Danish University Colleges

Promoting 11 – 13 year old children’s food literacy through a community of practice; case studies from an experiential sensory-based theme course on fish in a school setting

Højer, Rikke; Frøst, Michael Bom

Publication date:
2019

Link to publication

Citation for published version (APA):

General rights
Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

Download policy
If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.
Promoting 11 – 13 year old children’s food literacy through a community of practice - case study from an experiential sensory-based theme course on fish in a school setting

Hejrer, Rikke1, 2 & Frest, Michael Bom2

1University College Abalsøn, Center for Nutrition and Rehabilitation, Health and Nutrition, Søgelavvej 70-74, DK-1410 Sorø, Denmark
2Design and Consumer Behaviour Section, Department of Food Science, Faculty of Science, University of Copenhagen, Roaldgade 26, DK-1568 Frederiksberg C, Denmark

Introduction

32% of the Danes spend less than 15 minutes on cooking the evening meal, 47% use convenience products as a part of the food preparation, and 18% judge themselves lacking cooking competences1. The interest in children’s formal food education has increased as a result of concerns with loss of knowledge of food and nutrition, loss of food competences, and an increase in child obesity 1, 2.

In Danish public schools Family and consumer sciences (FCS) is mandatory for one year in either 4th, 5th, or 6th grade, which makes the school an unique setting for promoting food literacy.

Methods

Study population

Students age 11-13 years from 5th – 6th grade. The students came from different public schools on Zealand, Denmark.

Study design

The case studies were part of an interdisciplinary quasi-experimental intervention with a main group (MG) and a control group (CG). A mixed methods research strategy was applied in the form of baseline and follow up participant observations (3 schools, 3 classes from MG, n = 58), questionnaires from MG and CG total respectively, and teacher interviews at follow up (5 schools, n = 5).

Results & Discussion

The school is a social setting and FCS is founded on experiential learning and group activities but this does not automatically lead to the construction of communities of practice (CoP)3. Observations and interviews conducted during this study indicated that community of practice was not evident in the beginning of the cooking program but appeared over time:

• Students started exploring together driven by curiosity
• Students gained a mutual language, developed routines, and skills.
• Students started to negotiate how to fillet the fish and how to clean it.
• Students took mutual responsibility in reaching a goal (see figure 2 for more names).

In MG at follow up a significant increase in cooking skill was found (p < 0.001), no significant difference was found in the ability to talk about sensory properties (see table 1), but a significant difference between genders (p = 0.002) (table 3) was detected in the ability to talk about food;

• Girls rated themselves higher than boys.

Benn (2014) stresses that the learning dimension of food literacy is accomplished by learning through the food.

In the community of practice food literacy and self-efficacy4 was promoted: in working with the fish peer-to-peer learning occurred: evident in the shared repertoire, e.g. observed language used, and in mutual engagement, e.g. in ‘helping each other’ situations. An increase in self-efficacy, was observed e.g. through joint enterprise, e.g. individual confidence to negotiate practices, but also in shared repertoire, e.g. higher confidence in own cooking skills (p < 0.001) (table 2).

Conclusions

• Participation in the FCS cooking program increased food literacy through the construction of communities of practice.
• Learning is both social; e.g. peer learning occurred; evident in the shared repertoire, e.g. observed language used, and in mutual engagement, e.g. in ‘helping each other’ situations.
• Not all development was quantifiably measurable in children’s questionnaire responses.
• Some were detected through observations and teachers’ statements. This underscores the importance of applying mixed methods strategy to research within the field of food literacy.

References

7. Hamid, H.K., Henningsgaard, F. & Pedersen, S. (2013). Madkultur18. Sådan spiser danskerne. Madkulturens årlige befolkningsundersøgelse (p < 0,001), no significant difference was found in the ability to talk about sensory properties (see table 1), but a significant difference between genders (p = 0.002) (table 3) was detected in the ability to talk about food;

Table 1: Effects of cooking program. Paired t-tests for differences in means at baseline & follow up

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean (SD)</th>
<th>t-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q23.f.</td>
<td>0.81 (0.77)</td>
<td>0.001</td>
<td>0.001</td>
</tr>
<tr>
<td>Q23.h.</td>
<td>0.87 (0.71)</td>
<td>0.001</td>
<td>0.001</td>
</tr>
<tr>
<td>Q23.i.</td>
<td>0.77 (0.68)</td>
<td>0.001</td>
<td>0.001</td>
</tr>
</tbody>
</table>

Table 2: Gender differences in effect of cooking program. Unpaired t-tests for differences in means at baseline & follow up

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean (SD)</th>
<th>t-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q23.f.</td>
<td>0.81 (0.77)</td>
<td>0.001</td>
<td>0.001</td>
</tr>
<tr>
<td>Q23.h.</td>
<td>0.87 (0.71)</td>
<td>0.001</td>
<td>0.001</td>
</tr>
<tr>
<td>Q23.i.</td>
<td>0.77 (0.68)</td>
<td>0.001</td>
<td>0.001</td>
</tr>
</tbody>
</table>

Table 3: Students’ self-efficacy. Paired t-tests for differences in means at baseline & follow up

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean (SD)</th>
<th>t-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q23.f.</td>
<td>0.81 (0.77)</td>
<td>0.001</td>
<td>0.001</td>
</tr>
<tr>
<td>Q23.h.</td>
<td>0.87 (0.71)</td>
<td>0.001</td>
<td>0.001</td>
</tr>
<tr>
<td>Q23.i.</td>
<td>0.77 (0.68)</td>
<td>0.001</td>
<td>0.001</td>
</tr>
</tbody>
</table>

Acknowledgements

The study was supported by Novo Nordisk under the Taste for Life project and University College Abalsøn, Centre for Nutrition and Rehabilitation, Nutrition and Health, Søros, Denmark. Neither had any involvement in the work.