

A Health Economic Approach to Evaluate Interventions in Education

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Background Literature

- The Welsh education system has come under serious scrutiny since the 2009 PISA results (Bradshaw, et al, 2010). This has prompted the Welsh government to transform the curriculum through new education policies. With the new curriculum imminent, evidenced informed practice, collaboration and research are important components.
- There is growing discourse that research in education is deficient in the ability to measure the wider benefits of interventions other than just attainment (Hummel-Rossi and Ashdown, 2002). Commentators are looking at established methods in health research that could provide the tools to effectively measure all elements of an intervention, that don't risk narrowing interventions to attainment alone (Levin 2012, Halton, 2017). While movements towards evidence informed practice is essential to support students, for the school leaders or financial decision makers, value for money should be incorporated into the evaluations (Bowden et al, 2016). Thus supporting decision makers to make fully informed decisions as to the full impact of the intervention.
- With national austerity measures meaning less public money being available or budgets being frozen so essentially doing more for less, service providers are having to demonstrate value for money at all areas of public finance. There is limited research in education that incorporated cost and benefit into its analysis (Levin 2001). Andrews et al 2017 argue that greater accountability needs to be placed on the PDG funding in schools to demonstrate how the intervention or strategies reduce the attainment gap and elevate the effects of poverty. Health research is moving into wider areas other than the traditional medical and pharmaceutical arena. Health researches are moving into public policy with a wide range of skills and methods to support this migration into new areas (Edwards, Charles and Lloyd-Williams, 2013).
- This research will be evaluating the implementation of formative assessment. Previous research has highlighted the positive effect on pupils attainment in regards to formative assessment (Black and Williams, 1998). Formative assessment is a strategy where the teacher is constantly assessing for the gaps in pupils knowledge, to support the learners journey to knowledge and understanding. This is different from summative testing which tests what a pupil knows, usually carried out at the end of a learning period or completed task.
- This is a cross regional project covering all six local authority areas in North Wales. The project will last three years and is split into three tiers. The research will focus on tier two, identifying the impact for the pupils, teachers, school and wider stakeholders.

Methods

Participants : Key stage 2 pupils and their class teachers across North Wales.

Design: Tier two pupils to be monitored over two years tracking the attainment data. They will then be compared to the control.

Methods: Mixed methods

Quantitative methods , CHU-9D questionnaire to create a QALY. (Quality adjusted life years), Strengths and Difficulties questionnaire as a well-being measure and Quality of School Life Questionnaire to assess the connection to the teacher and schools life.

Qualitative methods: Semi structured interviews with class teachers and small focus groups with pupils.

Procedure: Pupil data along with cost information for the implementation. This will be used to calculate the effectiveness and the cost-effectiveness of the intervention. Data will also be analysed to calculate the Social Return on Investment (SROI).

SROI : Social Return on Investment allows multiple benefits to be translated into monetary values. This perspective takes on views and benefits to all stakeholders. Results are calculated to demonstrate that for every £1 invested : £X of social value.

Results

Previous research had evidenced that Formative Assessment has a positive effect on pupil attainment. There is little research on the wider effect on the pupil, classroom or teacher. This research could add to the discourse on the wider effects of formative assessment other than attainment.

Why Use Formative Assessment?

Hattie Ranking: Teaching Effects

Source: *Visible Learning*, Hattie (2009)
Diagram: www.visible-learning.org



Ethics

- This study received full ethical approval for the Bangor University Psychology department .
- All school head teachers were consulted and informed so they could support the class teachers and pupils with the time and resources needed to carry out the research
- Parental consent was obtained for all pupils in the research
- Teacher consent was obtained
- Both pupils and teachers where made aware that they could withdraw from the research at any time.

Discussion

Evaluation research like the project here could support decision makers to make informed decisions of the intervention they employ within their schools.

Being able to demonstrate value for money would not only satisfy funding bodies, and make schools accountable to the spending of the limited budgets. but demonstrate clearly planned , methodological rigor when employing interventions .

PISA READING SCORES FOR SELECTED COUNTRIES



Conclusions

If the research can demonstrate the methods of health economics in the area of education, this could pave the way for future researchers in education and health to add a new but important strategy to the evaluations in the schools and beyond.

Results from this project could evidence wider benefits of the intervention other than the effect on attainment . This is an important component for the decision maker.

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