

# Mixed methods' contribution to process evaluation of population health interventions

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### One of their main characteristics

• Complexity (Shiell et al, 2008; Hawe & Potvin, 2009)

#### Recommendations for evaluation

 Gathering both quantitative and qualitative evidence (Campbell et al, 2000)

## Mixed methods

A framework to conceptualize the combination of quantitative and qualitative methods, beyond juxtaposition

A range of possible designs according to level of integration, priority, timing, where and how to mix both strands (Creswell and Plano Clark, 2011)



## Why using mixed methods? Feedback from French health researchers

(Guével et al, in preparation)

- Looking for explanation
- Addressing different questions in a same research project
- Addressing complexity from the starting point
- Reintroducing complexity emerging during the research project

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#### A more comprehensive picture

(Tashakorri & Teddlie, 2010; Creswell & Plano Clark, 2011; Guével & Pommier, 2012, Guével et al, 2016)



# Why using mixed methods? Feedback from French health researchers

- Practical aspects
  - Using it to mobilise various stakeholders with different expectations
  - Initiate an interdisciplinary team work
- Researcher's commitment
  - Contribution to decision-making or Transformative perspective
  - Support participation of non-researchers





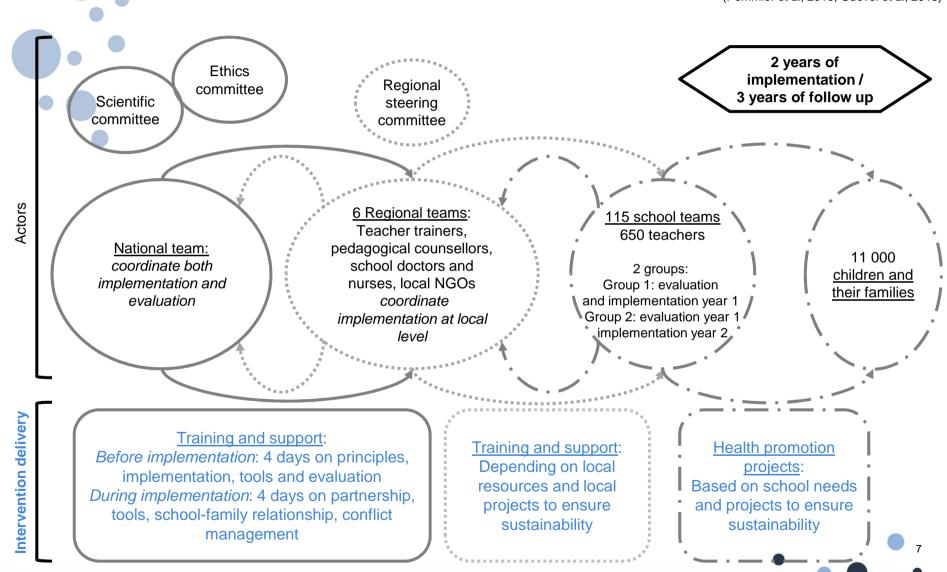
# Example from a school health promotion intervention research

(Pommier et al, 2010; Guével et al, 2015)

- Aimed at changing school environment to promote children' health
- Involved regional stakeholders and professionals who developed their own intervention adapted to their local context
- Documented both implementation and outcomes

## Implementation design

(Pommier et al, 2010; Guével et al, 2015)



## Embedded mixed methods research design Realist evaluation framework

Better understanding of the intervention Document outcomes Interpretation based o Data collection Data analysis -Questionnaires; Semi-structured interviews; Observations; Document analysis QUAN(qual) results QUAN **QUAN Procedures Products Procedures Products Procedures** - QUAN interpretation - Teachers and children - Numeric data - Inferential statistics - Statistical procedures: Pilot study / QUAN+QUAL guestionnaires descriptive, univariate, - Multilevel models qual interpretation - School forms multilevela, multivariateb -Explain QUAN results by qual results - Multivariate classification - Score construction Procedures: qual qual **Products** Procedures **Products** - Generalization Open-ended questions in - Data from open-**Procedures Products** teachers' questionnaires ended questions - Prediction - Codes - Coding - Interpretation of theory - Focus group with - Transcripts - Content analysis - Themes/ Categories regional teams - Regional memos - Organizational - Grounded theory - Extraction data from Researchers' structures national and regional memos - Case studies written sources Document context, mechanisms and Guével, Paris, 1 Outcomes at the regional level

Extract from Pommier et al, 2010



## • Mixed methods' contribution?

## Linking to an underlying theoretical framework

#### Mixed methods as a tool

- Robust and creative
- Collaboration, interdisciplinary, transdisciplinary
- Strategic use: increase acceptability?
- Iterative process: catching dynamics?

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