

What and Why? This poster outlines two theoretical approaches to the cross-curricular teaching of Literacy, Numeracy and Digital Competence in the classroom, and has been constructed to aid practitioners in bringing this theory into practice. Welsh Government have issued this poster as a resource to practitioners who have an obligation to engage in Professional Learning (Welsh Government, 2017a) in time for Donaldson's new curriculum, where the aforementioned responsibilities will remain cross-curricular (Welsh Government, 2018; Donaldson, 2015, p.39). This poster has been produced following Estyn's suggestion that there are areas for improvement regarding the "limited" opportunities provided in the cross-curricular planning in schools, especially within the teaching of Literacy, Numeracy and Digital Competence (Estyn, 2017, p. 26). Through this poster, we also hope to reinforce the ideal that 'Pedagogy' is 'paramount' within schools and that it is now an expectation of practitioners to demonstrate their application and use of this (Welsh Government, 2017, p. 10). We have made this poster to demonstrate to teachers how theoretical underpinning is helpful in constructing meaningful and enriching cross-curricular experiences for children that work to enable progress.

The Opportunistic Approach
Learners receive a letter (L1) from the Headteacher regarding the requirement of their input on what country to undertake a class project on.

The Opportunistic Approach is a definitively a 'child-led' approach (Barnes, 2015a, p. 75), this not only adheres to the right that children have to be listened to (Unicef, no date), there is also a wealth of evidence to maintain that listening to children and giving them 'choice', empowers them and enables them to enjoy and foster a sense of belonging in school, therefore motivating them to engage with their education (Robinson, 2014; Rudduck and McIntyre, 2007; Flutter and Rudduck, 2004; Flowerday and Schraw 2000 cited by Boucher and Evans, 2015).

Considerations
Considering the evidence, both cross-curricular approaches can be seen as effective ways to teach 'cross-curricularly' and the benefits for learners have been briefly outlined within this resource; However, Barnes (2015a) concedes that these approaches can be difficult to plan and require 'good' teacher subject-knowledge; it is important that practitioners feel confident and capable before implementing these approaches. Barnes (2015b) outlines the unhelpful challenges (difficult to assess, stint in learner progression progression etc.) that come with poor implementation of cross-curricular approaches.

Following the introduction and coverage of skills, teachers would dedicate a certain of time to the planning of the celebration, and later the celebration.

NOTE: Considering our target audience, Welsh Government have deemed it appropriate to present all opportunities for curriculum skill development through QR codes (see appendices), corresponding to relevant icons (see key). These QR codes, when scanned, will take readers to relevant curriculum skills in relevant supporting documents. Examples of schools being deemed demonstrating 'Effective Practice' by Estyn (2017) involving the use of QR Codes can be found here: <https://www.estyn.gov.wales/effective-practice/incorporating-information-and-communication-technology-seamlessly-all-lessons>. For more information on how to use QR codes in the classroom, see this TEDTalk (2013): <https://www.youtube.com/watch?v=NRgWRXFXLQs&feature=youtu.be>.

Key
Literacy= (L)

Numeracy= (N)

DCF= (D)

Geography= (G)

For the purposes of this poster, 'Geography' in a 'Year 4' context has been used to exemplify cross-curricular opportunities to incorporate the three future cross-curricular responsibilities in Wales, in a time-frame that is most convenient to whom it may concern; practitioners are encouraged to incorporate an alternative subject/experience into this step-by-step guide and use their own Innovation and Leadership (Welsh Government, 2017) to make it appropriate for their own learners.

It is also necessary to note that theoretically, all subjects used are interchangeable, teachers can apply this model to any National Curriculum subject, should they wish. For more information regarding cross-curricular teaching and learning, cross-curricular models or Jonathan Barnes, please visit Barnes (2017): <https://osiriseducational.co.uk/staffroom/article/across-the-curriculum/>.

Learners have a class discussion (L2) regarding the different countries that they could undertake a class project on, sharing what they already know about those countries (G1).

The Opportunistic Approach in it's 'child-led' nature, capitalises on children's curiosity, as there is a desire to withdraw 'genuine responses' (Barnes, 2017, p. 76) from children. This reliance on curiosity works in favour of this approach as there are distinct links between curiosity and motivation to learn (Stephens, 2007; Pluck and Johnson, 2011). Conducted correctly, this approach could lead to children actively excited about learning.

Further Considerations
There is a concession of increasing pressure on practitioners within education currently, that is affecting meaningful use of class-time (Clay and Weston, 2018) and would not allow for the delicate facilitation of this experience. For support with this, we recommend practitioners consult the following document (Estyn, no date): <https://www.estyn.gov.wales/sites/default/files/documents/Reducing%20workload%20-%20English%20poster.pdf>

Opportunities for the development of Digital Competence can be found by following the relevant QR Code (D5). These include: sending invites digitally, making a poster etc.

Learners divide themselves into groups and decide in their groups which country they wish to undertake the class project on (L3).

The Opportunistic Approach requires learners to apply skills and knowledge they already have to different and practical contexts; this is beneficial with regards to assessment but is also a necessary and important opportunity for children within education (Donaldson, 2015), especially in Mathematics (Haylock, 2010; DCELLS, 2016).

Opportunities for the development of Numeracy can be found by following the relevant QR Code (N4). These include: budgeting, making decorations etc.

'The Opportunistic Approach' (Barnes, 2015, p. 75)
This approach entails practitioners facilitating a shared experience amongst learners that is used to prompt a project or further experience that is led primarily by the children. The aim of the "experience" is to arouse curiosity and to draw genuine responses from the children that inform further activity.

The groups of learners construct a digital presentation (D1) that is informative and persuasive (L4) in nature, in an attempt to convince their classmates that their country has the most potential (G2).

Opportunities for the development of Literacy can be found by following the relevant QR Code (L8). These include: writing invites, songs/poems/stories to be shared at the party etc.

A key part of this construction rests on how the teacher facilitates it. For example, access to the internet (D2), access to paper and media so that visual aids can be created by the children (e.g. leaflets, posters etc.) (L5).

'Double-Focussed Cross-Curricular Teaching' (Barnes, 2015, p. 78)
This model focuses on the opportunities for children to **apply** skills holistically. Here, children are taught the skills and knowledge through a variety of different methods, but with the condition that they are provided a cross-curricular opportunity to **apply** what they've learnt. This can be done through a variety of different ways e.g. a Mini Olympics, a Challenge Day, a class Project, a School Trip etc. In our exemplification of this model, this project follows the scheme of work provided in our 'Opportunistic Approach' exemplification to ensure that the learning once again comes directly from the children. This does not necessarily have to happen, and we once again reassure practitioners that nor do these approaches have to manifest themselves through 'Geography'.

The teacher can then teach respective curriculum skills in their preferred method in preparation for the planning of the party.

The Double-Focussed Approach not only gives learners the opportunity to apply their knowledge and skills to and through authentic situations, allowing them to see the value of education, there is also an opportunity to assess learner capability in a less formal and strenuous environment (standardised testing) which we recognise doesn't always work to assess 'meaningful learning' (Kohn, 2000, p. 8).

Following the presentations (L6), learners can hold a secret vote (N1) and record the data that they collect (digitally e.g. Excel, J2E etc.) (D3), using it to determine the winner (N2). Opportunities here to discuss, apply and explain graphs, tally charts etc. (N3).

Following the vote, the chosen country is discussed further by the class, covering aspects not already explored by the children (weather, culture, population, comparison to Wales etc.) (G3). Here children can be encouraged to compare the countries they chose to the chosen country.

The Double- Focussed Approach
The teacher reveals to the children that they will be planning a party, celebrating a chosen country. It may benefit the teacher to make a list with the children regarding the features of a party (food, costume, music etc.).

Through the Double-Focussed Approach, there is an opportunity for all National Curriculum subjects to be valued, *equally* (Barnes, 2015). Through this, learners who excel in subjects such as Music, Art or Physical Education (P.E.) etc. are validated for their capabilities in these subjects, as opposed to their incapacities in others. If conducted correctly, the cross-curricular opportunity to apply their skills in stronger subject areas to contexts involving their weaker subject areas, can have a powerful impact on their self-confidence and mind-set in those particular subjects (Hoerr, 2015). Notably, this would be more inclined to have this impact should the approach be conducted effectively and the opportunities for learner progress and success were provided (Rhodes, 2015).

Following the discussion, learners would draft an email (D4) to send to the Headteacher, explaining the process they'd just undertaken and the result of that process (L7). There is an opportunity here to attach all of their work to the email (D4).

There is the potential here to attempt 'The Opportunistic Approach' (see right) before attempting this approach.

The Double-Focussed Approach enables teachers to play to their strengths as it allows for more traditional, non cross-curricular forms of teaching, providing there are eventually cross-curricular opportunities for the children. Practitioners are able to use their own personal teaching styles, empowering them and building confidence in their teaching ability (UNESCO, 2017; Bolin, 1989).

Considerations
Importantly, like all 'child-led' approaches there is an element of unpredictability as to where the children will take the learning during these projects. Many practitioners may see this as a positive thing because, as discussed, it empowers and motivates learners; However, there is a concession that a number of teachers may be concerned about confronting the unpredictability as there is a requirement of deep and wide subject-knowledge in a variety of curriculum subjects to address all and any questions that may arise (Dabell, 2017). Moving forward, Will (2017) outlines the opportunities within teachers being unable to answer learner questions and the meaningful learning that can be induced from these experiences. Alternatively, it is to be noted that 'deep subject-knowledge' (Welsh Government, 2017b, p. 10) is an expectation of teachers in Wales.

Curricular: In-Practice