



# Developing an Evidence-Informed School Cluster: Evaluating the range and effectiveness of Interventions

Jane Pegram, J. Carl Hughes, Richard C. Watkins, Marguerite Hoerger, John Cannon.



Sefydliad Cydwethredol dros Ymchwil Addysg, Tystiolaeth ac Effaith  
Collaborative Institute for Education Research, Evidence and Impact



## Background Literature

- The National Mission for the Welsh education system envisions schools as learning organisations that actively build knowledge, expertise and research capacity by collaborating within and between schools, regional consortia and higher education institutions.
- Learning organisations explore new approaches and develop systems for sharing best practice methods within and between schools with the goal of improving the education of learners in Wales.
- This includes developing the cognitive ability of pupils in core subject areas, and supporting and developing wellbeing; ensuring learners have positive relationships, and can understand and manage their own emotions and health.
- The OECD and Welsh Government has identified the need for a more 'evidence-informed' approach and infrastructure to education. Which, requires the integration of quality research evidence, system-level data, classroom data, and the professional judgement of educators.
- The UK has seen the development of 'What Works Centres', which provide a wealth of accessible research and evidence for schools. However, challenges remain with embedding research and evidence. The most common are: access to quality evidence; restricted time and resource to review and engage with research; and the capacity to understand, share, develop and apply evidence.
- The current study aimed to audit and evaluate the evidence-base for the range of interventions used by each school in a cluster.

## Ethics

- This study received full ethical approval from the Bangor University Research Committee.
- We obtained consent from the head teachers in each school to collect data.
- Schools could withdraw from the project at any time without giving a reason.

Table 1. Sample of interventions excluded from the study.

Intervention	Category	Additional Information
Anger Management	Excluded	Method Unclear
Potting shed	Excluded	Method/intended outcome unclear
Stepping stones	Excluded	External support through BSS
Speech & Language	Excluded	Method unclear
Extended transition	Excluded	Does not fit definition of intervention
Alternative playtime	Excluded	Does not fit definition of intervention

## Methods

**Recruitment:** The head teachers from each school in the cluster requested the completion of the evaluation.  
**Sample & Design:** A bespoke questionnaire was developed and used to collect a list of school-based interventions used by each school (n = 10) in the cluster.  
 The questionnaire was delivered to head teachers via email in February. The final list of interventions were collected in July.

**Intervention definition:** programmes or strategies used by schools, to support the learning of a new or not yet acquired skill, to improve the academic and wellbeing (physical, emotional and social) outcomes of pupils. Interventions were not the provisions or strategies routinely used with all students, considered to be 'core instructional practice', 'core curriculum' or 'typical teaching practice'.

**190 unique interventions** were collected during audit. The data was reviewed for inclusion in the study with the following criteria:

**Inclusion criteria:** (a) academic interventions or strategies used to teach a new skill, a not yet acquired skill, or those that promote an existing skill to a new task or setting; (b) an instructional adjustment, to help pupils access the general education curriculum without the need for changing the content or reducing learning; (c) interventions used to develop one or more social and emotional; (d) behaviour interventions designed to promote positive social behaviour, and to reduce challenging behaviour (such as, low-level disruption, non-compliance, aggression, bullying and anti-social activities); (e) physical health interventions designed to improve health; (f) universal, group and individual pupil interventions.

**Exclusion criteria:** (a) unclear method; (b) intended outcome unclear; (c) an external service (such as Child and Adolescent Mental Health Service or the Behaviour Support Service); (d) the intervention did not exceed one session.

**Following review, (n = 120) interventions were excluded from the study. The final number of interventions eligible for review with published evidence were (n = 70).**

Two methods of review were conducted:

- A search of national and international databases/websites, such as: Early Intervention Foundation, Education Endowment Foundation, What Works Clearing House, Best Evidence Encyclopaedia, Substance Abuse and Mental Health Services Administration (SAMHSA), The Collaborative for Academic, Social, and Emotional Learning (CASEL), Evidence4impact, The Communication Trust.
- A rapid review of peer-reviewed, published literature reviews, systematic reviews, meta-analyses and key publications.

## Results

Results from the review identified that 53% of interventions (n = 37) were academic, 47% (n = 33) were wellbeing. Overall, 42% (n = 30) of interventions have an evidence-base, of which 43% (n = 13) were academic and 57% (n = 17) were wellbeing. The remaining 57% (n = 40) of interventions had no evidence available at the time of review.

Table 2. A sample of interventions used by the cluster .

Intervention	Category	Evidence	MTSS - level
Friends	Wellbeing - SEL	*	1 & 2
Headsprout	Academic Literacy	*	2
Unearthing	Wellbeing - SEL		2 & 3
Timetable Rockstars	Academic - Numeracy		2
Catch-Up Literacy	Academic Literacy	*	2 & 3
Forest School	Wellbeing - SEL		1

Note: Column three (\*) indicates intervention has evidence of impact. Evidence was assessed using the Early Intervention Foundation (EIF) criteria, which uses five levels of strength of evidence to evaluate the degree to which a programme has been shown to have a positive, causal impact on specific child outcomes.

## Discussion

- Results indicate that a little under half of the interventions used in the cluster are evidence-based. There is currently a lack of published evidence for the remaining half of the provision.
- Approximately half of interventions are academic, the other half are aimed at improving wellbeing.
- Around half of the intervention with an evidence-base are academic and half wellbeing.
- These unique findings correspond with the narrative that schools are moving towards a more evidence-informed approach; however, more support is required.

## Conclusions

- Around half of the clusters interventions are evidence-based; the other half currently lack evidence.
- A lack of evidence does not suggest a lack of effectiveness, rather that evaluation evidence has not been currently established. There may, therefore be other more effective interventions to implement that have established a positive impact on a child outcome.
- The cluster might now re-evaluate the impact of the interventions that lack a published evidence-base.
- Results can be used to inform school provision and help the cluster move towards a more evidence-informed approach to teaching and learning.
- The data will contribute to an emerging database of evidence-based and cost effective interventions, and will enable the sharing of best practice methods.

## Contact

Jane Pegram  
Bangor University  
j.pegram@bangor.ac.uk



## References

- Welsh Government (2015d), Qualified for Life: A Curriculum for Wales—A Curriculum for Life, Welsh Government, Cardiff
- Welsh Government (2017), Education in Wales: Our National Mission, Welsh Government, Cardiff
- OECD (2014a), Improving Schools in Wales: An OECD Perspective, OECD Publishing, Paris
- OECD (2017), The Welsh Education Reform Journey: a Rapid Policy Assessment, OECD Publishing, Paris
- Nelson & Campbell (2017) Evidence-informed practice in education: meanings and applications, Educational Research, 59:2, 127-135 Centre for the Use of Research & Evidence in Education. 2011. Report of Professional Practitioner Use of Research Review: Practitioner Engagement in and/or with Research. Coventry: CUREE [online]
- Campbell, C. 2016. "Supporting Teachers as a Profession of Knowledge Developers and Mobilisers." Education Today, 66 (2): 5–20.