

Welcome to the PGCE Programme's research bulletin. Thank you for your feedback on these research bulletins. Please continue to send your suggestions on topics that are of particular interest to you and your setting and relevant items will be included in future bulletins.

Also, if there is any research you and/or your setting are involved in we would welcome the opportunity to share your research activity and findings across the Partnership. If you wish to know more about any of the items included in these bulletins please contact Alison Glover ([alison.glover@open.ac.uk](mailto:alison.glover@open.ac.uk)).

### In this issue .....



**Environmental Education and the Curriculum for Wales:** An intervention is delivered to learners over a three-year period. Improvements in teacher and pupil confidence are reported.



**Knowledge and attitudes towards tobacco and e-cigarettes in primary schools:** research across four Welsh schools found evidence of mixed messages about e-cigarettes compared to cigarettes.

laith  
Gymraeg

**Diagnosing bilingual children's language abilities:** Language tests seem to be created with monolinguals in mind. There is an urgent need to develop language and context specific tools.



**A professional learning intervention for early childhood education and care:** Practitioners' perceptions of science and the influence of this on provision are explored.



**Early implementation of Curriculum for Wales:** Members of the PGCE team are working with Arad Research to examine schools' early experiences of roll-out for Curriculum for Wales.



### Environmental Education and the Curriculum for Wales

*'Evaluation data supported the notion that science concepts could be explored in child-initiated play.'*

A case study used mixed methods to reflect on a programme that applied a Theory of Change framework to plan learning across six rural primary schools. An education programme is offered by an educational charity (the Darwin Experience) in response to the curriculum for Wales. A Capability Approach is also applied; this considers access to resources that allow effective choices to be made. The intervention followed is delivered to the same group of learners over a three-year period – this involved preparatory classroom based activities, a fieldtrip, workshop and classroom-based follow-up activities. Also, 6 pupils spent time in the Science department of their local secondary school working on projects twice a year. Data was collected using observations, staff and pupil questionnaires, one-to-one and group interviews and analysis of attainment data. Some of the key findings included improvement in teachers' confidence in teaching science and pupils' confidence in the use of scientific equipment, language and methodology was also reported to improve. It is concluded that teacher agency is encouraged by combining a Theory of Change framework with a Capability Approach.

Jones, V. (2023) 'Environmental Education and the new curriculum for Wales: an evaluation of how a family of schools in a rural area used a Theory of Change approach', *Environmental Education Research*, 29(3) pp. 392-409.



## Knowledge and attitudes towards tobacco and e-cigarettes in primary schools

*'Well my mum told me if you see somebody smoking, then walk a bit quicker or try and hold your breath.'*

E-cigarettes have been mainly researched in secondary schools, with less understanding of development of attitudes and behaviours at an earlier age. This research reports on interviews with pupils, parents, and teachers at 4 case study schools in Wales (N=42). Findings indicate that consistent messaging on smoking from school and family was reflected in strong disapproval among pupils and clear understanding of harms. This was less evident for e-cigarettes, where messages were mixed and inconsistent between home and school, with concerns over what to tell children about e-cigarettes in light of mixed messages and absence of official guidance. Further research is recommended on the development of age-appropriate teaching content for schools. Research is also recommended to explore the impact of school communication which stresses e-cigarettes as a product for adult smokers and unsuitable for non-smokers.

Brown, R., Van Godwin, J., Copeland, L., Hallingberg, B., Angel, L., MacDonald, S., Segrott, J. and Moore G. (2020) 'Ecological Exploration of Knowledge and Attitudes Towards Tobacco and E-Cigarettes Among Primary School Children, Teachers, and Parents in Wales: A Qualitative Study', *Tobacco Use Insights*, 13, pp. 1-12.

laith  
Gymraeg

## Diagnosing bilingual children's language difficulties

*'Training is needed in particular in relation to how to help children deal with specific forms of the language.'*

When children are suspected as having language difficulties, they are usually measured for their abilities using tests that compare their language performance to other typically-developing children of the same age. The results of these tests are then used to help establish a diagnosis, where appropriate, and to help develop a programme of support. Diagnosing bilingual children is different from diagnosing monolingual children, yet language tests seem to be created with monolinguals in mind. Similarly, measuring language abilities in one language is very different from measuring language abilities in another due to the structural differences across languages. Measuring reading and writing abilities are focused on, as different languages use different writing conventions. Appropriate training of educators in this area is argued for, along with an urgent need to develop tools that are both language and context specific, with relevant bilingual speaker norms, and that have practical applications in the classroom. This will ensure equitable and relevant diagnosis and support for all children educated in Wales.

Thomas, E., Owen, C.M., Hunt, F., Young, N., Dafydd, M., Fontaine, L., Aldridge-Waddon, M., Sullivan, K., Lloyd-Williams, S.W., Ap Gruffudd, G. S. and Caulfield, G. (2022) 'Working towards diagnosing bilingual children's language abilities: issues for teachers in Wales', *Welsh Journal of Education*, 24(2), p. 51-73.



## A professional learning intervention for early childhood education and care

*'Evaluation data supported the notion that science concepts could be explored in child-initiated play.'*

This qualitative mixed method project adopted an interpretivist paradigm; the aim was to better understand early childhood education and care (ECEC) practitioners' perceptions of science and how these perceptions shaped provision and supported children's concept development. Sixty-four participants from 16 Flying Start ECEC settings in one Welsh Local Authority attended a two-day 'Talking Science' event. Data collection included notes from group discussions, feedback from practitioners during discussions and evaluation feedback about 'Talking Science'. The experiential professional learning programme with a focus on science in everyday practice appeared to be supportive of practitioners' developing confidence and subsequent engagement with science provision for young children. 'Talking Science' also provides a model which may have wider implications when designing ECEC professional learning.

Gealy, A-M., Tinney, G., Macdonald, N. and Waters, J. (2022) 'A socio-constructivist approach to developing a professional learning intervention for early childhood education and care practitioners in Wales', *Professional Development in Education*, 48(2), pp. 298-314.



## Early implementation of Curriculum for Wales

*'One extra day of training [INSET] is not enough. There is so much to do, and having time to think is important.'*

Members of the PGCE team are working with others to examine schools' early experiences of roll-out for Curriculum for Wales. The first wave of interviews with 64 Senior leaders have recently been completed. The senior leaders reported they were content with the progress they had made in designing and implementing their curriculum. It was reported that practitioners were increasingly taking responsibility and ownership for curriculum implementation; an increased focus on pedagogy and collaborative activity were reported within settings and clusters. Challenges in terms of staff capacity and time to develop and implement their setting's curriculum were raised. Mapping progression within the Areas of Learning and Experience was a focus in many settings, with cluster activity playing a key role in developing a shared understanding of progression. However, there are challenges in releasing staff to participate in joint planning sessions and cluster activity. The Wave 1 report is available [here](#).

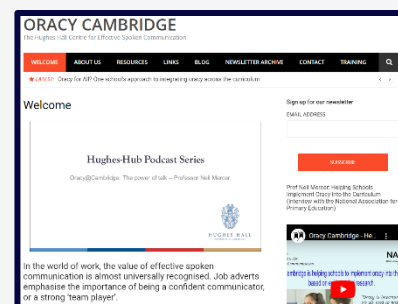
### The Open University and BBC partnership

A range of content across television, radio, podcasts, digital and social media available.



Free [Posters](#) are available to order or download.

Free resources are available from Critical Publishing. The company offer free materials/sample chapters to support those working in Early Years, Primary, Secondary, and Teacher Education.



Oracy Cambridge: Resources and research focusing on supporting effective spoken communication. [Including [Oracy across the Welsh Curriculum](#)].

Please [register to attend](#) our online Research Conference (*Engaging, empowering, enacting – conversations about children's education in Wales*) Friday 23<sup>rd</sup> June 2023 (9.30am-12.30pm). The conference keynote will be delivered by Rocio Cifuentes, the Children's Commissioner for Wales, and student teachers and partner school staff will present on small scale studies and school inquiries. The full programme will be available soon.