

**SHE Summer School 2014**

**Mixed Methods in Health  
Promotion Research**

*Evaluating effects of HP programs in  
complex systems*

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# SHE SUMMER SCHOOL 2014

**Mixed methods' contribution to the evaluation of health promotion initiatives in the school setting**

**Abstract**

The effectiveness of health promotion interventions is often measured using quantitative methods. However, the complexity of such interventions and the need to understand the underlying mechanisms of change require a more holistic approach. Mixed methods research, which combines quantitative and qualitative methods, offers a more comprehensive evaluation of health promotion initiatives. This paper discusses the contribution of mixed methods to the evaluation of health promotion initiatives in the school setting.

**Evaluation of health promotion in schools: a realistic evaluation approach using mixed methods**

**Abstract**

Health promotion interventions in schools are often evaluated using quantitative methods. However, the complexity of such interventions and the need to understand the underlying mechanisms of change require a more holistic approach. Realistic evaluation, which combines quantitative and qualitative methods, offers a more comprehensive evaluation of health promotion initiatives in the school setting.

**Improving the lives of children and young people: case studies from Europe**

**Volume 3, School**

**Global Health Promotion**

**A health promotion...**

**Health Education Journal**

**Factors influencing teachers' views on the role of health education: A study in 45 schools**

**Abstract**

The purpose of this study was to explore the factors that influence teachers' views on the role of health education in schools. A cross-sectional survey was conducted in 45 schools across the UK. The results of the study are discussed in the paper.

**Practice and representation of health promotion in primary schools in the UK**

**Abstract**

The purpose of this study was to explore the practice and representation of health promotion in primary schools in the UK. A cross-sectional survey was conducted in 45 primary schools across the UK. The results of the study are discussed in the paper.

**School health promotion: organization of services and roles of health professionals in seven European countries**

**Abstract**

The purpose of this study was to explore the organization of services and the roles of health professionals in school health promotion in seven European countries. A cross-sectional survey was conducted in 70 schools across seven European countries. The results of the study are discussed in the paper.

**The influence of primary school lead to health promotion**

**Abstract**

The purpose of this study was to explore the influence of primary school lead to health promotion. A cross-sectional survey was conducted in 45 primary schools across the UK. The results of the study are discussed in the paper.

**Psychological sexuality**

**Abstract**

The purpose of this study was to explore the psychological sexuality of young people. A cross-sectional survey was conducted in 45 schools across the UK. The results of the study are discussed in the paper.



# Health Promotion Research

- applied nature.
- producing knowledge about the conditions, practices and processes that makes changes possible
- research process should be health promoting itself

Potvin and Jones (2010)



The notion of Health Promotion Research raises important **epistemological** questions



# Health Promotion Research

## Defining Health Promotion Research

- Philosophical assumptions (paradigms)
- Strategies of inquiry
- Research methods

# Health Promotion Research

## Paradigms

- Positivism (identify and assess the causes that influence outcomes)
- Social constructivism (a research focused on what people say, on the meaning they have of their experiences)
- Participatory (research inquiry needs to be intertwined with politics and a political agenda)
- Pragmatic (what works)

# Health Promotion Research

## Paradigms

- Positivism
- Social constructivism
- **Participatory**
- Pragmatic

Question 1 : A single paradigm for health promotion research?



# Health Promotion Research

## Strategies of inquiry

- Quantitative strategies
- Qualitative strategies
- Mixed-methods strategies

Question 2: A specific set of research strategies for health promotion research?



# Health Promotion Research

## Methods

- Question
- Data collection
- Data analysis
- Interpretation
- Write-up
- Validation
- Ethics

Question 3: A specific set of research methods for health promotion research?

# Health Promotion: a Field of Practices

- Unlike others research fields (such as social psychology, sociology...) HPR is not rooted in a particular theoretical and methodological framework.
- The research is also about understanding practices rather than testing theories





# Health Promotion: a Field of Practices

- In HP, what is essential is not the framework but rather the practices/action and the people (individual, groups and institutions ... stakeholders) who carry them out.
- The researcher can't be outside of the action but is essentially an actor within it. A "neutral position" is not an option.

# Health Promotion Research ... Research on Health Promotion





# Health Promotion Research

The research has two goals that must be addressed:

- **The creation of new knowledge**  
**“epistemic”**
- **That of social transformation**  
**“transformative”**

Health Promotion Research is epistemic and transformative.

# Health Promotion Research

- One must ask then whether these two goals are compatible in research.
- This kind of tension between two different aims **is not exclusive to HPR**. It also operates in fields of research such as: political science, engineering science, social research and educational research... In all of these sciences research must firstly address themselves to **actual practices**.



# Health Promotion Research

## Four key points:

- Position of the researcher
- Willing engagement with complexity
- Multidisciplinary approach
- Ethical framework

# Health Promotion Research

1. Position of the researcher: where the researcher places himself? In HPR this is never a fixed position but is constantly being reconstructed in relation to the research goals, the context and other factors that may need to be considered.
2. A willing engagement with complexity with no straining after artificial simplicity or methodological reductionism.
3. A multidisciplinary approach must be taken in order take account of this complexity at different levels which operate within HP.
4. A clear ethical framework referred to HP



# A coherent research program....

Millefeuille



Mayonnaise



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# Strategies of inquiry: three types of configuration

- In the first configuration, the programme evaluation context requires intensive information, has low availability of credible information and has a highly open programme system. → **qualitative methods**.
- In the second configuration, the evaluation context requires extensive, precise information, has high availability of credible information and has a closed programme system. → **quantitative approach**.
- The third configuration concerns programme evaluation contexts requiring information that is both intensive and extensive, that provide high access to some information but low access to other information and have the characteristics of both open and closed systems. → **mixed methods**

# Mixed methods research

- Creswell and Plano Clark (2007) defined mixed methods research as the **combination** of quantitative and qualitative approaches that provide **a better understanding of research problems** than either approach alone.



# Four major types of interaction

- **triangulation**: obtain a more complete understanding of a phenomenon from two databases, to corroborate results from different methods or to compare multiple levels within a system;
- **embedded**: one data set provides a supportive, secondary role in a study based primarily on the other data type, its purpose is to address different questions that call for different methods or to enhance an experiment by improving recruitment procedures, examining the intervention process or explaining reactions to participation;
- **explanatory**: a two-phase mixed methods design where qualitative data helps to explain or build upon initial quantitative results;
- **exploratory**: the results of the first method (qualitative) help to develop or form the basis of the second method (quantitative).

# Three questions linked to the choice of a mixed methods research design

- the level of **interaction** between the quantitative and qualitative strands,
- the **priority** of the strands
- their **timing**.

# Two main approaches

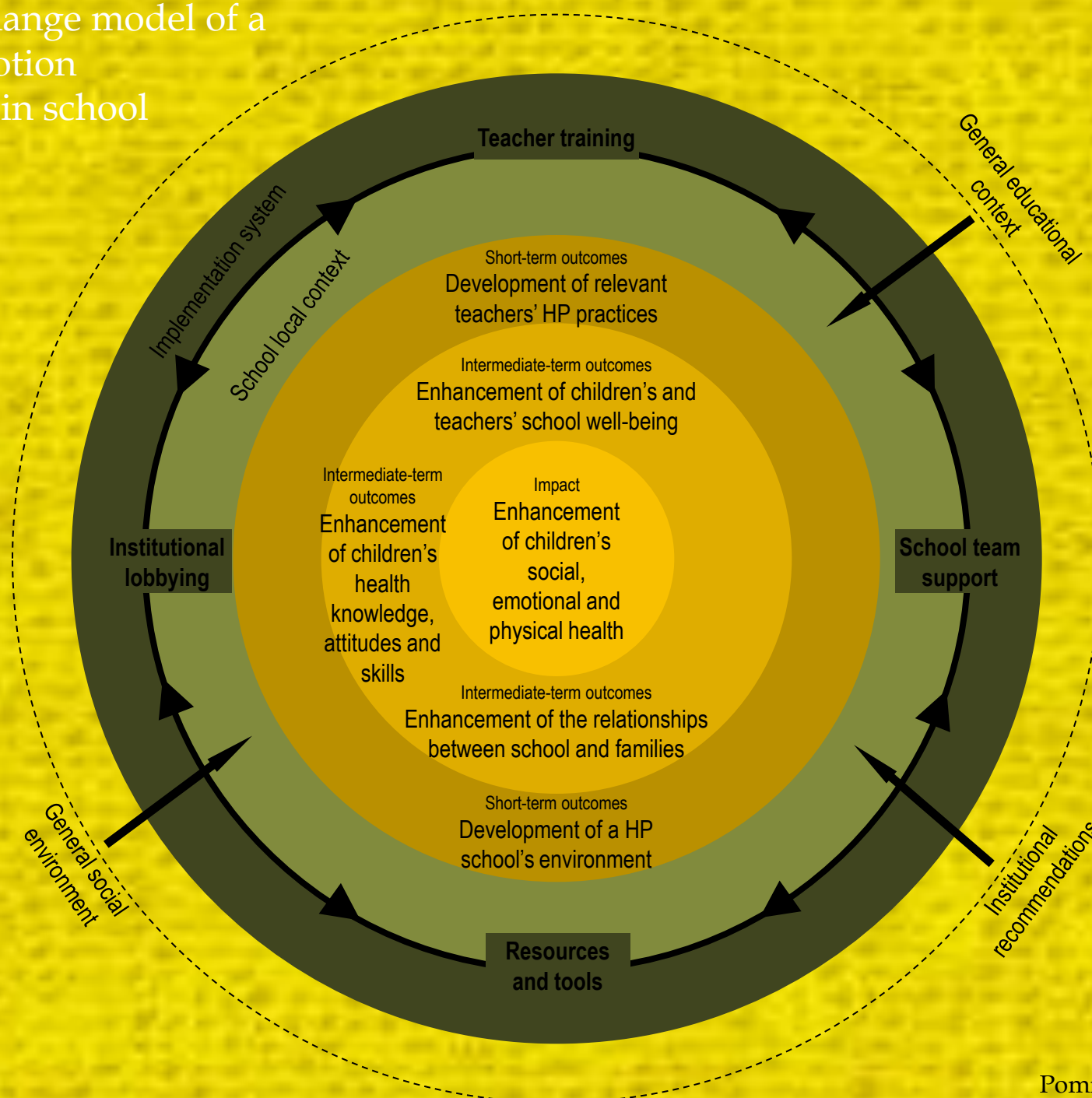
- **Merging the data** that are collected concurrently using either side-by-side comparison, joint display (i.e. a cross table) or data transformation (*quantitising* - data collected through qualitative methods, converted into numerical codes to be statistically analysed - or *qualitising* - data collected with a quantitative method, and converted into narrative data analysed qualitatively ).
- **Connecting the data** that are collected sequentially.



# A example from France

- A “theory-driven” approach to evaluation. This approach “is not the global conceptual scheme of the grand theorists, but **more prosaic theories that are concerned with how human organizations work and how social problems are generated** [...]. What we are strongly advocating is the necessity for theorizing, for constructing plausible and defensible models of how programmes can be expected to work before evaluating them”.

# Theory-of-change model of a health promotion intervention in school setting



# Two main sets of evaluation questions

- What are the factors that allow the school community to develop a health promotion approach?
- How do the strategies developed through the intervention influence the development of teachers' health promotion practices and the schools' health promotion environment? How do these practices affect well-being in the schools? What is the influence of the intervention on the children's perceived life skills?

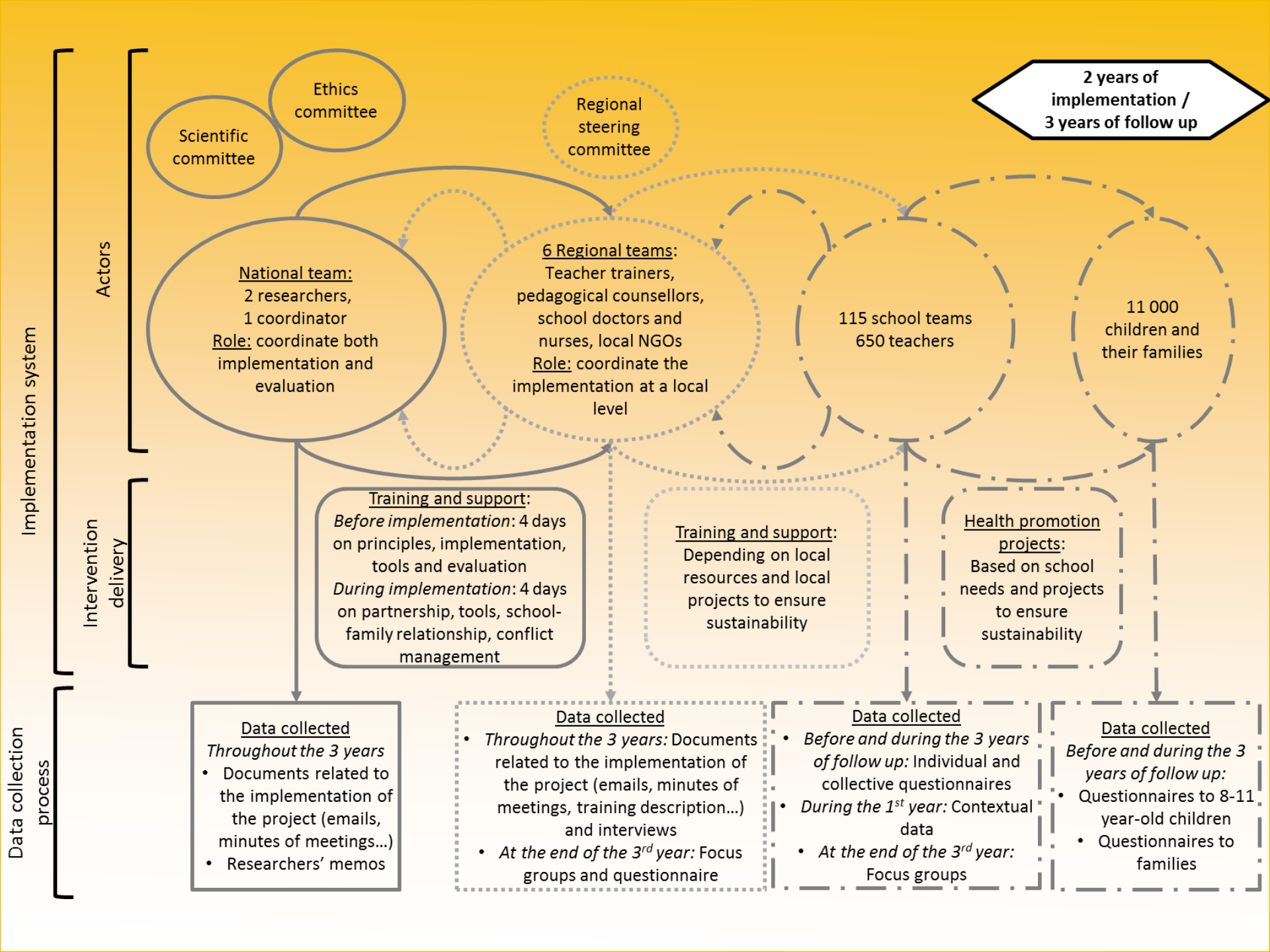


# Data are collected at the national, regional, schools and children levels.

- At the **national level**, documents related to the implementation of the intervention and researchers' memos were collected over the three years.
- At the **regional level**, documents related to the implementation of the regional intervention were gathered during the three years and focus groups were organised with the regional teams at the end of the third year. Regional teams also filled in a questionnaire to describe how each school received the intervention.
- At the **school level**, individual and collective questionnaires were filled in by teachers and school teams. Contextual data were gathered on school context (i.e. size of the school, number of teachers, of pupils, socio-demographic data, etc.). Focus groups were also organised with selected school teams during the last year of follow up.
- **Children** from 8 to 11 years old filled in questionnaires focusing on their perception of their life in their school and of their life skills.
- **Parents** were also invited to fill in a questionnaire on how they perceived the life in their children's school, their relationships with it and their involvement in the school's activities.

# The design

- An embedded design: QUAN(qual).
- The evaluation questions focus on quantitative data to measure changes and qualitative data plays a support role in exploring health promotion practices and contexts to better understand the QUAN data.
- Data are collected concurrently: quantitative numerical data are collected from questionnaires and forms and qualitative data (text data, transcripts and memos) from open-ended questions included in questionnaires, forms and from semi-directed interviews and focus groups.





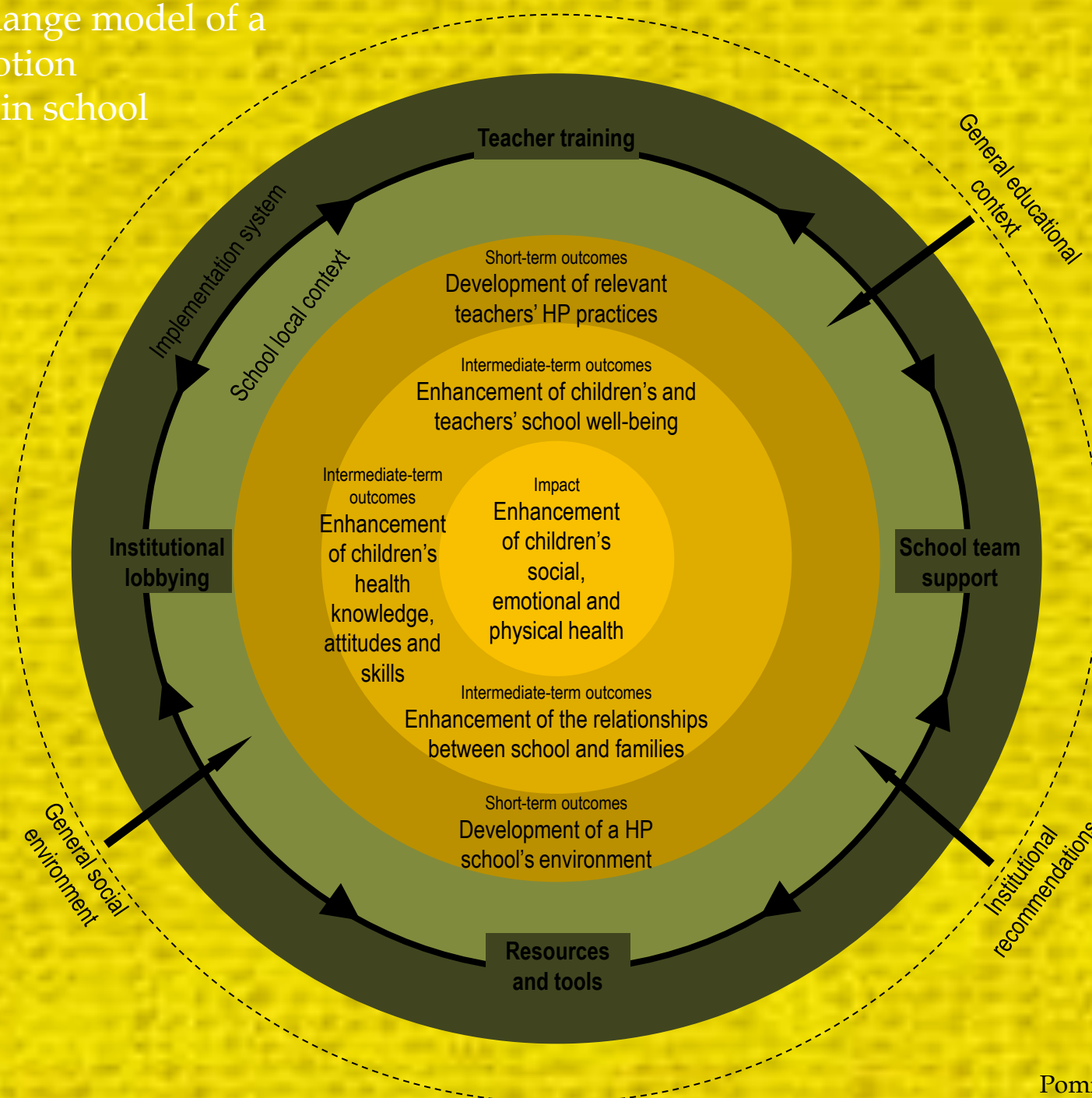
# The design

- The data are analysed using quantitative (univariate, multivariate and multilevel analysis) and qualitative analysis (content analysis).
- Qualitative data were quantised in order to be included in the quantitative analysis. The interpretation is quantitative, qualitative and combined where the quantitative results are clarified by the qualitative results, in order to generalize the findings, predict and interpret theory
- Qualitative and quantitative methods are mixed throughout all phases of the project from the design stage through data collection to data interpretation.

# Three examples

- Factors and their interactions that may influence the regional teams in implementing sustainable health promotion interventions for school staff and communities → *qualitative approach followed by quantitisation*

# Theory-of-change model of a health promotion intervention in school setting

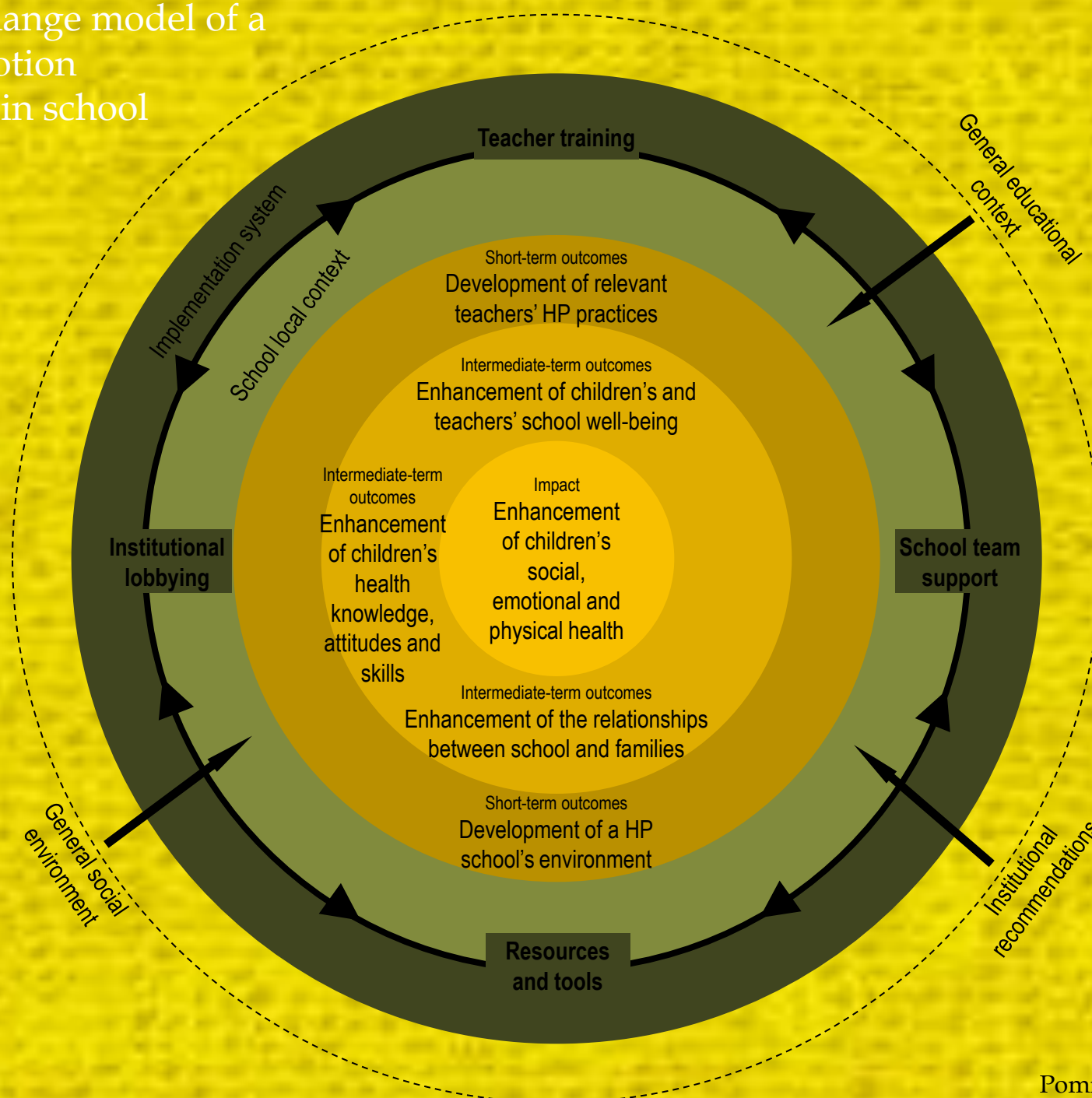




# Three examples

- Factors and their interactions that may influence the regional teams in implementing sustainable health promotion interventions for school staff and communities → *qualitative approach followed by quantitisation*
- Impact of the program on teachers' health promotion practices → *quantitative approaches completed by qualitative data sources*

# Theory-of-change model of a health promotion intervention in school setting



# Teachers' views of their role in HP

	Views	% teachers
Group 1	Non respondents	1%
Group 2	Not teachers' role	3%
Group 3	Mostly parents' role	10%
Group 4	Doctors and nurses first	7%
Group 5	HE as a part of teacher's domain	19%
Group 6	HE as a part of teacher's domain in a global approach of HE	43%
Group 7	Militants of HE	17%



# Collective work at the school level

A qualitative approach based on

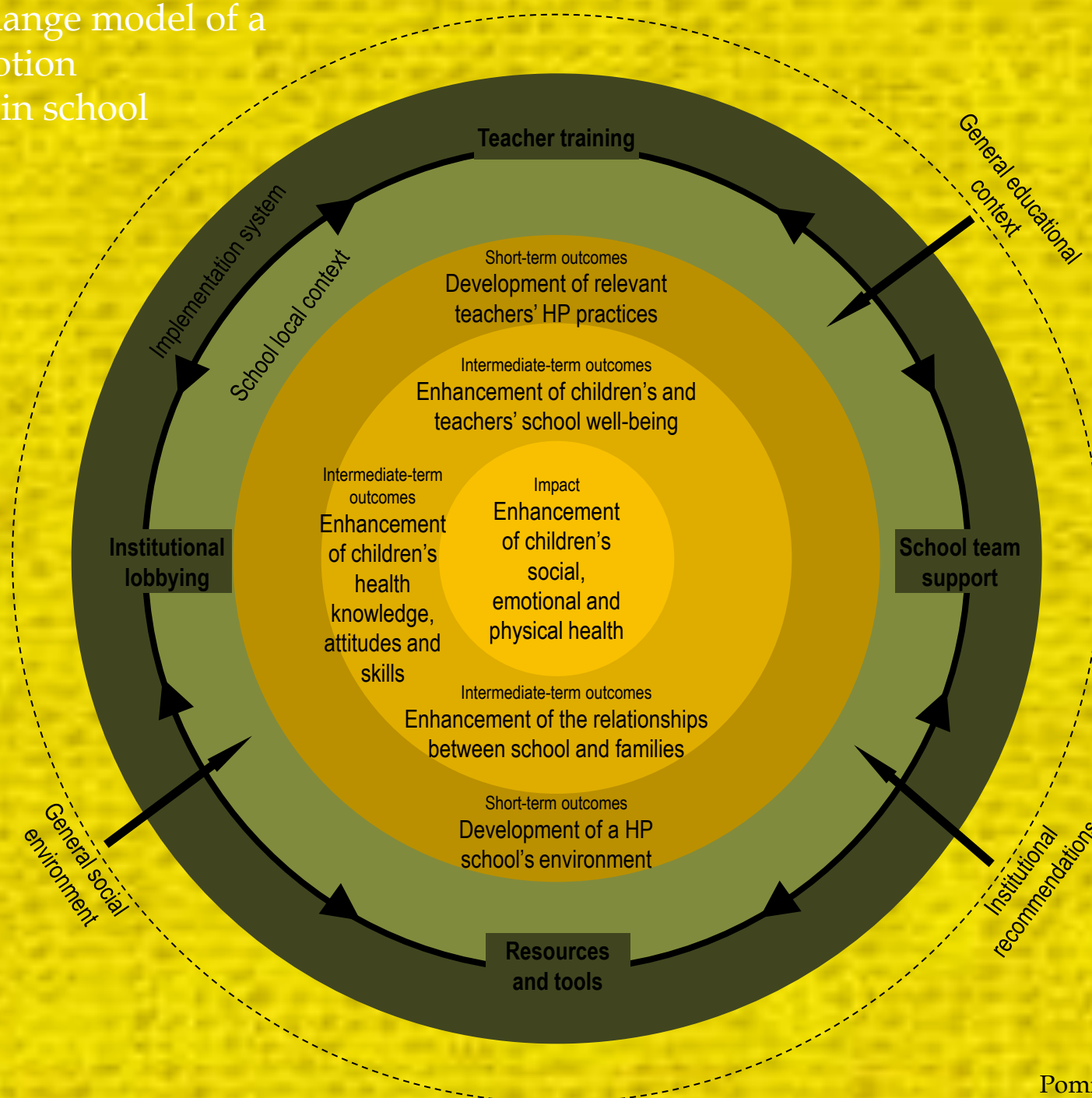
- A four years work
- With a group of teachers, principals, advisors, inspectors and researchers
- On written sources, i.e. school projects, teachers and students documents, emails, minutes of meetings, letters...
- Collected in 22 schools
- A report
- Interviews and focus group with stake holders in order to check the relevance of the analysis

Types d'écrits professionnels	Circonscription 1				Circonscription 2				Total par type de traces
	An 1	An 2	An 3	T	An 1	An 2	An 3	T	
CR conseils d'école	18	25	27	70	15	20	16	51	<b>121</b>
CR conseils de cycle	-	-	-	0	-	-	1	1	1
CR conseils de maîtres	1	8	3	12	15	10	8	33	45
CR conseils d'enfants	1	5	6	12	-	4	1	5	17
Informations et conseil aux parents	-	19	18	37	4	51	43	98	<b>135</b>
Productions élèves	-	2	-	2	-	14	5	19	21
Courrier / échanges partenaires	-	6	5	11	1	3	5	9	20
Coupures de presse	-	2	-	2	-	6	-	6	8
Projet et documents Ecoles	4	3	7	14	7	12	5	24	38
Projet de classe, documents enseignants	2	1	-	3	2	1	4	7	10
Total des écrits écoles	26	71	66	<b>163</b>	44	121	88	<b>253</b>	<b>416</b>
Total toutes traces	70	113	100	<b>283</b>	116	175	124	<b>415</b>	<b>698</b>

# Three examples

- Factors and their interactions that may influence the regional teams in implementing sustainable health promotion interventions for school staff and communities → *qualitative approach followed by quantitation*
- Impact of the program on teachers' health promotion practices → *quantitative approaches completed by qualitative data sources*
- Factors that may influence how children perceived their school social environment → *quantitative approaches completed by qualitative data sources*

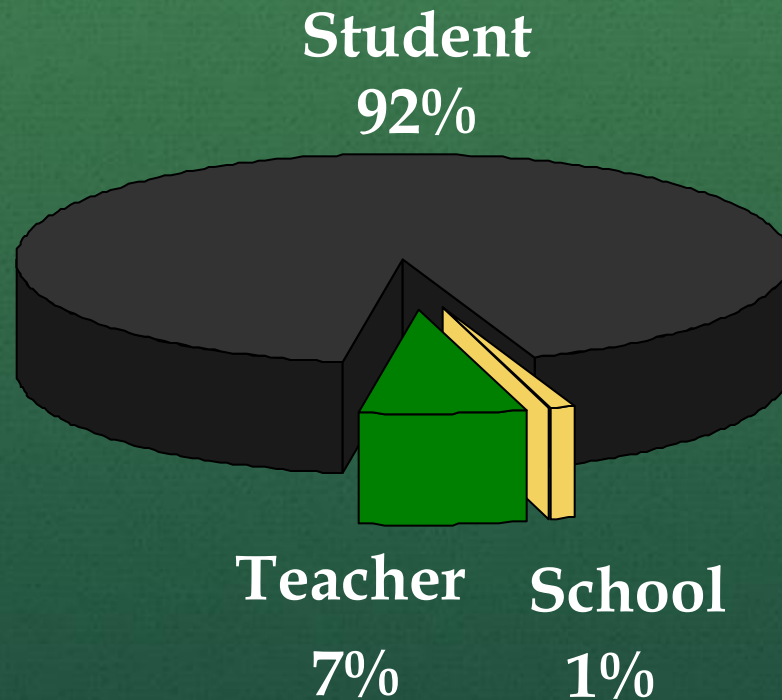
# Theory-of-change model of a health promotion intervention in school setting





# Contribution of school variables to Health Determinants

(example: school climate)



# A QUAN(qual) embedded MM design

## Well-being of children at school

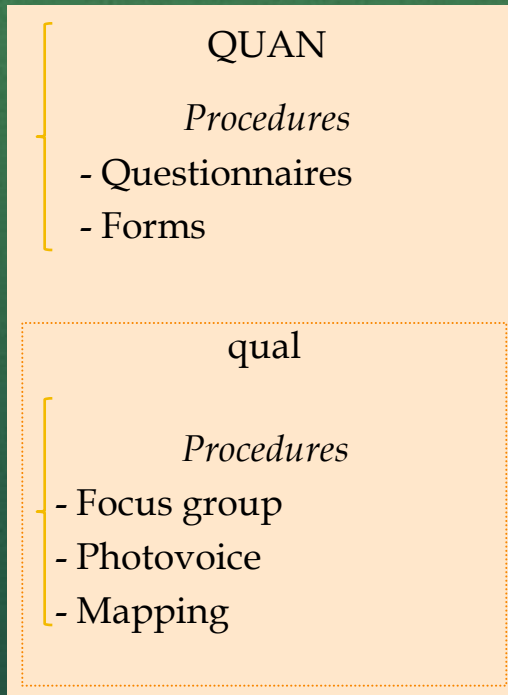
Self administrated and user friendly

n=945  
8-11 ys-old  
19 schools

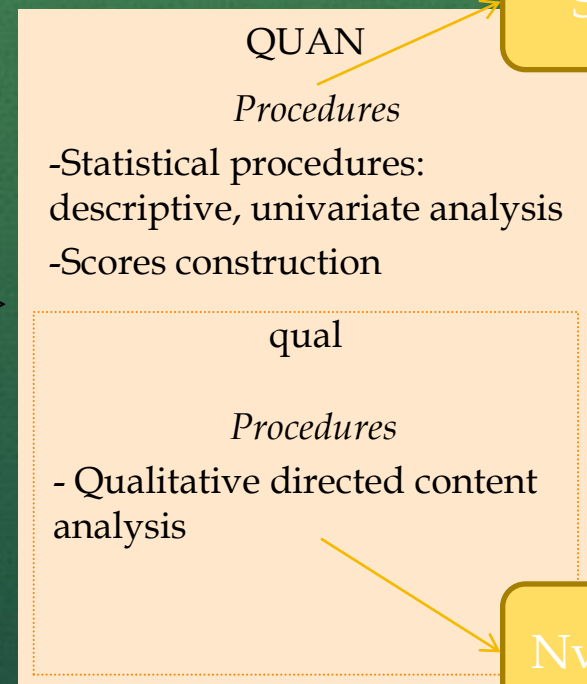
n=41  
8-11 ys-old  
2 rural schools

Child-focused and participative approach

### Data collection



### Data analysis



SAS

Nvivo 8

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