



# Bringing all the evidence together: the benefits of mixed methods research

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# Why evaluate?



- Ethically ,we should not intervene in children's lives unless we have some confidence that we will do no harm.
- Schools (*in loco parentis*) need some confidence that a programmes is in the best interests of the pupils – i.e. they will gain something.
- Parents also need this assurance
- ***External funding is unlikely without some evidence of effectiveness***

# How to evaluate?



- Depends on the history of the programme you propose to use. Some programmes are imported from USA, Australia and have taken part in extensive trials there.
- In the UK the cultural and language, school systems however are different and such programmes need to be piloting first here in UK.

# For example: a pilot of Creative Relaxation



- I am currently involved in a pilot evaluation of *Creative Relaxation*
- This is a programme that has been used over many years in Spain to teach relaxation techniques to a variety of users.
- In the UK primary schoolteachers were trained to use the techniques and the evaluation of this showed considerable promise.
- We are now evaluating a programme to teach children in primary school to use the techniques.
- Because this is the first time this has been used with primary school children, we are starting with a pilot in one school (two classes each year group age 8 and over. One class will get the training both teachers and children, while the other will be a waiting list control).

# The Gathering the evidence



- *I personally advocate a cumulative approach to gathering evidence. Quite apart from the ethics, it is not financially sensible to go into the expensive high end research before you have tested things out at the lower level.*
- *Basically in research you get what you pay for. Spend too little may be a waste of money. Spend too much too early may also be a waste of money.*
- *Over the years I have been advising in the gathering of evidence for The Place2Be. They have moved from *before and after* studies, to *economic evaluations* and are now undertaking their *first controlled trial*.*

# The Hierarchy of evidence



- ***At the Start.*** Opinions of respected authorities, based on clinical experience, *descriptive studies* and *case reports*, or qualitative studies.
- ***Beginning to add it up: Before and after Studies.*** Taking a baseline (using a standardise measure such as SDQ before an intervention and then repeating after the intervention) .
- ***Obtaining suggestive evidence: Grouping single case studies together.*** Preferably from more than one school/centre.
- ***First level Evidence: from well-designed controlled trial without randomization.***
- ***Second level evidence: Evidence from at least one properly randomized controlled trial. Even stronger if repeated over time.***
- ***Very strong evidence: Mixed methods. RCT plus qualitative interviews.***
- ***Into all these is the idea of Best-value: the need for an economic evaluation. Ideally this is several RCTs plus an estimation of cost per pupil.***

# What do studies tell us?



- Descriptive studies/case reports/ interviews:  
These can tell us if the parents/teachers children enjoy the programme. What aspects they enjoy and why.
- They may tell us how the programme can be done better
- ***But cannot tell us anything about how effective the programme is.***

# Before and after Studies



- In these studies a *baseline measure* is undertaken. Usually a well recognised standardized measure such as *Strengths and Difficulties Questionnaire* to measure emotional and behavioural difficulties.
- Each child (or if below 8 each teacher) completes the questionnaire before the intervention and then again at the end.
- Some studies repeat the baseline after several months which gives a longitudinal view.
- ***But they do not tell us for sure that it is the programme that makes the difference. It could be changing circumstances in a school***

# First level evidence: Well-designed controlled trial



- If the descriptive and single case studies suggest the programme may be useful, you need to move as soon as possible to a controlled study.
- *Comparing school can be problematic* as changes may relate to the school factor – less disadvantaged children; better teachers; etc.
- *Using same school controls* (e.g. Girasol) can also be problematic as in some programmes there may be contamination between classes. E.g. kids talk to each other.
- *A carefully matched control school* (by demographics of the pupils, by SAT results by area) may be possible.
- The challenge is to find the closest fit for the control.

# Eventually you need to undertake a Randomized Controlled Trial



- Lots of myths about this.
- Also can be challenging to do well.
- Basically what happens is that children who take part in either the intervention or the control are selected randomly e.g. by putting names in a hat.
- The chosen children then take part in the intervention. Sometimes the control group take part in another activity.
- Some studies (where whole school interventions take part) have used randomisation of schools. But you need very large numbers of schools.
- ***An RCT is the only way to be relatively sure that changes seen are related to your programme***
- ***You may want to repeat the trial at a later date to ensure that changes seen persist.***

# Why mixed methods are good?



- In mixed methods, you have a quantitative element to a study e.g. Survey questionnaire to control and experimental group; this gives you the numbers
- Then you interview a random sample of children and/or teachers. As far as possible these should be representative of the children who took part in the survey.
- In this, you may focus your questions on the 'How' and 'Why'. This puts flesh on the numbers. It tells you what went well and why and what could be done better.
- Responses are analysed by themes. Computer programmes such as Nvivo can help this process.
- You can also use a focus group with pre-selected topics.

# Ethics of involving children in research



- Children are a 'vulnerable group' and ethics approval (by a recognised Research Ethics Committee – all universities have these) should be given before any research with children is undertaken.
- Ethics approval can seem like a barrier to research, but there are now well-established principles that are not complicated to follow.
- Some Universities have established research protocols for researching normally developing children in schools. As long as they are suitable for your study thus can cut the need for a full ethics research review.

# Basic principles for research ethics with children



- 1: Schools are 'in loco parentis' *but generally schools write to parents informing them about the project.* Also why the project is felt to be important. Parents should have the right to withdraw children from the intervention and the evaluation. They should be fully informed about the methods used in the intervention and evaluation.
- 2: *Details of the intervention and the evaluation should be carefully explained to the children involved.* They should be fully informed about the methods used in the intervention and evaluation, in language appropriate to their age and understanding. They should be informed that they do not have to take part; that they can stop at any time and do not have to answer any question that they would prefer to omit.
- 3. *Parents and children should be assured about the confidentiality of information supplied by pupils and the anonymity of respondents must be respected. But see over....*

# Further principles



- 4. With children, it is important that they understand the '*limits to confidentiality*' where a child is identified as in immediate danger or at risk of significant harm, steps will need to be taken to protect that child. Normally the child will be informed when this is happening. Also before the start of a study procedures will be in place to deal with such a situation.
- 5. Generally pupils *should not receive monetary rewards* but certificates and tokens for the school library may be appropriate.
- 6. *Harm to research participants* (e.g. avoiding stressful interventions) must be avoided in all instances.
- 7. *The independence of research must be clear*, and any conflicts of interest or partiality must be explicit.
- 8. For further details see ESRC Framework for Research Ethics
- [http://www.esrcsocietytoday.ac.uk/ESRCINFOCENTRE/OPPORTUNITIES/research\\_ethics\\_framework/](http://www.esrcsocietytoday.ac.uk/ESRCINFOCENTRE/OPPORTUNITIES/research_ethics_framework/)

# So what is the take-home message?



- The challenge for those trying to evaluate their programmes is to obtain the best evidence possible within the availability of their budgets. Remember some lower level evaluations may be a waste of money.
- Evaluation is not an add-on cost but ethically a social imperative. Interventions should not be undertaken particularly with vulnerable children unless there is some evidence that the intervention is helpful.
- *Organisations hoping to obtain external funded are unlikely to be funded without evidence that their intervention is good value for the money and effective.*

# Evaluation need not be complicated



- There is a lot of knowledge and skills around
- There are also a lot of excellent programmes around that have not been evaluated
- Place2Be is an excellent example of a programme that has gradually built up the evidence of its effectiveness and value. It has still a bit further to go.
- Your expertise and commitment in working with children needs to be acknowledged.

Good luck!

