



Delivering the Cross-Curricular Responsibilities

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CROSS-CURRICULAR

Cross-Curricular can be defined as “connecting across a curriculum” (Barnes, 2015, p. 50). He adds that it is a combination of skills and knowledge from different areas, alongside their environment, coming together to enrich a child’s learning experience. Pound (2008) notes that Vygotsky was a pioneer in understanding that a child’s experiences could have a significant impact on their development, and understanding of the world. Donaldson (2015) agrees affirming that children should have the opportunity to receive new and relevant experiences in order to deliver a fulfilling education. This is a different approach than commonly seen in schools in the past, where individual subjects were taught alone to develop specific skills relating to that subject. However, Donaldson (2015) still acknowledges the importance of individual subjects but believes they are better suited grouped to emphasise the similarities, creating opportunities for cross-curricular teaching, as well as ensuring they are easier aligned with other Welsh Government policies and priorities.

CROSS-CURRICULAR RESPONSIBILITIES AND DONALDSON

Donaldson (2015) has not only grouped subjects into AoLEs, similar to current Foundation Phase Framework, which may ease the identification of Cross-Curricular links process; he has also set specific **Cross-Curricular Responsibilities** to be integrated throughout the curriculum. These responsibilities are: **Literacy**, **Numeracy** and **Digital Competence**. Literacy and Numeracy have been a priority to be taught in a Cross-Curricular style for some time, particularly since the publication of the Literacy and Numeracy Framework (LNF) in 2015. This was published to enable teachers to plan these links easily. Additionally, the Digital Competence Framework was established in 2015 for the same purpose. These have been adopted by Donaldson as responsibilities to be delivered throughout all areas of the curriculum. Donaldson (2015) regards competence in these skills as important in order to access the whole curriculum and for later life. Donaldson (2015) has created ‘Progression Steps’ to be followed in order to monitor development in all areas of the curriculum including the responsibilities, and insists that the responsibilities are to be discussed explicitly in school reports and when monitoring children.

The aim of this poster is to use two of the Cross-Curricular Models as described by Barnes (2015) to exemplify how children can be educated using a Cross-Curricular approach and evaluate how effective each model is in the teaching and learning of the Cross-Curricular Responsibilities. The two models chosen are: **Theme Based Learning** and **Multi-disciplinary**. The models will be used for activities set to a Year 2 Class in the Foundation Phase in Wales. Both examples will have somewhat of a relation to Dinosaurs in order to show how the two models can be used differently for the same theme.

MODEL 1: MULTI- DISCIPLINARY

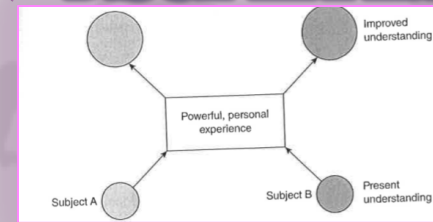


Figure 1. Barnes, J. (2015) *Cross-Curricular Learning 3-14*. London: SAGE.

ADVANTAGES OF CROSS-CURRICULAR TEACHING AND LEARNING

Hayes (2010) states that an advantage of Cross-Curricular learning provides new contexts for learning to develop skills and knowledge. He also claims that it is engaging for children and encourages them to be inquisitive and imaginative, Barnes (2012) mentions that Cross-Curricular learning also encourages creative thinking, a skill that will help children throughout their lives. In addition, Rowley and Cooper (2009) claim that Cross-Curricular learning also improves a child’s understanding of themselves, others, the community and the world as it covers numerous bases within one area.

DISADVANTAGES OF CROSS-CURRICULAR TEACHING AND LEARNING

On the other hand, Barnes and Shirley (2007) state that cross-curricular teaching can be complex and that teachers do not have enough experience or training in the approach. Moreover, Barnes (2012) states that progression is difficult to achieve alone, but adding more subjects may complicate the assessment process. In addition, Hayes (2010) discusses opinions that believe there is too much pupil choice, and that there will be opportunities for pupils to avoid areas they do not enjoy or perform the best in – potentially leading to a biased curriculum.

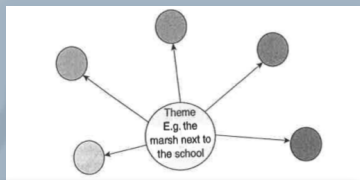


Figure 2. Barnes, J. (2015) *Cross-Curricular Learning 3-14*. London: SAGE.

MODEL 2 - THEME-BASED LEARNING

THEME-BASED LEARNING

Barnes (2015) states that theme-based learning is where a relevant and suitable theme is set for children’s work to be based off, although this theme is to not include a certain subject unless it is unavoidable. Figure 2 shows how the set theme transmits different learning experiences in different subjects/areas of learning while always relating to the main topic. Pound (2014) explains that Steiner was an early activist for using an overarching theme in schools to have cohesion in the child’s education, and to this day his schools still use one theme to encompass the whole curriculum (SteinerWaldorf.org, 2019). Estyn (2019) assert that it is effective to develop children’s skills in both the Cross-Curricular Responsibilities alongside other areas of the curriculum using a theme. They claim that it motivates pupils as well as provides a range of stimulating experiences and good progression.

ACTIVITY 1

One activity they could complete using this approach is creating a timeline of when Dinosaurs were alive, including the different species of Dinosaurs and the years they were alive up until the year they were extinct. The children would have done a simpler timeline earlier in their education and this acts as a progression. From the Foundation Phase Framework (2015), the children will be meeting the Knowledge and Understanding of the World skill of sequencing events. Additionally, by doing this activity the children will use ordinal numbers by correctly ordering the years from highest to lowest and recalling number facts by identifying whether the year is before or after the one before, both in line with the LNF (2015). This activity could mean that the children would stand between Progression Step 1 and 2 in “the number system is used to represent and compare relationships between numbers and quantities” (Welsh Government, 2019) in the Mathematics and Numeracy Area of Learning Experience. Haylock (2007) states that teaching mathematics in new and different contexts is beneficial for learners as it allows them to apply their knowledge outside of a maths lesson and therefore may deepen their understanding.

ACTIVITY 2

The second activity involves the children using VR Headsets, however this time they would be transported to living when dinosaurs did. The VR Headset acts as the historical source children should interact with, as stated in the Foundation Phase Framework (2015). They will have to discuss what they saw with their peers, meeting the Year 3 LNF (2015) skill of using specific vocabulary to explain information. Following this, the children will then write and record a poem in groups which meets the collaboration strand of the LNF (2015), as well as most of the Writing strand. Furthermore, the poems would then be recorded using a greenscreen with the video from the VR being inserted as the background after recording, this may need teacher assistance. This meets the DCF as children will have the responsibility of producing a multimedia file and save it appropriately. The European Council (2006) regarded digital competence as essential for employability and as a lifelong skill. Therefore, it is paramount that children are introduced to this as early as possible.

MULTI-DISCIPLINARY LEARNING

Barnes (2015) described multi-disciplinary learning as the enhancement of learning in two subjects from a powerful experience. Figure 1 shows that when Subject A and Subject B, which has a level of knowledge already attained, contribute to the experience, a better understanding is the outcome. Pound (2014) states that both Pestalozzi and Rousseau were both early believers that children need various experiences and different environments in order to thrive and learn. This model follows those beliefs as children develop and learn based off these experiences particularly. Estyn (2019) claim that outdoor activities and educational visits, for example, used as a learning experiences improve pupil motivation and therefore raises the standards of work.

ACTIVITY 1

One activity would start with children using VR headsets and Google Cardboard to become explorers, walk around the playground and find fossils in various places. This acts as the ‘stimulus’ and ‘powerful experience’ as explained by Barnes (2015). Following this, the children will then write a diary extract using skills previously taught but this would hopefully enhance their understanding as it provides a new context for applying their skills. They could explain what they saw on whilst exploring as well as predicting what could have come before. This meets the Writing strand of the LNF (2015), specifically following a structure with support, but also meets writing with a purpose and with appropriate language. However, the lower attaining members of the class could record this orally as the LNF (2015) states pupils must be able to take on a role and sequence their information when speaking. This overall experience then means that their ‘Knowledge and Understanding of the World’ would be developed mainly, in relation to the work on fossils. From the Foundation Phase Framework, the ‘Time and Place’ strand of the Knowledge and Understanding of the World Area of Learning including “identify differences between ways of life at different times” and “use a range of historical sources” (Welsh Government, 2015). In Draft Curriculum for Wales 2022 published by Welsh Government (2019), the activity meets Progression Step 2 of Science and Technology: Being Curious and Searching for Answers as children can collect data, ask questions and recognise trends in their experiences. However, it could also meet Progression Step 3 in Humanities: Developing an Enquiring Mind. Additionally, it meets Progression Step 2 in the Literacy ‘What Matters’ statement: ‘Learners who speak and write effectively are prepared to play a full part in life and work’ (Welsh Government, 2019).

ACTIVITY 2

Another activity is a class visit to the beach, the intention of the trip is to dig and find different fossils places around the beach and predict what they could have been. Pound (2014) states that Froebel was a pioneer in outdoor education and believed that play is the best way for a child to develop as it was beneficial for their emotional well-being as well as ensuring engagement. Therefore, this visit acts as the ‘powerful experience’ imperative in multi-disciplinary learning. This activity develops the Knowledge and Understanding skills previously mentioned, as well as meeting progression steps of the new curriculum. Additionally, it meets the Physical Development area of the Framework (2015), as the children are using the outdoors to learn with a range of stimuli, as well as having the opportunity to do so individually or with peers. Following this trip, the children will have to gather their data and record it in the form of a bar graph using J2E on Hwb representing how many of each different type of fossil they had found, e.g. 8 bones, 3 coins, 2 teeth etc. Therefore, the children are meeting the previous skills mentioned, as well as developing their data gathering skills they would have already developed to an extent, but again this deepens their understanding by using their acquired skills in a new context. The children would then be developing their ICT skills by “record[ing] data in a variety of suitable formats” (Welsh Government, 2015). Alongside representing data in bar charts as the LNF (2015) states. Overall, the intention is that the experience of the visit will develop their knowledge and skills in the Knowledge and Understanding of the World and Physical Development Areas of Learning, whilst developing their competence in both Numeracy and DCF as they apply skills they already know into new context, hopefully leading to a deeper understanding.

PROS AND CONS OF THEME-BASED LEARNING

Moilanen (2014) states that theme-based learning suits children’s natural way of learning and creates limitless opportunities for learning which may motivate pupils. In contrast, she does explain that it is a time-consuming style of teaching and may require experience in order to deliver it exceptionally, as well as theme-based learning sometimes rushing certain skills that need particular input. Another advantage is that it teaches children transferable skills and assists children in identifying the links between different subjects. (UK Essays, 2018). Lastly, Barnes (2015) states that a disadvantage is that teachers often find tenuous links and the aims are not always clear which may limit children’s development.

PROS AND CONS OF MULTI-DISCIPLINARY

The Multi-disciplinary approach to cross-curricular teaching is beneficial to students as it endorses outdoor learning and learning through play which improves mental and emotional well-being, as supported by Froebel, Rousseau and Vygotsky (Pound, 2014), as well as Estyn. However, Hayes (2010) references Cohen (2006) who believes that learning through play is not always best for the children as they may lose sense of reality and not be aware of the skills they have developed, in order to apply them to real life contexts. An additional advantage is that it provides children with experiences when learning, which Donaldson (2015) ensures is important in acquiring knowledge and has integrated it into the new curriculum accordingly. It also develops new and existing knowledge in the process subconsciously and allows children to apply skills both old and new. Although, Barnes (2015) does mention that the most effective examples of this require high amounts of planning, which may not be sustainable every day in schools.

TO CONCLUDE

Overall, Cross-Curricular teaching is a complex way of teaching that is becoming an evermore important and prevalent approach with the approaching Curriculum 2022. Multi-disciplinary and Theme-based Learning are just two of the many strategies that teachers and schools can adopt to deliver the Cross-Curricular Responsibilities. Both can effectively integrate these responsibilities into a range of subjects/areas of learning to develop children’s skills and knowledge collectively and provides new contexts for learning and applying these skills. Both, however, have advantages and disadvantages and appear to be time consuming approaches that require experience to ensure they are delivered effectively therefore there may be some obstacles adopting an approach. However, in the early stages of the new curriculum I think these approaches will be and need to be trialed in order to see which best suits the school and the class of individuals being taught as more evidence shows the benefits of learning outdoors, through play and cross-curricular learning are evidenced more and more.

Key Reading:

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