

Cross-Curricular Responsibilities: Literacy, Numeracy and Digital Competence

During this assignment, I will be focusing on cross-curricular learning across all aspects of its practice making note of key points along the way. These include the importance of cross-curricular learning, the responsibilities set out within the new curriculum reformation, including the importance of them and how they link to the new curriculum and areas of learning and experience. I will also discuss the benefits of cross-curricular learning and what I believe to be the best way to conduct cross-curricular learning, making recommendations for educators and personal targets for myself.

Cross-curricular learning

Firstly why must teachers today adapt and change to teach in a cross-curricular manner? Despite teaching in a cross-curricular manner not being a requirement within the current curriculum it will soon become a requirement and responsibility for all teachers by 2022. The changes are being made by the Welsh government alongside Professor Graham Donaldson. Within the report created by the two entities in which the new curriculum is to be based upon. One recommendation to be made was for, wider skills to be developed across the curriculum through three cross-curricular responsibilities (Donaldson, 2015) These three main responsibilities of Literacy, Numeracy and digital competence are to be the responsibility of all teachers.

Secondly, how does cross-curricular learning aid learners? Jonathan Barnes (2015) best describes the need for cross-curricular learning as “It attempts to steer a path between the easy emphasis on separate ‘core’ and ‘foundation’ subject disciplines” (Barnes 2015) thus making links between subject areas. However, Howe (2000) would suggest that cross-curricular learning creates a bland broth where neither subject is properly understood as a result. Gardner and Hirsch (2006) would have a similar view entering further detail by adding that cross-curricular learning is dependant on the acquisition of distinctive knowledge so that it can be transferred.

Furthermore, the many different models/approaches to cross-curricular learning, allow educators to best form their lesson to use a vast majority of known beneficial aspects to learning such as the use of prior knowledge as shown by Rittle-Johnson, Star and Durkin (2009) in which the importance of prior knowledge is given for a full learning experience. Despite the importance of prior knowledge shown by the aforementioned theorists, Kostons and Van Der Werf (2015) Do bring to light the issue with topic specific prior knowledge not always benefiting the learning process. This perhaps agrees with the earlier point of Gardner and Hirsch. (2006)

However there is more, in addition within multiple cross-curricular learning models, there are many opportunities for shared experiences. The importance of these experiences is the opinion of Galton and Williamson (1992). There are some however who do see issues and drawbacks with shared or collaborative learning Engstrom and Jewett (2005) Bring to light issues in regards to incorrect information being given as apart of a grouped effort.

Responsibilities of educators

To look further into the responsibilities within the recommendations made by Prof Graham Donaldson of Literacy, numeracy and digital competence. We must look at what these three core subjects provide students that allow effective cross-curricular learning. Amongst the three subjects, two frameworks have been created to aid teachers in furthering the learning of their pupils and, to aid educators with a level at which all pupils can be measured. These frameworks the LNF (Literacy and Numeracy Framework) and DCF (Digital Competence Framework) layout essential skills within each area.

Donaldson's eighth recommendation refers to wider or essential skills. The importance of these skills is that Donaldson believes the acquisition of these skills will help these pupils to best provide them with a successful future. The wider skills learned will allow pupils to achieve all four of the main purposes of the new curriculum, those purposes are.

“To develop ambitious, capable learners, ready to learn throughout their lives, enterprising, creative contributors, ready to play a full part in life and work, ethical, informed citizens of Wales and the world, healthy, confident individuals, ready to lead fulfilling lives as valued members of society”
Donaldson (2015)

As aforementioned, there are three main responsibilities concerning cross-curricular learning. These responsibilities are split into three AOLE's (areas of learning and experience). The AOLE's are designed to assist the new curriculum underpinning the important aspects of each responsibility. The responsibilities which if are taught correctly will enrich learning and ensure pupils have a successful future. This is shown by the opening statement within the AOLE for Languages, Literacy, and Communication where it says “By supporting learners to become successful in this area of learning and experience, they are therefore also supported to succeed across the whole curriculum.” Education Wales. (2019)

The importance of these three AOLE's is that they have been created with Donaldson's four purposes in mind. Furthermore agreeing to the three cross-curricular responsibilities laid out by Donaldson, should ensure all pupils achieve the four purposes provided the responsibilities are met.

But how do the three AOLE's achieve this? Within each document, several statements are made to point out what matters within the AOLE. These what matters statement are there to show how Donaldson's four purposes of the new curriculum will be met. Within the AOLE for Language, Literacy, and communication. Firstly the emphasis is based on identity and culture through languages. The importance of this statement is that English is not the sole language mentioned. Both the importance of Welsh and other international languages is recognised as important factors of identity and culture. Both aiding to meet one of recommendation three's points of creating ethical, informed citizens of Wales and aligns with article 2 of the UNCRC (United Nation convention on the rights of the child) (1989) another very influential document within the Welsh education system. Despite the fact the convention came into force in 1992 within the UK. Many schools across the nation are working towards being recognised as rights-respecting schools which have become an essential part of school life every day.

Furthermore, the second what matters statement states that “learners who listen and read effectively are prepared to learn throughout their lives”. There is cause for the argument that listening and reading not as important as experiences McAteer (2012) would argue that children learn through context and experience not by firstly mastering skills. Donaldson is not pushing students to learn skills firstly however he knows that learning is a process Kolb (1976) would back this as he believes that the learning process takes place over four stages. Furthermore, Donaldson's view is of a cross-curricular nature understanding the learning is a process this view made by him can be found within his article Successful futures as he made the statement “Literacy should be embedded within and taught alongside all other subjects”.Donaldson (2015)

The third what matters statement “Learners who speak and write effectively are prepared to play a full part in life and work.” can be linked with the first what matters statement regarding language well. However, the oracy aspect of this statement does open up a different avenue to be explored. That avenue is the opinion of Bernardo, Gaerlan (2011) who would believe that language credentials are essential to gain access to new opportunities. Furthermore, within the AOLE documentation, it is added that though effective speak they can properly express themselves as they experience new opportunities.

The final what matters statement within the Languages, Literacy and Communications AOLE Talks of what literature can do for a student a pupil the belief of literature firing the imagination and inspiring creativity is one held by many. The opinion not followed by Hutcheon (1986) is quoted saying “existing literature should be regarded as a limbo”. Hutcheon (1986) The importance of this is existing literature should be enjoyed and interest us as readers, listeners and viewers as the AOLE would suggest. However, it should not form our own creativity.

The second AOLE we will look at is Mathematics and Numeracy. Within the document, there is much reference made to the wider skills learned though this topic, however, it is less clear in the cross-curricular responsibilities. Within the first, what matters statement it is stated that competence in number provides a foundation for further study and work.

Many theorists have contrasting views on cross-curricular learning one such view is the one of Hayes (2010) who said that cross-curricular learning is shallow, improperly planned and has no focus. I would argue the same with this AOLE there is much-wasted space regarding mathematics and numeracy itself. This AOLE does not show Literacy, numeracy and digital competence as cross-curricular responsibilities. Donaldson earlier said that literacy must be an integral part of all aspects of the curriculum. I believe that for these responsibilities to be cross-curricular, all three subjects must be treated the same way.

Much of the writing within the document talk about problem-solving and analytical thinking. These are some of the wider skills aforementioned. These skills also make a direct connection with the purposes of the new curriculum. The skills are all essential to ensuring that pupils are creative and ambitious capable learners.

The final responsibility of digital competence is hidden within the science and technology AOLE Despite the DCF being available to see all the skills and progression within the topic it is the opinion of others that science and technology directly link to digital competence.

The importance of digital competence is that regardless of our own opinion pupils of today live digital competency Prensky (2001) refers to pupils of today as digital natives meaning that they learn to speak a digital language from simply living. With the role of a teacher being to get pupils ready for life, it is evidently a key responsibility. However, Palmer (2017) would argue that the extended use of media is harming our children caused them to have askew knowledge of the world we live in. If this was true is it correct to have digital competency as a cross-curricular responsibility.

The AOLE for science and technology, however, makes its argument for it being a responsibility. Regardless of skills and ability to have health work lives, there is much to be said about the humanitarian opinion of the research. For this reason the what matters statements refer to the environmental responsibilities we as humans have and indeed these responsibilities directly affect two of the four purposes of the new curriculum. Those purposes of being ethically informed citizens, who are ready to be citizens of Wales and the world. This included looking after the world we live in. The second purpose is creating healthy confident individuals who are ready to lead fulfilling lives as valued members of society. Thereby understanding that their actions have consequences that affect others. Another aspect of the AOLE is the use of computational knowledge and technology to solve problems creatively.

Within personal experiences, I have not seen many different forms of cross-curricular learning. All models I have seen have used a thematic approach and all are used continuously throughout the class. The main difference I have seen is whether or not the theme is child lead or decided upon beforehand by the teacher. I have never known a child to make links to the reason why they are completing work across two or more areas of learning. Throughout all of my experiences, I have seen varying amounts of digital competency, mathematics, and literacy. However, through all of my experiences, digital competency is always below the other two responsibilities. I myself am already stuck in my ways I plan in advance with the knowledge of expecting every week for my class to learn a new skill in both Mathematics and Literacy. Intervention is always set aside for pupils will learning difficulties in both Mathematics and Literacy. But never is intervention taking place for pupils will difficulty with their digital competency

When planning I make an effort to allow time for developing digital competency. I have used several new technologies within lessons and would say that I myself am digitally competent. I have not yet experienced a professional other than the ICT coordinator within a school who actively tries to develop specific skills within the DCF. For this reason and in this regard I would not say that currently educators within the primary sector are ready and willing for the new curriculum scheduled to roll out in 2022. Despite this I have seen excellent work done in many schools I have visited and have seen first hand the benefits cross-curricular learning can provide.

Personal targets for myself, I need to ensure that I provide time and opportunities for child lead work and or projects to take place within my classroom. As pointed out in my research of cross-curricular models by Alfi, Assor & Katz (2007) who's research has begun to show me the benefits of temporary failure, of which I do also believe is an opinion shared by Prof Graham Donaldson. As to be creative means to take risks. Donaldson also would like his learners to be ambitious and confident. Secondly, I must ensure that digital competence is valued as much as literacy and numeracy. Ensuring that both proper time and intervention is provided for learners who need it. Finally, I must make an improved effort to both learn and use welsh within my classroom as I have been made aware that regardless of my own ethnicity as a white English male. Welsh and the culture behind the language surround's me every day and is the culture of those within my class.

Recommendations for those involved in education in wales. Firstly be prepared to change changes within our education system may have started but revisions are already underway and to be expected early in 2020.

Be prepared to learn, from what I have experienced while on school placements. Is that teachers don't like change. I do believe some teachers are only just coming to terms with the last curriculum changes in 2008. Many of the professional educators I have seen believe that they provide the best for their class. However, with changes in technology and the world we live in, we must admit that numeracy and literacy aren't good enough.

Lastly and I would argue the most importantly, become digitally competent. For us to best prepare our pupils in this day and age to live healthy lives they must be ambitious, creative, enterprising, confident individuals who are ethically informed and will/ready to become citizens in a new world that is changing every day. They must be able to adapt to change, solve problems, and use the wide technological resources that surround them.

To conclude the responsibilities are clearly set with the best interest of pupils within tomorrow's society. Changes are already being made however more are to come and myself and other educators must be prepared to change. There are multiple positives to come from cross-curricular learning however we must be sure to make cross curricular learning apart of learning not forced but a natural authentic learning experience.

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