



QUANTITATIVE AND QUALITATIVE APPROACHES TO MEASURING

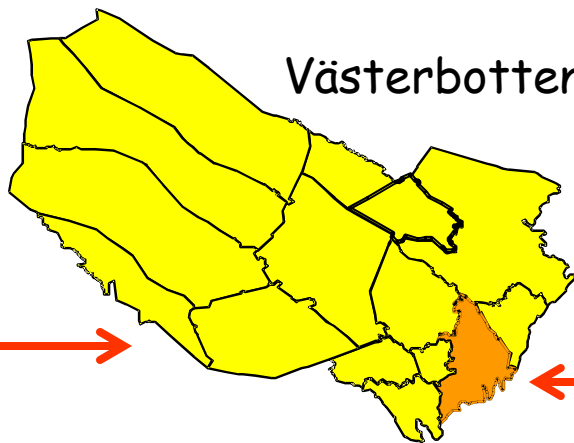
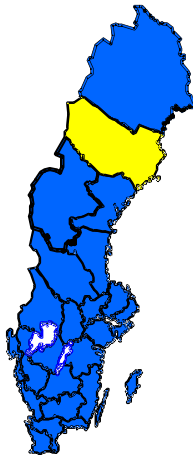
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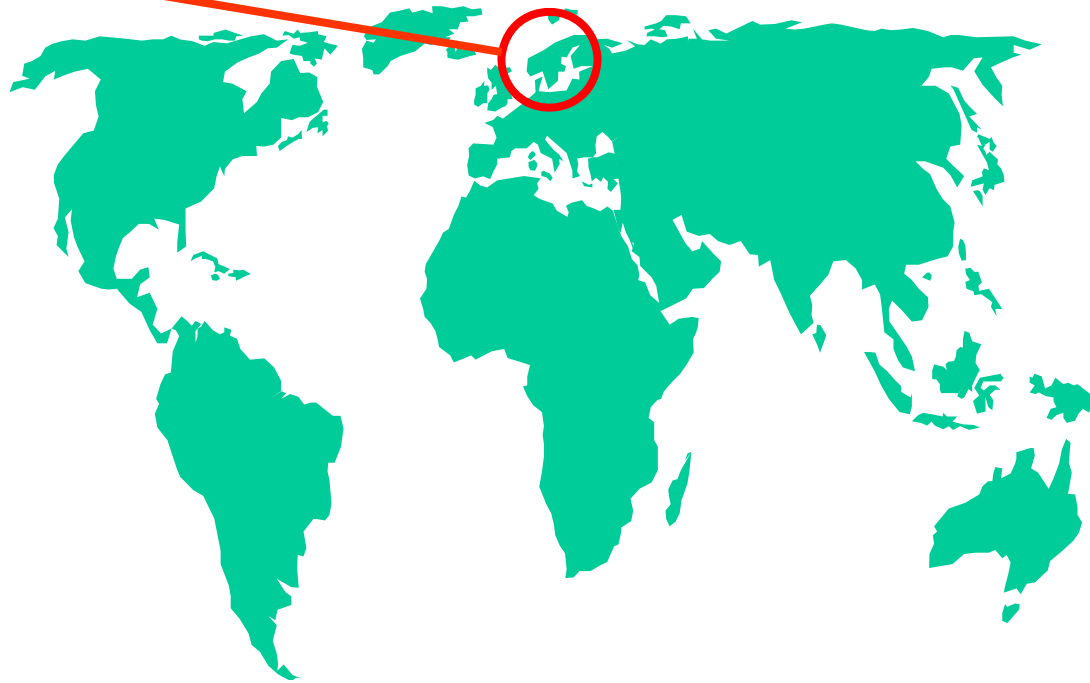


SWEDEN



Västerbotten County

Umeå



EPIDEMIOLOGY & GLOBAL HEALTH



Epidemiology and Global Health

- Research – Education
- QUANTITATIVE – QUALITATIVE
- North – South
- Local – Global
- Medical - Social



QUANT

QUAL

PATH OF VERIFICATION

PATH OF DISCOVERY

Hypotheses

Queries

Accept or reject
hypotheses

Formulating theories
and hypotheses

*Rule-following
behaviour*

*Improvisation and
creativity*

Bengt Starrin, et al. Along the path of discovery.
Qualitative methods and Grounded Theory
1997



What do we analyse...

Standardised questionnaire on perceptions about HIV-testing	Open-ended question in an interview
HIV-testing creates a lot of fear and anxiety.	How do you feel about HIV-testing?
Strongly agree	<i>Well, I have actually been tested myself because I was worried that I was infected. I have had many sexual contacts with partners other than my wife so I was really worried before I was given the results. When it turned out that I was negative I was really relieved and happy. I think that the information and counselling given in connection with the testing were good and I got some useful advice about how to protect myself in the future.</i>
Agree	
Disagree	
Strongly disagree	

QUANT

QUAL

Objective



Subjective

Value-free



Value-bound

One single truth



Multiple realities

Distance



Interaction

Deductive –
hypothesis testing



Inductive -
discovering
something new

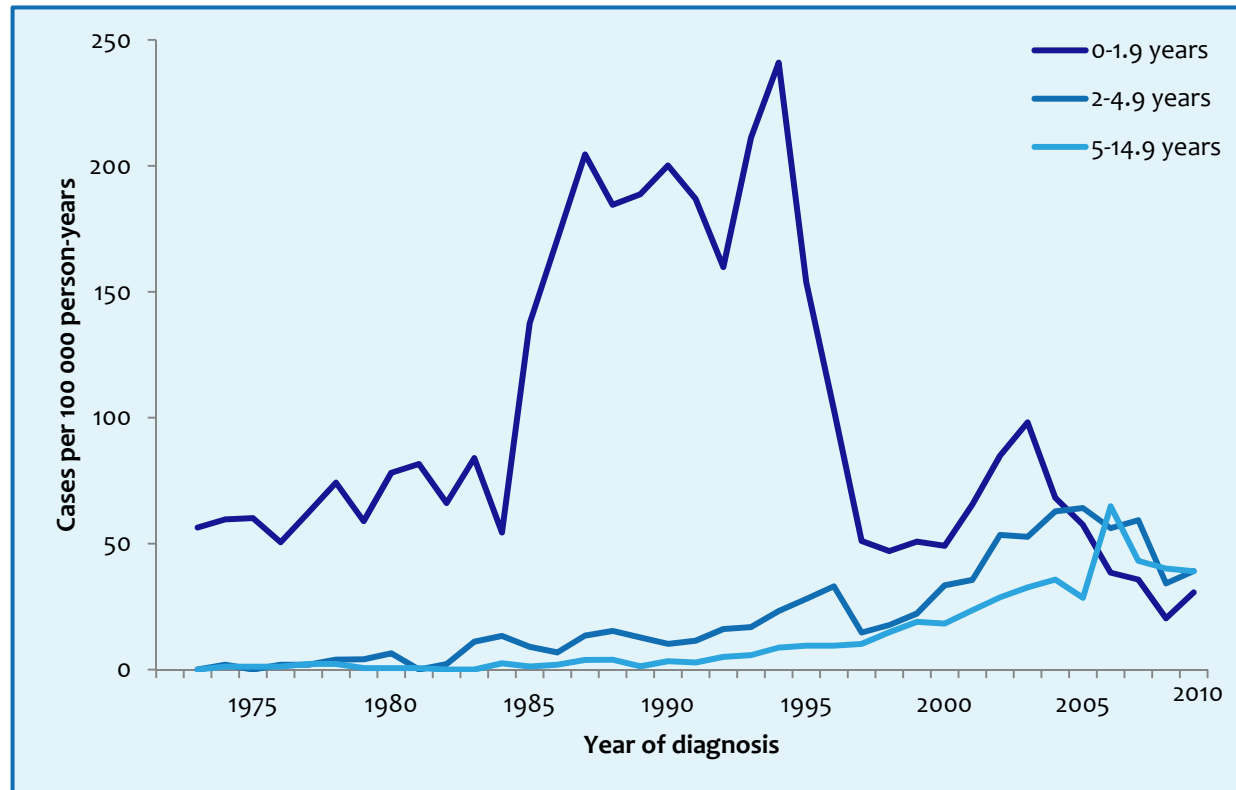
IS THE DIFFERENCE REALLY THAT LARGE?



A pragmatic view on research

- A middle ground between philosophical dogmatism and skepticism to find a workable solution
- Knowledge is being both constructed *and* based on the reality of the world we live in and experience
- Human inquiry is analogous to experimental and scientific inquiry
- Prefers action to philosophizing
- Takes an explicitly value-oriented approach
- Theories are viewed instrumentally, by their workability

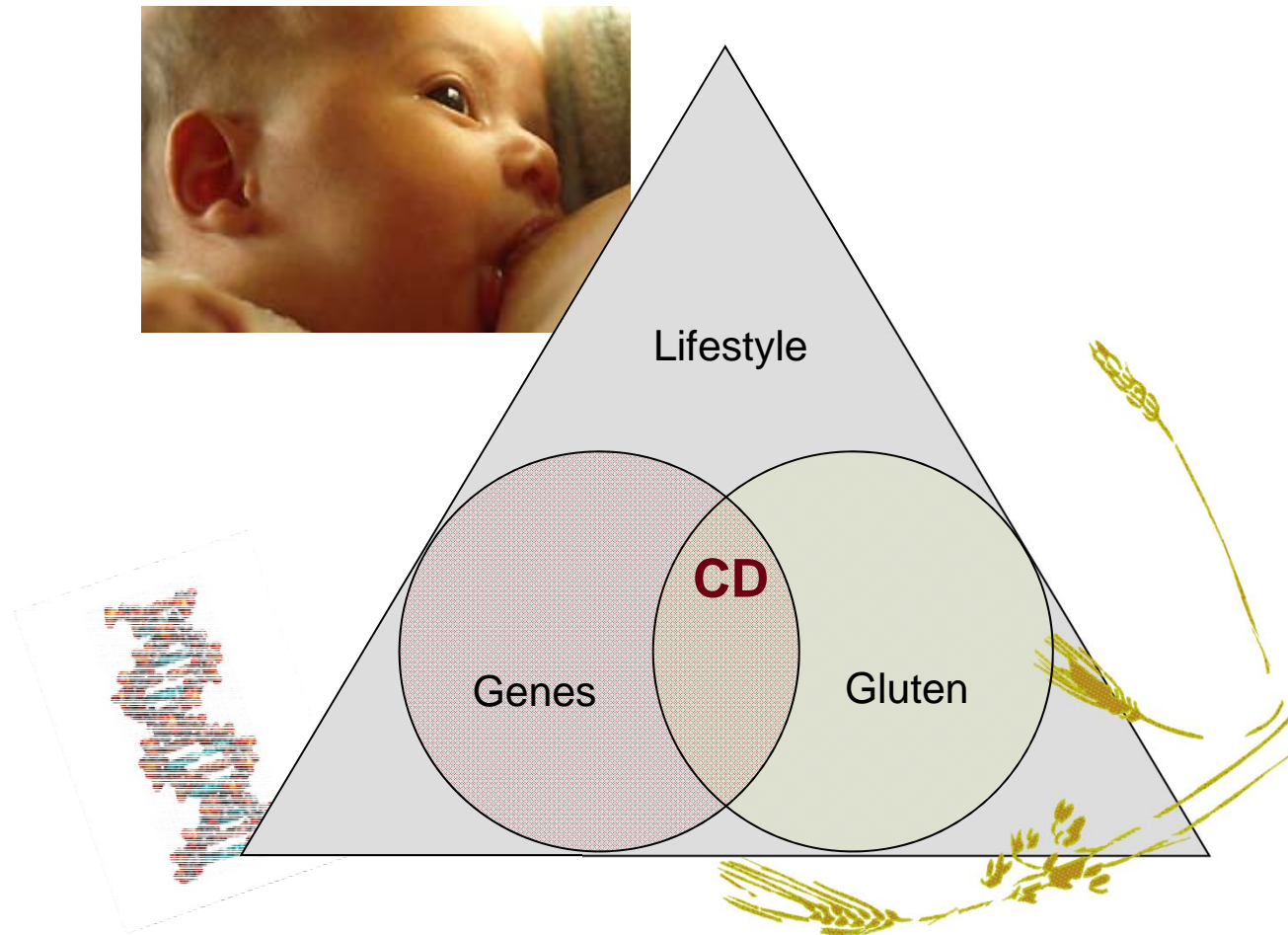
The Swedish Celiac Disease Epidemic



Ivarsson A, et al. *Acta Paediatr* 2000;89:165-71
Ivarsson A, et al. *Am J Clin Nutr* 2002;75:914-21

Olsson C, et al. *Pediatrics* 2008;122:528-534
Namatovu F, et al. *Manuscript*

Multifactorial aetiology



Ivarsson A, Myleus A, Wall S. Towards preventing celiac disease - an epidemiological approach.
In: Fasano A, Troncone R, Branski D, eds. *Pediatric and Adolescent Medicine. New Frontiers in Celiac Disease*. Karger Publishers, Basel, Switzerland. 2008, pp 198-209.

CD in 3 % of children born 1993



Myléus A, et al. *J Pediatr Gastroenterol Nutr* 2009;49:170-6
Webb C, et al. *J Pediatr Gastroenterol Nutr* 2011;52:549-553

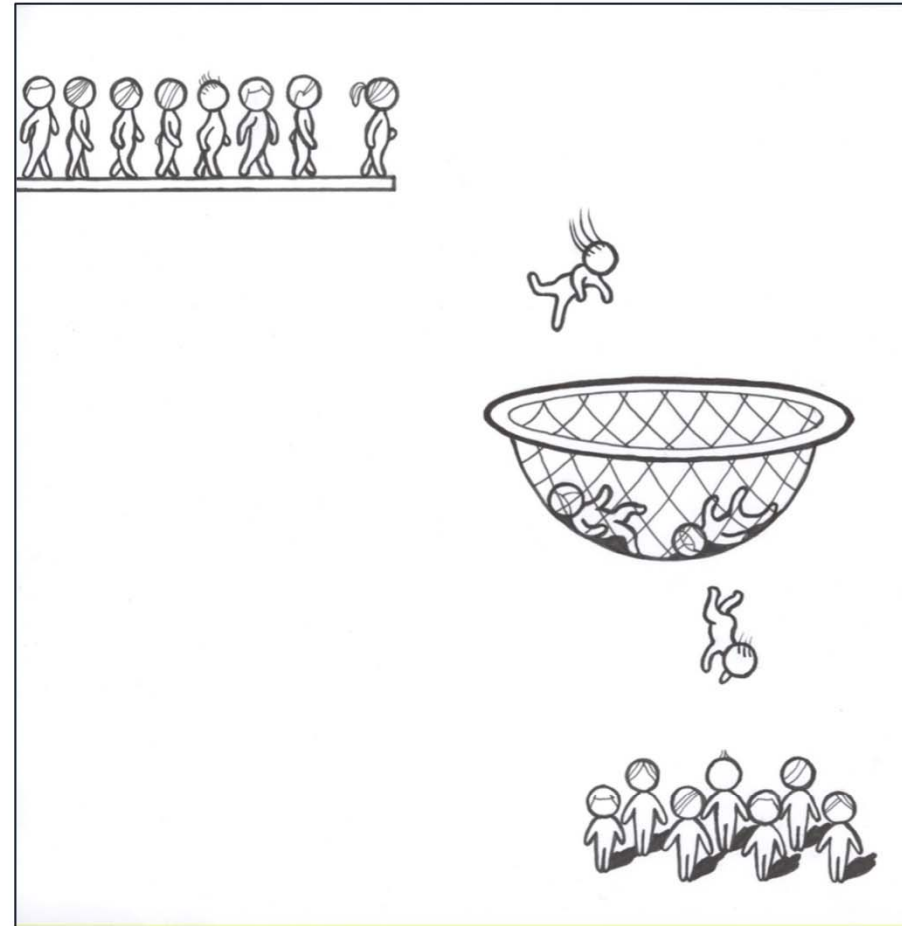


www.preventcd.com



Mass screening – the future?

- A public health service?
- Benefits should outweigh harm



Experience of living with celiac disease

NOT A BIG DEAL

A FIGHT FOR
NORMALIZATION

A LONELY
STRUGGLE

TREATMENT NOT
WORTH THE PRICE

Rosén A *et al.* Balancing health benefits and social sacrifices::
A qualitative study of how screening-detected celiac disease
impacts adolescents' quality of life. *BMC Pediatrics* 2011,11:32

Opinions about screening

SCREENING IS IMPORTANT

“I think everybody should join the screening. It’s good to know so one doesn’t get sick in the future”

Boy

QUESTIONING THE BENEFIT

”I felt fine before and didn’t feel better from the diet. Why test for something that a person doesn’t suffer from?”

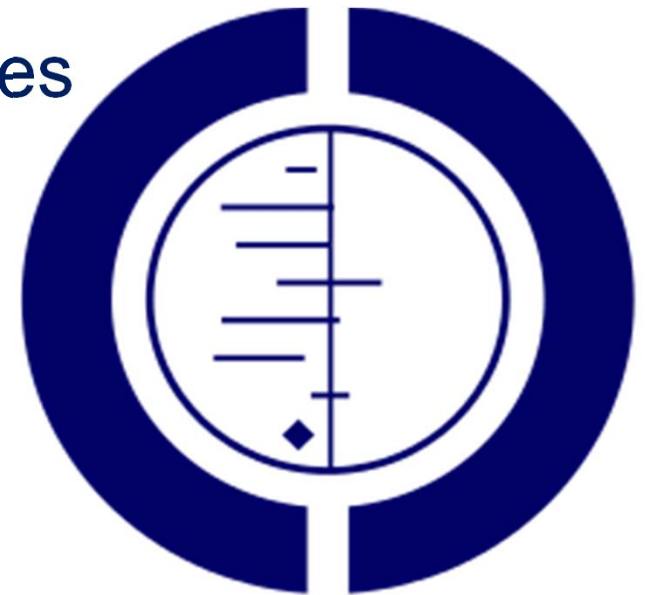
Girl

Evidence-Based Medicine

Considers only systematic reviews of randomized controlled trials (RCT)

Later (some) observational studies have been considered

**QUALITATIVE STUDIES
ARE DISREGARDED!**



**THE COCHRANE
COLLABORATION**

The art and science of clinical knowledge: evidence beyond measures and numbers

The quantitative research paradigm of medicine limits access to clinical knowledge, since it incorporates only phenomena that can be controlled, measured, counted and analysed by statistical methods.

THE TASK OF HEALTH PERSONELL IS TWO-FOLD:
TO UNDERSTAND THE PATIENT AND THE DISEASE

*Kirsti Malterud.
Lancet 2001; 358:397-400*

Towards an integral reserach effort Discovery AND Justification

SEQUENTIAL

QUAL → QUANT
QUANT → QUAL

Pave the way
for each other

CONCURRENT

QUAL & QUANT

Mixed method
design

TRIANGULATION



QUAL - Characteristics

- Inquiry process of understanding based on distinct methodological traditions
- Builds a complex, holistic picture
- Analyzes words
- Reports detailed views of informants
- Is conducted in a natural setting



QUAL – Tools

- In-depth interviews
- Focus group discussions
- Narratives (oral or written)
- Observations
- Case studies

HOW AND WHAT QUESTIONS
TO UNDERSTAND WHY!



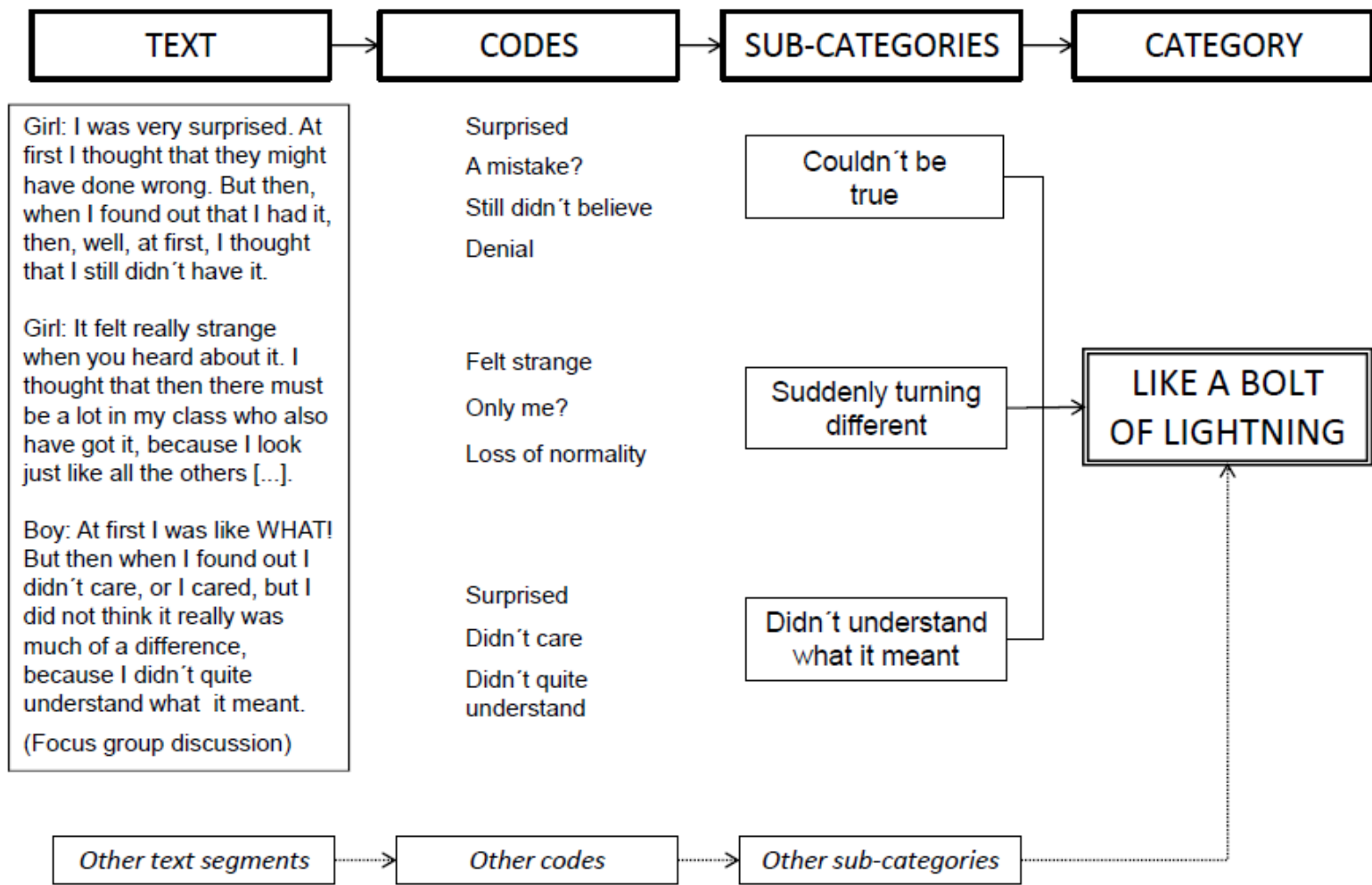
QUAL - Analysis

EXAMPLES OF METHODS:

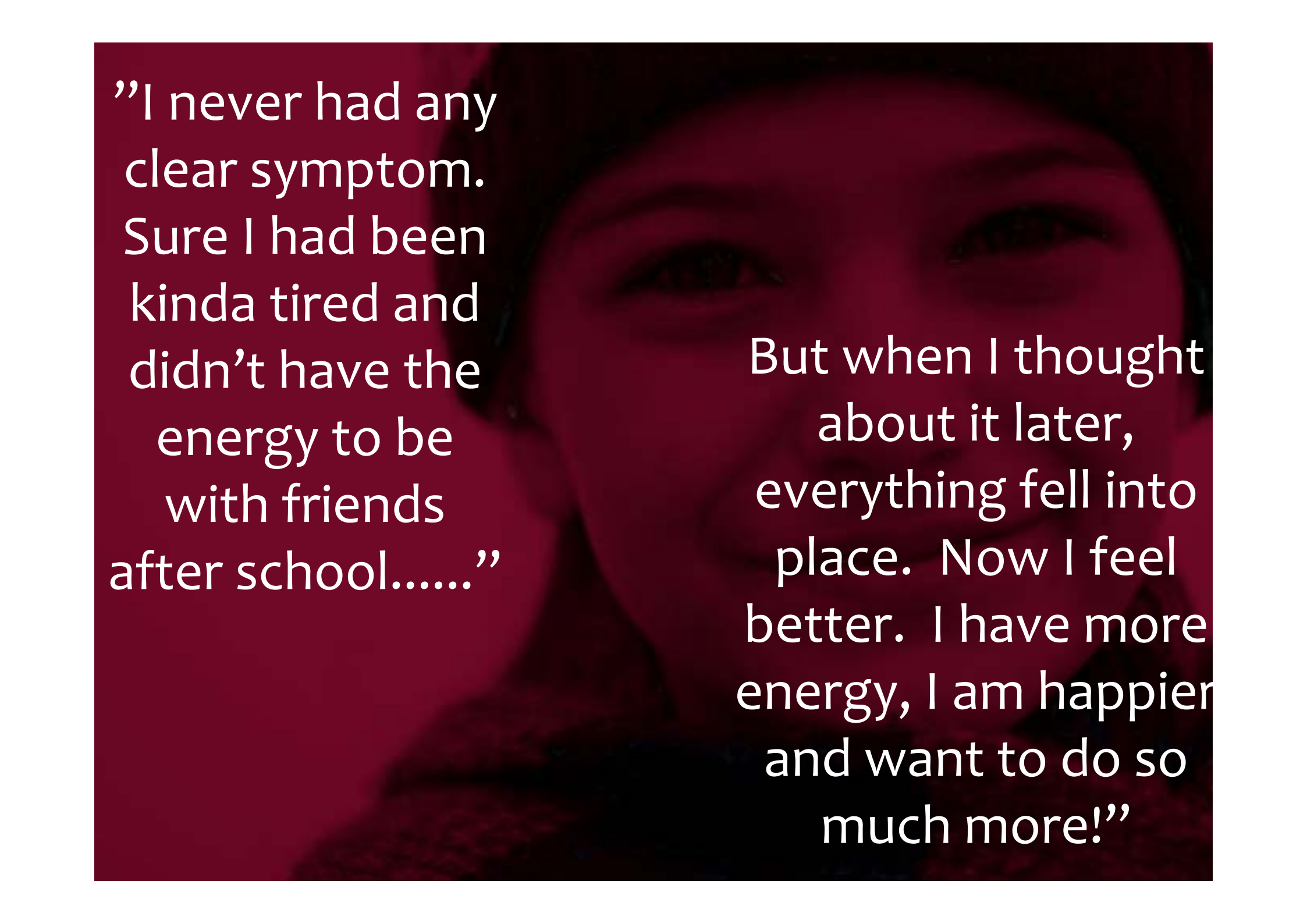
- Content Analyses
- Grounded Theory Analyses

Systematic methods to transform words
to abstract information and knowledge





Rosén A, Emmelin M, Carlsson A, Hammarroth S, Karlsson E, Ivarsson A. Mass screening for celiac disease from the perspective of newly diagnosed adolescents and their parents: A mixed-method study. BMC Public Health. 2011;11:822-.



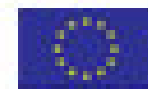
”I never had any clear symptom. Sure I had been kinda tired and didn’t have the energy to be with friends after school.....”

But when I thought about it later, everything fell into place. Now I feel better. I have more energy, I am happier and want to do so much more!”




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