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

Teachers have an obligation to understand how children develop and facilitate their progress in learning and in wellbeing (Badjanova, 2013). This research study explores how a holistic view of the child is necessary to support pupil progress and allow teachers to make justified suggestions for the next steps of a child's development. Additionally, with the introduction of the new Curriculum in Wales (Donaldson, 2015), teachers are expected to draw on achievements both inside and outside of the classroom in order to measure children's development against the four core purposes.

This research study took place in School 1, a small village primary school located in the county borough of Neath Port Talbot, that accommodates approximately 170 pupils aged three to eleven. Of the pupils that attend School 1, 13% are eligible for free school meals and 18% of pupils have been identified as having an additional learning need. Nearly all pupils are identified as speaking English as a first language. Child A, the focus child for this research, was part of the Year 6 class of 28 pupils (16 female, 12 male), and was 11 at the time of the study. It was noted before research commenced that Child A was working at the expected level for a Year 6 pupil and did not require any targeted one-to-one support during lessons.

Data Collection

Mosaic Approach

The inclusion of children in research has been the subject of much debate, with some authors arguing that accessing a child's views on their learning can be difficult and time consuming (Woods, 2000; Sharp, 2002). However, with a move towards viewing children as experts in their own lives (Clark & Statham, 2005; Clark & Moss, 2001), it is essential that research on the experiences of children provides those children with a voice.

It was decided that the primary method of data collection for this study would be the Mosaic Approach (Clark & Moss, 2001). This approach encourages children to communicate their views through participatory methods such as taking photographs, child-led tours and map-making, alongside the more traditional methods of interviewing and observation. Piecing together these various aspects of the Mosaic, Clark and Moss (2001) suggest, can provide a deeper level of understanding about children's experiences in school and offer a more holistic view of the individual child.

Methodology

A qualitative research method (Crestwell, 1994) was deemed to be the most appropriate approach for this study due to the intention of the researcher to conduct research alongside their target pupil. The methods of data collection used in this study were taken from Clark and Moss's (2001) Mosaic Approach and these included: observations, a semi-structured interview and photographs taken by the target child. The target child was identified through discussion with the class teacher.

At the beginning of the study, the target child was given a camera to take photographs with. They were informed that they could take photographs of anything in the school that they felt was important to them. The use of photographs taken by the child has been highlighted as a strength of the Mosaic Approach (Clark & Moss, 2001; Hurworth, 2003), as it increases the power of the child and gives them a significant role in the collection of data (Einarsdottir, 2007). Punch (2002) stressed how taking photographs is a fun way for children to express themselves and gives all pupils equal chance to participate. Punch's (2002) study also highlighted the potential limitations of using children's photographs, stating that children may be tempted to copy their friends or take a photograph of an area because it makes a 'good' photograph. It was necessary, therefore, for the researcher to consider these potential limitations when analysing the collected data.

The target child was interviewed a few days after the photographs had been taken. They answered open-ended questions, expressing their views on different subject areas and discussing their pictures. Einarsdottir (2007) argues that interviewing a child is very different

from interviewing an adult, and so it is necessary to view interviews with children as conversations, highlighting the need to listen to the child and give them the opportunity to be heard. Cowie, Huser and Myers (2014) also suggest that the power imbalance inherent between the child and the adult researcher needs to be considered, as dominant adults may control or dictate what a child can say or do within the context of an interview. Both of these aspects were considered when involving the target child in conversation, with a more semi-structured approach being deemed to be appropriate, as the target child was given the opportunity to voice their own opinions, rather than being forced to choose from fixed responses selected by the researcher.

An unstructured written observation method was used by the researcher throughout the course of the study. The purpose of the observational notes was to acquire a representation of the learner's skills, knowledge and attitudes in different contexts. The reliability of this data, much like the data collected from the photographs, needed to be questioned due to the potential limitations of the observational methods used as well as the subjectivity of the researcher. Burton and Bartlett (2005) emphasise the need for caution when using observation as a method of data collection due to the human processes that are involved when gathering data. Furthermore, Palaiologou (2008) noted in her research of childhood observation, the potential for important data to be overlooked and the potential for bias from the observer. In contrast, Luff (2007) stresses that observing and documenting learning can be a valuable way of listening to children, with Elfer (2005) adding that observations can be an effective way of listening to children's attempts to communicate and that they provide educators with a context through which to consider a child's voice. Despite the concerns that have arisen over observation as a research method, the data collected from the observations provided the researcher with a more holistic view of the child, as they were able to observe the target child's attitudes, skills and knowledge within the context of their learning.

Analysis of the learner

The implementation of the mosaic approach in this study provided insight into the areas that Child A considered to be the most important aspects of their experience in school. The evidence collected about Child A (samples of written work, observations) and from Child A

(photo collage, child conferencing) emphasises the importance of examining the holistic development of the child as areas that Child A deemed to be important to their learning were not visible when simply examining the work produced in lessons. With that in mind, this analysis will make reference to the skills, knowledge and attitudes that Child A demonstrated throughout the study to ensure that all aspects of the learner are considered before next step judgements are made.

Maths

During the collection of evidence on Child A's learning and experiences, it was observed that Child A photographed a display on division and multiplication in the Year 6 classroom (Appendix…). Conversations with Child A about the photographs they had taken revealed that while they enjoyed learning maths, Child A found that they got 'stuck on Maths the most' and that this caused them to experience frustration when they could not work out the correct answer (Appendix....). Child A's attitude towards Maths was also highlighted in the observation of two separate Maths lessons (Appendix…and…) where Child A demonstrated a low self-efficacy in mathematics, becoming demotivated and discouraged when faced with a problem they found difficult. Research into the attitudes of learners towards their own abilities in mathematics suggests that while many children express an enjoyment of Maths, this positivity towards the subject deteriorates as the learner ages, with many children expressing anxiety at the prospect of having to solve a mathematics problem (Krinzinger, Kaufmann & Willmes, 2009; Jameson, 2014; Vukovic et al., 2013; Petronzi, 2016).

Other studies, however, have suggested that a learner's self-rating of their own ability directly correlates with their performance in Maths. This, Pinxten et al. (2014) argues, shows that a child's confidence in their own mathematical ability can either positively or negatively affect their performance. The conversations with Child A and the observations of their performance and attitude in Maths lessons suggests that Child A, while they do not have mathematical anxiety, can rate their abilities in Maths lessons poorly and that this has a major impact on their performance (Appendix…). However, it was also noted how in observations where Child A was clearly positive about their ability to complete the work (Appendix…) they required little to no support and were able to complete the work set for them with confidence.

The evidence collected on Child A in relation to mathematics indicates that they are working at the expected level for a Year 6 pupil and achieving a Level 4. Child A is able to add and subtract decimal points in two places, use checking strategies to ensure their results are reasonable within the context of the question being asked and is able to find the area and perimeter of a wide range of shapes. They have also demonstrated the ability to calculate using negative numbers and identify the features of a number of 3D shapes accurately.

Overall, the analysis of Child A's knowledge, skills and attitude in mathematics suggests the requirement for a next step to help improve their self-efficacy and resilience in Maths. This will enable them to confidently tackle mathematics in any situation and persist when they find a mathematical problem difficult.

Literacy

Of the photographs that Child A took, it was noted that they did not take any photographs related to literacy. When asked about this, Child A stated that while they loved reading, they found writing to be boring and of little interest to them (Appendix…), going on to say that they wished more time was dedicated for students to read for pleasure outside of the allocated times at registration and guided reading. Child A also stated they felt that reading had helped them to improve their skills in writing. This links to research conducted by Clark and Rumbold (2006) who suggest that pupils who have more time to read for pleasure are more likely to experience literacy related benefits, such as better text comprehension, breadth of vocabulary and writing ability.

Samples of Child A's written work demonstrates they have a good grasp of the knowledge and skills required to write a wide range of texts (Appendix…), although they sometimes struggle to adapt their writing style to suit the purpose and the audience (Appendix…). There was evidence of Child A utilising adventurous vocabulary in their work, with some words being chosen to create a specific effect within their writing. It was also noted how Child A was able to use full stops, capital letters and question marks accurately in their work and that they were beginning to use punctuation within their sentences (Appendix…). However, a lack of

motivation and interest was observed from Child A during lessons that required an extended piece of writing, with Child A preferring to socialize with their peers instead of completing their work. This has resulted in Child A making slow progress in some of their writing tasks (Appendix…). Conversations with Child A at these times revealed that writing was their least favourite aspect of literacy, as writing could be boring (Appendix…). A dislike of writing can occur, Frater (2004) argues, when pupils are forced to write for the sole purpose of learning. Furthermore, Cremin (2017) suggests that when writing is reduced to a series of steps, it ceases to be of interest to the writer. This was observed in a newspaper report lesson (Appendix…) when Child A demonstrated a lack of interest in writing the report as they had to make sure all of the features of a newspaper report were included in their writing (Appendix…)

The evidence collected on Child A for literacy indicates that they are achieving the expected level for writing at a Level 4. The skills and knowledge demonstrated by Child A for reading and oracy signifies that they are working at a level 5 for these aspects of their literacy.

Overall, the analysis of Child A's skills, knowledge and attitude in literacy suggests the need for a next step in writing to ensure that their writing skills continue to develop and to increase their motivation and interest when completing writing tasks. No next steps are required for Child A's reading and oracy at this time, although these aspects of their literacy will continue to be monitored.

Welsh

Three of the eight photographs taken by Child A focused on the development of their Welsh (Appendix…), with Child A stating that they felt that learning Welsh was extremely important to them (Appendix…). Conversations with Child A's class teacher emphasised Child A's desire to improve their skills in Welsh. While Child A demonstrated a positive and open-minded attitude towards the learning of Welsh, it was noted that they did not attempt to speak Welsh outside of their lessons. This could suggest that Child A finds it more difficult to practise their Welsh outside of the classroom as there is less scaffolding and support available for them to use if they require it. Opportunities to practise Welsh outside of the classroom could be a

suggested next step for Child A to enable them to develop their skills, although this does not need to be implemented urgently. This would be in line with the new curriculum for Wales as suggested by Donaldson (2015) in Successful Futures, with proposals for an education system that makes it possible for all learners to acquire a wide range of language skills in Welsh. This will, Donaldson notes when quoting key Welsh Government documents, enable learners to use language in their personal, social and work lives. The importance of learning a second language for primary pupils is also highlighted in the research conducted by Stewart (2005) that found second language acquisition to have a positive effect on children's learning. Furthermore, Ghasemi & Hashemi (2011) state that learning a second language before the age of ten provides pupils with an improved ability to communicate, better cognitive development and a richer cultural awareness.

Evidence collected of Child A's Welsh was taken from photographs, the conversations held with Child A's classroom teacher and Child A themselves. It was found that Child A shows understanding of the main points of Welsh conversations, talking about their experiences, volunteering comments and asking questions where relevant. It was also noted how Child A's pronunciation was understandable and that they used a variety of phrases and sentence patterns, in both their oracy and their written Welsh. Taking these aspects into consideration, it can be seen that Child A is working at the expected level of Level 4 in Welsh.

Physical Education

Child A also identified taking part in physical activity as being an important aspect of their learning. This was highlighted through the photographs that Child A took of the muga in the school playground, explaining that the muga was important to them because it gave them a space in which they could practice different sporting activities (Appendix…). Child A stated that taking part in sport and physical activity made them happy as it gave them the opportunity to learn and play with their friends (Appendix…). Studies into the potential benefits of taking part in physical activity have found that an individual's happiness is enhanced when taking part in sports (Downward & Raciute, 2011; Bryson & MacKerron, 2013; Kavetsos, 2011) and that by participating in sports, the health and mental wellbeing of the individual can be increased. This was observed in both P.E lessons and sessions run by

Swansea City where Child A demonstrated excitement at being able to participate and work as part of a group, demonstrating confidence in both their physical and communication skills. Child A also stated that they would enjoy the opportunity to be more independent when taking part in physical fitness lessons, suggesting that they would enjoy the opportunity to choreograph their own dance routines. This highlights Child A's curious and self-regulating attitude towards physical activity as they were beginning to look at what they were already capable of doing and how they could move forward and become even better.

Observations, photographs and conversations with both Child A and their class teacher suggests that they are working above the expected level for physical education at Level 5, as they are able to demonstrate their skills and knowledge across a range of activities with control and accuracy, they seek answers to how they can improve their own performance and are beginning to refine and adapt previously learned tactics, techniques in a wide range of situations. No urgent next steps are required for Child A in this area of their learning.

Wellbeing

Another vital aspect of Child A's holistic development was their sense of wellbeing in school. Conversations with Child A and their teacher, as well as observations of Child A both inside and outside of the classroom, revealed that Child A had a high sense of wellbeing in school. It has been noted that Child A is able collaborate well with their peers and is part of a strong friendship group. In conversations with the learner, Child A indicated that one of the best things about attending school was the fact that they got to see their friends. The importance of positive social interaction has been the subject of many studies (Haller & Hadler, 2006; Powdthavee, 2008), with substantial evidence suggesting that individuals with networks of active and positive social relationships tend to be happier and more satisfied with their lives (Amati et al., 2018) contributing to their overall sense of wellbeing. Nguyen et al. (2016) has also intimated that an absence of positive social relationships can cause distress and affect an individual's sense of wellbeing negatively. Child A's listing of their friends as being an important aspect of their school life suggests that their friends contribute significantly to their sense of wellbeing. Child A's wellbeing was also seen to be influenced by their participation

in sports and in after school clubs, with Appendix…and…highlighting their value to Child A's experience in school.

No urgent next steps have been identified for Child A's wellbeing, however the affect that their attitude towards Maths and writing could have on their sense of wellbeing in the classroom is being closely monitored, with these attitudes being prioritised as important next steps in Child A's learning.

Next steps

The use of the mosaic approach throughout this study allowed various aspects of Child A's learning and experiences within school to be analysed. Their skills, knowledge and attitude in mathematics, literacy, Welsh and physical education were examined, as well as evidence of Child A's wellbeing in school. The analysis highlighted that no urgent next steps are required in physical education as Child A has shown good progress and is working above the expected level, at a Level 5. In Welsh, Child A is working at the expected level of Level 4 in reading, writing and oracy. A suggested next step for this area of their learning is the inclusion of provisions around the classroom to enable them to practise their Welsh during the school day. To ensure that Child A moves forward in their learning, I would prioritise next steps for Child A's self-efficacy in mathematics and another to address their lack of motivation and interest in writing tasks.

Maths

In the analysis of the learner, it was observed how Child A had a much lower self-efficacy towards mathematics when compared to their self-efficacy in other subject areas. Self-efficacy, as defined in Bandura's (1986) social cognitive theory, signifies a person's beliefs concerning their ability to perform or complete a task. Pajares (2003) goes on to suggest that the self-perceptions that an individual has about their abilities can determine what individuals do with the knowledge and skills that they possess. Research into the self-efficacy of learners in mathematics revealed that many learners rate their abilities poorly and that this can hinder

their performance and achievement in Maths (Wood et al., 2012; Dowker et al., 2012; Pinxten et al, 2014). Studies focused on the improvement of learners self-efficacy in mathematics have noted the positive impact that collaboration between learners can have on the self-rating of their ability (Johnson & Johnson, 1990; Posamentier et al., 2006), with studies like the one conducted by Zakaria, Chin & Daud (2010) recommending cooperative learning approaches to improve the confidence of all pupils. An example of such an approach is Student Teams Achievement Divisions (STAD), a collaborative learning model devised by Slavin et al. (1995), that emphasizes interactions between learners to support and motivate one another to accomplish a shared learning goal. The idea of pupils collaborating and supporting one another in mathematics has been positively received, with evidence suggesting that collaborative learning between pupils can result in improved performance and attitude (Shimazoe & Aldrich, 2010; van Wyk, 2012; Zakaria, Chin & Daud, 2010).

While Child A demonstrates a wide range of skills and knowledge related to mathematics (Appendix…) their self-rating of their own ability within the subject has led them to become demotivated and discouraged when encountering a problem that they find difficult or frustrating. It is suggested, therefore, that a collaborative learning model like STAD could help to improve Child A's self-efficacy. Working with their peers and being supported if they are unsure or stuck, will improve Child A's confidence in their own ability in mathematics lessons. This would lead to Child A becoming a highly efficacious student with a more resilient and persistent attitude towards their mathematics learning (Sewell & St George, 2000). This in turn would allow them to grow into an ambitious and capable learner that seeks and enjoys challenges and sets high standards for themselves (Donaldson, 2015)

However, other studies on the effects of cooperative/collaborative learning of pupils have found that group dynamics such as the one suggested by Slavin (1995) and his STAD model run the risk of more confident pupils dominating the cooperative space, leaving those with less confidence to assume a more passive role within the group (Hancock, 2004; Clapper, 2015; Luna, 2015). Luna (2015) also argues that the diverse ability of pupils within the groups recommended by cooperative learning models has the potential to hinder the progress of those pupils already performing well and who are confident in their own mathematical ability. Introducing a cooperative learning model would require careful thought about the rest of the

pupils within Child A's class. While the benefits of such an approach would have a positive impact on Child A, it cannot be said with certainty that this approach would benefit the rest of the class as well. Furthermore, Hancock's (2004) study also highlighted the issue of pupils taking the opportunity to socialize with their peers instead of focusing on their learning when taking part in cooperative/collaborative learning groups. Analysis of Child A demonstrated that they had neglected their work on occasion when working in a group with their peers, especially when they felt demotivated or discouraged. This would have to be carefully monitored to ensure that Child A was involved in the learning and benefiting from the approach, and not simply taking the time to socialize.

Taking these aspects into account, it is suggested that Child A would positively benefit from a cooperative learning model being introduced into their mathematics lessons. It is important that Child A is given the opportunity to work and collaborate with their peers on mathematics and numeracy activities in order to increase their self-efficacy and positively impact their attitude towards mathematics. I would aim, therefore, to introduce an element of cooperative learning to mathematics lessons to give Child A the opportunity to benefit from working with their peers. This would be a long term goal, as such an approach would not have an immediate effect.

Writing

Another aspect of Child A's learning that was identified as requiring a next step was their attitude towards writing. Child A struggles to stay motivated when participating in writing tasks and this has resulted in slow progress in their written work. Through conversations with Child A, it was revealed that they found writing to be 'more boring' than other subjects (Appendix…) and that the topics that they had to write about in school were not very interesting. This being considered, Child A would benefit from a next step that would increase their motivation and interest in writing.

Motivation in writing is drastically different to the motivation experienced in other subjects like reading, mathematics and science (Hidi and Boscolo, 2006). According to Hidi and Boscolo (2006) there are many aspects to the process of writing that can adversely affect an

individual's motivation to write, such as the vast knowledge base required to write on or about a wide range of different texts and the effort that is required to persist with a writing task. Motivation can also be decreased when pupils are forced to write for the sake of learning to write, with writing being reduced to a series of steps that they must follow (Frater, 2004; Cremin, 2017). In order to overcome these obstacles, Lo and Hyland (2007) suggest that it is essential for teachers to provide their pupils with opportunities to write about what is personal, valuable and interesting to them.

However, research conducted by Hidi and McLaren (1991) suggests that while motivation to write increases when pupils are given topics of interest, this motivation does not necessarily result in improved writing performance. Similarly, a study by Boscolo and Mason (cited in Hidi & Boscolo, 2006) found that the knowledge a pupil possesses has a major impact on the quality of the writing that they produce, intimating that while a topic may be of great interest to a pupil and may motivate them to write, if they do not have sufficient subject knowledge on that topic then they cannot adequately write about it. From this, it can be suggested that in order for pupils to make good progress in their writing, a strategy that strives to engage and motivate pupils whilst simultaneously improving their writing skills is required.

An example of such a strategy is Improving Writing Quality. Improving Writing Quality is a writing intervention that utilises a self-regulated strategy development (SRSD) approach in conjunction with a memorable experience, such as a trip, to support the development of pupils writing skills and interest in their writing topic. An SRSD approach encourages pupils to plan, draft, edit and revise their writing using a clear structure. This results in consistent positive effects on pupil writing performance and a positive impact on pupils writing knowledge, self-regulation skills and motivation (Harris, Graham & Mason, 2006; Lane et al., 2008; Santangelo, Harris & Graham ,2008; Lane et al., 2010). Recommended by the Welsh Government, the Improving Writing Quality intervention has been found to be highly effective by the Education Endowment Foundation in their efficacy trials (Torgerson & Torgerson, 2014), with pupils making up to 9 months' worth of additional progress in their writing skills. The National Literacy Trust has also emphasised the value of using a memorable event to interest pupils and provide them with something to write about.

Taking into consideration the literature and the evidence taken of Child A throughout the study, it is suggested that Child A would positively benefit from a writing intervention that focuses on memorable experiences that will be of interest to the them as this will motivate them during writing tasks. For Child A then, it is important that they are given topics of interest to write about in order to improve their motivation and allow them to develop their writing skills and ability. While it is not possible for every child's individual interests to be taken into account when planning a writing task, a memorable experience that can be enjoyed by the whole class, as is suggested by the Improving Writing Quality intervention, would enable every pupil in Child A's class to use the memorable event to motivate them in their writing. Therefore, I would aim to introduce the Improving Writing Quality intervention to increase Child A's motivation and interest and to ensure that they continue to develop their writing skills.

Conclusion

In light of the research conducted in School 1, I will make every effort to facilitate the development of the whole child and will provide my pupils with opportunities to voice their feelings about their own learning, so that a more complete picture of the child can be analysed and appropriate next steps can be identified to enable them to progress. It is important to note that, while this study had limitations, it emphasised the need for a shift away from the traditional views of pupil achievement, based on what they are able to accomplish in the classroom. This study has highlighted how a refocus is required, with teachers facilitating the development of the whole child, enabling them to progress in both their learning and their sense of wellbeing. It has also emphasised the need to give pupils a voice and listen to their perspectives on their learning.

If this study were to be conducted again, I would extend the time frame and collect more data on Child A. The limited time frame of this study resulted in an incomplete picture of Child A's learning and wellbeing, and so this would need to be addressed in a further study. To increase the validity of the data collected during observation, I would adopt a more formal written method to ensure that vital aspects of the target child's learning were commented upon and that a biased view of the child was not created, as what was noted about Child A's skills,

knowledge and attitude was at my discretion as the researcher, which could have led to a biased view of the target child. A more formal written method or questionnaire approach would provide a more representative view of the target child and their learning.

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