanism

The trial coordinator, who performed the random allocation, did not know the identity of the schools or classes before allocating them i.e. codes are used.

10. Implementation

The random allocation sequence was generated by the trial coordinator, who assigned classes to the 3 arms of the trial; the lead researcher enrolled classes and participants.

11. Blinding

As this is an educational intervention, blinding is not possible.

12. Statistical methods

a) for primary and secondary outcomes, b) for additional analyses, such as subgroup and adjusted analyses

13. Primary outcome

The number of classes and proportion of pupils within these classes a) recruited and b) retained will be reported as number and percentages. Given the clustering, a modified CONSORT flow diagram will be used, including median number of pupils in each class with inter-quartile range, and minimum & maximum number in each class (Boutron et al., 2008).

14. Secondary outcome

Random effects, multilevel (hierarchical) analyses will be used for both outcomes, in MLwiN (Rasbash et al., 2009). Pupils will be nested within classes; given the small non-random number of schools and year groups, fixed effects modelling will be used for these variables. Statistical significance of both interventions will be tested using the normal test (z-test) of variance divided by standard error (Rasbash et al., 2009). Effect sizes will also be reported.

2. The Eight Character Traits

1. **Being determined** - the ability to keep going whatever happens
2. **Having courage** - the ability to do the right thing even when it is difficult
3. **Helping others** - make it easier or possible for someone to do something by offering them help
4. **Working together** - the combined action of a group, especially when effective and efficient
5. **Having patience** - the capacity to accept or tolerate delay, problems, or suffering without becoming annoyed or anxious.
6. **Saving for the future** - the quality of using money and other resources carefully and not wastefully
7. **Having a dream** - having an aspiration, ambition or goal
8. **Thinking creatively** - the use of imagination or original ideas to create something new

In the questionnaire, there are five questions about each character trait, two of which are negatively scored.

3. I Believe Questionnaire

UNIVERSITY OF
BIRMINGHAM



I Believe Questionnaire

Study: A trial of a new website and journal to develop character in 11-14 year olds.

Researcher: Tom Harrison, School of Education, University of Birmingham
Email: t.j.harrison@bham.ac.uk

Many thanks for helping us by completing this questionnaire.

For each question, please choose the answer that best fits what you believe, even though there may be times when you would take a different view.

We hope you will answer as many questions as possible, but you may miss out any questions you feel you cannot answer (or do not wish to answer).

This project has been subject to an ethical review. Anything that you write will be treated as confidential.

Please...

- only tick one box for each question.
- answer all the questions honestly

Your Name: _____

Your Class: _____

Your School: _____

I believe...

Question	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
In accepting what life gives me rather than having an ambition					
That the best things in life are worth waiting for					
I should give up if I fail					
I already know what I want to do in the future now					
That coming up with new ideas is exciting					
I should always think around problems					
In saving money for my future now					
I should help old, sick and disabled people even if I don't enjoy doing it					
I will always have the courage to stand up to bullies					
Caring is a quality that I want others to see in me					
It's good to work with lots of different people					
In today's world, there's no need to care for anyone apart from friends and family					
If you work with people you get things done faster					
It isn't my job to help people who are worse off than me					
That achieving short term goals will lead to the achievement of my long term dream					
I should always work hard					
It is important to look out for other people first rather than just thinking about myself					

I believe...

Question	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
I should live life like there is no tomorrow					
I should do things that develop my self confidence					
It's best to stick to what you do best					
It's more important to be independent than rely on others					
Setting goals will help me get where I want to get to in life					
I always try to do the right thing, even when it is hard to do so					
In finding ways to express my creativity					
It is better to dream than not dream about my future					
In living for the moment rather than planning for the future					
It's important to budget so I'm never short of money					
If I let people help me I will never learn					
If work is too hard, there's no point in trying					
I must accept that I cannot have everything now					
If I know my friends disagree, I won't speak up for things I believe in					
I get cross when people don't do what they said they would					
There's no point in arguing with people who disagree with me					

I believe...

Question	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Working with a friend to understand schoolwork is effective					
Being determined helps me succeed					
We should treat the earth well for the benefit of our children					
People who use their imagination don't get much done					
It is important to spend more time thinking about today than thinking about the future					
In spending money to have fun now rather than worrying about my future					
Learning should be challenging					

THANK YOU 😊

4. Money Now or Later? Questionnaire

UNIVERSITY OF
BIRMINGHAM



MONEY NOW...OR MONEY LATER?

Imagine if someone was going to give you some money!

Would you like to be given a smaller amount of money now or a larger amount if you waited for a while?

Please choose if you would take the money now or if you would wait for the money later for each of the options in the table below.

One person in your year group will actually get the amount of money they choose for one question – and it could be you! To make sure that you get a reward you prefer, **you should answer every question as though it were for real.**

Name: _____

School: _____

Class: _____



	You could have this much money now... Tick this box if you would take the money now	Or this much if you waited... Tick this box if you would take the money later
1	£54 now <input type="checkbox"/>	Or £55 if you wait 117 days <input type="checkbox"/>
2	£55 now <input type="checkbox"/>	Or £75 if you wait 61 days <input type="checkbox"/>
3	£19 now <input type="checkbox"/>	Or £25 if you wait 53 days <input type="checkbox"/>
4	£31 now <input type="checkbox"/>	Or £85 if you wait 7 days <input type="checkbox"/>
5	£14 now <input type="checkbox"/>	Or £25 if you wait 19 days <input type="checkbox"/>
6	£47 now <input type="checkbox"/>	Or £50 if you wait 160 days <input type="checkbox"/>
7	£15 now <input type="checkbox"/>	Or £35 if you wait 13 days <input type="checkbox"/>
8	£25 now <input type="checkbox"/>	Or £60 if you wait 14 days <input type="checkbox"/>
9	£78 now <input type="checkbox"/>	Or £80 if you wait 162 days <input type="checkbox"/>
10	£40 now <input type="checkbox"/>	Or £55 if you wait 62 days <input type="checkbox"/>
11	£11 now <input type="checkbox"/>	Or £30 if you wait 7 days <input type="checkbox"/>
12	£67 now <input type="checkbox"/>	Or £75 if you wait 119 days <input type="checkbox"/>
13	£34 now <input type="checkbox"/>	Or £35 if you wait 186 days <input type="checkbox"/>
14	£27 now <input type="checkbox"/>	Or £50 if you wait 21 days <input type="checkbox"/>
15	£69 now <input type="checkbox"/>	Or £85 if you wait 91 days <input type="checkbox"/>

16	£49 now <input type="checkbox"/>	Or £60 if you wait 89 days <input type="checkbox"/>
17	£80 now <input type="checkbox"/>	Or £85 if you wait 157 days <input type="checkbox"/>
18	£24 now <input type="checkbox"/>	Or £35 if you wait 29 days <input type="checkbox"/>
19	£33 now <input type="checkbox"/>	Or £80 if you wait 14 days <input type="checkbox"/>
20	£28 now <input type="checkbox"/>	Or £30 if you wait 179 days <input type="checkbox"/>
21	£34 now <input type="checkbox"/>	Or £50 if you wait 30 days <input type="checkbox"/>
22	£25 now <input type="checkbox"/>	Or £30 if you wait 80 days <input type="checkbox"/>
23	£41 now <input type="checkbox"/>	Or £75 if you wait 20 days <input type="checkbox"/>
24	£54 now <input type="checkbox"/>	Or £60 if you wait 111 days <input type="checkbox"/>
25	£54 now <input type="checkbox"/>	Or £80 if you wait 30 days <input type="checkbox"/>
26	£22 now <input type="checkbox"/>	Or £25 if you wait 136 days <input type="checkbox"/>
27	£20 now <input type="checkbox"/>	Or £55 if you wait 7 days <input type="checkbox"/>

THANK YOU 😊

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