

“Pupil’s Development of Food- and Health Related Action Competence In Integrated School Foodscapes – LOMA case study”.

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About the LOMA-local food project

● Aim

To promote pupils' food and health-related action competence (F&HRAC) via integrated, holistic and local perspective on school food.

To contribute to sustainable development via public food procurement practices.

● Objectives

Expansion of LOMA-approach to 5 schools in four municipalities: Aalborg, Herning, Svendborg and Ishøj.

Conduction of teacher education: LOMA-EDU, incl. teachers pilotprojects

Implementation of LOMA 10 schools by the end of 2017.

Development of supportive networkstructure for LOMA-schools.



Funding and organisation

Development project funded by Nordea-fonden: 7,4 mio DKK

Co-financed by participating schools (management hours)

Project management based on University College Lillebaelt (UCL) www.lomaskole.dk

Headmasters from participating schools constitute the steering group.

Expert advisory group – Børge Koch, SHE network and Monical Carlsson, DPU, Astrid Dahl, Copenhagen school food, Ulla Sognstrup, Madkulturen, Anne Hermansen

Duration

01.01.2015-31.12.2017

Evaluation

On-going internal evaluation between PM and participating staff and pupils.

External evaluation by Danish Evaluation Institute, EVA .

University College Lillebaelt research by Center for Applied research in Education.



Background

- Unhealthy eating habits among children and youth increase.
- Food in schools - domain of 'family'. Food- and health literacy decline.
- Longer school days after reform I4 are challenging.
- Too many hungry pupils and students during school days (HBSC 2014)
- Level of obesity and overweight must be contextualised and lowered.
- Early intervention is needed: Daycare and schools.
- No national school meal program in Denmark – local level solutions !
Guidelines from Fødevarestyrelsen / 'Måltidsmærket'.
- Strong impact from socio-economic factors leads to
inequity in health and learning (HBSC 2014)
- **Need for holistic and integrated approaches regarding 'food in school'**

Research in LOMA



Photo: June 9th 2017. public seminar at UCL. Dissemination of experience and results. From research/EVA.

LOMA as a holistic approach to school-development – through food.



Interdisciplinary conceptual framework

Health Promoting Schools' platform

(Wholeschool approach, action-competence cf. Jensen & Simovska 2005; HBSC 2014; SHE network 2017, WHO 2017; Food for Life, UK)

Transformative learning and identity formation

(Illeris 2003 ; Ziehe 2009)

Alternative food geography , re-localisation of food-systems (Wiskerke 2009; Morgan and Sonnino 2009; Food for Life UK)

Foodscape studies (Appadurai 1996; Dolphijn 2004;

Johansson 2009; Mikkelsen et al. 2011; Brembeck 2012; Ruge 2014)

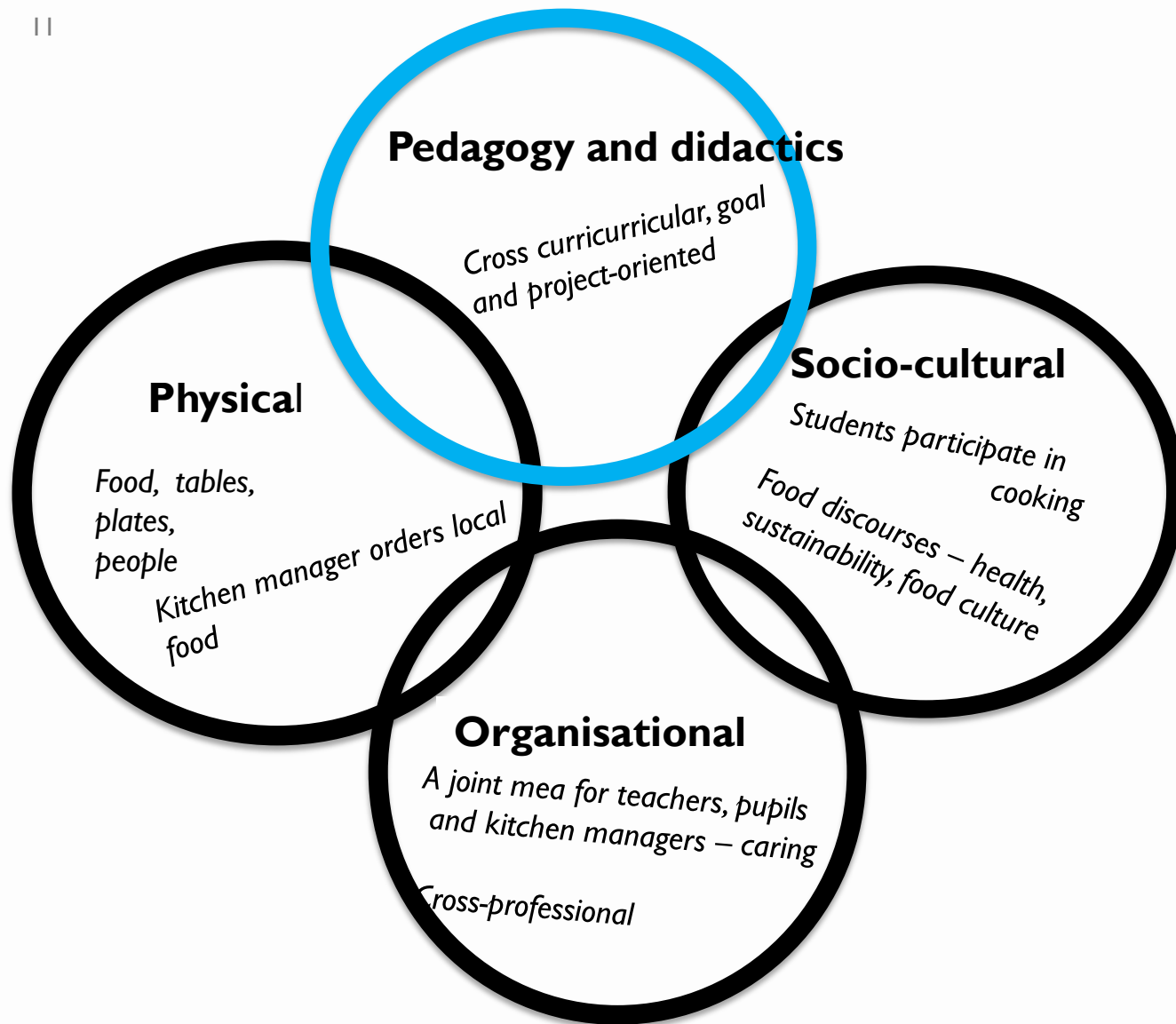
Foodscape method for mapping complexity and for analysis

“Foodscapes are how food functions in immanent structures that are always in a process of change, how food affects and is affected, how we live our lives with food, according to food and through food” (Rick Dolphijn 2004).

“The integrated, public school foodscape is the **physical, organizational** and **sociocultural** space in which pupils participate in meals, cooking, food related curriculum and encounter food messages - including health and sustainability messages” (Ruge 2014)

All three spaces are simultaneously present in each event (cf. Dolphijn 2004).

And in childrens’ personalised ‘I’ foodscapes ‘to become’ (Brembeck 2009)



Mapping the integrated LOMA school food scape – dimensions (Ruge 2017)



Protocol

Research questions:

- 1. How did LOMA influence pupils' development of food and health-related action competence ?**
2. How did LOMA influence the school as a whole, including schools' cooperation with parents?
3. How did LOMA influence development of sustainable public food procurement practices?

Protocol

Design

- Research was conducted via a holistic, multi-case-study design.
Focus was directed both to the single cases and the whole case (jf. Yin 2006; Ramian 2007).
- Each school represented a case.
- Data was collected via a mixed methods approach in an aim to understand complexity and achieve evidence of F&HRA.
- Triangulation of results was applied a method.

Methods – Comparative casestudy,

Figur 1. Illustration af LOMA15 casestudie med komparativt design.

LOMA
intervention
2015-2017

Case a. Filstedvejens Skole

Case b. Tjørring Skole

Case c. Tved skole

Case d. Ørkild Skole

Case e. Strandgårdskolen

Case f. Nymarkskolen

Kontrol skole

Data indsamling

Analyse og sammenligning

Resultater

Mixed methods design

Qualitative methods:

observations, interviews with pupils
and teachers a.o. staff
documents, video, photo

Quantitative methods:

survey data – pupils/students.
2 control schools
Statistical methods



**Students preparing carrots ,
Nymarkskolen.**

Elements in LOMA Intervention

Teachers and kitchenmanagers participated in LOMA-EDU teacher training and 'scaffolding' – LOMA didactics in own planning.

Pupils participated (IVAC) in planning, preparing and serving school food for peers together with professionals (teachers and kitchen staff). Heterogenic groups.

Pupils shared a daily meal with teachers and kitchenmanagers

Duration of LOMA intervention for pupils = 1 week, led by teachers.

Food activities were integrated and crossdisciplinary cf. 'Fælles Mål' in Science, Language, Home economics, Math, Health, Media and PA). Excursions on farms.

Food was healthy according to public guidelines for school food (FVST 2017) and cooked from 'scratch'.

Food was as far as possible sourced from local or regional producers preferably organic.

Encouragement of democratic approach and critical thinking e.g. with regard to health, well-being and sustainability.

Results – qualitative preliminary

Pupils and students seemed to develop components of F&HRAC: knowledge, skills, empowerment, notions, real-life experiences, motivation, critical thinking, well-being (improved relations).

LOMA seemed to :

- contribute to inclusion and integration (heterogenic groups and universal food-preunderstanding)
- offer a democratic learning space, where socio-economic factors had less influence compared to traditional classroom teaching. Focus was on ‘what you do’.
- Initiate learningprocesses , that invited the ‘whole human being’.
- Boys and girls were equally active in practice
- Sometimes 2nd language pupils were more competent in practice than Dans

Result from qualitative. Example. Focusgroup intw. 1st grade. Indicators on skills and wellbeing from a joint meal during LOMA intervention.

P2: I found that it was nice to sit together with all the others and the way we could sit and talk, that I found was nice. But some times there would be too much noise. But it was delicious food and so and it was very hyggeligt.

I: Would you like to sit together and eat lunch every day ?

P2: Yes, I have been to a kindergarten, where we had a mealsystem and I thought that was fun.

P1: We could do this twice a week or once a week. Such ways, sitting together at tables.

I: How about thos tables...was there anything special there.?

P2: There was water...

P1: And there were napkins and plates ...

P2: And cutlery and glasses...

I: Could you sit just where you wanted ?

P2: No, there were table-cards with names...

Results Quantitative – preliminary

Online questionnaire – age adjusted (primary and secondary)

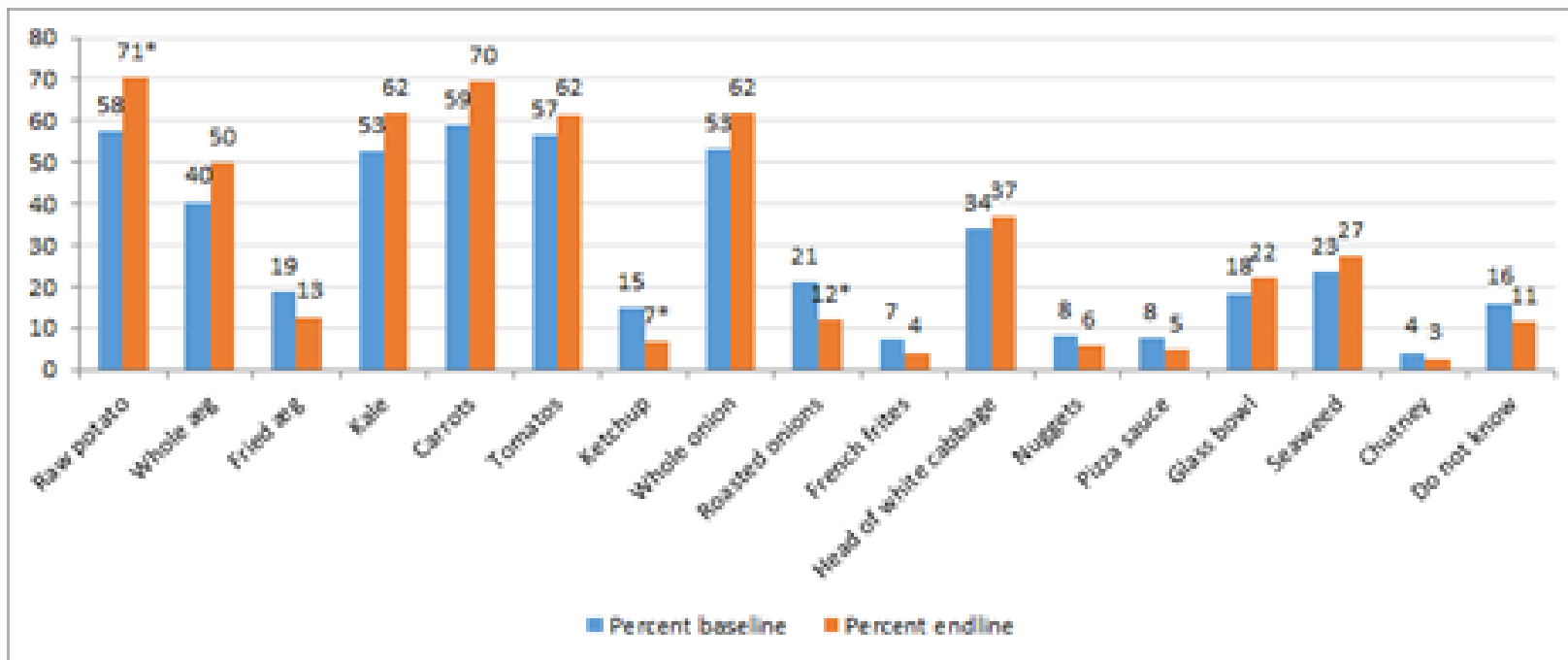
N = 299 (paneldata) Total: 495.

- 73% = 1 language (Danish)
- 27% = 2 languages (Danish + other)(11% in DK)

Results indicated that pupils, who participated in LOMA intervention developed components in a food- and health related actioncompetence, e.g.

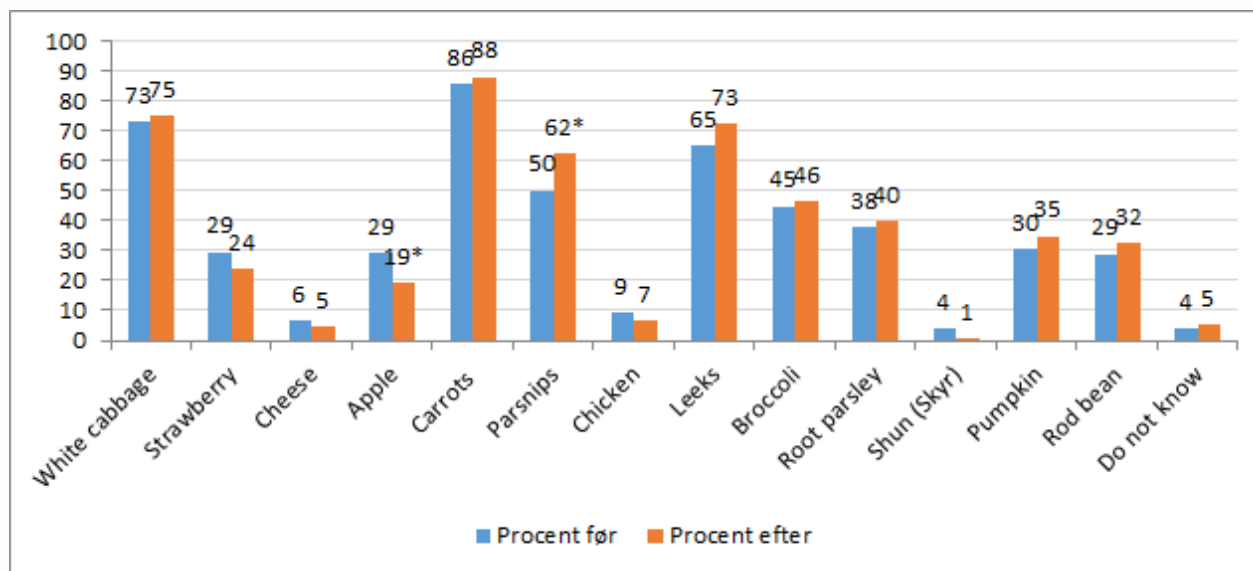
- ◆ Knowledge about vegetables and fresh produce (basis for healthy lifestyle)
- ◆ Both 1 and 2 languages had positive development. But ‘2 languages’ at a lower average level due to ‘language barriers’ (cf. PISA Ethnic DK 2017).
- ◆ Similar picture for boys compared to girls
- ◆ ‘From LOMA participation I got knowledge about where food comes from, the ways on the farm, to talk about food, to draw pictures of food, to take photos of food’.

Example of result: Pupil knowledge about 'raw food' and 'processed food'



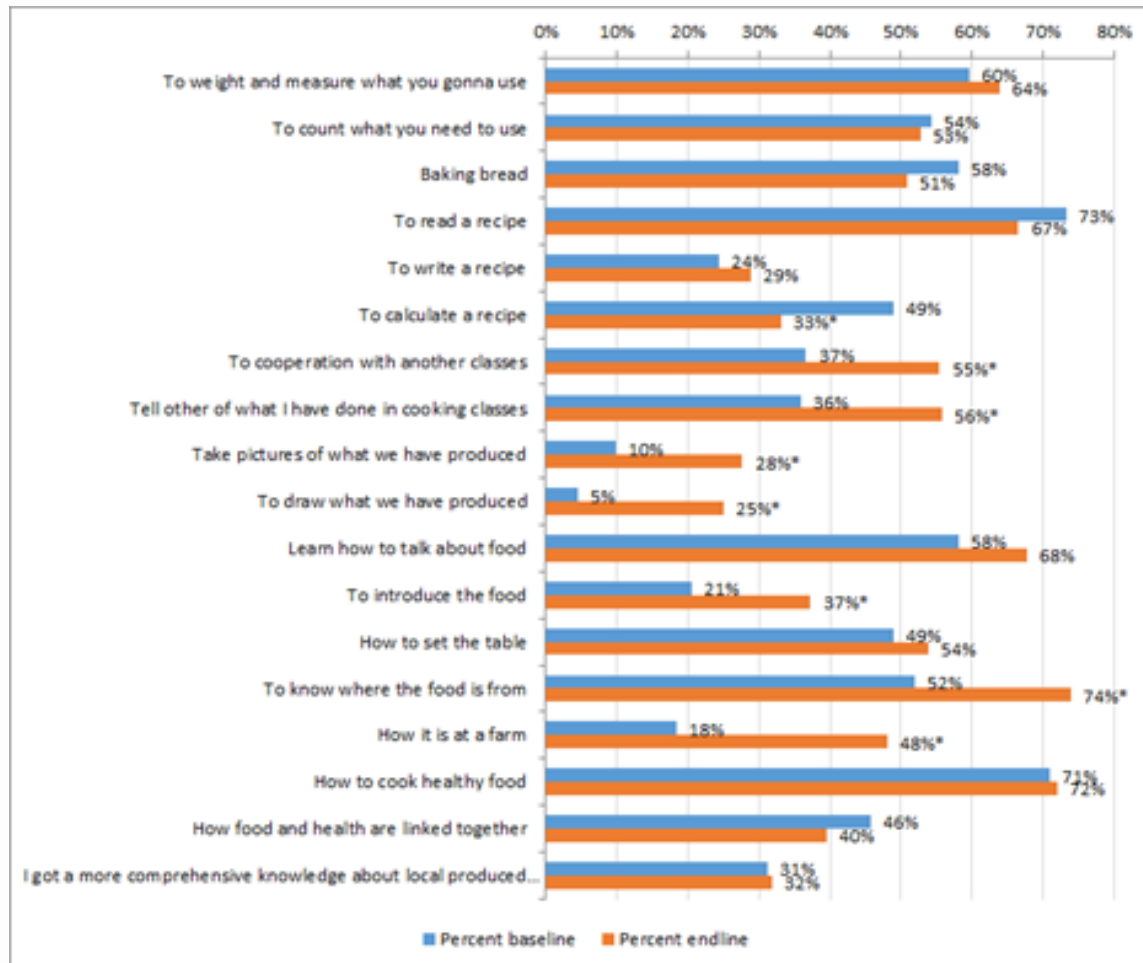
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Example of result (2): Pupil knowledge about vegetables



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Example of result (3): What did you learn from participation in cooking school food (LOMA) ?



4. Discussions

LOMA seem to offer a democratic space for all pupils, but questions arise – some of them:

- 1) If 1 or 2 languages makes a difference – how can teachers reduce this inequality in learning and health?
- 2) Should specific ‘food-language’ training be a part of LOMA-didactics? For instance via ITC, ‘gaming’ didactics?
- 3) LOMA action-competence in a ‘life skills’ perspective - 21st century learning competences...imperative of constant change? (climate etc.)
- 4) Holistic view on ‘biological learning’ (PA) as a new component in Conceptual framework?
- 5) International dimension: Collaboration with Food for Life in UK. Recently Erasmus+ funding for partnership with UK, Czech Republic and UCL/LOMA. Wider collaboration with ‘Network 8’ – and Unesco-chair?

Thank you for your attention !

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RUGE, D. et al. 2016. "Examining participation in relation to students' development of health-related action competence in a school food setting: LOMA case study." ***Health Education* 116.1 (2016): 69-85.**

RUGE, D. 2016. "Elevers anvendelse af it som støtte for udvikling af mad-og sundhedsrelateret handlekompetence." ***Learning Tech–Tidsskrift for Læremidler, Didaktik Og Teknologi* 2 (2016).**