THE QUEST FOR CHEMISTRY CAPITAL

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18.06.2020

HOW WE STARTED?

https://lmy.de/rxuTH
SCIENCE CAPITAL RESEARCH

How is social inequality maintained over generations?

Forms of capital

- economic
- cultural
- social

Capital in the field of science

Capital in chemistry education

Bourdieu, 1972
Archer et al. 2015
Rüschenpöhler & Markic, 2020
RESEARCH QUESTIONS

(i) How does school contribute to students’ acquisition of chemistry capital?

(ii) How does chemistry capital in the home environment contribute to students’ individual chemistry capital?

(iii) What individual strategies do students employ for acquiring chemistry capital?
METHODOLOGICAL APPROACH

Sample

15 (31 %)  21 (44 %)  12 (25 %)

Gymnasium  Realschule  Hauptschule
(grammar school)  (middle ability group)  (lowest entry requirements)
**METHODOLOGICAL APPROACH**

*Semi-structured interviews*

<table>
<thead>
<tr>
<th>Main questions</th>
<th>Following the students’ realities</th>
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<tbody>
<tr>
<td>1. What comes to your mind when you think about chemistry?</td>
<td>Why is that?</td>
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<td>Could you tell me more about that?</td>
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<td>2. On an afternoon at home, what role does chemistry play?</td>
<td>Do you remember a situation, as an example?</td>
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<td>3. What role could chemistry play in your life after you finished school?</td>
<td>How did you feel in that situation?</td>
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<td>What did you think?</td>
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METHODOLOGICAL APPROACH

Thematic analysis (Braun & Clarke, 2006)

Step 1: Structural and process coding (-> categories)  

Saldaña, 2016

organizing

reorganizing
METHODOLOGICAL APPROACH

Step 2: Causal networks (→ individual causal relations)

Chemistry Capital at home

school factors

emotional attachment

knowledge

chemistry-related activities

Miles, Huberman, & Saldaña, 2014
METHODOLOGICAL APPROACH

Step 3: Pattern coding (→ analytical story)

Saldaña, 2016
RESULTS
RESULTS

- Classify the citations in the four chemistry capital groups.
- Discuss in the group the patterns and the processes you detect, also discuss also aspects that don‘t fit the pattern.

DISCUSSION

1) Discuss in your group (one or several of) the following topics:
   1) What practical implications do you see for teachers?
   2) What practical implications do you see for policy makers?
   3) How does the school system in your countries deal with the students’ different types of capital at home? What would need to be done?

2) If you like, you can comment on the others’ ideas.

The results of the padlet will be available as a pdf.

https://bit.ly/3dVZmOR
Coming together
References


