

Supporting pupil progress: a detailed analysis of one child's holistic development, with justification for the next steps in learning.

Introduction

This report focuses on one child within a year 3 classroom. It uses the 'Mosaic Approach' model (Clark and Moss, 2011) to collect data, through a variety of methods including observation, interviews and child-led challenges, to form a holistic view of the focus child's development. The ASK model (Nottingham, 2013) is used as a guide for reflections and analysis of the data, and in supporting development of tailored next step strategies to further their learning journey.

The context for this study was a year 3 class within a large 2-form entry primary school in the Vale of Glamorgan. The school is a pioneer school for both digital competence and professional learning (Welsh Government, 2017). The most recent data shows that 34.4% of pupils are eligible for free school meals (Welsh Government, 2018). When this is contrasted against the local authority average of 13% and the national average of 18%, it highlights quite clearly that the school is within an economically deprived catchment area.

The school has a forward-thinking approach and has already adapted recommendations from the new curriculum into their KS2 learning structure. This involves a carousel system where learners rotate around 3 different tasks; a teacher led focus activity, a pupil-choice challenge zone and computer-based challenges using digital learning platforms.

Consent to undertake research was obtained from the class teacher (**Appendix J**), and all data collection complied in accordance with school policies. The focus learner, who was identified through consultation and advice from the class teacher, will be referred to throughout this report as 'Child O' in order to maintain appropriate anonymity in line with the ethics of educational research (BERA, 2018). They are an outwardly social middle ability learner with an aptitude for creativity and physical activity

Data collection

The Mosaic approach was used as a model for the data collection. This child-led approach involves bringing together data and information from different sources (Clark and Moss 2011; Greenfield 2011). Clark and Moss (2011) outline this approach as being formed of 3 stages. Stage 1 is the information gathering stage; where a variety of different research tools are used to collect data. Stage 2 is when the information is collated together to form

the 'mosaic' whole which then forms a centre point for discussion and reflection (Clark and Moss, 2011; Greenfield, 2011). Stage 3 is the decision-making stage, where the information and reflections are used to make decisions on an outcome, or what the next steps should be (Greenfield, 2011). The information should take a variety of different forms including visual, verbal and creative (Baird, 2013), which when combined together give a more complete picture of the problem or learner (Greenfield, 2011; Baird, 2013; Clark and Moss, 2011).

A selection of research methods (**Figure.1**) were adapted from Clark and Moss (2011) and included a mixture of traditional methods (e.g. Child Observations) and child-led methods (e.g. Photo Challenge). In compliance with BERA (2018) guidelines verbal permission was sought from all children involved before any of the research activities took place. It was also highlighted that they were able to withdraw their consent at any time, including after the activity had finished.

Observations were made of both Child O's actions and discussions in lessons as well as her interactions in more informal settings such as during playtimes. These observations

Research Tool	Outline of its use
Observations	Notation based observations of Child O in a range of settings. From detailed notation of Child O's interactions in specific lessons to noting whom she chooses to dance or play with.
Semi-formal group interview	Audio recorded, group Interview with Child O and 3 friends, in an open communal area.
Photo Challenge	Child O and another learner were challenged to take 10 photos of places, objects or people within the school that were important to them.
'All about me'	This was to be creative poster, utilising a range of targeted boxes e.g. "When I'm older I want to be..." and "Three keys things my teacher should know about me". Unfortunately, Child O was absent and unable to be offered chance to undertake this task.
Pupil Work	Photographs of a selection of Child O's work were collected.
Figure 1: The research methods selected for this study and the context of their use.	

took a range of forms, with some being detailed records of a 30 min lesson and others being a notation of who she chose to play or dance with on a particular day. Observation is a well-used and useful research tool, it enabled the study of Child O interacting with tasks and her peers in a range of settings. There are a number of weaknesses which must be considered when using observation as a research tool. Principally, it is important to be aware of observer bias or interpretation, which could affect how the observation is recorded and potentially prejudice the outcome (Cohen et al. 2007; Sharp, 2012). Secondly, knowing that she was being observed could have had an influence on the words and actions of Child O (Cohen et al., 2007).

In addition to the observations I also undertook an informal semi-structured group interview aimed at getting to know about and asking questions of Child O. The decision was made not to single her out for a 1:1 interview with a teacher; as an authority figure I could be perceived as intimidating (Cohen et al. 2007). This would potentially affect the interview outcome as well as making Child O feel singled out. In consideration of Child O's comfort, she was asked to choose some friends to join her. Greig, MacKay and Taylor (2007) posit that group interviews are good for generating ideas and increasing confidence, leading to a more normal conversation atmosphere. Certainly, in this instance, combined with an open and communal setting, the children's relaxed attitudes and cheerful discussions, support this theory. On reflection, it should be considered that some of Child O's thoughts and ideas were influenced by her peers. There were also points within the interview where another child interrupted or changed the topic, perhaps preventing Child O from further elaborating on an idea or opinion (Cohen et al., 2007; Greig, MacKay and Taylor, 2007).

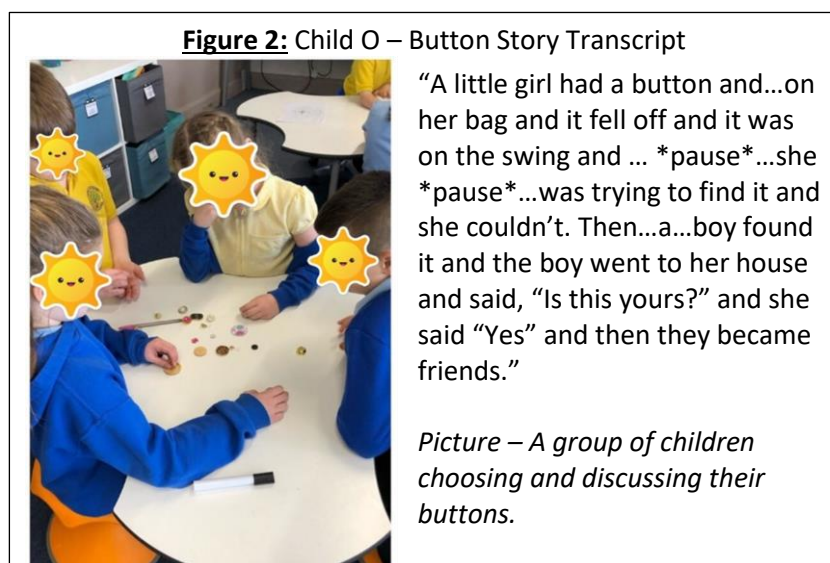
Photographs are a key tool within the mosaic approach. Not just photographs of the learners and their work, but photos taken by the learner (Clark and Moss, 2011; Greenfield, 2011). In essence it is about handing over control, and the camera, to the learner; they can use to camera to take photos of anything that takes their interest, creating a sort of photo novella (Greenfield, 2011). This is part of the child-led ethos that the mosaic approach is built around; empowering learners to become their own researchers. This has the obvious positive of putting the learner in control, meaning the collected data is directly reflective of their thoughts and opinions. On the other hand, care still needs to be taken when examining and reflecting on these photos. The children need to be involved at this stage too. In order

to know what a child was thinking when they photographed something, the simplest thing to do is ask them (Clark and Moss, 2011; Greenfield, 2011)

I structured the photo novella as a photo challenge. Child O and another learner were challenged to take 10 photos of things at School that were most important to them. Prompting included highlighting that this could be a people, places or objects. A positive of including another learner, is similar to benefits of a group over an 1:1 interview. Child O interacted well with the other learner and they bounced ideas off each other of things they could photograph. Whilst exploring the school and taking pictures they displayed a relaxed attitude which could have several explanations including that they were enjoying the novelty of being out of class, being able to choose where to go, and that they had a friend to keep them company. A negative consideration is that the two learners may have influenced each other in their photographic choices. Certainly, there are strong similarities between the two sets of photos (**Appendix H**). Photographic records of Child O's work were also collected.

Analysis of learner

The ASK model (Nottingham 2013) breaks down learning into three core principles; the attitude of the learner, the skills of the learner and the knowledge of the learner. Nottingham (2013) argue that these form the foundation blocks for successful learners who know 'how to learn' (Nottingham 2013; p2). This framework can be used as a focus point for analysis, assessment and planning (Nottingham, 2013).



At the time of the study, Child O's class inquiry centred around storytelling, with the end project being to write and produce a picture book for a younger child. As it was the beginning of the inquiry many of the activities and lessons centred on exploring previous knowledge, asking questions and finding out what they needed or wanted to know. One example is 'the button activity'; exploring storytelling using a button. Each learner chose a button from a selection and imagined where it had come from and what had happened to it. The end goal of this oracy based activity was for learners to film each other telling their stories. **Figure 2** is a transcript of Child O's recorded story.

A review of this lesson shows it to be aimed at supporting the development of the attitudes and skills aspects of the ASK model (Nottingham, 2013); encouraging the development of curiosity, creativity and oracy skills. Child O's story has several good points to it, including that it has a basic structure (beginning, middle and end) and includes direct speech. On the other hand, it was a very similar story to many of the other learners. The pattern; losing a button, someone else finding it and returning it, was a common story basis. Child O's creativity was only within the limits of the support given to her, there is minimal independent thinking and innovation evident in Child O's story. Following this analysis, it might be reasonable to suggest creative thinking and innovative story writing support could be a next step for Child O.

This analysis of the observation contrasts with other data and evidence. **Figure 3** is a collection of data which indicates at Child O being a very engaged, social and curious learner. This collection of data creates a more complete picture of Child O and her abilities. On reflection, the button activity involved using abstract thinking and synthesising new information. According to Bloom's taxonomy: a 'hierarchy of cognitive thinking skills' (Grigg, 2015; p109), this is a higher order thinking skill which in this case involved creating, imagining, organising and constructing a story with just a button as a story stimulus. When considered from this angle, I would argue that Child O successfully utilised all of these skills

Figure 3: Child O - An engaged and curious learner

- **From written record following a group reading session:** [Child O was] an active and engaged contributor to group discussions about the pictures and story.
- **From a written observation:** [Child O] showed marked interest and curiosity in the Tarantula skin bought in to show by another Year 3 child.
- **From a written observation during a maths lesson:** In response to $2/5 + 2/5$ she was very keen to answer; hand in the air stretched up and waving.

in the production of her story. Crucially, this activity was at the beginning of the topic, the whole purpose of which was to further develop skills and learn about writing, creating and telling a story for a younger child. It is important, when analysing this type of data to consider it from a range of different points of view, and to be aware of the context in which it was collected. This also provides an example of why the mosaic approach offers a more reliable approach to educational research than analysis of singular events.

The collated data gives a clear picture of Child O being a learner who enjoys sports and physical activity (**Figure 4**). Within the interview Physical Education (P.E.), and gymnastics in particular, came up as a frequent topic (**Appendix E**). It was a subject that she was both visibly and audible more confident and eager to talk about. This was noticeable when contrasted with many of her responses on other subjects. Those ideas were put forward with hesitation, evident in her haltered speech patterns, and had a questioning intonation to them. Using the ASK model as a guide, when it comes to P.E. focused activities, Child O demonstrates many of the attitudes that Nottingham (2013) suggests are

Figure 4: Collated data illustrating Child O's love of physical activity and sport.

- **Interview transcript:** There are multiple points where Child O talks about sports and that she likes. These sections are where she spoke with the most confidence and, despite interruptions from the other children, continued with what she was talking about. She talks of previously having done after school gymnastics and swimming lessons, and outlines Tennis, Gymnastics and Football (sometimes) as her favourite sports.
- **Photo Novella:** Child O's favourite things in school included the timber trail out on the yard and a trampoline in the year 2 challenge yard.
- **Observations and Interview:** Her favourite activity from a gymnastics lesson was the vault. It was noted that she showed visible signs of enjoyment (Smiling, visibly relaxed posture) and confidently undertook this activity with moderate skill.
- **Observation:** Child O chose dance as her activity for Active start. Observation indicated that she enjoyed these sessions and most engaged thoroughly with the different dance routines.

*Pictures – **Top:** Photo of the timber trail taken by Child O as part of her Photo Challenge.*

***Bottom:** Child O showing her skill at the vault.*



part of becoming an outstanding learner. Whilst the ASK model (Nottingham, 2013) is a useful tool for analysing and further development, we should question whether matching learners up against a list of 'desirable qualities' is useful way of determining whether they have an effective attitude to learning. Indeed, a learner's attitudes will change, depending on the subject or area of learning. It is important to be aware that learning attitude is flexible and will be influenced by the learner's own interests and moods (Gray and MacBlain, 2012). For Child O, the evidence points at P.E. being an area of comfort and strength for her. This information is just as important as identifying areas where she might need help or support. In fact, knowing that Child O has a passion for sports, could provide a key springboard for supporting her in other learning areas.

Whilst reflecting on her skills in P.E, evidence was provided presenting Child O as a confident and social learner. However, it is important to be aware of the influence of observer bias and even researcher bias; interpreting the data along expected outcomes, not looking at what it is actually saying (Cohen et al. 2007; Sharp 2012). Whilst Child O was observed to be motivated and engaged when it came to P.E. and other physical activity, this

Figure 5:

Figure 5 shows handwritten math work on grid paper. The work is divided into two sections. The top section, labeled 'fractions', contains several addition problems: a) $\frac{3}{10} + \frac{2}{10} = \frac{5}{10}$, b) $\frac{2}{10} + \frac{3}{10} = \frac{5}{10}$, c) $\frac{3}{8} + \frac{1}{8} = \frac{4}{8}$, d) $\frac{4}{7} + \frac{3}{7} = \frac{7}{7}$, e) $\frac{1}{5} + \frac{2}{5} + \frac{1}{5} = \frac{4}{5}$, f) $\frac{1}{11} + \frac{5}{11} + \frac{3}{11} = \frac{9}{11}$, and g) $\frac{2}{6} + \frac{2}{6} + \frac{1}{6} = \frac{5}{6}$. The bottom section contains the text 'Well done you worked well to add these fractions.'

Child O struggled to concentrate on the worksheet. In addition to the observed behaviour, this can be seen by the fact that she has copied out question a) twice. The second time it is mislabelled as b). leaving the following question

Child O worked independently on the second half of the set questions, successfully working out and answering the questions correctly. These questions were also complete relatively quickly as, by this point, she was one of only two children still finishing their maths and the other learners were about to head outside

was not the case for all subjects and lessons. For example, observations from a maths lesson on adding fractions (**Appendix D**), creates an image of a child who, although curious, is also distracted and struggles to focus on completing the written exercise (**Figure 5**). When on the carpet, the observed physical signs are of a learner who is interested and engaged. Switch to the written exercise, only a few minutes later, and she is observed wobbling around on her seat playing with a pink transparent ruler and generally seeming to either be avoiding tackling question 1 or lacking in the needed motivation and discipline that the activity required.

As mentioned, it is important not to let our own thoughts and ideas influence how observations are interpreted. However, it seems unlikely that Child O was deliberately avoiding doing the work. The evidence for this supposition comes from multiple pieces of data. This includes examination of her work from other maths lessons (**Figure 6**) and of her responses in the group interview (**Appendix E**). For example, following questions and discussions about a reading test the children had undertaken, Child O states “It was hard to read the sentences, but I got most through the words.” This researcher interprets that as showing an acknowledgement of the difficulty, immediately followed by pride in being able to read most of the words.

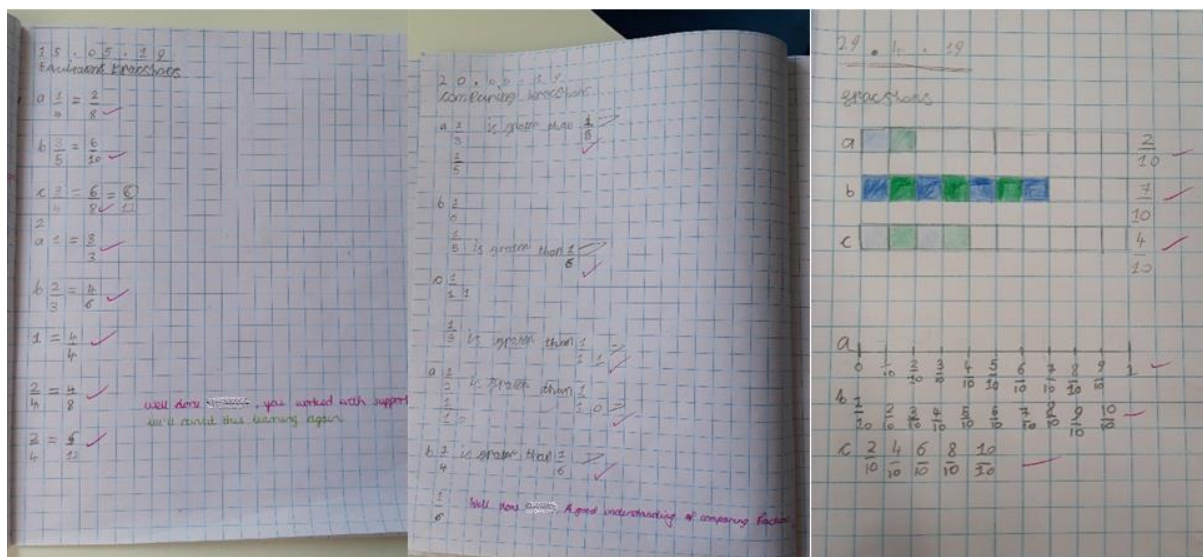


Figure 6: Child O's maths work appears to show a fluctuation in confidence and apparent skill. Of most interest is the central piece of work which Child O completed quickly and easily. Following this lesson, the teacher's identified next steps for Child O (APPENDIX) were to move on to the next fractions topic as she had demonstrated a clear understanding of comparing fractions and was ready for exploring equivalent fraction. The work on the left, exploring equivalent fractions, was completed with support. Equivalent fraction was a more advanced skill within the fractions scheme of work for year 3, so this support is potentially the result of Child O getting to grips with

Reflecting further on the data, one important factor to examine is Child O's own self confidence. Gray and MacBlain (2012) examine how the work of Albert Bandura highlights the role of a person's self-efficacy in influencing their action. Put differently, Child O's avoidance and distraction in this maths lesson could be product of her own self confidence. If she had the mindset that she couldn't do it, according to Gray and MacBlain (2012) this lack of self-belief could have been the result of her avoiding what she saw as an overly difficult challenge. It certainly wasn't the case that she couldn't do it; once she was given a timeline for finishing and saw the possibility of losing her active break if she didn't finish, then her work was completed quickly and accurately. Although Child O is outwardly confident and social, it seems highly probable that she lacks confidence in her skills and knowledge in certain subject areas; she needs support in developing her attitudes to learning in these areas (Shelton and Brownhill, 2008).

Within Child O's national test result there was a big gap between her reading score (approx. 20/30) and her numerical reasoning score (approx. 5/30). Discussion with the class teacher highlighted that mathematical reasoning and problem solving is something that Child O particularly struggles with. It was unfortunately not possible to access her functional maths result, but evidence from both observations and examinations of Child O's work indicates that she is currently about average within her class for functional numeracy skills. The ability to solve problems links directly with Nottingham's ASK model (2013). In order to be able to solve the problem, there needs to be an attitude of 'I can' combined with a tenacity not to just give up at the first problem. Learners need the skills to develop and test out different ideas and strategies. Finally, they need knowledge of what concepts and theories might support finding a solution.

Observation data from 'The graffiti task' (**Appendix C**) provides an illustration of Child O's ability to be an outspoken and competitive learner, taking pride in her ideas. Learners were working in co-operative learning groups answering a series of questions by all scribbling ideas around the question bubble. This was on an A3 piece of paper, one for each question. The groups rotated round, meaning by the end of the session a range of ideas had been shared on each question sheet (**Figure 7**). Despite being distracted and dismayed at the first question; arguably another illustration of Child O struggling to overcome the initial 'this is too difficult' thought patterns (Gray and MacBlain 2012), Child O thoroughly engaged with the following 3 questions. She was observed speaking out when she felt more thinking

[illegible]

(**Appendix F**) many of the ideas and answers had been explored only the day before.

Another explanation for Child O's change from distracted to determined could be the time constraints. Perhaps the element of a tight timeline appealed to the sporty and competitive qualities she has been observed displaying in more active environments.

Certainly, something changed to help her shift into what some researchers call 'Flow' (Griffiths and Burns, 2012). Their illustration shows this state of flow being influence by challenge level and learning attitudes (**Figure 8**), which echoes the message embedded in the ASK model; that a positive attitude to learning is a key discipline in effective learning. Burns and Griffiths (2012) also list 'the necessary learning skills' as one of the foundation factors for building a state of flow.

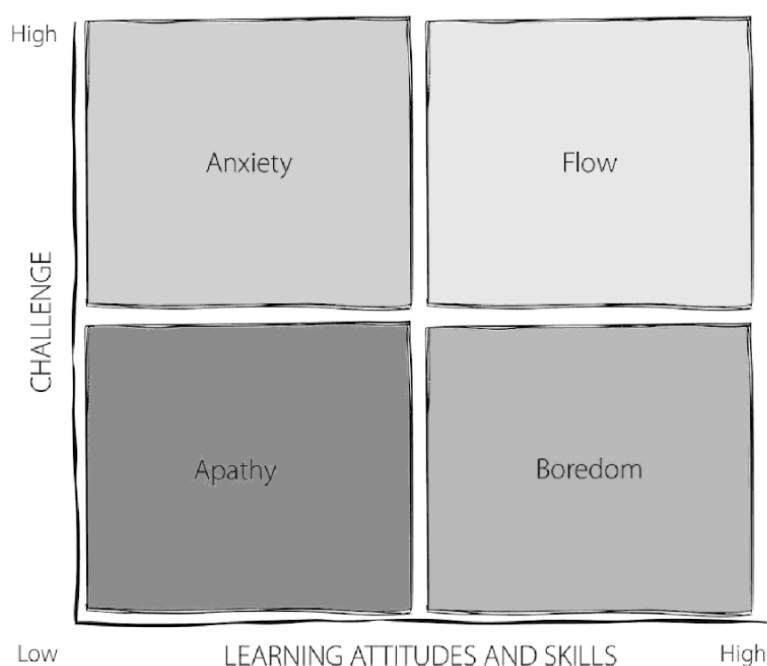


Figure 8: (From Griffiths and Burns, 2012) An illustration of how challenge and learning attitudes interact to influence a learner's emotions and engagement.

Next steps

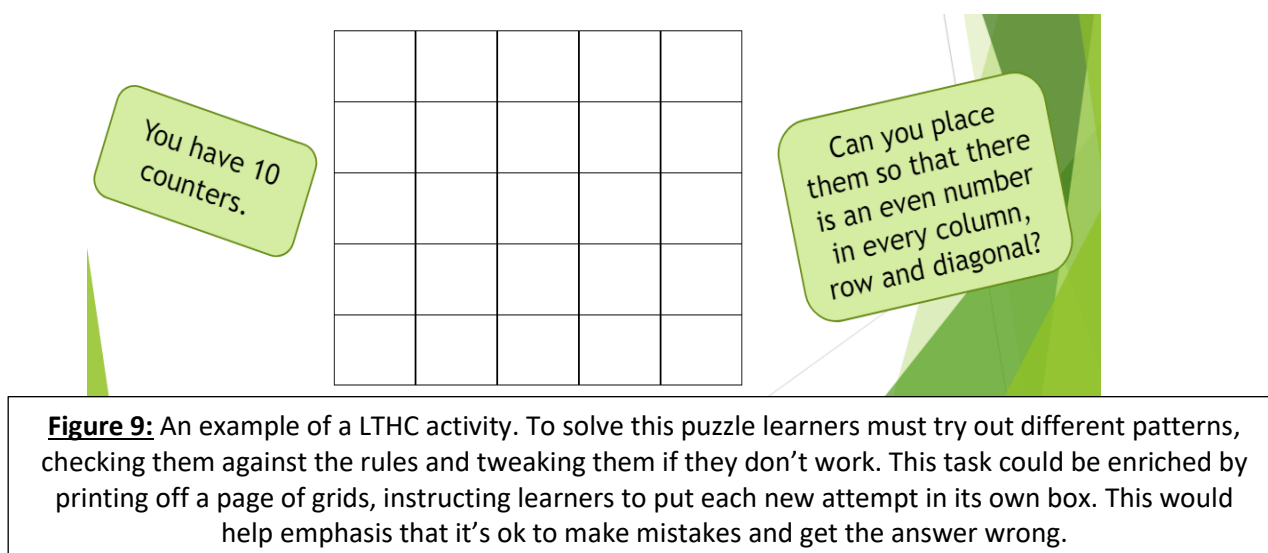
Mathematical Resilience

Two interlinked development points for Child O are her numerical reasoning skills and her confidence in her mathematical knowledge and abilities. One of the attitudes for outstanding learners listed by Nottingham (2013) is risk taker. Clearly a learner who lacks confidence in their ability to successfully tackle a problem, is not going to be a learner who feels confident in taking risks. Developing Child O's mathematical reasoning skills would need to be combined with supporting her intellectual skills development, her resilience in the face of difficulty, her self- confidence, and her knowledge of available strategies.

A potential strategy for achieving this is the building of mathematical resilience through the use of Low Threshold, High Ceiling (LTHC) tasks. A LTHC task is a mathematical activity where everyone in the group can begin at, and then work at their own level, yet the task also offers lots of possibilities for learners to do much more challenging mathematics too.

Figure 9 shows an example of a LTHC challenge.

This solution could be adapted as a focus intervention but would arguably be better suited as class-wide intervention; meaning that Child O is not made to feel singled out and all learners are able to benefit from the strategy. Mathematical resilience works on developing a positive attitude towards mathematics. Enabling pupils to persist in their learning despite any setbacks and challenges they might face on their mathematical learning journey (Johnston-Wilder and Lee, 2010). This utilises aspects of the 'Growth Mindset' ethos (Dweck, 2006) embedding it within the practical focus of mathematical reasoning development.



This system would be easy to implement within the foundation phase inspired carousel system that Child O's school employs within the KS2 classroom. A LTHC challenge could be included as a task within the challenge zone, this would allow learners to tackle it in their own way and take as much or as little time as they might need to complete or attempt the task. This would need to be supported by a feedback and discussion session at the end of each week. Without this feedback session, pedagogical precedent indicates that the task would have minimal impact on supporting Child O's mathematical development (Hattie, 2012). As part of this session, learners would be able to share and reflect on the different strategies they have used in tackling the problem. An important emphasis should

be put on sharing things that didn't work, building the idea that mistakes are important as they can help us learn what doesn't work. Praise should be given not to those learners that solve it the fastest, but those that show persistence in trying.

By including the whole class in this intervention, they will be able to learn from each other as well as from the teacher. A strategy such as this will need to be embedded within the weekly routine. It may be that Child O does not choose to engage with the LTHC tasks initially. By reflecting on them at the end of the week through peer modelling and by celebrating and rewarding the persistence of those that do engage with it, this would hopefully model what was expected and inspire Child O and other learners to tackle the next LTHC problem. A downside of this is that, if Child O opts not to engage with the task, then she will not gain the benefits it is designed to provide. This could be avoided if the task was made a compulsory part of the challenge zone; but making it compulsory could present other challenges as well such as a resentment of the LTHC challenge task.

The school timetable is often very busy, with multiple time demands and last-minute changes of plans. This presents another potential problem with this intervention; lapsing into a system of creating the LTHC challenges but not making time for the feedback sessions.

Confidence and Praise

Often the idea is conveyed that smart and talented people don't make mistakes and find work easy. We need to embed the knowledge that learning is not a performance subject but a growth one (Johnston-Wilder and Lee, 2010; Dweck, 2006). Nottingham (2013) also warns of the danger of reinforcing the idea of 'cleverness' as being part of a person's natural intelligence, and that genius' are born and not created. One simple, and potentially abstract, way to support Child O's confidence and assist in developing their resilience is to start with the teachers. As Nottingham puts it: 'Don't call them gifted'. This is not a call for children not to receive praise, but a warning about the language we use when we do. For this 'next steps' strategy to be effective, its introduction would need to be accompanied by staff training.

As with the previous strategy, this one is based on the growth mindset principle (Dweck 2007). It looks at the link between a pupil's mindset and the type of praise they receive (Nottingham, 2013). If a learner hears or receives praise for being 'smart' or 'clever',

then they will begin to believe that those who succeed must be smart and clever and it is logical they may come to perceive a lack of success means you are not smart or clever. In effect it supports the structuring of a fixed mindset (Dweck, 2006; Nottingham, 2013).

Instead it should be the process that is praised, not the person. Praise the effort a learner has made. Instead of 'You got all the answers right. You're so clever' it would be better to say, 'Well done Child O, you worked really hard today'. This ensures that their hard work is acknowledged without trivialising it as natural skill.

Effectively, teacher should be aware of the language they use, and should focus on using it to provide evidence and modelling for learners, that tells them that social and academic capabilities can be developed through dedication and hard work.

Individual challenges and clear timelines

Child O was observed to respond better when given a specific timeline and when there was a competitive aspect to the task she was undertaking. This knowledge could be used to create a mental toolkit of strategies to support Child O when she is beginning to become distracted or disengaged. This could include adding a challenge aspect to a task e.g. 'Can you solve this one before me?' Care needs to be taken not to focus these challenges exclusively on how quickly Child O can complete her work. Another example might be 'There's another way of solving this one, can you find it?'. This strategy is one that would have to be continually reviewed and developed. This could be done alongside Child O, continuing the ethos of the mosaic approach and involving her in influencing and feeding back on different challenges.

A clearly illustrated time constraint for a task might also help but is again a strategy that could be easily turned on its head. It would be important not to put Child O in a situation where the time constraints act as a source of stress or panic as this could have a negative impact on her learning journey.

Conclusions

In conclusion, using the mosaic approach provided opportunity to better explore Child O's attitudes, skills and knowledge from a range of different angles. It allowed for her to express her opinions on different issues and to have that included as part of the collection of data. This could then be used to structure a selection of strategies and

interventions aimed at further supporting her learning and the learning of others in her class. One difficulty with the Mosaic approach is that it is better suited for use in researching a focused and specific question. As part of this project, the scope was very broad; to collect a mosaic of data on a focus child and see what that data might say terms of their social and academic needs. This led to significant amount of data being collected, making it difficult to determine what may and may not be relevant. This was compounded by a desire not to prejudice the data and observations with my own conclusions or opinions. An effort was made following each analysis to review and reflect whether the conclusions that had been drawn were fact or opinion. A few of the analysis are more reliant on opinion than fact, but where this occurs supporting data or an alternative interpretations have been presented to provide support or contrast.

Overall, this project has allowed me to get a much more in depth look at Child O and has provided insight into her motivations and attitudes that might otherwise have been missed.

References

- Baird, K. (2013) 'Exploring a methodology with young children: Reflections on using the Mosaic and Ecocultural approaches' *Australasian Journal of Early Childhood*, 38(1), pp. 35-40.
- British Educational Research Association [BERA] (2018) *Ethical Guidelines for Educational Research*, fourth edition, London. (<https://www.bera.ac.uk/researchers-resources/publications/ethical-guidelines-for-educational-research-2018>) (Accessed 17th May 2019)
- Clark, A. and Moss, P. (2011) *Listening to Young Children*. 2nd Ed. London. NCB.
- Cohen, L., Manion, L. and Morrison, K. (2007) *Research Methods in Education* 6th Ed. Abingdon: Routledge.
- Dweck, C. S. (2006). *Mindset: the new psychology of success*. New York, Random House.
- Dweck, C (2007) 'The Perils and Promises of Praise', *Educational Leadership*, 65(9), pp. 34-39.
- Gray, C. and MacBlain, S. (2012) *Learning Theories in Childhood*. London. SAGE Publications Ltd.
- Greenfield, C. (2011) 'Personal reflection on research process and tools: Effectiveness, highlights and challenges in using the Mosaic Approach' *Australasian Journal of Early Childhood*, 36(3), pp. 109-116.
- Grieg, A. D., MacKay, T. and Taylor, J. (2007) *Doing research with children*. 2nd Ed. London, SAGE Publications Ltd.
- Griffiths. A. and Burns. M. (2012) *Engaging Learners*. Carmarthen: Crown House Publishing.
- Grigg, R. (2015) *Becoming an Outstanding Primary School Teacher*. 2nd Ed. Abingdon: Routledge
- Hattie, J. (2012) *Visible Learning for Teachers* Abingdon: Routledge.
- Herts for Learning (2016) *Do Low Entry High Ceiling activities reduce maths anxiety and positively impact upon progress?* Available at: https://www.hertsforlearning.co.uk/sites/default/files/documents/exchanging_excellence/Chater%20Junior.pdf
- Lee, C. and Johnston-Wilder, S. (2017) 'The Construct of Mathematical Resilience', in Eligio, U. X. (ed.) *Understanding Emotions in Mathematical Thinking and Learning*. London: Elsevier
- Nottingham, J. (2013) *Encouraging Learning*. Abingdon: Routledge.
- Sharp, J.G. (2012) *Success with your Education Research Project*. London. SAGE Publications Ltd.

Shelton, F. and Brownhill, S. (2008) *Effective Behaviour Management in the Primary Classroom*. Berkshire. Open University Press.

Welsh Government (2017) *Announcement of further Pioneer Schools focussing on curriculum design and development*. Available at:

<http://www.assembly.wales/ministerial%20statements%20documents/announcement%20of%20further%20pioneer%20schools%20focussing%20on%20curriculum%20design%20and%20developments/170109%20kw%20pioneer%20schools%20-%20english.docx>

Welsh Government (2018) <http://mylocalschool.wales.gov.uk/>

Appendices

APPENDIX A

Tuesday 30th May

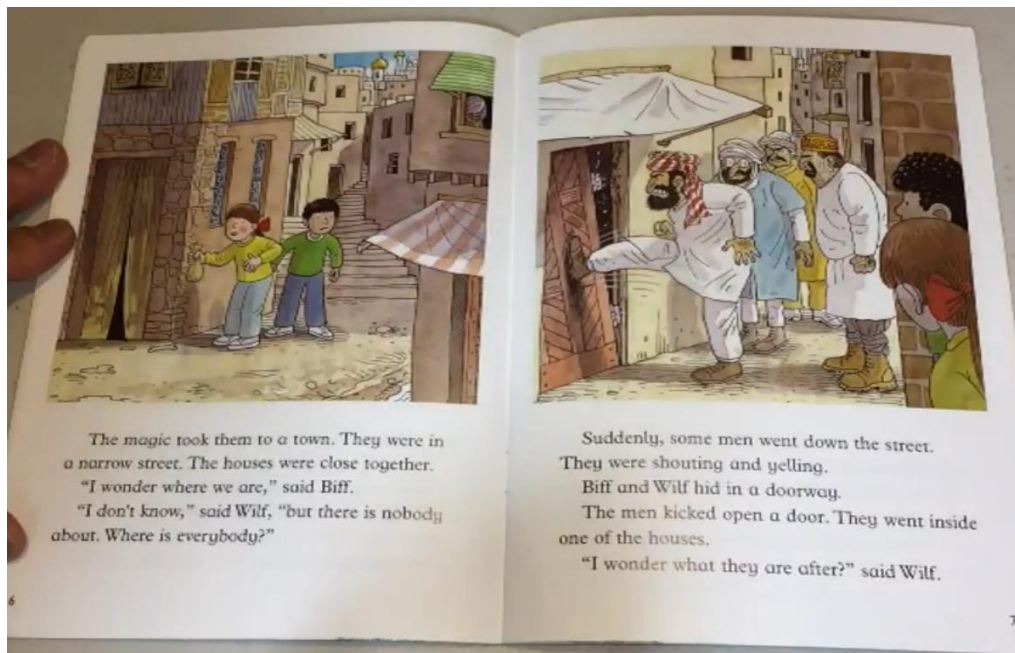
Button Activity – Exploring storytelling using ‘the button activity’. Each learner chooses a button from a selection and imagines where it has come from and what has happened to it. A oracy activity, leading to learners filming each other telling their stories.

Child O – Button Story Transcript: “A little girl had a button and...on her bag and it fell off and it was on the swing and ...
pause...she *pause*...was trying to find it and she couldn’t.
Then...a...boy found it and the boy went to her house and said, “Is this yours?” and she said “Yes” and then they became friends.”



Group Reading: Listening to Gwrrp Oren read The Blue Eye, Oxford Reading Tree Stage 9.

Comments relating to Child O: Fairly fluent reader, confident and clear voice during a group reading session. An active and engaged contributor to group discussions about the pictures and story. By looking at the pictures before reading each page, learners were encouraged to think about what might happen next/what they could see. This strategy appeared to be effective at supporting the learners in building an active interest in the story they were reading.



APPENDIX B

Wednesday 1st May

Gymnastics

- Warm Up
- 4x rotating activities
 - Vault Jump
 - Teddy Bear rolls
 - Balance beam
 - Movement challenge.

Notes regarding Child O:

- Showed confidence and poise. Visible indications of enjoyment include smiling, confident movement and relaxed posture.



APPENDIX C**Thursday 2nd May**

Active Start: Child O paired up with Child Z for dancing. Songs were JustDance Timber, Gangnam Style and Waka Waka.

10:55am – Helped another child who was struggling to find games on Active Learn (An online learning space).

11:00am – Showed marked interest and curiosity in the Tarantula skin bought in to show by another Year 3 child from another class.

11:00am – Co-operative learning group with 3 other children (Child E, Child S, Child D). Initial task was to take turns introducing themselves using the following format: Name, Age, Favourite Book and Why.

Child O: “My name is Child O, I am 8. I like Harry Potter books because...I do, because my Mum’s reading Harry Potter books every night”

Graffiti task: In co-operative learning groups answering a series of questions by all scribbling ideas around the question bubble. This was on an A3 piece of paper, one for each question. The groups rotated round, meaning by the end of the session a range of ideas had been shared on each question sheet. Child O was writing with a purple pen.



What would you ensure you included if you were to write a picture book? (Red Pen)

Child O immediately showed disappointment at the question. She was distracted during the 30 second thinking phase.

Listening to SE explaining the question to a different group. She showed dismay at the idea of only having 1 minute to write. For the 1 min writing phase she sat with a pen poised but couldn’t think of what to write.

What would make you recommend a book to a friend? (Green Pen)

Child O showed more positive interaction with this question. She intervened to tell Child S that they had to keep the same colour pen. Ideas written down included: Funny, Cool, Happy, Sad and Scare (Scary). “I’ve written 5 ideas” Child O expressed pride in coming up with this many ideas, it is possible that there was a competitive aspect to this comment as Child O then appeared to be looking to see what the others in her co-operative learning group had written.

What makes you want to read a book to begin with? (Blue Pen)

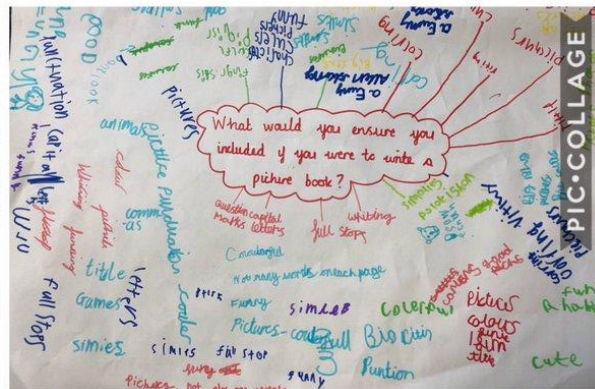
SE announced that they had 10 seconds thinking time “10 Seconds!” was Child O’s outburst reply to this statement, so SE changed this to 20 secs.

Child O wrote a few ideas down but following the instruction to “finish your sentence and pens down” gave another outburst of “What!?”. It appeared she felt that more time was needed – possibly because she still had ideas to write down.

What makes you want to keep reading a book? (Purple Pen)

Ideas written down included: Magical, Sad, Funny, Weird, Pictures. In response to a question about what ideas she had thought of “Miss there’s like a load”.

11:25 – Tidy Up. Child O actively tried to take pens to collect and put away, including trying to take pens from other learners. During the feedback session where SE showcased the graffiti and ideas Child O showed a confused face when it SE said someone had put that they liked sad endings.



APPENDIX D**Friday 3rd May****Fractions (Adding Fractions)**During the carpet session:

Child O was attentive with eyes avidly focused on the board. In response to $\frac{2}{5} + \frac{2}{5}$ she was very keen to answer; hand in the air stretched up and waving. (Fig 3) She was visibly disappointed not to be picked (sigh/groan). Very slightly slower to raise her hand than many of the others putting their hand up. It is possible that it took her a tiny bit longer to work it out.

During the written exercise:

Child O was wobbling around on an orange stool. She was visibly very distracted, spending approx. 5 mins still on the first question. Laughing and talking to peers, struggling to focus. Playing with a pink 30cm translucent ruler; looking through it and commenting that everything looked pink. She was distracting other learners as well by getting them to look though the ruler.

I intervened when Child O continued to be distracted and working very slowly. Not reprimanding her I asked if she wanted to move to sit at another table because I could see she was distracted. I explained it was great to see her happy and laughing with her friend but maybe if she moved to another table, she might be able to focus on her work better.

Even moved to another table she struggled to focus. Child H (who had finished the task and was offering to help) served as an additional distraction and was politely thanked but asked to leave Child O to work on their fractions themselves.

Motivation to complete the task faster came when Child O realised that it was nearly active break and that she would not be allowed to go out for break unless she had finished the worksheet.

3 . 5 0 . 1 2
fractions

a $\frac{3}{10} + \frac{2}{10} = \frac{5}{10}$ ✓

b $\frac{2}{10} + \frac{3}{10} = \frac{5}{10}$ ✓

c $\frac{3}{8} + \frac{1}{8} = \frac{4}{8}$ ✓

c $\frac{4}{7} + \frac{3}{7} = \frac{7}{7}$ ✓

a $\frac{1}{5} + \frac{2}{5} + \frac{1}{5} = \frac{4}{5}$ ✓

b $\frac{1}{11} + \frac{5}{11} + \frac{3}{11} = \frac{9}{11}$ ✓

c $\frac{2}{6} + \frac{2}{6} + \frac{1}{6} = \frac{5}{6}$ ✓

Well done you worked well to add these fractions.

3 . 5 0 . 1 2
fractions

a $\frac{3}{10} + \frac{2}{10} = \frac{5}{10}$ ✓

b $\frac{2}{10} + \frac{3}{10} = \frac{5}{10}$ ✓

Child O struggled to concentrate on the worksheet. In addition to the observed behaviour, this can be seen by the fact that she has copied out question a) twice. The second time it is mislabelled as b). leaving the following question

Child O worked independently on the second half of the set questions, successfully working out and answering the questions correctly. These questions were also complete relatively quickly as, by this point, she was one of only two children still finishing their maths and the other learners were about to head outside

APPENDIX E**Tuesday 7th May****Interview with Child O and 3 of her peers.**

Break out/Social area outside the classroom during the afternoon session on Tuesday 7th May. All children involved at been asked if they wanted to take part and had been informed that they were able to leave at any time. This interview was aimed at getting to know/asking questions of Child O, my identified target child. However, consideration had been made to the child's comfort, and rather than single the child out for a 1:1 interview with a teacher, they were asked to choose some friends. This created a comfortable interview atmosphere, something that is evident in the children's relaxed attitudes and cheerful discussions.

In compliance with school policy the recording of the interview was being made on a school iPad, unfortunately the iPad didn't have a voice recording facility. The decision was made to record the interview using the camera function but with the camera face down. This solution was explained to the interviewees and they were all asked if they were happy with it. I explained that by making an audio recording I could concentrate on listening to their answers rather than on trying to write them down. It was made clear to them that I wanted to make an audio recording that I could refer to at a later time to write their answers down. They were asked once again before the audio recording began whether they were happy to be recorded and reminded they were welcome to leave the discussion at any time they wished.

Extracts from the Interview Transcript

Teacher – This is an interview with some wonderful year 3 children, and they are going to tell me all about what it's like being in year 3 and some of their favourite things. *Indicating the iPad in the middle of the table* We're going to ignore that, don't worry about that, you're just having a chat with me. So, does anyone have anything that they want to tell me, to start off....go on then?

Indicates child.

Child A – I like Bananas, I like Maths...

Teacher – Ooh, Maths!

Child A - ...and I like learning different stuff.

Teacher – You like maths? Does anybody else like Maths? You like Maths? (In response to a visual response from Child L).

Child L – It's my favourite thing.

Teacher – It's your favourite thing!

Child L – And I like doing Gymnastics.

Teacher – You like doing Gymnastics? Oh you're really going to enjoy P.E. tomorrow then if we get to do P.E.

Child L – Yes!

Teacher – Because we're doing Gymnastics all term.

Child L - All term?

Teacher – Yeah. Oh everybody looks really happy about that. Do we all like Gymnastics?

All Children – Yes!

Child O – I used to do it but then I quit.

Teacher – You used to do it but then you quit?

Child O – Yeah, 'cause I wanted to go swimming.

Teacher – You went swimming? So Gymnastics and swimming (indicates children), and maths...

Child O – But now I stopped swimming, again. So I have to wait until my Mum's better.

Teacher – Aww.

Child O – 'Cause she has a surgery.

Teacher – Oh dear?

Child O – With her leg.

Teacher – With her leg?

Child O – Yeah,

Teacher – What’s happened with her leg?

(At the same time: Child A – Why can’t your Dad take you?)

Child O – She had a surgery, last year as well, for her other leg.

Teacher – Mmm?

Child O – I don’t know what happened, but...

pause

Teacher – Are you going to look after her?

Child O – Yeah.

Teacher – Make lots of cups of tea?

Child O – *Giggling*.

Child A – I know how to make cups of tea! I’ll bring one over for you! What’s your house address?

Outburst of giggling

Teacher – Are you going to bring it, just balancing it *acts out balancing a cup of tea* all the way, trying not to spill it.

Child A – I’m just going to hold it, then on the way I get thirsty *makes slurping noises*.

Teacher – Then you might get there and say “I’ve got a cup of t..Oh, I’ve drunk it all”. *jokey tone*

More laughter/giggling

Teacher – Nevermind. That wouldn’t be very nice would it? *smiling and laughing*

Child A – I’ll splash a bit of Banana in as well.

Teacher – Splash a...? Banana Tea?

More laughter/giggling

Teacher – I never had Banana tea.

Child A – I’ll make anything with Banana in it.

2:00

|
|
|

2:50

Teacher – What about being in Year 3?

Child O – Uuuh, it’s fun?

Teacher – It’s fun?

Child L – I like to learn different things.

Teacher – You like to learn different things? You told us earlier you like maths. Is it just maths?

Child L – I like P.E., I like reading, I like...everything.

Teacher – Everything? Cool. What about you, Child O?

Child O – Ummm, I like....

Child A - *whispers* I love chocolate.

Child O - ...playing? *laughs*

Teacher – Playing? Yeah?

Child O – and, I like reading, ...maths – sometimes. *laughs*

Teacher – Sometimes?

Child O – Whatever we’re doing.

Teacher – Why only sometimes for maths?

Child O – Because it gets tricky...(Child A: Yeah) aaand, I don’t like it.

Teacher – It get tricky and you don’t like it?

Child L – I love maths, I’m like one of the first people to finish.

Child O – Yeah, she is, she crazy good at Maths. Aren’t you?

Child L – Yeah.

Child O – She’s really crazy. And she gets them all right.

Teacher – Aww. What about you, what do you think about maths Child N?

Child N - *Quiet and indistinct*

Teacher – It's...?

Child N - *quietly* Good.

|
|
|

04:28

Teacher - What did you think about your tests this morning?

Child O – Uuuumm.

Child A – They were kinda tricky but nice and fun.

Teacher – Nice and fun?

Child O – They were kind of tricky as well but...

Child L – Yeah, kind of tricky, with the readin'. Cos there was loads of reading'

Child O - *Laughs* Yeah!

Teacher – Do you know why there was lots of reading?

Child L – Cos it was a reading test.

Teacher - *Smiles* Because it was a reading test, Well done Child L.

Child A – When is it the Maths test? Cos I'm scared about the maths test.

Child L – I'm not.

Child O – We got it tomorrow!

Child A – What?! *Puts on comical look of shock*

Child L and O giggle

Teacher – Doesn't matter Child A.

Child A – *Quieter* I don't like maths.

|
|
|

05:08

Teacher – Who was a bit worried this morning when they came in and found out there was tests?

Child O and A – Me

Child L – I was kinda. I knew.

Teacher – Who is feeling less worried now they've done one of them?

Child L – Yeah.

Child A - *Nervous giggle*

Teacher – See, you've done one, and it was fine!

Child A – No it weren't we didn't get any help, it was so unfair.

Teacher – You wish you could get some help?

Child A – Yeah.

Teacher – It's only one lesson though, out of the whole year, is a test. Think about all the other times you've done reading and maths. Could you ask for help then?

Child L – No, Cos' they were easier.

Teacher – No cos they were easier as well?

Child O – It was hard to read the sentences but I got most through the words.

Child A – I did not have fun at all, I did not ask for anything.

|
|
|

06:09

Child O - I like sports!

Teacher – you like sports?

Child A – I like Gymnastics and Swimming.

Child O – I like tennis....

Child L - I like sw...

Child O - ...and...

Child A – I love games club, games.

Child O – I haven't even gone to games club.

Teacher – Shh, Child O like Tennis....and Tennis?

Child L – Gymnastics?

Teacher - ...and Tennis?

Child O - *laughing* Tennis and Gymnastics.

Teacher – Tennis and gymnastics.

Child O – Um...sometimes Football.

|

|

|

Teacher – Which was your favourite activity that we did in Gymnastics this week? Or even Favourite activity that we haven't done in Gymnastics?

Child A – Teddy rolls! Teddy rolls!

Teacher – You like teddy rolls?

Child A – Can I do them?

Child L – I like doing the splits.

Teacher – Child L liked doing the splits, we might do that, we'll have to see.

Child L – Can I show you?

Child O – I liked do...jumping on the vault.

Teacher – You like jumping on the vault? That was fun, I kind of wish I'd done it as well. Yes Child L?

Child L - *Quietly* The vault.

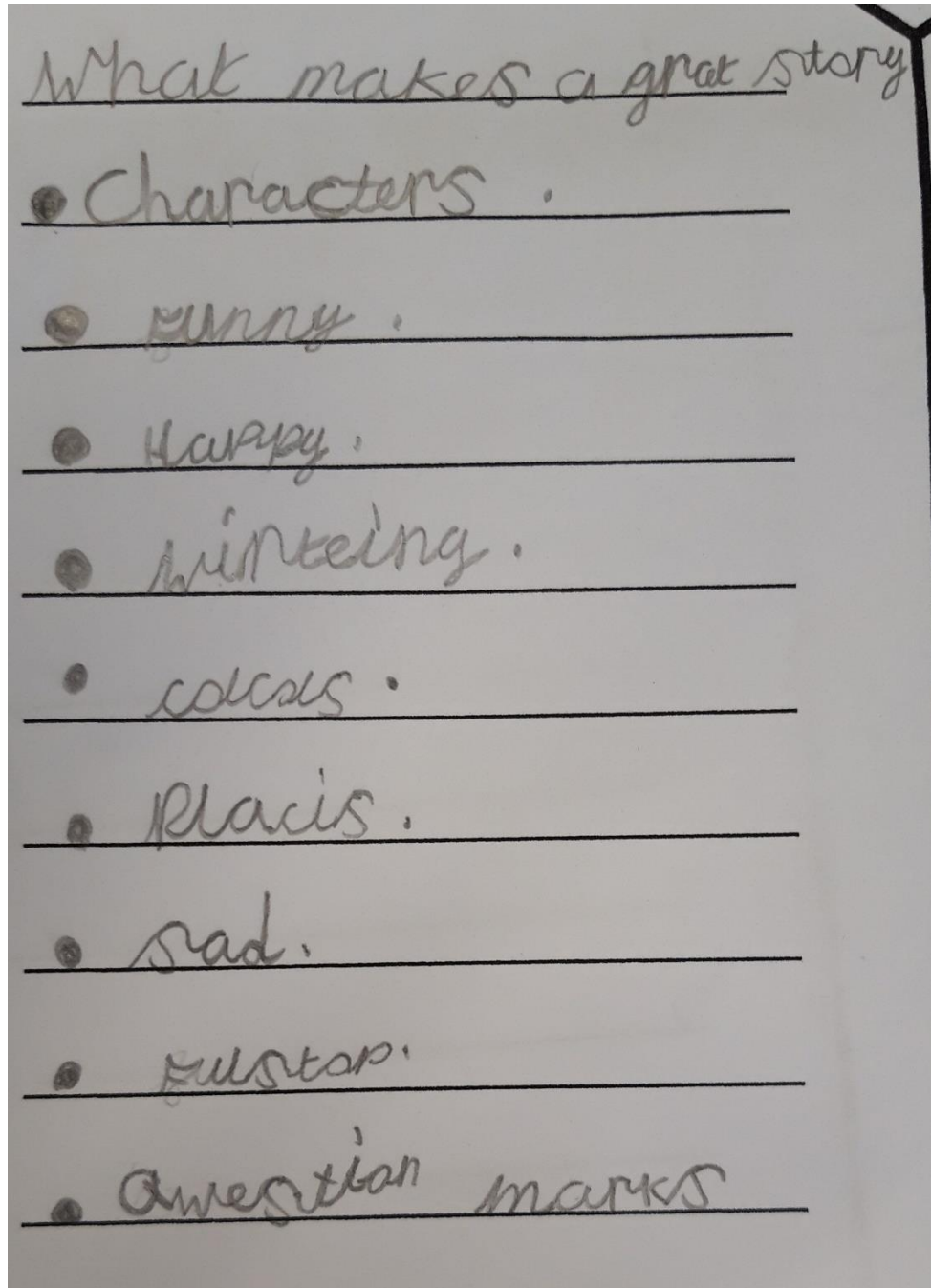
Teacher – The vaults? Yes, everybody was so good at the vaults!

Afternoon active break:

Child O was observed playing a running/chasing game with a group of her fellow learners. There was a lot of laughter and movement involved. Child O showed visible signs of enjoyment, smiling, laughing and actively weaving around obstacles to avoid 'capture'. The group playing this game were a mix of both boys and girls all from Child O's class.

APPENDIX F**Wednesday 8th May**

Child O's bullet point list of 'What makes a great story'.



APPENDIX G**Thursday 9th May**

Active Start: Child O paired herself up with Child F for dancing. Both were very involved in the first dance (Just Dance: Timber) but had less enthusiasm for the next two dances which were new (Saskia Dance: Taki Taki and Sweet but Psycho). Verbal feedback from both following the session: They thought the other dances were too difficult and they didn't like them because they were boring.

APPENDIX H**Tuesday 14th May**

Photo Challenge:

Child O and Child D were asked if they wanted to take part in a photo challenge. Their challenge was to take 10 photos of things around the school that were important to them. It was highlighted that this could include people, places or things.

Child O:

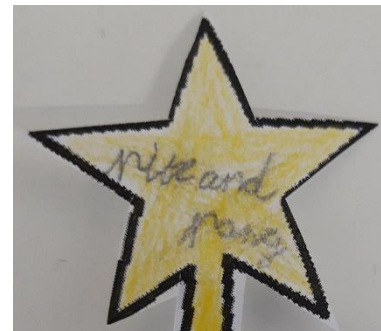
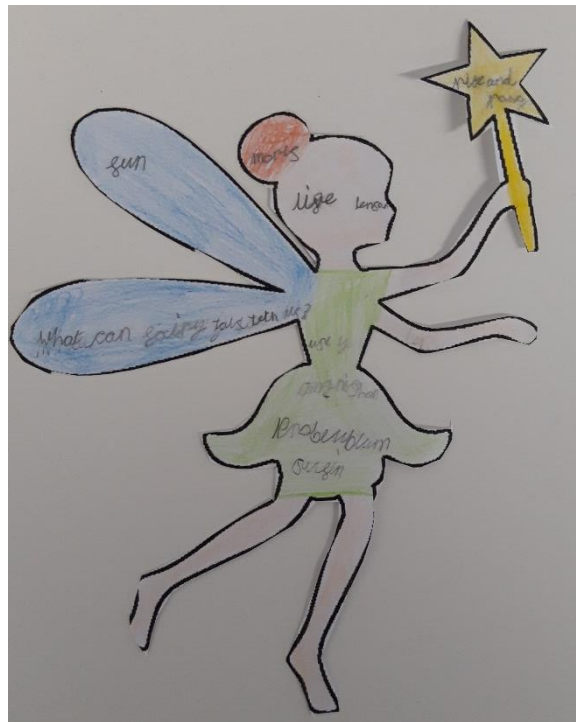
- Her Inquiry Based Learning (IBL) Book.
- The new shop front in the Challenge zone.
- The slide in the library.
- The classroom computers
- The KS2 cooking room.
- Her sister
- The trampoline in the year 2 challenge zone.
- The timber trail on the school yard.
- The library corner in the classroom.
- The colouring zone in the classroom.

Child D:

- His Inquiry Based Learning (IBL) Book.
- The new shop front in the Challenge zone.
- The slide in the library.
- Himself
- The trampoline in the year 2 challenge zone.
- The timber trail on the school yard.
- The snack shack,
- The football pitch.
- The classroom computers.
- His best friend.

APPENDIX I**Tuesday 14th May (Cont.)**

Exploring fairy tales: Child O chose the fairy outline for this piece of work. The title 'What can fairy tales teach us?' is written on the bottom wing. Responses to this question are also written within the shape outline.



APPENDIX J**Permission Form**

RE: Primary PGCE student assignment: permission and confirmation that work has been undertaken in school for assignment 'School Development and Pupil Progress', Summer 2019

Dear class/senior mentor,

For the university module named above, trainees are required to identify one learner within the class in which they are based and, over the course of the Professional Teaching Experience, explore their learning in detail. The evidence that they need to gather could include:

- observation;
- asking the learner to identify places/things that help him/her learning;
- discussing what helps the pupil learn and how they feel about learning with the pupil and/or teacher;
- collecting samples of work which might show something about the learner's progress and development.

They are asked to focus on knowledge, attitude and skills in language, mathematics, wellbeing and at least two other areas of the curriculum to gain an holistic picture of the child. They then suggest the next steps for the learner, and indicate how these will be achieved. Trainees are expected to undertake this work independently wherever possible, and have been given ethical guidelines to follow (although undertaking the work above would be in line with typical classroom practice). The trainees have been asked not to reveal the identify of the learner or the school within their assignment. Students have been asked to:

1. Seek permission for this work (by consulting with the class teacher and learner)
2. Provide verification that the work has taken place.

We would therefore be grateful if you could confirm that permission has been sought and that tasks have been undertaken by signing below:

STUDENT NAME (PLEASE PRINT): ELIZABETH ALEXANDER

SCHOOL NAME (PLEASE PRINT): CADOKTON PRIMARY

SENIOR MENTOR/CLASS MENTOR NAME (PLEASE PRINT):

SARAH EVANS

SENIOR MENTOR/CLASS MENTOR NAME (PLEASE SIGN):

Sarah Evans

If you have any queries regarding this, please contact the module lead, Mr Mathew Jones.
M.Jones@uwtsd.ac.uk

Many thanks in advance

SIGNED COPY TO BE INCLUDED IN APPENDIX OF ASSIGNMENT