

Looking forward: a critical analysis of Literacy, Numeracy and Digital Competence as cross curricular responsibility in the evolving curriculum.

“The world beyond the classroom” (Barnes, 2015). Cross-curricular learning is the world beyond the classroom as outlined by Barnes; he mentions that each individual will see an object in completely different ways. Some may see an object and relate it to Mathematics and Science; however, a different individual will see the exact same object and relate it to Literacy and History. He states “Cross-curricular learning recognises these multiple view points and seeks to build more knowledge” (Barnes, 2015, p.261). Barnes also suggests that a learning experience can be enhanced when a range of skills is applied, using different subject disciplines to understand a problem, illuminate a theme or idea, or gain a broader perspective (Barnes, 2015). During this assignment the cross-curricular responsibilities of Literacy, Numeracy and digital competence will be analysed, including the benefits and drawbacks as well as an analysis of some of the ways cross curricular teaching can be implemented.

The curriculum in Wales is evolving and changing. Donaldson created a report in 2015 called ‘Successful Futures’. This report explained the research he had undertaken across Wales. In the report, he includes recommendations about how he believes the curriculum can be made better. He found many positive aspects of the curriculum however; the children explained the curriculum to be outdated with not enough digital skills being taught. “They also wanted lessons to be fun, interesting and not something that were there just to pass assessments or get qualifications” (Donaldson, 2015, p.3). Donaldson has created four purposes to the new curriculum in the hope that children and young people will be ambitious, capable learners, enterprising, creative contributors, healthy, confident individuals and ethical, informed citizens. The aim of the new curriculum is to ensure that all children exit education having the skills they need for their future careers and be equipped with life skills to be able to live life to the fullest. Donaldson wants to change the style of the children’s learning from having separate subjects to having ‘Areas of Learning’. All six ‘Areas of Learning’ will each help to give the children the skills and help contribute to the four purposes. Separate to the six areas of learning, Donaldson wants Literacy, Numeracy and digital competence to be taught in a cross curricular way. He states that, “Literacy and numeracy are universally acknowledged to be the essential foundations of education” (Donaldson, 2015). This means that the use of literacy and numeracy in all other areas of

learning will help ensure that the children are always extending their skills throughout the whole day at school, giving them the essential foundations of their education. “Digital skills are becoming increasingly essential for getting access to a range of products and services” (House of Commons, 2016, p.3). As a result of this Donaldson believes that the children need more input on the skills required for computing and coding in order to grow with the country’s needs.

The document shows that Literacy and Numeracy have already been given priority in the previous curriculum through the use of the LNF being implement throughout the subjects. However, Donaldson wants to incorporate digital competency as well as Literacy and Numeracy to keep up with the fast-developing digital world. This has been backed up with the research that was carried out through Wales, concluding “that digital competence is increasingly fundamental to the learning and life and that it should have similar status within the curriculum to Literacy and Numeracy” (Donaldson, 2015). This then resulted in Literacy, Numeracy and digital competence to be Cross-Curricular responsibilities for all the schools in Wales to follow. The aim is for the three competencies is to be incorporated throughout all the six areas of learning to help ensure that all the children’s ‘fundamental’ skills are being practised all throughout the day.

Focusing onto Literacy, Bromley suggests that Literacy is about helping the students to be able to read the subject material and interpret the information to then demonstrate their learning (Bromley, 2017). Being able to use their skills and apply them to any situation in life and throughout education will help the children to have a truly sound understanding of the topic. Literacy is used all throughout the children’s day in and out of school; for example, reading a book, being able to read and understand signs on the street, instructions on food packaging and information on the internet and social media. The children will need these skills to be able to cope with the demands of the other subjects in school to complete the work necessary to develop as individuals. This competence is a key factor in the child’s learning and teaching Literacy with a cross-curricular approach will allow the children to have frequent opportunities to develop the fundamental skills for life.

Similarly, with Numeracy children need “regular opportunities to deepen their understanding of number” (Donaldson, 2015). It is important for the children to have the freedom to apply their skills to a variety of contexts and scenarios across the curriculum to help them solve problems in any situation away from the classroom. Haylock mentions that

most everyday problems and most forms of employment will require confidence and understanding of a range of mathematical skills such as “Measurement, manipulating shapes, organizing space, handling money, recording and interpreting numerical data” (Haylock, 2015, p.13). During the children’s careers they will be using the skills learnt and then apply them to the situation, hence the importance of giving the children as many opportunities to apply their skills in a variety of situations.

Lastly, digital competence is giving the children the skills, knowledge and attitudes to ensure the children grow into creative and confident in the technology industry. A report written by the Welsh government states, “It is essential for learners if they are to be informed, capable and have the potential to be successful in today’s society.” (Welsh Government, 2018) Again like the other two competencies, the importance of allowing the children the opportunity to develop these skills whenever they can during the school day will help them to increase these fundamental skills for the lives ahead of them.

This approach to the learning can be very beneficial for the children’s learning; the idea of the new approach is for the children to be ready to apply the skills developed to their lives. As Byrne states “the point is that we apply diverse knowledge and skills to problems in our lives on a daily basis” (Byrne, 2017). Using the skills across the curriculum in the other areas of learning will give the children the opportunity to practise applying knowledge to different situations and therefore the children will be more able to apply their knowledge and skills to problems on a day to day basis in the work place. This links in with one of the 4 purposes of the new curriculum as it states children should be “ready to play a full part in work and life” (Donaldson, 2015). However, this way of teaching will involve the teachers spending more time on the planning of the activities, making sure the activities are enjoyable for the children and to include all of the competencies. It is important here that the teachers deliver the new approach as effectively as they can, as Savage states “teachers are at the heart of the process of teaching and learning. Everything teachers do affects the learning of the children and in the elements of the design and delivery of the subject.” (Savage, 2010). If the delivery of the teaching is not effective then the transferable skills may not be developed to the extent they can be, which in turn may then hinder the subject knowledge the children could have been learning without implementing the competencies. On the other hand, with sound teacher understanding and outstanding implementation, this new approach will be excellent for the children to able to apply their learning to their day to day lives.

To help teachers with the implementation of the new curriculum there will be training provided for current teachers. As mentioned by the curriculum overview, the training “will provide practical support and expertise for all schools to develop the pedagogical and leadership skills” (Welsh Government, 2017). This training will be a vital part of the implementation of the new curriculum. It will provide the teachers with the skills to ensure that the curriculum gets implemented in the best way for the curriculum to be successful. The new curriculum will encourage the children to be learning through experience and will also give teachers “more freedom to teach in ways they feel will have the best outcomes for their learners” (Welsh Government, 2017). The teachers having more freedom in the way they feel is best will help the standards of the teaching increase. However, due to the activities being cross-curricular, it may involve some teachers teaching out of their comfort zone in teaching all the subjects. This may hinder the children’s learning experience if a teacher is more reluctant to teach one of the competencies more than another (Nrich, 2017). Another aspect teachers find difficult is making sure that every single lesson they teach will cover the competencies. Teachers need to keep the balance from covering all the competencies and ensuring that the level of teaching doesn’t dip. As Barnes states, “poor cross curricular teaching results in fragile, temporary, unstable and difficult to articulate learning” (Barnes, 2015). For successful teaching, teachers need to ensure they produce ‘Good Cross curricular Learning’.

There are many ways in which good cross curricular learning can be taught. For example, Barnes (2015) has constructed 8 models to help teachers construct their cross curricular lessons. Similarly, Hayes (2010) has explained Fogarty’s (1995) models of teaching who has constructed 10 models that could use to help the teachers with the new curriculum. Both theories cover similar models with slight changes between them. Some examples could be a thematic approach, this approach is the more well-known approach when thinking of cross curricular teaching. Fogarty (2015) explains this approach as “Webbed: thematic teaching using a theme as a base for instruction in many disciplines.” Barnes (2015) explains interdisciplinary learning where the intention is to connect two disciplines together by putting two concepts together to generate an original way of approaching the learning. Similarly Fogarty states “Interdisciplinary topics are rearranged around overlapping concepts and emergent patterns and designs” (Fogarty, 1995). Both theorists have a similar approach to learning being cross curricular resulting in a more reliable view point of how best to deliver the learning. As a practitioner, during placement I

tried to implement cross curricular learning. I found it to be easier in foundation phase, where we implemented a thematic approach. Using the theme of a book we then created continuous provision and rich tasks based around the chosen theme. I feel the rich tasks worked well, with the children enjoying the activities and being fully engaged with the task. However, the continuous provision that was placed around the classroom for the children to engage with on their own was a little more difficult. Due to the children being very young, it was difficult to ensure that they were engaging in the task chosen and developing the skills needed from the activity. To help the children to engage in the activity, I would explain to the children all of the continuous provisions as the theme starts and how they can engage in the activity, rather than placing the work around the room for the children to find. At the start of the topic, I sat down with the children and explained the new theme, then gave the children the opportunity to be in control of their own learning and collectively made the unit of work. This worked really well with the children; they got really involved with the activity and enjoyed being able to give ideas on what they wish to learn. In KS2, it proved to be a little more difficult to implement a cross curricular approach so a different approach was necessary. For example, a hierarchical approach “aims at achieving progress in one discipline by also teaching aspects of another” (Barnes, 2015). I found this method to be more beneficial for the children in KS2 as they were completing the other subject knowledge without even noticing they were developing the skills in the second discipline. However, this method took longer to plan and work out creative ways in which to include the different subjects.

This assignment has assisted me in increasing my knowledge of the three competencies in the new curriculum. In completing this assignment, I have been able to see how I would be able to improve my teaching practice further and ensure that the lessons taught are engaging and enjoyable for children as well as making sure the lessons cover Literacy, Numeracy and Digital competence. For example, in future teaching practice I will make sure that I include all of the three competencies in all my lessons to ensure the children are having the opportunity to apply the competencies to a variety of situations; this will help them in their future careers. Looking at the models that Barnes and Fogarty have outlined will help me to be able to structure my lessons in a way that will ensure the children progress in their education. Exploring the benefits and positives of the models has also helped me to understand which model will challenge the children in the most effective way. I have discovered that I also need to ensure that my subject knowledge as a teacher is good enough across all the subject areas to ensure that the children’s progress does not get affected. For the

new curriculum to be successful all the stakeholders involved in the process of making it possible will need to have an open mind. Ensuring all teachers are fully trained and comfortable with the curriculum is vital in providing the best education for the current children in Wales.

In conclusion, Cross Curricular learning can be very beneficial for the learners, particularly when taking into consideration Donaldson's aim in *Successful Futures* (2015) to ensure that children to develop into young people who are ready with the skills for future life. This approach, if taught well, will really enable the children to use their Literacy, Numeracy and Digital Competence skills to help them solve problems in their day to day lives. Just like Hayes (2010) states "It undoubtedly serves a valuable purpose in drawing children's attention to the links that exist between components of subject areas". Giving children the continuous opportunity throughout the day will therefore help them in the future to recall and apply the skills that are vital for them to succeed as adults in the twenty-first century.

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