Wellbeing In Our Schools Action Research Report (2019-2021)

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Foreword

Amy Carlile
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Action Research at LEO Academy Trust

At LEO Academy Trust we are dedicated to raising standards in teaching and learning and improving the achievement of all pupils and as such we pride ourselves in also providing our staff with a vast range of professional development opportunities in order to support this. One of these opportunities includes the option to take part in action research projects in order to investigate a particular area of challenge and to then use what we find out to improve standards even further for all. We are committed to developing a culture of research within our Trust where our staff engage in research to deepen their own professional understanding and to also drive forward innovative practice across all schools within the Trust and beyond.

For a number of years now we have worked closely with various organisations to continue to offer a wide range of opportunities to develop research practice. From 2019-2021, a group of staff from across the Trust came together to take part in an exciting Character Education Action Research Project led by Frederika Roberts and Elizabeth Wright of RWS|Resilience Wellbeing Success (and co-authors of “Character Toolkit for Teachers”). Character Education looks at how we can support the development of the whole child and their individual character strengths from the perspective of their personality, relationships, morals and ethics. Both Fredricka and Elizabeth expertly guided our staff through their chosen focus areas over the course of the project by delivering thoughtful training sessions and providing our staff with bespoke support where appropriate.

As we all know, the year 2020 was a year like no other and the COVID-19 pandemic unfortunately had an unavoidable impact on the completion of some of the projects involved. However, despite the challenges, our amazing staff persevered and this action research report is a celebration of the research outcomes. We are very proud of all of the staff that took part in this action research project and thank them for their hard work and dedication to research informed practice during such unprecedented times. We would also like to take this opportunity to thank Fredericka Roberts and Elizabeth Wright for their expert guidance and support throughout this project. We are now very much looking forward to the action research projects that will arise from our new cohort for 2021-2022.

Introduction

Frederika Roberts
Founder, Managing Director & Lead Trainer, Educate to Flourish CIC

What is Action Research?

Broadly-speaking, action research (AR) is practitioner-led and aims to improve practice. It tends to be more flexible than other types of research and lends itself to education due to its practical and adaptive nature. AR has been described as a spiral or cycle that includes an investigation into a problem or question and its potential solutions/answers, an action/implementation phase, investigations into the results of those actions, and the whole process then being repeated (Lesha, 2014).

AR has been used in education for some time. As early as 1954, Corey wrote that those directly involved in education (e.g. teachers, school leaders, support staff) tend to be those that embark upon AR projects in order to find solutions to practical challenges by applying more rigorous methodology than trial and error. He posited that one of the advantages of AR over more rigorous and precise scientific research conducted under controlled conditions is that its results are more meaningful as they are steeped in real-life practice. In 1989, Carr cited an article written by John Elliott in 1978 as the marker for the arrival of AR in education in the UK. According to Carr, AR was seen as a push-back against the more traditionalist, scientific-method-led (typically quantitative, theory-based) forms of research that separated an academic "elite" (p.85) from more practically-oriented teachers / educators.

As any search of academic papers and books on AR will reveal, AR means different things to different people. To some, it is a generic term indicating practically-steeped research engaged in by practitioners; to others, it represents a specific methodology. McNiff (2017) takes a more philosophical stance. She recommends that practitioners should use action research when they wish to appraise whether their work is contributing to their own or other people's learning, or whether they need to modify their practices (p.19). Her perspective on AR, namely that it is a means of "living our values in practice" that "helps to give meaning to our lives" (p.27) closely links AR to the wellbeing and flourishing of school staff who engage with it, as concepts such as *values* and *meaning* are prevalent in wellbeing and positive psychology literature (e.g. Seligman, 2012; University of Pennsylvania School of Arts and Sciences, no date).

In the context of the challenges faced by any school staff (or other practitioners undertaking AR), but particularly LEO staff undertaking AR projects under the very challenging and ever-changing circumstances presented by the COVID-19 pandemic, I feel that this quote by McNiff (2017, p.95) provides a good summary of AR:

> *"Action Research is not about working towards a perfect outcome: it is about finding ways to make sense of what is going on here and now and deciding as wisely as possible what to do next. This is a core difference between the constrained vision of traditionalist research and the more unconstrained vision of action research."*

Action Research at the LEO Academy Trust

After Malinda Young (who was Associate Principal - Opportunity Hub - at the LEO Academy Trust at the time) had attended the Challenger Multi Academy Trust's (CMAT) "Character in Education: Action

Research Report 2018/19" (Roberts & Wright, 2019) presentation event showcasing the AR projects carried out by CMAT staff, Educate to Flourish CIC (E2F) were invited to work with the LEO Academy Trust in supporting their staff to carry out wellbeing-oriented AR projects.

Elizabeth Wright (E2F Associate Trainer) and I began working with a group of staff from schools across the LEO Academy Trust (LEO) in the autumn of 2019, first running a taster workshop to outline the programme and invite staff to join, then running a twilight Character and Positive Education introductory workshop, followed by a full day's research methods training. LEO action researchers then had a few months to do some background reading and preparation / planning before beginning their AR projects.

Just as most of the projects began to take off in earnest, the COVID-19 pandemic struck and the country went into lockdown, leaving schools running on reduced staff, teaching some children in school and others through virtual classrooms. Workloads and anxiety levels for many staff escalated rapidly and, in addition to this, the absence of many children from their physical classrooms created practical challenges for staff who had not yet completed the research elements of their projects, preventing them from proceeding as planned.

Elizabeth and I remained in close contact with LEO and its action researchers and ran the twilight report-writing / support workshop as planned in the spring of 2020, with the main focus of the session being on how everyone's research had progressed, how their projects could be adapted to the circumstances, how staff could write up what they had already done, and how else we could support them. In preparation for the LEO Annual Conference in October 2020, LEO action researchers submitted interim reports outlining the work they had completed to date and any conclusions they were able to draw from their research. Elizabeth and I presented these interim reports verbally as part of our keynote presentation at the virtual conference (LEO, 2020).

Projects run by the 2019/20 cohort of LEO action researchers included:

- exploring the development of self-reflection in reading, using the language of character strengths, in Year 2;
- investigating how to improve perseverance in Key Stage 2 children;
- examining the impact of negative behaviour on the attainment and self-esteem of peers in the classroom;
- researching whether working on perseverance improves girls' academic achievement; and
- testing whether drawing and colouring activities can reduce anxiety for Key Stage 2 children before their SATs tests.

Given the continuing disruption and workload implications of the COVID-19 pandemic, timescales for the initial LEO cohort were extended, so that staff who needed more time to write up and/or re-run their research projects with new classes could do so.

It is absolutely understandable that a number of participants felt unable to continue with their research under the circumstances and due to changing work roles / responsibilities; it is laudable that they recognised the need to prioritise what would be realistically possible without affecting their wellbeing, and that the LEO leadership fully supported them in their choices. I would also like to

express my sense of awe and admiration for those staff that completed their research and / or decided to re-start with the 2021/22 cohort in the summer of 2021. It is therefore with an immense sense of pride in and recognition of the efforts and achievements of the 2019/20 cohort under extremely challenging and unprecedented circumstances that I write the introduction to this report.

Next steps

The 2021/22 cohort of LEO action researchers is already well underway. Following a virtual information session and an (also virtual) introductory twilight Character and Positive Education training session, they had a full day's research methods training (in person) in June 2021 and, at the time of writing, are doing their background reading and preparation and / or beginning to run their research projects. Their research reports are due to be published in March 2022.

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How can perseverance be improved in KS2 children?

Tia Bullen
Year 5 (Year 3 during research) Teacher, Cheam Common Junior Academy

Introduction

"It's not that I'm so smart; it's just that I stay with problems longer."
Albert Einstein

Perseverance is arguably one of the most important character strengths we require of our pupils in the classroom. Without perseverance, pupils lack motivation and give up on challenges easily, hindering their educational development. In my research, I aimed to investigate whether I could improve the perseverance of my class over the course of 8 weeks. I planned and delivered a series of intervention lessons and adopted simple-to-implement techniques throughout my classroom practice. Near the end of the study, the children moved to distance learning due to the outbreak of the COVID-19 pandemic.

Background Research

Perseverance is often used synonymously with *resilience* and *grit*, with some researchers trying to individually define the three terms. Masten and Powell (2003, p.4) write: "Resilience refers to patterns of positive adaptation in the context of significant risk or adversity." Furthermore, Merriman (2017, p.338) discusses scholars' varying definitions of perseverance, often linked with the term *grit*, but states that "Perseverance is defined... as the voluntary continuation of a goal-directed action in spite of obstacles, difficulties, discouragement, boredom, tedium, or frustration… From the perspective of positive psychology, perseverance is a character strength associated with psychological health."

Duckworth *et al*. (2007) argue that grit may be the quality that sets highly successful individuals apart from everyone else. They believe that this grit can be taught through changing children's mindsets about skill development. If children believe that when they struggle they must lack the ability to solve the problem, they give up. It is important for pupils to understand that it is part of the learning process to feel confused when learning something new.

Closely linked with these concepts is the work of Dweck (2006), who developed the concept of *growth mindset*. She states that individuals who believe their talents can be developed (through hard work, good strategies, and input from others) have a growth mindset.
Claxton (2002) has carried out various research surrounding perseverance. He believes that perseverance can be supported by creating a classroom climate that prizes effort over attainment and the feeling that students can fail safely. A strong advocate for developing learning characteristics through modelling, Claxton (no date) states that, "The attitudes, values and interests that a teacher displays in the classroom, knowingly or not, constitute arguably the most powerful medium through which the messages of learning rub off on students".

Notably, Toshalis (2015) argues that a lack of perseverance in learners can be used as an easy explanation for their failure, rather than pedagogical factors, absolving adult responsibility. He continues to state that adults must deliberately foster perseverance; it needs to be a valued product of good teaching rather than a prerequisite for learning.

Taking account of the literature surrounding perseverance, grit and resilience, it seems imperative that fostering perseverance in the classroom should be seen as an important duty of educational professionals. Interest has been growing in *skills-led curricula*, where leaders place an emphasis on developing learning characteristics in schools (Ofsted, 2019). With this in mind, I developed a research study to explore whether I could measurably improve the perseverance of children.

Methodology

The research took place using a class of 26 Year 3 pupils (7 - 8 years old). A mixed methods repeated measures methodology was used, with a focus on quantitative data with some qualitative data collected alongside. Children were assessed before and after the 8-week intervention, which was interrupted by school closure due to the COVID-19 pandemic.

In order to gain a multi-dimensional picture of children's perseverance before and after the intervention, methodological triangulation was used (a 'challenge' task and a self-assessment). Firstly, near the start of the spring term, the class were set an *"*impossible" challenge: They were asked to solve Sam Loyd's *Famous Trick Donkeys puzzle* (Figure 1). Although technically possible, the children found it very challenging to complete the task, and none of them solved it within the allocated 20-minute time limit. The children were told they were allowed to give up at any time by signalling to me they wanted to stop and I recorded the time they chose to opt out at.

After this challenge was carried out, I introduced the children to the concept of perseverance with videos and discussion. Once the children were confident with the idea, they completed their first self-assessment, a sliding scale of perseverance with simple descriptors (Figure 2).

The children then experienced, in groups of 15, 3 hours of intervention activities over three weeks. These included exploring *The Learning Pit* (Nottingham, 2010), in which children were taught that *being stuck* was part of the learning process. We explored *growth mindset* (Dweck, 2006), what perseverance looked like, and strategies they could apply in their everyday learning. Perseverance was modelled throughout the day through the *think-aloud* teaching method. This out-loud verbalising of thought processes is recognised as a highly effective method by academics, including Gold and Gibson (2001) who state that modelling encourages children to develop the "habits of mind" (section 5).

The children were motivated to persevere, and to notice perseverance, through a recognition ceremony at the end of each school day. The children themselves nominated each other, citing a specific incident within that same day where they observed the nominee persevering. I made sure to praise every child who contributed to nominating or was nominated. I shaped their language throughout, to make sure they were being specific and referring to perseverance rather than, for example, kindness. One child was chosen, each day, to receive a LEO Academy "Don't Give Up" sticker and a photo of their face was placed on our perseverance award poster. Dweck (2006 p.170) states that "Praising children's intelligence harms their motivation and it harms their performance." By shifting the focus of my praise to their effort and perseverance, I aimed to change the children's mindsets about learning.

At the end of the research period, both the “impossible” challenge (this time a riddle) and the self-assessment were repeated for comparison. These had to be completed through an online platform due to the COVID-19 distance learning arrangements put in place at the time.

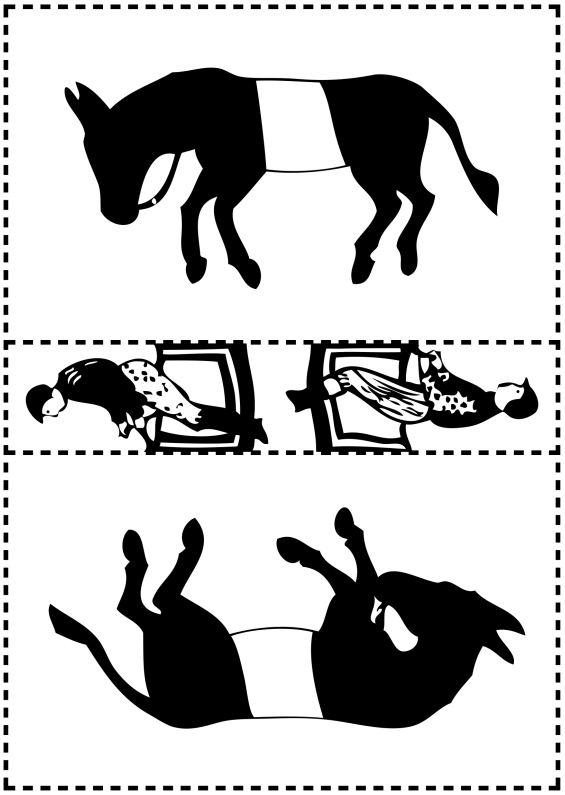

Figure 1: Sam Lloyd’s Famous ‘Trick Donkey’ puzzle (Copyright: public domain)

Figure 2: The self-assessment scale

Results

Puzzle tasks

	% of children who gave up between the following times:	
	Baseline Assessment	**Secondary Assessment**
0 - 5 minutes	15.38%	23.08%
5 - 10 minutes	7.69%	11.54%
10 - 15 minutes	7.69%	26.92%
15 - 20 minutes	34.61%	19.23%
Did not give up	34.61%	19.23%

Table 1: Comparison of % of children who gave up after a set amount of time in the first and second puzzle

Self-assessment Scores

	% of children who chose each descriptor	
Descriptor	**Baseline Assessment**	**Second Assessment**
Give up before I've even started	0%	0%
Easily discouraged	15.39%	11.53%
Try to get away with as little effort as possible	42.31%	23.07%
Try to overcome difficulties	38.46%	50%
Enjoy the struggle	3.85%	11.53%
Always persevere	0%	3.84 %

Table 2: Comparison of children's self-reported perseverance between baseline and second assessment

% of children who improved self-reported score	
No increase	15.38%
Increased by 1 descriptor	57.69%
Increased by 2 descriptors	19.23%
Increased by 3 descriptors	7.69%
Increased by 4 descriptors	0%

Table 3: How many descriptors children improved by on their self-reported questionnaires

Post Study Interviews, conducted online

"I really enjoyed learning about perseverance, especially when we did the donkey puzzle. I think that my perseverance has improved." - Child A

"I didn't know anything about perseverance until we had some lessons about it, and now I know how I can be good at it." - Child B

"I stick with problems a little bit longer than I used to, for example when we do tricky stuff in the maths lessons." - Child C

Discussion

Unfortunately, but arguably interestingly, this study was interrupted part-way through by a school closure as a result of the COVID-19 pandemic. It is therefore possible that the experiences children

went through at this time impacted their results. Undergoing a period of national crisis may well have developed many character strengths, including perseverance.

Tables 2 and 3 (results of the self-assessment questionnaires) show an increase in perseverance in many children. This could imply that my intervention was successful in improving the perseverance of these children in the study. However, this self-reported increase could be due to demand characteristics. The children were aware they were taking part in a project to increase their perseverance, and their second assessment may reflect a desire to please their teacher. Furthermore, Claxton (2002) states that it takes years for children's learning characteristics and attitude to change; as the research and intervention took place over just three months, it may not have caused deep-level change.

The timed puzzles show a contrasting picture: Table 1 shows that the children persevered for less time in the 2nd puzzle than the baseline. The children found the baseline challenge ("Trick Donkeys" puzzle, Figure 1) incredibly engaging and lots of children were still attempting to solve the puzzle when the 20 minutes ended. The second puzzle, undertaken at the end of the study, had to be completed online. The riddle, which was just text on a screen, was arguably far less engaging for the children. Therefore, this is a poor comparison and may account for the difference in the scores. It would have been a more effective comparison if the puzzles had been more similar; for example, two different tangram puzzles could have been used.

Within our end of day discussions and nominations for the daily award, children became increasingly adept at noticing and discussing characteristics of perseverance. Lots were able to accurately identify a moment in the day where they witnessed perseverance. In addition, the reflections collected from the children at the end of the project support the notion that children improved their understanding of what perseverance is and how to demonstrate it.

In conclusion, my study shows some indication that children's perseverance may be improved in a short time span through simple-to-implement techniques. Looking forward, it would be beneficial to repeat this study with a larger sample of children, uninterrupted by COVID-19. Using teacher assessment of perseverance, rather than self-assessment, may also return more reliable results.

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Can free drawing and colouring activities help to reduce test anxiety in children?

Malinda Young
Formerly Associate Principal (Opportunity Hub), LEO Academy Trust

Introduction

The research question was developed after a noticeably greater emphasis on mindfulness and wellbeing in Primary Schools. With the introduction of a new Relationships Education, Relationships and Sex Education (RSE) and Health Education curriculum (DfE, 2019) statutory guidance due to be implemented in September 2020, aiming to develop skills and attributes such as resilience, self-esteem, risk-management, team working and critical thinking, it is something that I was particularly interested in and wanted to look into further. Also, as a senior leader in a Multi Academy Trust (MAT), I have been heavily involved in the KS2 SATs and as a former Year 6 teacher, I am well aware of both the positive and negative effect that testing can have on pupils. Over the years I have experienced many anxious pupils, particularly during the SATs tests, and as someone who also experienced anxiety when being tested, I wanted to explore whether there was a simple way of overcoming this, as sadly testing is something that I believe will always be a part of education. Therefore, this study has been developed to explore the link between reducing test anxiety and free drawing and colouring.

SATs assessments were brought in following the introduction of a National Curriculum to schools in England and Wales under the Education Reform Act 1988. As the curriculum was gradually rolled out from 1989, statutory assessments were introduced between 1991 and 1995, with those in Key Stage 1 first, followed by Key Stages 2 and 3 respectively as each cohort completed a full Key Stage. The assessments were introduced only for the core subjects of English, Mathematics and Science. There have been many changes over the years to the format of the tests, and despite many unions campaigning to have them boycotted, they still remain. At LEO Academy Trust, our pupils achieve excellent SATs results but there is naturally a lot of anxiety along with this.

The main purpose of this study is to discover whether free drawing and colouring activities reduce anxiety in a test situation for children. This study took place in a successful Junior Academy which was, in fact, the second school in the Trust. The school was rated “Inadequate” following an Ofsted inspection in 2014, so it joined the LEO Academy Trust in January 2016. After a period of rapid improvement, the school then was rated “Good” in September 2018 and is now in the top 3% of schools, nationally, for their SATs results. Naturally, there is pressure to continue this high level of achievement and this particular school therefore seemed to be the ideal choice of schools to conduct the study in. At the time of the study, there were 480 pupils on roll, however this study focused on one Year 6 class of 30 pupils. In my research, I aim to investigate whether I can reduce the anxiety of pupils over the course of a week, during their mock SATs tests. I planned and delivered a process to carry out at the start of each day before the SATs test. Near the end of the study, the number of pupils in school declined due to the outbreak of the COVID-19 pandemic. At all stages of the research, there was never a full class, which may have impacted significantly on the results.

Hypothesis

I anticipated that free drawing/mandala colouring tasks would reduce test anxiety. I also hypothesised that there would be little or no difference in anxiety reduction between the free drawing and mandala colouring. Carsley and Heath (2017) found in their research that participants in both the mindful colouring and free drawing groups both reported significant reductions in test anxiety. They also found that there was very little difference between gender, which is why gender was not taken into consideration for this study.

Methodology

The methodological issue I faced was how to measure the level of anxiety in 10-11 year olds both before and during the study. From research, I discovered the State-Trait Anxiety Inventory for Children State form (STAIC-S), developed by Spielberger (1973). It contains 20 items, and is one of the most frequently used self-report instruments for evaluating children's anxiety. The STAIC-S offers high reliability and satisfactory validity and is widely used to assess children's anxiety. For example, it has previously been used in conjunction with surgery. Nilsson, Bucholtz and Thunberg (2012), however, state in their research that despite the wide use of STAIC-S, it has several limitations, such as its length and complexity of use. Children with limited linguistic competency and/or reading ability also need help from their parents to fill out the STAIC-S, risking its reliability and validity. Therefore, I decided to adapt the Short STAI (state-trait anxiety inventory) (Spielberger, 1973), adding emojis, which I knew our pupils were more familiar with, in order to create a *Feelings Survey* for the pupils to complete each day (Figure 1).

		Not at all	Somewhat	Moderately	Very much
I feel calm		1	2	3	4
I am tense		1	2	3	4
I feel upset		1	2	3	4
I am relaxed		1	2	3	4
I feel content		1	2	3	4
I feel worried		1	2	3	4

Figure 1: Feelings Survey

All pupils in the class that were present in school on the first day of the mock SATs test completed the Feelings Survey before taking their first mock SATs test. On this first day, I explained how to complete the survey and ensured that they understood the terminology. There was an opportunity for pupils to ask questions, but there were none. Then on day two, I explained the process they were taking part in during the rest of the week. Each day, as the pupils arrived at school, they completed the feelings survey following a silent five minute period of either free drawing or colouring. The activity of free drawing or colouring was randomly selected by the pupil choosing an envelope on day two and they continued with this activity throughout the week. They did not know whether the envelope contained a colouring page or blank paper until opening the envelope. After the five minutes of silent free drawing or colouring, they completed the Feelings Survey, then started their mock SATs test.

Letters were sent out to all parents ahead of the study informing them of the research taking place.

Findings and Analysis

All the data was collected over a period of four days. At the start of the study, there were 27 pupils, which reduced to 13 pupils by the end of the week. At the start of the study, pupils were mostly somewhat *calm*, not at all *tense*, not at all *upset*, moderately *relaxed*, moderately *content* and not at all *worried*. As the pupil numbers dropped significantly, I looked at the data for just the 13 pupils who were there for the whole four days (Table 1).

Day 1	I feel calm	I am tense	I feel upset	I am relaxed	I feel content	I feel worried
Not at all 1	2 (15%)	7 (54%)	12 (92%)	3 (23%)	2 (15%)	5 (38%)
Somewhat 2	6 (46%)	3 (23%)	1 (8%)	4 (31%)	4 (31%)	3 (23%)
Moderately 3	5 (38%)	3 (23%)	0	5 (38%)	6 (46%)	4 (31%)
Very much 4	0	0	0	1 (8%)	1 (8%)	1 (8%)
Day 2	**I feel calm**	**I am tense**	**I feel upset**	**I am relaxed**	**I feel content**	**I feel worried**
Not at all 1	1 (8%)	9 (69%)	13 (100%)	2 (15%)	1 (8%)	4 (31%)
Somewhat 2	2 (15%)	3 (23%)	0	6 (46%)	6 (46%)	6 (46%)
Moderately 3	7 (54%)	1 (8%)	0	5 (38%)	4 (31%)	2 (15%)
Very much 4	3 (23%)	0	0	0	2 (15%)	1 (8%)
Day 3	**I feel calm**	**I am tense**	**I feel upset**	**I am relaxed**	**I feel content**	**I feel worried**
Not at all 1	3 (23%)	7 (54%)	9 (69%)	5 (38%)	3 (23%)	7 (54%)
Somewhat 2	2 (15%)	3 (23%)	4 (31%)	1 (8%)	5 (38%)	2 (15%)
Moderately 3	7 (54%)	3 (23%)	0	5 (38%)	4 (31%)	1 (8%)
Very much 4	11 (85%)	0	0	2 (15%)	1 (8%)	3 (23%)
Day 4	**I feel calm**	**I am tense**	**I feel upset**	**I am relaxed**	**I feel content**	**I feel worried**
Not at all 1	1 (8%)	8 (62%)	11 (85%)	4 (31%)	4 (31%)	4 (31%)
Somewhat 2	4 (31%)	4 (31%)	1 (8%)	3 (23%)	5 (38%)	6 (46%)
Moderately 3	3 (23%)	1 (8%)	1 (8%)	4 (31%)	4 (31%)	2 (15%)
Very much 4	5 (38%)	0	0	2 (15%)	0	1 (8%)

Table 1: Pupil responses to the Feelings Survey over the course of the study

Overall there was an increase by the end of the four days in how calm pupils felt. Pupils who felt worried changed very little throughout the week. There was a little increase in how upset pupils felt. There was little change with how tense or relaxed pupils felt throughout the week. Therefore, the hypothesis was confirmed slightly; results of the study suggest that a feeling of calm can be increased following a colouring / free drawing activity. The majority of the pupils who were there for the whole study had randomly selected to free draw rather than colour. This may have increased the feeling of calm, however it is difficult to compare due to the small number of participants.

Discussion

The Year 6 class numbers reduced each day due to the outbreak of the COVID-19 pandemic. This is likely to have had an impact on the results. The increase in worry or upset for some pupils may have been due to the pandemic, which would have affected the results. Also, pupils were aware that the tests were “mocks”, therefore the seriousness of the tests perhaps caused less anxiety than tests that meant more to them. Carsley and Heath (2017) found that an effective method to elicit test anxiety was to tell pupils that the results of the test were going to be shared with their parents. Teachers in my study school are very good at talking to their pupils about the tests to put them at ease and make them a part of everyday school life, so at the start of the week the pupils showed they were actually quite calm and relaxed anyway. It is also possible that pupils became less tense as the week went on because the testing regime felt more familiar each day.

If the research was to be repeated, the timing of the study would need to be taken into account, although it was of course not possible to have known about the pandemic when planning this study! Would pupils feel differently about a test if they knew the test had significant meaning? The ethics of this would need to be carefully considered, however. It would also be interesting to carry out the study in more schools with a larger number of pupils to see whether results are similar.

A further point for consideration could be that, in future studies, it would be interesting to have a control group by giving some pupils either no activity to do before the test or, so it’s less obvious to them that they’re doing “nothing” while others have something to do, a completely unrelated placebo activity.

Another possibility could be to run the study with two classes; one class doing the free drawing / colouring activity and another doing no activity as a control group, but still being measured for comparison.

Finally, it would have been interesting to compare the results for those that did the free drawing and for those that did the colouring, to see whether there was a difference, but with such small numbers in this study, it would be difficult to draw any significant conclusions.

Conclusions

As this was a small-scale study, conducted only in one school with a small number of pupils, the conclusions cannot be generalised. However, conclusions can be drawn from the literature review and the data analysis to show clear links between colouring / free drawing and a reduction in anxiety. If colouring / free drawing became part of the testing process in schools and time was given for this, schools may see a benefit for pupils' mental wellbeing based on this research. As Carsley and Heath (2017) suggested, educators should consider incorporating coloring / free drawing activities in their classrooms before tests for pupils who may be experiencing test anxiety.

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Does the characteristic of perseverance improve academic achievement in girls?

Paula Holmes
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Editor's note

Paula was a member of the 2019/20 Action Research Cohort for the LEO Academy Trust, but due to significant disruption caused by the COVID-19 pandemic, she was unable to complete her project at the time. She has joined the 2021/22 cohort in order to re-start her project with her new Year 1 class. Below is a brief overview of the progress she made with her initial research; as she had only just started the research element of her project when the pandemic disrupted schools, the findings reported below are very rudimentary / preliminary. Paula's final report, based on her new research project, is due to be published in the 2021/22 Action Research Cohort's report.

The Initial Project

I was keen to work on perseverance, and specifically on examining the impact of perseverance on achievement for girls in my class. At the time the project was interrupted by the COVID-19 pandemic, I had begun doing some work on growth mindset with the children and had carried out the initial assessment questionnaire, assessment task and follow-up questionnaire after the task. I had not begun doing any work on perseverance yet, and had therefore also not carried out the follow-up assessment task and associated self-evaluation questionnaires.

The process

I worked with 10 girls in my class who I'd noticed were quick to finish or not complete tasks without lots of encouragement. The initial assessment activity was for them to build a tower out of cards. The girls self-reported on how they felt prior to the task, then I observed them during the task and noted down my observations. The girls also self-reported on how they felt immediately after the task. I recorded the amount of time the girls spent on the task.

Initial findings

Before the task, most of the girls (9/10) reported positive feelings (5 "excited", 4 "happy"). At the end of the task, fewer girls reported positive feelings (7/10). Two girls reported feeling "frustrated" and one was "upset", though the number of girls reporting feeling "happy" rose from four to five and one girl's self-assessment was that she felt "proud".

From my observations, I noted that most girls (7/10) were very focused and didn't talk during the task, but that the majority of girls (7/10) did not ask for help, though most (6/10) accepted help when offered and acted on my suggestions.

Most of the girls took seven minutes or longer (up to ten minutes) to complete the task, and most (9/10) built something, though only one girl completed a tower.

A summary of all recorded data is shown in Table 1, below.

Pupil	Feeling before	Feeling after	Amount of chat	Looked during task	Suggestion used?	Successful card stack?	Approximate time taken	Asked for help?
1	Excited	Happy	Zero	Serious	No	Pile	1-2 mins	No
2	Happy	Happy	Zero	Happy	A few times	1 layer	10 mins	No
3	Excited	Happy	Once	Happy	No	1 layer	8-9 mins	No
4	Happy	Proud	Zero	Distracted	A few times	No	4-5 mins	No
5	Happy	Happy	Zero	Serious	No	1 layer	8-9 mins	No
6	Excited	Happy	Zero	Happy	Yes - followed	1 layer	10 mins	No
7	Excited	Excited	Zero	Confident	No	Pile	1-2 mins	No
8	Happy	Upset	Throughout	Serious	Yes - followed	1 layer	7-8 mins	Yes
9	Excited	Frustrated	Throughout	Serious	Yes - followed	1 layer	10 mins	Yes
10	Scared	Frustrated	Throughout	Happy	Yes - followed	Tower	10 mins	Yes

Table 1: All recorded data

Discussion

It was interesting that the girl who felt scared at the start and frustrated at the end of the task was the only girl who completed the task successfully, having built a tower, and that the girl who felt proud at the end of the task was the only girl who had not built anything out of the cards. Further discussion with the girls to understand their feelings and their perceptions of perseverance may have provided further insights.

If we had been able to do the work on perseverance, followed by the post-intervention self-evaluation, assessment task and follow-up self-evaluation, it would have been interesting to note any changes in the girls' self-evaluations before and after the challenge, and their behaviours during the task. Perhaps the frustration and upset some of the girls felt were due to a lack of understanding that struggling and feeling frustrated are part of learning? Would the work on perseverance result in higher numbers of girls spending longer on the assessment task?

Next steps

I plan to re-start the research with my current Year 1 class. From my experience last year I have chosen to shift the focus from a set group to incorporate the whole class and will then select a random sample to show my findings. I am keeping with the characteristic of perseverance and linking this still with a *growth mindset* - since the last research project, we have introduced the *zones of regulation*, which will also link into my research.

How does the development of self-reflection in reading, using the language of character strengths, impact on learning in Year 2?

Sally King
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Editor's note

Sally was a member of the 2019/20 Action Research Cohort for the LEO Academy Trust, but due to significant disruption to her project, caused by the COVID-19 pandemic, she was unable to complete her project at the time. Her plan was to re-start her research project with her new class in the Autumn Term of the 2021/22 academic year, but due to a change in circumstances - she has now taken on the responsibility for implementing a new whole school reading and phonics programme - she is currently unable to continue her research due to time constraints. The overarching theme and purpose of the LEO AR projects supported by E2F is, after all, wellbeing and supporting flourishing of pupils and staff in the Trust's schools, so it is important for staff to recognise, as Sally has, when additional projects would place too heavy a workload burden on them, and prioritise accordingly.

The Project So Far

For this project, I focused on the six character strengths of: *love of learning, curiosity, zest, hope, perseverance* and *creativity*.

So far, I have:

- Collected baseline data - reading assessment data, initial reading reflections and initial collection of which of the above strengths the children thought they used when thinking about their reading then ranking them in importance;
- Introduced the children to each of the strengths and discussion of what they meant;
- Invited the class to think about what the term the term "reflect" means and how it can help with learning;
- Helped the children identify character strengths used by characters in stories about books and reading;
- Begun modelling the use of the terminology of the six character strengths when giving feedback in guided reading and individual reading sessions, focusing on one strength per session, with an initial focus on *curiosity*, *perseverance* and *zest*.
- Begun initial work on *hope* to encourage children to set their own targets / next steps and think about how they can achieve them.

Initial Findings

These were my initial findings, based on anecdotal observations:

- Children responded well to the things they do being given a name, e.g. the child who is "over eager", not waiting etc. is now "full of zest" for their reading.
- Children were beginning to develop their understanding of each of the strengths as seen through their use of the terminology in the correct context.

- Children were able to identify the strengths in the characters in stories and were beginning to offer explanations.
- Children spontaneously started using the character strength terminology in other areas of the curriculum during class discussions and when giving peer feedback.
- One child incorporated the character strength of *zest* when describing a character.
- The initial work on *hope* was starting to show that, when changing the terminology from "What would you like to get better at?" to "What do you hope to be able to do …?" the children were getting more focused in their responses and showed more self-awareness of their own needs. Anecdotal observations inferred that this was especially the case with low ability children. One child, when asked at the beginning of the project what they would like to get better at with their reading, replied "everything"; when asked at a later point in the project what they hoped to be able to do with their reading, they replied "I hope to be able to read longer words." We were then able to think together about how they might be able to achieve this.

Next Steps

I was only about a third of the way into the research part of the project when school partially closed for lockdown and then Year 2 wasn't one of the year groups to return.

When reflecting on where the project had got to and how it was going, although all the evidence so far had been positive, it became clear to me that it had many strands, each one worthy of its own research project. I would not be able to continue from where I left off in September 2021 as I would have a new class of children. Additionally, were I in a position to re-start my research, CPD during lockdown has provided me with new skills that I would be able to use for more efficient data collection, e.g. the use of Google Forms and the "Read&Write" Google extension.

Had I been able to resume my research project, my focus would have been on just one character strength: *Hope*. In this current, strange situation, the character strength of *hope* would also have felt very apt.

Despite not being able to continue my research project, I plan on using the strength of *hope* when reflecting on reading in the classroom, both for my personal and professional growth and to benefit the children, but without the rigorous data collection, analysis and report-writing that the action research project entails.