School Development and Pupil Progress (M7X02151)

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

Word Count: 4950

Introduction

This study considers the holistic development of a 9-year-old girl, the youngest Year 5 pupil at her school. Her Year 4/5 class of 34 pupils operates within a larger unit of 71 pupils from Years 4-6, sharing teachers, resources and learning spaces through a carousel-style of learning. The child has no identified learning needs and English is her first language. She is not entitled to Free School Meals (FSM).

The child attends a small primary school in South Wales. 5.1% of pupils receive FSM (MyLocalSchool, 2018), significantly below national and local authority averages. The school follows the 'Leonardo Effect' approach to learning in which pupil voice is valued, learners are encouraged to become risk-takers and creative problem-solvers, and art and science underpin interdisciplinary learning (Hickey and Robson, 2013).

Ethical considerations were made in accordance with BERA (2018) guidelines and the child provided her informed consent; she fully understood the research purposes, how findings would be disseminated and her right to withdraw from participation (Frankfort-Nachmias and Nachmias, 1992). The nature of this research falls within normal classroom practice. The child's teacher oversaw and verified that the research was undertaken within the agreed ethical guidelines (Appendix A). To protect the child's anonymity, she is henceforth referred to as Child X.

Methodology

The study used the 'Mosaic Approach' methodology, a multi-method and participatory approach which emphasises that children are the experts on their own lives (Clark, Kjørholt and Moss, 2005) and gathers their views using a variety of methods or 'tiles' including: child conferencing, map-making, observations and photographs taken by the child (Clark and Moss, 2011). The Mosaic Approach was developed to provide a comprehensive and holistic understanding of children in their learning environment using qualitative data (Clark and Moss, 2011). A significant advantage of this approach is that the child leads the data collection at every stage, establishing a holistic view of the child through their collaboration with the researcher. However, the researcher gathering data in different ways and clarifying hypotheses with the child can be time-consuming.

Each data collection tool has intrinsic advantages and disadvantages. Clark (2011) views map-making as an active process of meaning-making which may emphasise children's priorities about their learning environment and the people within it, and because there is no obvious correct response which the researcher is expecting, map-making is likely to provide

an honest insight into the child's priorities. However, maps often generate more questions than answers (Clark, 2011); discussion between the researcher and the child should occur to ensure the researcher fully understands the child's creation.

Likewise, the photographs taken by the children may act as a stimulus for discussion between the child and the researcher. Clark and Moss (2011) suggest that children often enjoy this aspect of data collection and take pride in it. However, Sharp (2009) notes that photographs only capture an instant in time and therefore may not represent the child's priorities at other points.

Similarly, observing the child within social and educational contexts only captures particular moments of the child's learning journey, and may not be representative of their overall attitudes. Furthermore, Sharp (2009) believes children experience stress when they are knowingly observed, which may jeopardise their wellbeing, whilst the 'Hawthorne Effect' suggests that participants may adapt their behaviour because they are being studied which undermines data integrity – a phenomenon applicable to all of the data collection tools within the Mosaic Approach (Cohen *et al*., 2011).

Clark and Moss (2011) explain that the Mosaic Approach tiles can be adapted or supplemented and Bell (2010) emphasises the need to triangulate data to deepen the validity of research findings. Consequently, annotated classwork and discussions with the teacher also inform this analysis.

Analysis of Learner and Next Steps for Development

A holistic study of Child X's development requires analysis beyond her academic achievement in core subjects. Nottingham (2013) proposes that understanding pupils' attitudes, skills and knowledge facilitates understanding of a learner's current stage of development [Figure One]. The following analysis is divided into subject areas, each beginning with a table summarising Child X's attitudes, skills and knowledge in accordance with the ASK model, before analysing specific aspects in depth and recommending pertinent next steps for learning. The attitudes reflect those described by Nottingham (2013) whilst the skills and knowledge are from Welsh Government [WG] documentation regarding the draft 2022 Welsh curriculum and, where appropriate, *The Literacy and Numeracy Framework*. These documents have been used rather than the current curriculum guidance as Child X's future development will occur within the context of the new curriculum.

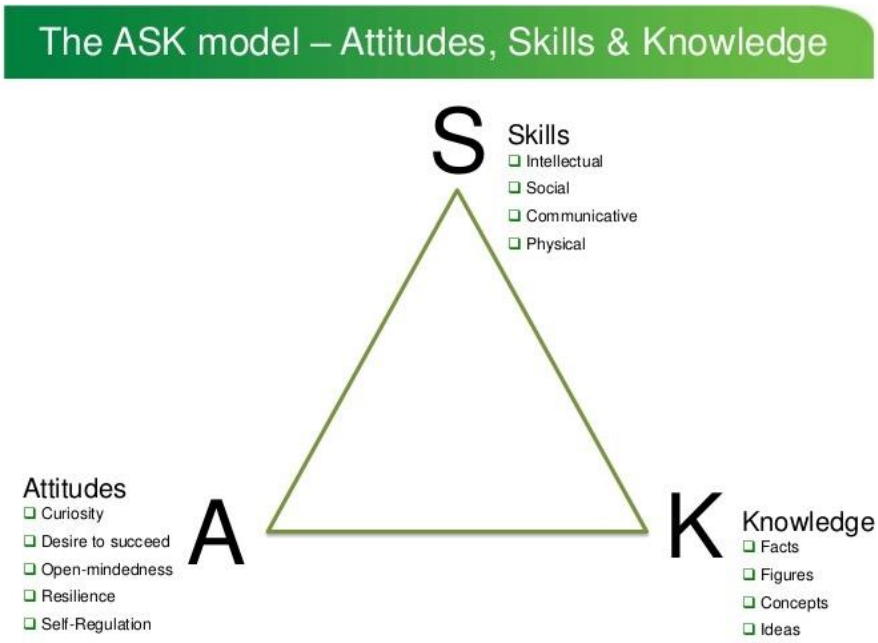

Figure One: The 'ASK' model (Nottingham, 2013).

Health and Wellbeing

ANALYSIS OF LEARNER: HEALTH AND WELLBEING		
ATTITUDES	SKILLS (WG, 2019a)	KNOWLEDGE (WG, 2019a)
• Positive attitude towards school. • Positive relationship with teacher. • Willing to ask for support and coaching. • Open to new experiences. • Self-regulating of emotions. • Perseveres with physical challenges.	• Recognises and articulates what they are thinking and feeling. • Takes steps to support their own health and wellbeing. • Takes responsibility for their actions and identifies and reflects on their decisions. • Forms and maintains healthy relationships in a range of contexts. • Recognises and responds to the needs and feelings of others, demonstrating empathy and compassion. • Identifies and responds constructively to conflict in relationships.	• Knows that physical health and wellbeing is influenced by factors such as diet and exercise. • Knows how social norms, rules, values and attitudes of social groups impact wellbeing. • Knows that relationships are fundamental to wellbeing and can have positive and negative impacts on it.

Donaldson (2015) argues that children only engage successfully with the curriculum when they experience social, emotional and physical wellbeing, correlating with Danby and Hamilton (2016) and Underdown (2007) who believe that children's wellbeing underpins

their success in any task. Conversely, Brown *et al.* (2015) and the Office for National Statistics (2016) concur that pupils' attitudes to school, their relationships with their teachers and peers and how the school promotes a healthy lifestyle upholds the wellbeing of preadolescents.

Child X appears to have a positive attitude towards school: during child-conferencing, she said that she likes coming to school 'because it helps me learn' (Appendix B). When asked how she overcomes challenges in her learning, Child X said that she would ask the teacher for help (Appendix B); Child X also photographed her teacher as a key aspect of her learning environment (Appendix C). Furthermore, Child X's map contains an arrow pointing to her teacher's classroom (Appendix D) which is significant as much of Child X's learning takes elsewhere within the school, but her classroom is where she can find her teacher if she needs help. Child X's perception of her teacher could be seen to reflect the model of learning progression expounded by Vygotsky (1978), in which a learner progresses from their current learning to achieve new goals by working through the 'Zone of Proximal Development' in which a more-knowledgeable teacher or peer facilitates new learning [Figure Two]: Child X recognises that her teacher scaffolding her learning allows her to achieve success.

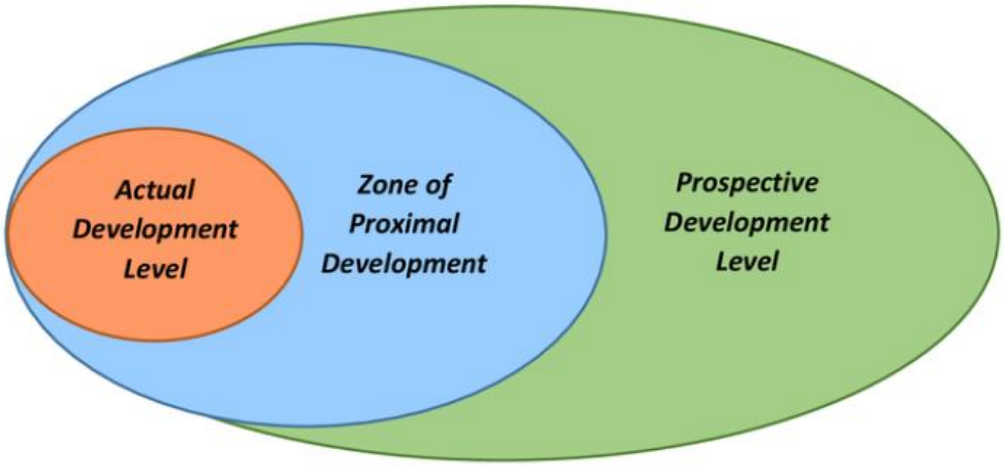

Figure Two: The 'Zone of Proximal Development' (Vygotsky, 1978: 86).

Moreover, Van der Kaap-Deeder *et al*. (2017) emphasise that teachers provide learners with knowledge *and* emotional support. Ferguson *et al*. (2011) similarly found that emotional support from teachers correlated with pupils' overall life satisfaction and raised their wellbeing. Likewise, Nolan *et al.* (2014) emphasise that teachers are emotional role models for pupils, whilst Whitington and McInnes (2017) suggest that poor relationships with school staff cause significant stress to children. Hattie (2012) lists teacher-pupil relationships as having an effect-size of 0.72 on learning gains (nearly double the average 0.4 effect-size), emphasising the positive impact Child X's relationship with her teacher has on both her learning and wellbeing. However, an alternative perspective is that Child X's reliance on her teacher's support could exemplify a lack of resilience, which Johnston-Wilder and Lee (2010: 41) define as learners knowing 'how to take control over, and responsibility for, their

learning'. The concept of resilience is discussed in relation to Child X's Mathematics and Numeracy development below.

Children's relationships with their peers also significantly impact their wellbeing (Sedano, 2012). Child X said that she feels worried or stressed 'when I have arguments with my friends' (Appendix B). She explained how she would resolve arguments, evidencing social and communication skills as she can listen and respond to others appropriately and respectfully (Nottingham, 2013). Danby and Hamilton (2016) found that poor relationships with peers contributed to low wellbeing of students; whilst this study only analysed data from 11 schools, it could reflect Child X's anxiety about arguing with her friends. However, as she can resolve disputes independently, Child X is able to self-regulate this aspect of her wellbeing.

Child X was observed playing with other girls in her class (Appendix E); she photographed the 'Calendar Garden' (Appendix F) where she plays and exaggerated its size on her map (Appendix D). Jago *et al.* (2009) propose that playing with friends promotes fitness in children aged 9-11 and increases their motivation and effort during exercise, suggesting that Child X's friendships enhance both her physical and mental wellbeing; meanwhile the Education Endowment Foundation [EEF] (2019a) suggests that regular participation in sports transfers to +2 months progress in academic learning. Child X attends ballet lessons and the weekly school sports club, eats fruit at breaktimes and, like 99% of primary-age children in Wales, does not drink alcohol or smoke (Statistics for Wales, 2017), meaning that she demonstrates all four wellbeing indicators within the Wellbeing of Future Generations Act (WG, 2015a). Only 6% of girls who are Child X's age meet all four indicators (Statistics for Wales, 2017), suggesting that her physical health is developing exceptionally well. These aspects of Child X's physical wellbeing also demonstrate her attainment of physical skills like the abilities to 'dance, act and sing' and 'climb, sit still and play sport' which are emphasised in Nottingham's (2013: 5) ASK model.

As Child X attests to enjoying school and appears to understand strategies for managing her own health and wellbeing, identifying next steps for developing 'Health and Wellbeing' is challenging. Whitington and McInnes (2017) found that fostering positive relationships between school and home had a positive impact on children's wellbeing. Due to work commitments, Child X's parents were unable to attend either of two events when parents were invited into school during this study. Stefan and Miclea (2014) suggest that for any aspect of a child's development in school, including wellbeing, to transfer to the home context, parents must be directly involved in the learning process. Bronfenbrenner (1979) developed his 'Systems Theory' which demonstrates how different influences on a child impact their development [Figure Three].

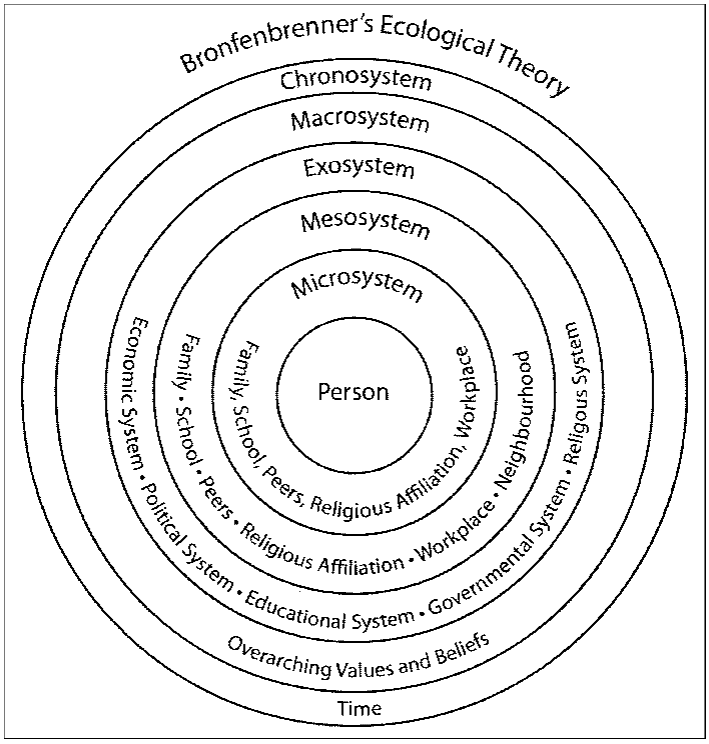

Figure Three: Bronfenbrenner's (1979) 'Ecological Theory'.

Bronfenbrenner viewed factors in the child's wider social, political and economic environment as influential to their learning and development; the relationships between school and parents occur within the 'mesosystem'. Bronfenbrenner's model, therefore, supports the suggestion that a next step for developing Child X's health and wellbeing is for the school to engage Child X's parents with her education. This correlates with the findings of Hattie (2012: 151) who deduced that 'strong positive relationships with parents' are essential for improving outcomes, and Underdown (2007) who argues that positive interaction or tension between the parents and the school can uphold or destroy a child's wellbeing. Furthermore, the EEF (2019b) propose that parental engagement leads to +3 months learning progress based on very secure evidence, suggesting this will impact other aspects of Child X's learning. As Child X's teacher, I must forge relationships with pupils' parents to promote this transition of skills to the home context. Musgrave (2017) suggests that working parents are best engaged through extracurricular provision; therefore I could ascertain whether either of Child X's parents could support the Sports Club which she attends to strengthen this parent-school relationship.

Languages, Literacy and Communication

Whilst data was collected about Child X's attitudes, skills and knowledge regarding oracy, reading and writing, due to word count constraints I can only consider her reading development here. Child X's Welsh language development is discussed separately below.

ANALYSIS OF LEARNER: READING		
ATTITUDES	SKILLS (WG, 2019b)	KNOWLEDGE (WG, 2019b)
• Curious. • Focussed on what is relevant. • Full of wonder. • Persistent and persevering. • Willing to ask for support and coaching.	• Locates and retrieves information from texts. • Independently responds to texts, orally and in writing, focusing on the meaning of images, print and presentation.	• Knows how letters map to sounds and that one letter, or letter cluster, can have multiple pronunciations. • Knows that reading can serve different purposes. • Knows the structural features of different texts.

English is one of Child X's favourite subjects because 'it's comprehension really and you read stuff and I like reading' (Appendix B). She took a photograph of her current reading book which she considered an important object in her classroom (Appendix G), suggesting that Child X possesses a positive attitude towards reading. When listening to Child X read (Appendix H), she conveyed enthusiasm through her use of expression and curiosity about what would happen next in the story and showed empathy for the characters, considering how she might act in their situation. Child X answered a range of comprehension questions, using inference, deduction and prediction skills, occasionally pointing to parts of the text or illustrations which supports her answers. This suggests that Child X's reading attainment may be at Level 4 (WG, 2016: 15), as she understands the key ideas of the texts she has read, is beginning to use inference and deduction skills and refers to the text when explaining her ideas. However, when Child X was observed reading newspaper articles during an English lesson (Appendix J) it was apparent that she struggled to understand some of the Tier 3 vocabulary which impeded her overall comprehension.

The Barrett Taxonomy (Barrett, 1976) outlines a hierarchy of comprehension skills which pupils develop as they become confident, independent readers (Appendix I). My analysis of Child X's reading progress and her enthusiasm for reading comprehension suggests that Child X is currently developing 'Inferential' skills within the taxonomy: she uses her own knowledge to inform hypotheses and predictions, but her low confidence with unfamiliar and figurative language prohibits mastery of these skills. Child X queries her decoding of new words with her teacher, but not their meaning, so her ability to comprehend texts containing unfamiliar vocabulary is limited (Appendix H). Therefore, to develop Child X's skills within the Barrett Taxonomy, as her teacher, I must support her in developing strategies for comprehending unfamiliar vocabulary. Zorflass and Gray (2014) recommend that teachers model how context clues such as etymology and sentence structure provide insight into word meaning and encourage pupils to use these when reading independently, whilst GL Assessment (2019) argue that to facilitate progression in reading, Tier 2 and 3 vocabulary needs to be explicitly taught to pupils.

Offering an alternative perspective, Mercer (1995, 2000) and Barnes (2008) would emphasise that the teacher's role is to facilitate 'exploratory talk' between Child X and her

peers so that they participate in shared meaning-making as part of a social constructivist approach. This could be achieved by introducing guided reading sessions into the class timetable, perhaps as a focus group activity within the schools' carousel-style of learning. Welsh Assembly Government (2010) advises that guided reading is the best strategy for modelling and teaching reading which correlates with the EEF (2017), who found that children should develop their prediction, inference and clarification skills by practising them with support and feedback from peers. Biddulph (2002) similarly emphasises the need for teachers to scaffold literacy learning, but the format of this requires my careful consideration as a teacher since, as Dowhower (1999) argues, oral reading, particularly round-robin reading, decreases comprehension within group reading contexts, whereas silent reading with guided reflection enhances learning gains and is more pertinent to everyday life.

Mathematics and Numeracy

ANALYSIS OF LEARNER: MATHEMATICS		
ATTITUDES	SKILLS (WG, 2014)	KNOWLEDGE (WG, 2019c)
• Reluctant to learn from mistakes. • Avoids new experiences. • Avoids taking risks. • Willing to ask for support and coaching.	• Selects appropriate mathematics and techniques to use. • Is refining informal methods of recording written calculations, moving to formal methods when ready. • Recalls and uses 2, 5, and 10 multiplication tables. • Adds 3-digit numbers using appropriate methods. • Measures and calculates areas and perimeters.	• Understands the additive relationship and has been introduced to the multiplicative relationship, including arrays. • Beginning to extend their understanding of the number system, to include large numbers, zero, negative numbers and fractions. • Understands the properties of shape.

Child X dislikes numeracy 'because I'm not very good with numbers' (Appendix B), indicating a negative attitude towards mathematics. Child X's teacher explained that she attends 'Rapid Maths' to develop her mathematical confidence - during child conferencing, Child X said this intervention was for 'people who are struggling with maths'. The OECD (2013) found that pupils with low confidence in numeracy developed anxiety regarding mathematics and consequently made reduced progress compared to their peers, correlating with GL Assessment (2016) who argue that students' perceptions of their capabilities have a greater impact on their progress than their actual performance. This suggests that Child X's self-perception that she is a weak mathematician may inhibit her progress and demonstrate that she has adopted a 'fixed mindset' (Dweck, 2006). Child X's apparent belief that one's mathematical ability is fixed are pervasive in society (Johnston-Wilder and Lee, 2010; Boaler,

2013) but Shenk (2010) contends that mathematical ability increases with effort and motivation.

To increase her motivation and confidence with mathematics, Child X's next steps are to develop mathematical resilience and a 'growth mindset' (Dweck, 2006). Johnston-Wilder and Lee (2010) define mathematical resilience as a learners' ability to overcome challenges in mathematics, view mistakes as learning opportunities and recognise that ability is a product of effort. This can be facilitated by supporting Child X in developing her metacognition of where she is in the learning process and strategies for overcoming challenges. The EEF (2018) found that challenge facilitates metacognition and self-regulation which can lead to +7 months learning gains; this concurs with the 0.69 effect-size of metacognition identified by Hattie (2012).

Askew (2016) suggests that all worthwhile mathematical experiences cause feelings of frustration, confusion and irritation, but knowing how to overcome these will increase learners' resilience; to support Child X in achieving this, my role as a teacher is to encourage her to embrace challenges without directly relying on teacher support. Child X should be introduced to the 'Learning Challenge', or 'Pit', established by Nottingham (2017) as a model of how children overcome challenges in their learning [Figure Four]. Nottingham (2017) considers that by presenting pupils with challenging learning, they are forced to enter the pit, and as they learn strategies to complete the challenge and climb out of the pit, they develop a growth mindset, resilience and self-efficacy. However, O'Connell (2017) highlights that this process is rarely the straightforward arc that Nottingham's diagram depicts, instead suggesting that pupils fluctuate in and out of the pit frequently before reaching Stage 4. When Child X asks for teacher support, she should be encouraged to consider where she is in the 'pit' and suggest her own strategies for moving forwards, rather than being explicitly help by the teacher straightaway.

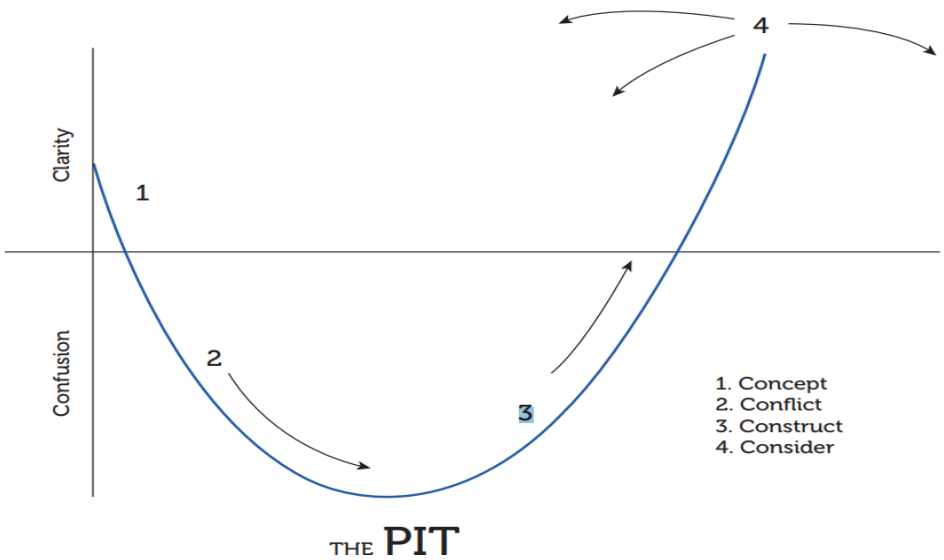

Figure Four: The 'Learning Challenge' (Nottingham, 2017: 4).

Johnston-Wilder and Lee (2017) emphasise that resilience increases when learners have specific targets. Child X often uses concrete manipulatives, pictorial strategies and adult support to complete tasks: number-lines when adding whole and negative numbers, pictures for calculating fractions and arrays for calculating multiplication facts to 12 x 12, as she cannot recall these fluently (Appendix K). Askew and Eastaway (2013) believe arrays facilitate deep (versus surface) learning as they teach pupils how multiplication works as a mathematical concept, whilst Haylock and Manning's (2014) 'Connections Model' [Figure Five] highlights pictures as a crucial component in developing children's understanding of number and number operations. The ability to 'move between concrete, visual and abstract representations' evidences Progression Step 3 for the new curriculum (WG, 2019c: 35): Child X is secure with concrete and visual representations but her abstract understanding requires development. Haylock and Manning (2014) highlight arrays as one of two prerequisites for developing mental multiplication strategies, alongside the recall of multiplication facts to 10 x 10. It is important that Child X recognises the values of arrays in allowing her to move through the 'learning pit' and developing her understanding of multiplication, yet also understands the need for fluent recall of multiplication facts to advance in her learning.

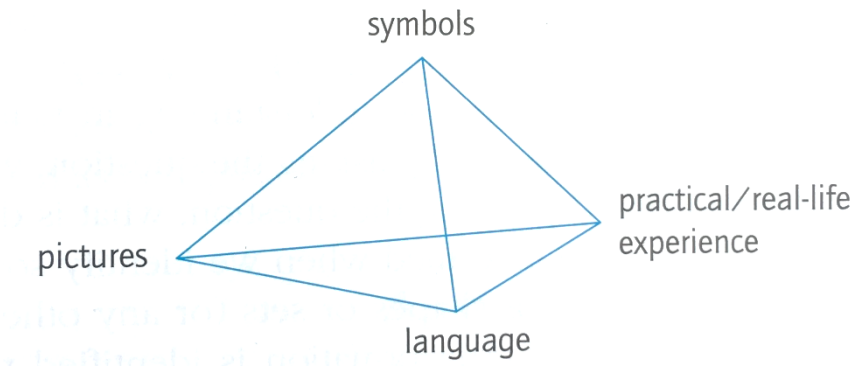

Figure Five: The 'Connections Model' (Haylock and Manning, 2014).

A recent study of mathematical resilience in apathetic learners found that engaging subject-specific input, often conveyed through the medium of games, transformed learners' attitudes and mathematical knowledge (Cousins *et al.,* 2019). The Department for Children, Schools and Families (2009) suggest that ICT resources may support struggling pupils to transition from written or pictorial to mental methods of calculation. Similarly, Hoxton Garden Primary School (2018) found that children's engagement and enjoyment of mathematics increased following the introduction of 'Times Table Rockstars': within six months pupils were confidently applying times tables in various mathematical contexts. Hattie (2012: 252) contradicts these findings by attributing an effect-size of 0.37 to 'computer-assisted instruction', suggesting it is less effective than other strategies. However, a game like Times Table Rockstars could be considered to develop Child X's recall of multiplication facts as she can access this within continuous provision at school and at home independently of her teacher, thus developing her resilience.

Expressive Arts

ANALYSIS OF LEARNER: ART		
ATTITUDES	SKILLS (WG, 2019d)	KNOWLEDGE (WG, 2019d)
• Curious. • Focussed on what is relevant. • Full of wonder. • Persistent and persevering.	• Uses a range of creative techniques, processes, materials, tools and technologies to create an effect. • Gives opinions about her own work and the work of others. • Produces artwork in response to stimuli using observation.	• Knows a range of artwork by artists across time and from different cultures. • Knows a range of discipline-specific vocabulary related to art. • Knows how to reflect on the success of their work.

Art is one of Child X's favourite subjects and she wishes she did more art at school (Appendix B). Child X demonstrates pride in her artwork and took photographs of artwork in her sketchbook and on a wall display (Appendix L). She also aspires to a career as an actress, dancer or artist and values creativity in her learning and at home, where she makes creations using her Arts and Crafts box (Appendix B). These attitudes demonstrate that Child X values Expressive Arts and her next steps should foster this passion. Due to the limited activities observed within this area of learning, the following analysis focuses on Art.

Child X's knowledge and mastery of artistic skills is growing and the technical standard of her artwork is particularly good when adopting the style of other artists (Appendix M). She creates artwork based on observation and experience, and uses different visual, tactile and sensory elements within her work, suggesting she her current attainment is Level 5 (above-expected for her age) (WG, 2008). Estyn (2015) considers that the tasks given in Art lessons are often too prescriptive and dissuade pupils from experimentation for fear of being 'wrong' – this could include replicating the work of other artists. Whilst Hattie (2012) downplays the role of arts and creativity in securing children's learning gains, with each presenting a below-average effect-size of 0.35, Donaldson (2015: 28) emphasises the need for pupils to 'foster creative thinking' and that 'creativity [is] a central feature of modern life' in Wales.

It could be suggested, therefore, that Child X's next step should be to experiment and explore within her artwork – especially as she aspires to a creative career, it is vital that she is encouraged to generate innovative and original ideas. Donaldson (2015) suggests that Expressive Arts should stimulate pupils' experimentation and creativity, whilst Payne (1993) highlights that purposeful experimentation with artistic techniques is a higher-order artistic skill; as Child X's Year 5 artwork already exceeds the expected outcome for the end of Key Stage Two, it could be argued that Child X is a more-able and talented artist and therefore should be challenged to develop these sophisticated skills. Developing Child X's creativity and originality may be achieved through the school's 'Leonardo Effect' ideology, which aims to facilitate innovation and creativity in artistic outcomes based on the knowledge, imagination and curiosity pupils are exposed to throughout a topic (Hickey and Robson, 2013). Consequently, Child X's need to develop originality within her artwork should inform

my mid-term planning, to ensure she is afforded appropriate opportunities for development within the curriculum arrangements of the school.

Welsh

ANALYSIS OF LEARNER: WELSH		
ATTITUDES	SKILLS (WG, 2019b)	KNOWLEDGE (WG, 2019b)
• Curious. • Open to new experiences. • Full of wonder. • Persistent and persevering. • Willing to ask for support and coaching.	• Shows open attitudes and respect towards languages and cultures. • Is developing the ability to communicate in a growing range of languages and shows awareness of how competence in one language can scaffold learning in another language. • Is developing trans-language skills in Welsh and English, predominantly associated with classroom routine.	• Knows there are different languages in their communities, in Wales and globally. • Knows through learning different languages we acquire linguistic skills in our first language. • Knows languages are used and adapted depending on situation and context.

Child X enjoys learning Welsh, and unlike mathematics, embraces challenges as although 'it's quite tricky because it's a different language […] it is really quite fun' (Appendix B). She recognises that learning Welsh will benefit her in learning other languages in the future (Appendix B), reflecting a body of research which suggests that bilingual children develop an innate ability to learn further languages (Fritz, 2016). She photographed the Welsh 'Phrase of the Week' display in the hall (Appendix N), explained she likes this initiative and is motivated to use the phrases to be eligible for an award in assembly. Within a classroom context, Child X understands a wide range of incidental Welsh, following instructions and using common phrases to convey her needs. In her written work, Child X demonstrates the ability to answer questions accurately using learned sentence patterns, substituting English words for unfamiliar Welsh vocabulary (Appendix O). Nambiar (2012) stresses that in an increasingly multicultural society, it is perfectly acceptable to compose sentences which fluctuate between two languages.

WG (2017) envisages 1,000,000 Welsh speakers by 2050; both Child X's and my own Welsh proficiency contribute towards this target. Estyn (2012, 2017) highlight that teachers require strong Welsh language skills to teach their learners well, recommending Welsh Government sabbatical courses as quintessential CPD. My ability to scaffold Child X's learning as her teacher is restricted by my weak skills as a novice Welsh speaker. Therefore, to secure Child X's development I must examine my own attitudes, skills and knowledge in accordance with the ASK model. I am open to the experience of learning Welsh and willing to ask for support: as a prospective NQT, my next step is to highlight my Welsh development needs to my future school and undertake CPD to strengthen my subject and pedagogical content

knowledge (Shulman, 1987) with the intention of conveying these skills to my future pupils effectively so they can achieve their own Welsh targets.

Child X's school aspires to the Cymraeg Campus Bronze Award – one of its criteria is that pupils speak Welsh in various contexts outside of lessons (ERW, 2016a), reflecting the WG (2017) objective that Welsh usage in social contexts is commonplace by 2050. Whilst Child X uses Welsh within the context of her learning, I have not seen it used outside the classroom. Several Estyn case studies (2004, 2012, 2017) emphasise the importance of learners using Welsh in informal social contexts and the draft curriculum states that educators should facilitate this inside and outside the classroom (WG, 2019b). The final next step proposed for Child X is that she develops her confidence in using Welsh outside of classroom activities. To achieve this, she should be encouraged to join Criw Cymraeg – an extracurricular group who promote Welsh at school, contribute to decisions about Welsh language development and model Welsh language usage across contexts (ERW, 2016b). Child X values pupil voice and photographed a pupil voice display (Appendix Q); the opportunity to develop her Welsh as part of Criw Cymraeg also reflects her attitude that pupil voice is important, demonstrating that this next step contributes to all aspects of the ASK model.

Conclusions

There are limitations to this research: the short data collection period coincided with the National Tests, therefore my observations of Child X were dominated by literacy and numeracy, to the detriment of other subjects. This justifies the analyses and next steps for these subjects being more comprehensive than Art and Welsh. As Child X could not be observed widely across the curriculum, or for a substantial time, this study only provides a 'snapshot' of her holistic development.

The Mosaic Approach had significant benefits in highlighting the learner's attitudes and values about their education as part of a holistic approach. However, data regarding the skills and knowledge aspects of the ASK model was limited as observation was the only 'tile' to provide insight into these. By using the Mosaic Approach alongside collected samples of work, however, it was possible to develop a deeper and more-rounded understanding of Child X's current skills, knowledge base and consequently, next steps for development.

By undertaking this process, I have learnt the importance of treating pupils as individuals and that assessment of a child's learning and wellbeing is enriched through pupil voice. Furthermore it has identified my responsibility to scaffold learning as part of a social constructivist approach to ensure pupils attain their next steps, and the importance of reflecting on my own subject knowledge in order to achieve this.

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Appendix

Appendix A: Permission and confirmation that work has been undertaken in school for the assignment 'School Development and Pupil Progress', signed by Class Mentor.

Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

Yr Athrofa
Institute of Education

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 whereever 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): [redacted] (1800158)

SCHOOL NAME (PLEASE PRINT): [redacted] PRIMARY SCHOOL

SENIOR MENTOR/CLASS MENTOR NAME (PLEASE PRINT):

SARAH WILLIAMS

SENIOR MENTOR/CLASS MENTOR NAME (PLEASE SIGN):

Sarah Williams

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

Appendix B: Interview transcript from child-conferencing.

Researcher:	Do you like coming to school?
Child:	Yeah
Researcher:	Yeah… why do you like it?
Child:	Umm… because it helps me learn.
Researcher:	It helps you learn… and that's important?
Child:	Yeah…
Researcher:	What's the best thing about coming to school?
Child:	Umm… Everything really… Learning new things.
Researcher:	Are there any bad things about coming to school? Anything you would change?
Child:	No
Researcher:	No?
Child:	No nothing.
Researcher:	Okay. So what are your favourite subjects at school?
Child:	Science, English and Art.
Researcher:	And why are they your favourites?
Child:	I like English because umm… it's like… comprehension really and you read things and I like reading.
Researcher:	You like reading, that's good.
Child:	Science is because you learn new things like you can investigate and art is just fun umm… I don't have a reason why it's just fun.
Researcher:	Fun is an important reason too. What about subjects you don't like as much or maybe find a little tricky?
Child:	Maths [giggles]
Researcher:	Okay, so why do you not like Maths as much?
Child:	Umm… because I'm not very good with numbers but I'm getting better.
Researcher:	What do you think the teachers or school could do to help you feel more confident with Maths?
Child:	Umm… well… I am feeling confident because Mr. Pyle does catch-up maths

so people who are struggling with maths can go and there are lots of practice papers and you can do lots of maths questions. And he can help me with it so I feel more confident.

Researcher: Aha. What about in class? What helps you with your maths?

Child: It's just when teachers help you umm.. it's really nice.

Researcher: Do you say to the teacher 'I need help' or do you wait for the teacher to come around and see that you need help?

Child: Well I put my hand up and say can I have help with whatever and then they help me.

Researcher: Okay, good. So not just Maths but anything at school, when you find something tricky, it might be in a lesson or it might be outside. If you find something tricky what would you do?

Child: I'd try and do it myself before I ask the teacher because teachers are always busy. If the teacher is too busy I might ask my friends but they might not know as well. Then I would have to ask the teacher.

Researcher: Do you think there's anything school can do to make your learning better?

Child: Umm… I don't know.

Researcher: Is there anything you think you need to do more of or less of at school?

Child: I think maybe we should do more of Art because we don't really do it. It's only when we have a random bit of time like we did today that we get time to do it. Mrs Williams likes art and I think she wants to do more art so I want to do more art as well.

Researcher: Why do you think doing more Art is important for you as a learner?

Child: Well some people might want to be an artist. And it's good because we do lots of Maths and English so it's good to do something else as well.

Researcher: What do you think a good teacher is like? How would you describe one?

Child: A nice one! Umm… a helping one like when you are stuck they don't tell you the answer but they tell you how to work it out and help you to do it yourself. Umm… yeah.

Researcher: What do you think a good classroom should be like? The actual room?

Child: With lots of things that can help you like a timeline that you can use to help

you.

Researcher: So things on the walls? Or on the tables?

Child: On the walls like we have in our classroom like the maths things I showed you on the cupboards.

Researcher: Yes I remember you showing me those on our tour and saying that they were important. And the big world map on the wall.

Child: And the Welsh things on the wall too. Those are important. I need those to help me.

Researcher: How do you feel about learning Welsh?

Child: Umm… it's quite tricky because it is a different language but it is really quite fun. I like learning Welsh.

Researcher: And you think learning Welsh is important?

Child: Yes.

Researcher: How come? Why is it important?

Child: Because it is learning another language and when you get to Comp[rehensive School] you have to learn lots of other languages so it helps get you ready for that.

Researcher: So it gets you used to learning a language?

Child: It definitely gets you used to practicing it and as they say 'Practice makes perfect'.

Researcher: Indeed! What do you do for fun? At school or at home?

Child: At school for fun we might have a little bit of time left and we might get to do what we want like Lego or drawing. I like that! At home I might do some Art because I like Art and I've got an arts and crafts box. I do drawing. I might play with my brother. And yeah...

Researcher: Do you know what you want to do when you grow up?

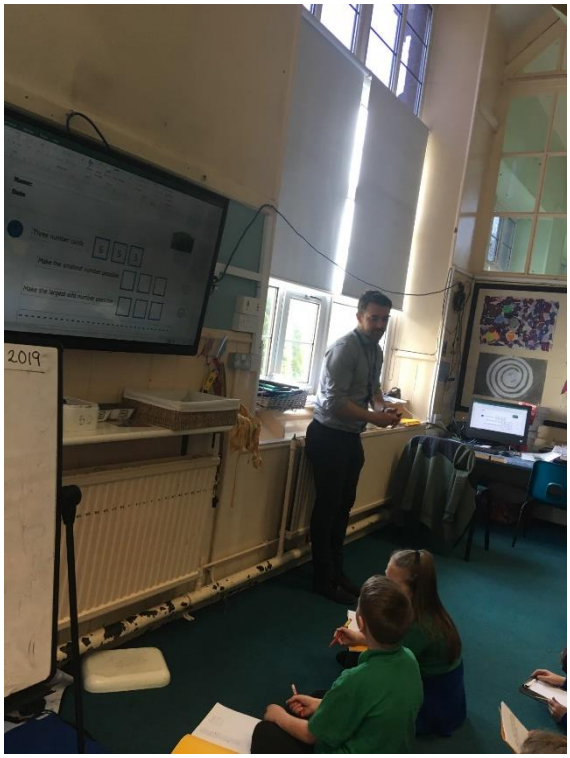
Child: I'm not really sure exactly what I want to do but I have an idea that I think I want to do something to do with Drama.

Researcher: Yeah! I saw you enjoyed the drama yesterday you were getting into it!

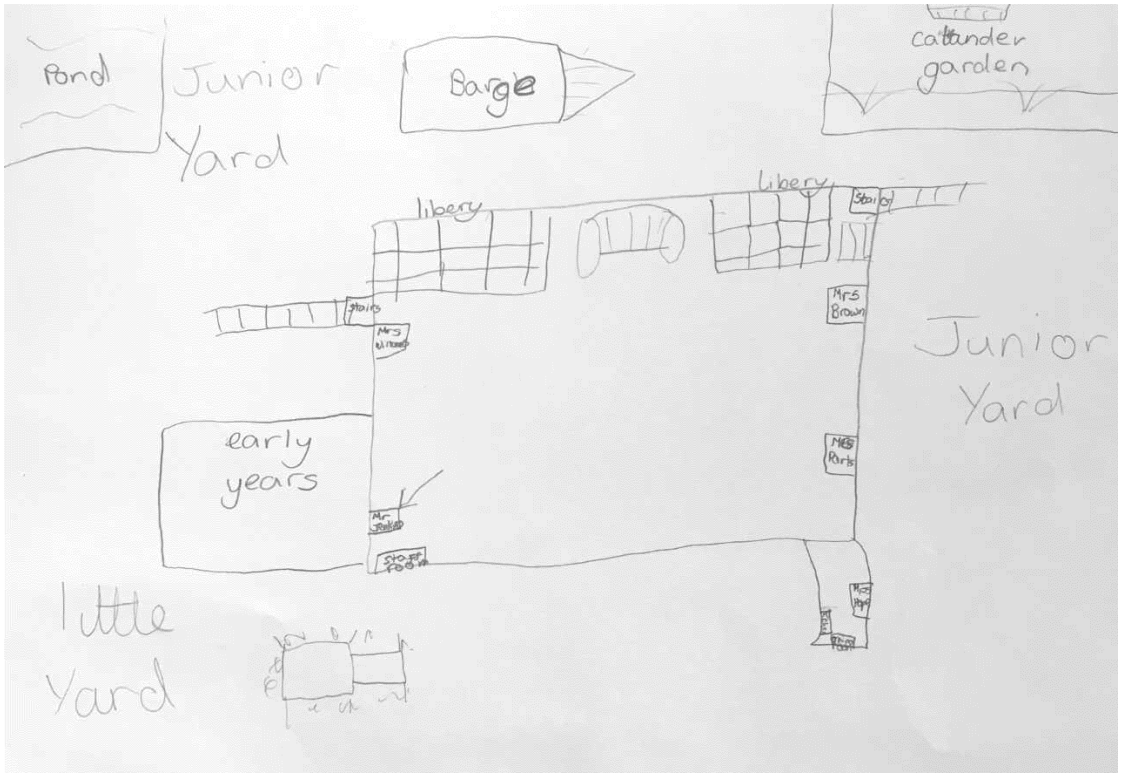
Child: I dance too! I do ballet lessons, I'm already Grade 4 [grins]. So those are the two things I like. I would like to be an artist as well. That's three things.

Researcher:	So you want to do something creative?
Child:	Yes.?
Researcher:	Okay, that's great! I have two more questions left for you if that's okay? [Child nods]. Is there anything at school or anything that happens at school that might make you feel worried or stressed?
Child:	[giggles] When I have arguments with my friends.
Researcher:	When you have arguments with your friends? And what would you do if you had an argument? How would you sort things out?
Child:	Well I just try and say 'Let's get over it' and say 'Sorry' and then it's done and it's over and we can just go and play. That's what I would do.
Researcher:	That sounds like a good plan. Last question… it sounds like, from what you've told me, that you like school and you enjoy coming to school and the things you learn about. What is the one thing you would do to make school even better and to make you happier at school?
Child:	I don't know really because they do everything here so there's nothing I can think of that they could do to make it an even happier place.
Researcher:	Perfect! Thank you for all of your help!

Appendix C: Photograph taken by Child X during the tour of the school. The photograph shows her class teacher explaining a task to a group of pupils.



Appendix D: Map of the school created by Child X.



Appendix E: Observational notes of Child X playing on the yard with her friends.

Name of learner: Child X **Class:** Year 4/5

Time: 10.30 – 10.45 **Date:** 2 May 2019

Activity: Playing on the yard during Amser Chwarae.

Comments: After eating her fruit, Child X played a range of games on the yard with 5 other girls in Year 5. They played three different games during the 15 minute period: 'Mob', 'Tag' and 'Marco Polo'. Child X played as both the 'catcher' and the 'runner' in 'Mob' and 'Tag', but was not blindfolded during Marco Polo. Child X communicated effectively with her peers, in English only, during these games. She showed good sportsmanship regardless of whether she won or lost. When playing 'Marco Polo' the blindfolded child tripped – Child X caught them and asked if they were okay, even though this meant she lost the game by default, demonstrating a caring attitude towards others.

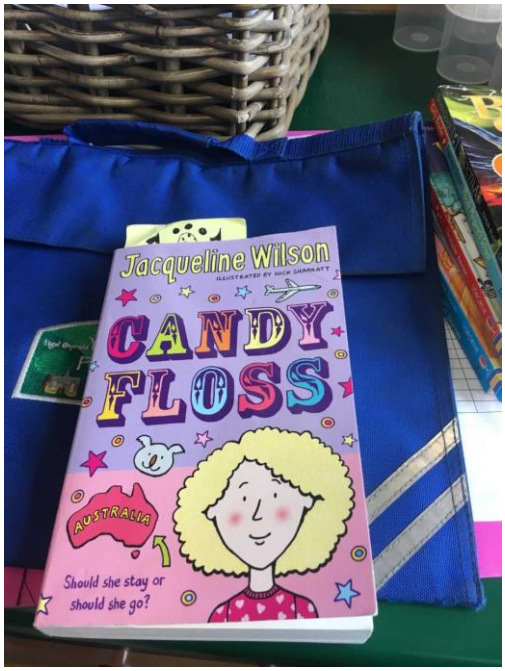
As a result of the games, Child X was running around in the yard for the duration of Amser Chwarae, at times she was breathless but she continued to run demonstrating perseverance and stamina. The girls used the whole of the yard in their play but predominately used the Calendar Garden as their 'base'.

What needs to be done to move the learning on?

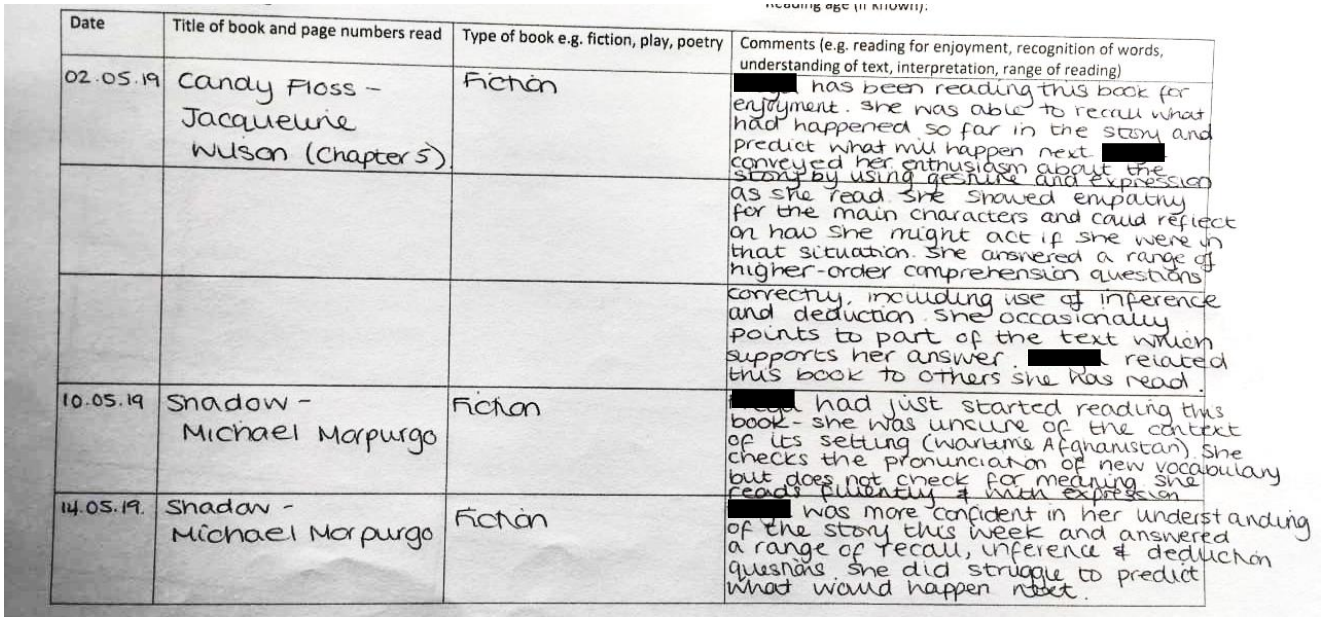
Child X could be encouraged to involve boys in her play rather than playing exclusively with girls. She could also be encouraged to use Welsh language within her play, when socializing with friends and when choosing her fruit. She should be encouraged to maintain this level of physical activity during playtimes – perhaps a member of staff could organize games for one break time each day in order to promote physical activity and mixtures of friendship groups.

Appendix F: Photograph taken by Child X during the tour of the school. The photograph shows the Calendar Garden where she plays with her friends.

Appendix G: Photograph taken by Child X during the tour of the school. The photograph shows her current reading book.

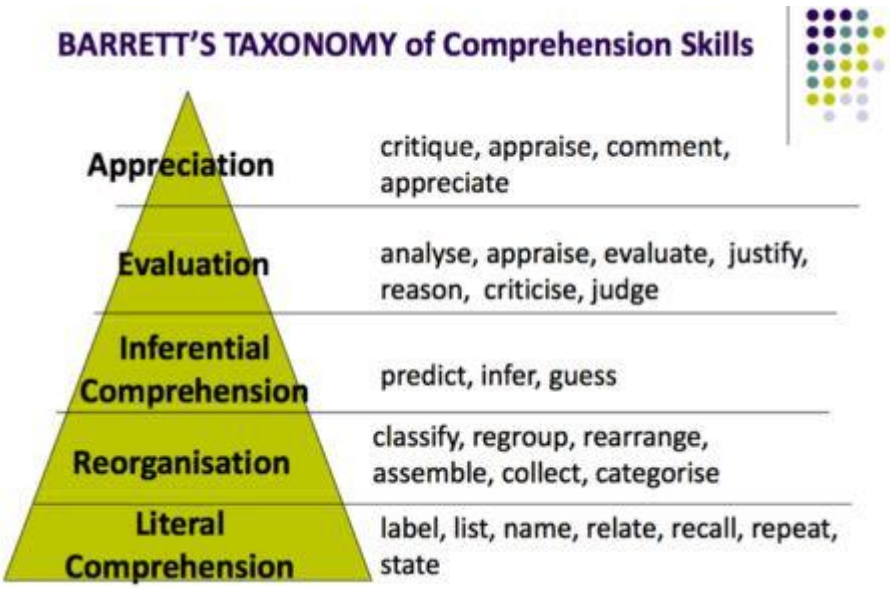


Appendix H: Reading record notes made when listening to Child X read.



Date	Title of book and page numbers read	Type of book e.g. fiction, play, poetry	Comments (e.g. reading for enjoyment, recognition of words, understanding of text, interpretation, range of reading)
02.05.19	Candy Floss – Jacqueline Wilson (Chapter 5)	Fiction	[redacted] has been reading this book for enjoyment. She was able to recall what had happened so far in the story and predict what will happen next. [redacted] conveyed her enthusiasm about the story by using gesture and expression as she read. She showed empathy for the main characters and could reflect on how she might act if she were in that situation. She answered a range of higher-order comprehension questions
			correctly, including use of inference and deduction. She occasionally points to part of the text which supports her answer. [redacted] related this book to others she has read.
10.05.19	Shadow – Michael Morpurgo	Fiction	[redacted] had just started reading this book – she was unsure of the context of its setting (wartime Afghanistan). She checks the pronunciation of new vocabulary but does not check for meaning. She reads fluently & with expression
14.05.19.	Shadow – Michael Morpurgo	Fiction	[redacted] was more confident in her understanding of the story this week and answered a range of recall, inference & deduction questions. She did struggle to predict what would happen next.

Appendix I: 'The Barrett Taxonomy' (Barrett, 1976) suggests stages for the development of reading comprehension skills.



Appendix J: Observational notes of Child X reading non-fiction texts within an English lesson.

Name of learner: Child X **Class:** Year 4/5

Time: 13.30 – 14.00 **Date:** 13 May 2019

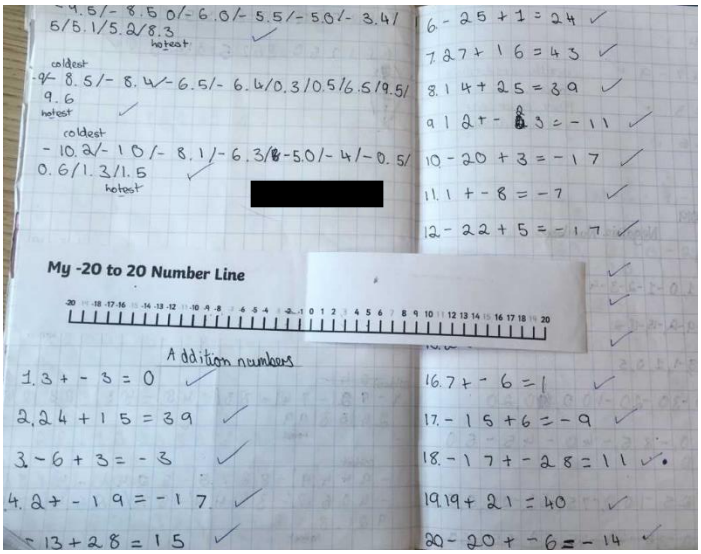
Activity: Playing on the yard during Amser Chwarae.

Comments: In her English lesson Child X was asked to read four different newspaper articles about the declining population of Welsh curlews. As part of a 'write-around' activity, she had to annotate the articles with features of the text and key facts written in them. With some prompting from an adult she was able to annotate several features of the text e.g. headline, columns, third person, newspaper title. She only annotated facts on one of the four articles. When asked why this was the case, Child X said: "I don't really like reading things like that as I don't always understand what they mean. I like my story book better because I understand the words more." Child X was able to create her own newspaper report about curlews, but this mainly described the visual appearance of the birds (based on the pictures in the articles) or activated prior knowledge such as reasons for and against birds being kept in captivity.

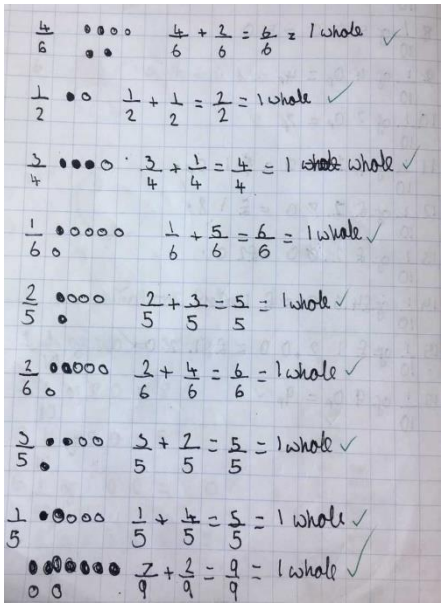
What needs to be done to move the learning on?

Child X should be encouraged to read more non-fiction texts to familiarize herself with different genres; when reading for pleasure she reads exclusively fiction books. She should also be encouraged to check the meaning of words she does not understand (especially Tier 3 vocabulary) and be provided with strategies for doing this e.g. dictionaries, online resources, asking peers or asking her teacher. This would aid her overall comprehension of the texts and boost her confidence with reading non-fiction.

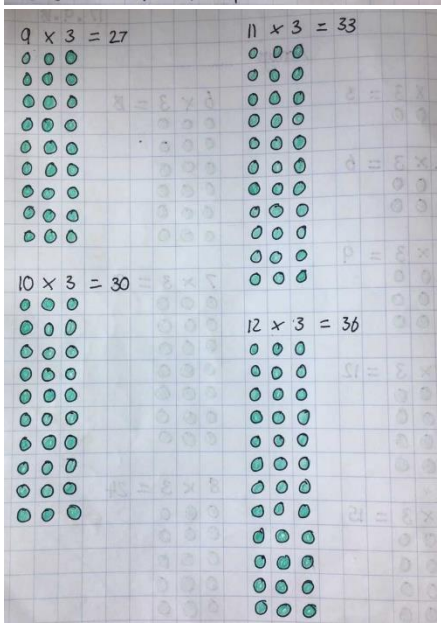
Appendix K: Annotated work samples from mathematics.



Child X could add different combinations of positive and negative integers with adult support and use of a number line. After additional input, she understood how to use the number line to 'count on' from the first number in the equation to reach her answer. By the end of the exercise she was able to use the number line independently to complete the equations, but did not feel confident enough to try to use a mental method such as counting on in her head.

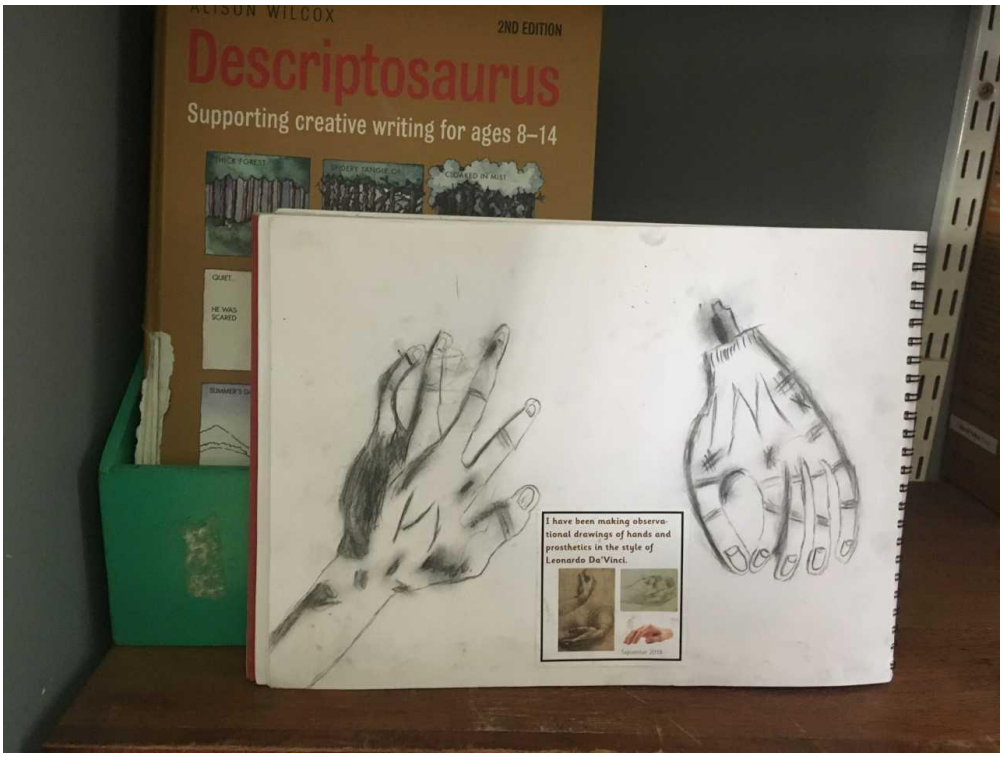


Child X is developing her knowledge of fractions within 1 whole. She was given one fraction and had to ascertain the other fraction required to create a sum of 1. She used pictures to help her achieve this. Child X chose to use this strategy independently without any adult support and was able to answer the questions successfully. She needs to continue to develop her understanding of fractions and transfer to a mental method when she is developmentally ready.



Child X was able to use arrays to scaffold her understanding of multiplication. After some adult support with the initial few questions Child X was able to use this strategy independently to find the product of two numbers up to 12 x 12. Child X is not secure recalling multiplication facts mentally – this pictorial strategy is supporting her in answering these questions as well as building her knowledge that multiplication is repeated addition.

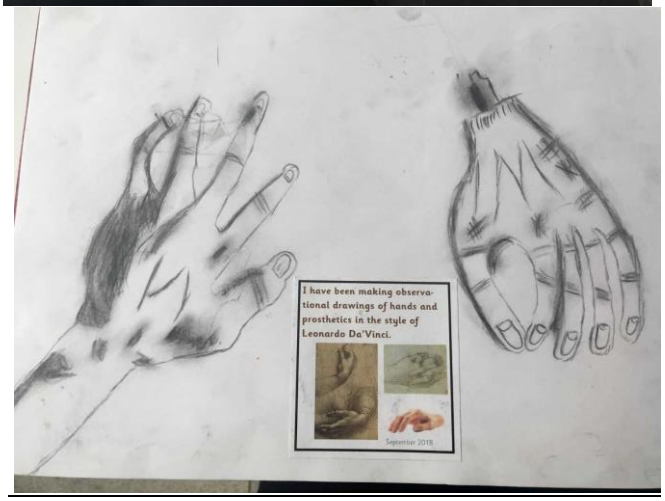
Appendix L: Photographs taken by Child X during the tour of the school. The photographs show examples of Child X's artwork in her sketchbook and on a wall display. The second photo has been cropped from Child X's original to uphold the anonymity of other pupils in her class.



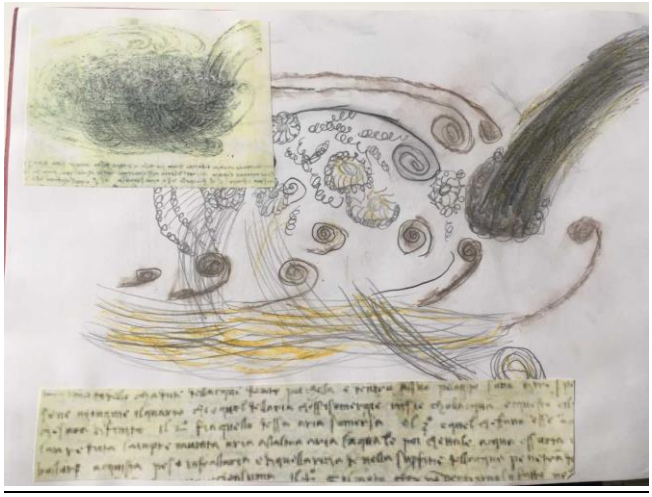
Appendix M: Annotated work samples from art.

Child X observed her teacher blending charcoal to create texture and tone in a drawing and then applied these techniques to her own sketch of a buzzard's head. She has applied artistic elements such as line, tone, colour, texture and shape to this piece of artwork and attempted to make her sketch appear three-dimensional. She has combined charcoal with pastels effectively.

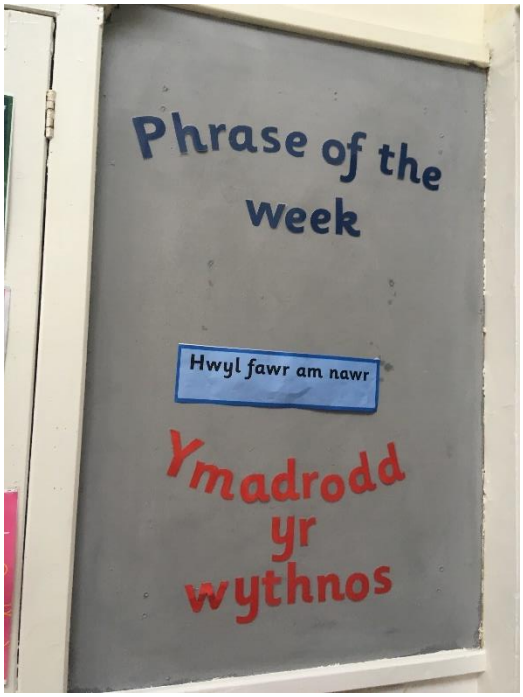
Child X was stimulated and inspired by a range of artwork by Leonardo Da Vinci to develop her own charcoal sketches in his style. This is a realistic and three-dimensional drawing based on observations of her own hands. She applied and refined the charcoal shading techniques she applied to the buzzard sketch above, showing improvement in control in this piece of artwork.



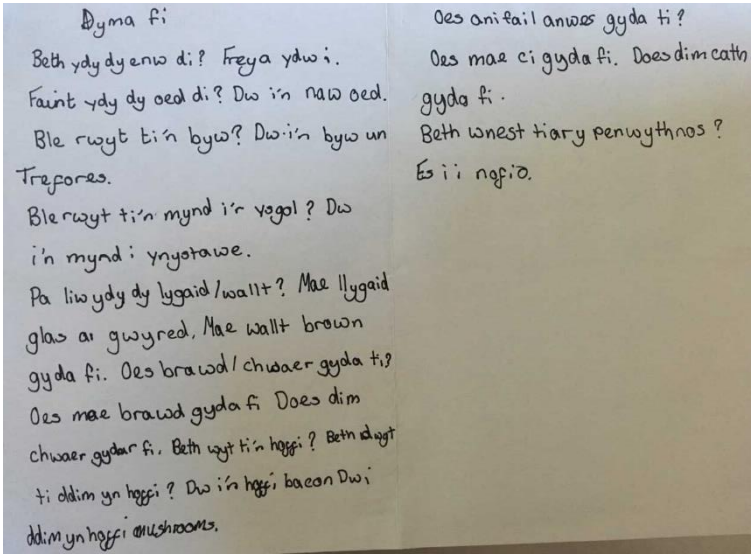
Child X explored art in a cross-curricular context with R.E. Whilst she combined different materials – charcoal, pastel, colouring pencil and graphite pencils to create her artwork, the end result is very similar to the inspirational source. Child X needs to develop her confidence in exploring and experimenting with her own ideas rather than replicating other pieces of artwork.



Appendix N: Photograph taken by Child X during the tour of the school. The photograph shows the Welsh 'Phrase of the Week' board in the school hall.



Appendix O: Annotated sample of Welsh written work.



Dyma fi
Beth ydy dy enw di? Freya ydw i.
Faint ydy dy oed di? Dw i'n naw oed.
Ble rwyt ti'n byw? Dw i'n byw un Trefores.
Ble rwyt ti'n mynd i'r ysgol? Dw i'n mynd i ysgotawe.
Pa liw ydy dy lygaid/wallt? Mae llygaid glas ar gwyred, Mae wallt brown gyda fi. Oes brawd/chwaer gyda ti? Oes mae brawd gyda fi Does dim chwaer gydar fi. Beth wyt ti'n hoffi? Beth dwyt ti ddim yn hoffi? Dw i'n hoffi bacon Dw i ddim yn hoffi mushrooms.
Oes anifail anwes gyda ti?
Oes mae ci gyda fi. Does dim catto gyda fi.
Beth wnest tiary penwythnos?
Es i i ngfio.

Child X used the present tense effectively to answer familiar questions in the third person. In the same lesson she answered equivalent questions orally in the third person. Child X is beginning to develop her understanding of past tense sentence structures e.g. 'Es i i…' and needs to continue to develop the use of these sentence patterns in her oral and written work. Child X is not currently using the future tense independently.

Appendix P: Photograph taken by Child X during the tour of the school. The photograph shows a pupil voice display, where pupils write feedback on postcards and post them in the appropriate box to give feedback to the school.