

LEVEL 6 ASSESSMENT SPECIFICATION

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Module:	Cross Curricular Responsibilities: Literacy, Numeracy and Digital Competence		
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Lecturer:	Rachel Wallis	Internal Verifier:	Rachel Wallis
Assignment Title:	Looking forward: A critical analysis of literacy, numeracy and digital competence as cross-curricular responsibilities.	Word count (or equivalent):	2,500
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Submission method:	All written assessments, where practical and possible, must be submitted via Turnitin unless otherwise instructed by the Lecturer. (Please DO NOT put this assessment specification into Turnitin or it will match many similarities with other students' submissions.) Alternative submission method (if applicable): Late submission of the assessment will result in a late penalty mark. Penalties for late submission: Up to one week late, maximum mark of 40%. Over one week late, 0%. Only the Extenuating Circumstances Panel may approve a change to submission dates.		
Academic honesty / referencing:	Academic honesty is required. In the main body of your submission you must give credit to authors on whose research and ideas your work is based. Append to your submission a reference list that indicates the books, articles, etc. that you have used, cited or quoted in order to complete this assessment.		

Looking forward: A critical analysis of literacy, numeracy and digital competence as cross-curricular responsibilities.

Overview

Throughout this assignment, there will be a critical analysis of literacy, numeracy and digital competency as cross-curricular responsibilities. There will be discussion of the benefits and limitations of the cross-curricular responsibilities, with close analysis of the new curriculum (Donaldson, 2015) and relevant policies, supported by theoretical reasoning and critical reflection.

Introduction

An increased demand for children with improved levels of literacy, numeracy and wider skills, such as digital competence, has arguably created a need for a curriculum that places emphasis on the development of these skills, or embedded within areas of learning and experience (Donaldson, 2015). It could be argued that literacy, numeracy and digital competency skills should be developed throughout all lessons, and suggest that if these disciplines were treated as cross-curricular responsibilities then arguably this idea could be enabled. Having a cross-curricular style of teaching could arguably lead to interdisciplinary learning (Barnes, 2015). One feature of interdisciplinary learning is that it embeds transferable skills such as literacy, numeracy and digital competence (Drake and Burns, 2004, cited in Hickey, Robson, and Waters, 2013). It could be suggested that integration of knowledge creates a fusion of ideas across subjects, thus helping to make education more relevant and meaningful for children (Hayes, 2010).

The current curriculum in Wales is evolving and there is an emphasis to make literacy, numeracy and digital competency cross-curricular responsibilities (Donaldson, 2015). It could be argued that when planning, as well as curriculum content, cross-curricular responsibilities should be given equal weighting, where relevant. Perhaps it would be difficult to embed each cross-curricular responsibility in every lesson, but certainly could be embedded across a small unit of work. The literacy and numeracy framework (Welsh Assembly Government, 2014b) and the digital competence framework (Welsh Assembly Government, 2018a) could arguably be viewed as tools that aid practitioners when planning the cross-curricular elements of their teaching.

Literacy, Numeracy and Digital Competence Definitions and Cross-Curricular Approach

Numeracy could be defined as giving pupils belief to have confidence and relevant skills to use mathematical approaches in everyday life, and ability to reason with mathematical concepts and apply the knowledge and skills in different contexts and thereby solve a variety of problems (National Numeracy, unknown date; Donaldson, 2015). Arguably, practitioners should be embedding skills such as data handling into lessons, where appropriate, in order to give pupils the confidence to develop mathematical skills. If numeracy is incorporated into lessons other than mathematics then pupils are given the opportunity to practice and refine mathematical understanding. On current curriculum documents (DCELLS, 2016b), statements that do not feature in the literacy and numeracy framework (Welsh Assembly Government, 2014b) and are solely part of the curriculum have been made clear. This could arguably be to enhance the mathematical aspect of numeracy statements, and to support the development of a more holistic understanding of numeracy when incorporated into subjects other than mathematics (Welsh Assembly Government, 2015).

Literacy arguably is the ability to write, read, speak and listen in a way that helps people communicate most effectively, children arguably need every opportunity to explain thinking, discuss ideas and use language skills at an appropriate level (National Literacy Trust, unknown date; Donaldson, 2015). When literacy is incorporated into lessons pupils are arguably developing skills that vary from reading to oracy to writing, which could ultimately contribute to a more literate child. According to Welsh Assembly Government (2015) in order to raise literacy standards there was a need to incorporate the existing literacy and numeracy framework, into the revised programmes of study to provide a degree of familiarity and continuity. Bandura (1961, cited in Simply Psychology, 2012) suggested that children pay attention to role models and replicate their behaviour, it could be suggested that children would replicate the proficient language of their teachers. On professional teaching experience, I endeavour to use subject specific language as it could be argued that the proficient language the practitioner models could help children to gain a better command of language. In somewhat support of this suggestion, Didau (2014) suggested that in order to understand the concept of the language, correct terminology needs to be embedded in practitioner's explanations. It is a personal belief that this demonstration can help towards children's proficient language acquisition.

Arguably, digital competence is the skills and knowledge that enable the creative and critical use of technologies, which could be viewed as being essential for learners if they are to be informed, capable and creative citizens in the today's ever-evolving society (Welsh Assembly Government, 2016; Donaldson, 2015). Some may suggest the current curriculum may not be adequate enough to help children thrive and live fulfilled lives in the twenty-first century (Beetham and Sharpe, 2013, cited in Barnes, 2015; Donaldson, 2015), some may counter argue that the new curriculum (Donaldson, 2015), could rectify this suggestion. Encouraging children to utilise technology could arguably be seen as a constructivist approach. In somewhat support of this suggestion, International Technology Education Association (2007) suggest that many students learn best by experimenting rather than just by seeing or hearing, and arguably a constructivist style of learning requires children to construct understanding through an active process. Some may suggest that due to the twenty-first century's technological driven society, digital competence should be given as much importance as literacy and numeracy (Arthur, Crick, and Hayward, 2013).

Subjects or topics other than English, information technology and mathematics could arguably provide invaluable opportunities for application of literacy, numeracy and digital competence skills to be developed in interesting and varied contexts (Welsh Assembly Government, 2017). When taught in a cross-curricular manner, subjects can enhance one another, and arguably skills such as literacy, numeracy and digital competence could be developed in a similar manner. Plowden (1967, cited in Kerry, 2015) suggested that children's learning does not fit into subject categories. Furthermore, Dewey (2008) suggested that subjects should be intertwined rather than taught in isolation. Cross-curricular learning can help children apply their knowledge and skills and reinforce personal understanding and confidence (Boys and Spink, 2008). Sometimes what children learn can influence general cognitive capabilities as well as specific knowledge and skills (Siegler, 1998). Thus possibly suggesting when children are learning in a cross-curricular manner they are maximising their cognitive abilities and developing various skills whilst building upon their knowledge.

Benefits and Limitations of Literacy, Numeracy and Digital Competence as Cross-Curricular Responsibilities

Literacy, numeracy and digital competency skills could be pursued as tools that allow children to enhance understanding of topics and themes (Gardner, 1999). These tools could be harmonised

within a cross-curricular model and arguably help children better their understanding of problems through a theme based approach (Barnes, 2015). Planning for cross-curricular responsibilities could be seen as progressive and building towards a piece of work that encompasses different elements of areas of learning and experience under a common theme (Ofsted, 2012; Barnes, 2015). Some may suggest giving pupils a choice to select how they develop the cross-curricular responsibilities could be beneficial. Also some may suggest that too much pupil choice could allow children to somewhat avoid areas of learning that they find difficult, thus resulting in poor attitude and work ethic (Hayes, 2010). This has been personally witnessed by myself, sometimes if pupils are given too much choice, the aim of the lesson can go off on a tangent and this could be a result of either lack of clarity between practitioners and pupils or freedom of pupils' choice. However, to overcome such issues, schools could seek guidance from the Welsh Assembly Government or their local consortia about these cross-curricular responsibilities and how to successfully implement them.

Arguably, each child learns in different ways, and it could be argued that children do not get excited or curious about the same things. Some may suggest that cross-curricular approaches could provide children with the best chance of successful learning (Barnes, 2015). The way in which pupil activities are executed could arguably also enhance cross-curricular responsibilities. For example, if children are working collaboratively, therefore it could be argued that they are developing their oracy and communication skills. However, one limitation could be that the emphasis on the cross-curricular responsibilities could cause a diversion from the subject matter being taught. This is a major implication for some cross-curricular approaches (Barnes, 2015). Hence, taking purpose and meaning away from the subject and possibly causing a tokenistic approach (Barnes, 2015). A tokenistic approach could occur when a stimulus is utilised to add interest to the lesson being taught, however the stimulus is only there as a token item rather than something meaningful (Barnes, 2015). On the other hand, some may suggest it could be beneficial to utilise a stimulus to gain children's interest.

Furthermore, some may suggest cross-curricular approaches can sometimes fail because of poor planning (Estyn, 2016b). Admittedly, on professional teaching experience, I sometimes struggled to understand where to appropriately include cross curricular responsibilities without already repeating the curriculum coverage. Welsh Assembly Government (2017) suggest that literacy and numeracy skills could be developed in a way that supports the subject being taught, however, there is no requirement for the skills to be incorporated into every lesson, if it is not appropriate. On

professional teaching experience, emphasis on these cross-curricular responsibilities came from lesson planning sheets and other members of staff who would advise how they would incorporate the cross-curricular responsibilities. Admittedly, I believe I plan in a systematic manner whereby I choose the curriculum area that is to be developed and then decide how to develop that area in an interesting manner, and then I decide what cross-curricular skills could be developed within that lesson or unit of work. One recommendation I would suggest for myself is that I avert from this style of planning and begin to embed the cross-curricular responsibilities more succinctly. Some may suggest it is slightly difficult to incorporate the three cross-curricular responsibilities into one lesson and thereby easier to incorporate them across a small unit of work. Henceforth, the children are still developing the three cross-curricular responsibilities but not in a hurried manner. One of the twelve pedagogical principles that Donaldson (2015) proposes is that cross-curricular responsibilities are reinforced. This proposal could arguably mean that the skills are reinforced and refined over years throughout children's education or reinforced in a repetitive manner on a more frequent basis. Vygotsky (1978) suggests the children learn when they can make links with previous learning as they can extend existing concepts with new learning, thereby making links between their knowledge and structuring their own understanding. Hereby it could be argued that if the cross-curricular responsibilities are constantly reinforced, children will structure and build upon their understanding and knowledge.

Teacher subject knowledge and confidence can impact upon their ability to apply and plan for the cross-curricular responsibilities. Strong subject knowledge could arguably be viewed as one of the most important components of being a good teacher (Morrison, 2014). Practitioners should be made aware of the various opportunities for continuous professional development that could enable them to gain better understanding of the cross-curricular responsibilities and henceforth enabling planning to be more effective. Harrison (1996, cited in Webb, 1996) suggested that some newly qualified teachers may feel they have less to offer than teachers who have been in the practice for years. However, it could be argued that newly qualified teachers may be more up to date on new curriculum changes, such as having literacy, numeracy and digital competence as cross-curricular responsibilities. From personal experience, I am aware schools have a member of staff designated to advising and co-ordinating cross-curricular responsibilities. Hence, maybe making it easier for members of staff to understand what they need to incorporate into their planning by having the ability to clarify with the designated member of staff.

Montessori (2013) discussed the concept of autoeducation, whereby children effectively educate themselves, and thus develop skills necessary for life. Whereas this suggestion maybe aimed at skills such as independence or collaboration; numeracy, literacy and digital competency skills could arguably be developed when children are working this way if planned effectively. Lifelong learning could be seen as dependent on the acquisition of skills necessary to gain knowledge, but these are often hard to assess (Hickey, Robson, and Waters, 2013). Some slight implications with cross-curricular responsibilities could arguably be assessment and progression tracking. It could be argued that literacy and numeracy can be assessed by summative assessment, whereas it is slightly more difficult to assess digital competency through summative assessment. Predominantly, the cross-curricular responsibilities can be assessed by formative assessment and feedback. According to the Welsh Assembly Government (2014) practitioners should focus on developing a coherent approach to assessment across the curriculum that supports children's progression, and schools should assess using the literacy and numeracy framework in every subject. In contrast, there is some suggestion that assessment guidance in future will be reshaped (Welsh Assembly Government, 2015) to ensure that expectations for learners are relevant and there should be increased expectations within the literacy and numeracy framework.

Practitioners should appreciate that in some children's lives, technologies play a predominant role (Barnes, 2015). Hence, practitioners could endeavour to ensure that technology is incorporated into teaching and learning experiences. However, consequently, some schools may find it difficult to plan for development of digital competency skills due to limited resources. Cross-curricular teaching arguably could be demanding in its use of curriculum time and resources, requiring a degree of flexibility (Savage, 2010). Hereby, it could be suggested that the in order to effectively develop cross-curricular responsibilities, practitioners need to be prepared to be flexible in their approach. In somewhat support, Savage (2010) suggested that digital competency has the potential to challenge pedagogical processes of teaching and learning. However, Healy (1999, cited in Pound and Lee, 2010) suggested that children need kinaesthetic activity and over-reliance on technology may not build intelligent muscles, and overuse of technology could produce convergent rather than divergent thinking. It is a continued priority for myself to ensure that on teaching experience children are developing these cross-curricular responsibilities throughout my lessons, given the designated curriculum time and the resources that are available.

According to Estyn (2016b) in schools where the curriculum was effective, teachers recognise the importance of ensuring that pupils have strong literacy and numeracy skills. It could be suggested that some schools have literacy and numeracy interventions in place to help children develop their skills. However, there are very few interventions to help children develop their digital competency skills. From my own personal research and experience this conclusion is deduced. Some may suggest that practitioners should ensure the cross-curricular responsibilities are given equal weighting, even with regard to interventions and support for pupils who require extra help. From personal experience, I am aware that some schools designate ‘digital leaders’ (2Simple, unknown date), who are responsible for the technology within their primary school. Being a digital leader helps children develop confidence, while providing also digital competence support to teachers and peers (2Simple, unknown date). If digital competency prepares children to take an active part in their education and in social, and intellectual life, then the ability to work collaboratively is paramount (Futurelab, 2010; Donaldson, 2015).

During my first professional teaching experience, I personally planned and taught a lesson that incorporated the three cross-curricular responsibilities. The lesson was designed around the scientific topic of upthrust. In brief, children would test if items would sink or float, they recorded their findings on a hand-drawn table whilst recording using iPads and then would discuss their findings with a peer. This lesson encompassed the three cross-curricular responsibilities and also fully engaged the children, and I personally think many more basic concepts could be adapted for such lessons.

Conclusion

Donaldson (2015) suggests that the new curriculum should devote attention to the development and application of knowledge and skills in literacy, numeracy and digital competence and value them as ‘responsibilities’. Literacy, numeracy and digital competence could be referred to as skills that help result in lifelong learning (World Economic Forum, 2016). To conclude, some may suggest that literacy, numeracy and digital competence can easily be integrated as cross-curricular responsibilities. Arguably, as they are referred to in the new curriculum as responsibilities, it places a greater emphasis on how practitioners should prioritise them. In my opinion, literacy, numeracy and digital competence could be regarded as foundations for children’s successful learning and need to be prioritised with such importance and developed appropriately.

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Total: 2746 words

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