Does a differentiated instruction increase or decrease interactions between students?

Stefanie Bosse, Thorsten Henke, Katja Bogda, & Nadine Spörer
University of Potsdam (Germany)

Theory

- In inclusive classes in which students with and without special educational needs are learning together the range of the students' individual abilities is wider than in regular classes.
- Therefore, teachers of inclusive classes are challenged with respect to the principle of the appropriateness of their instruction.
- One of the most promising approaches to work with heterogeneous classes is differentiated instruction (Mitchell, 2008; Tomlinson, 2014).
- It is assumed that differentiated instruction increases the quality and the intensity of teacher-student-interactions and student-student-interactions, and, thereby, leads to better academic and social skills (Klieme & Warwas, 2011; Lipowsky, Kastens, Lotz, & Faust, 2011).
- Empirical evidence of these assumptions is still scant.

Research Questions

- In the present study we focussed on observations of inclusive lessons. The main aim was to describe interactions between students in relation to differentiated instructions in math and German lessons.
- Questions:
  1. What are characteristic descriptions of inclusive lessons within the sample?
  2. Is there a relation between differentiation and the amount of on-task interactions between students?

Method

- Design & sample
  - Longitudinal study in Germany in the federal state of Brandenburg
  - Three measurement points within the school years 2014/15 (t1), and 2015/16 (t2, t3)
  - Class observations in 10 inclusive primary school classes by external observers
  - Table 1: Descriptive parameters of the sample

<table>
<thead>
<tr>
<th></th>
<th>t1</th>
<th>t2</th>
<th>t3</th>
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<tbody>
<tr>
<td>N</td>
<td>213</td>
<td>204</td>
<td>209</td>
</tr>
<tr>
<td>Girls</td>
<td>53.8%</td>
<td>52.9%</td>
<td>51.9%</td>
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<td>Msex (SD)</td>
<td>11.4 (0.67)</td>
<td>11.9 (0.71)</td>
<td>12.5 (0.72)</td>
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- Instruments & assessment procedure:
  - Each measurement point: observation of 10 math and 10 German lessons per class
  - Software-based observations (Henke & Spörer, 2014)
  - Each lesson (45 minutes):
    - Software-based observations (Henke & Spörer, 2014)
    - Each lesson (45 minutes):
      - Software-based observations (Henke & Spörer, 2014)
      - Each lesson (45 minutes):
        - Software-based observations (Henke & Spörer, 2014)

Discussion

- Our study showed a rather restrained application of differentiation in math and German lessons.
- In both subjects, observed students mainly showed on-task behaviour.
- Comparing math and German lessons, the forms of learning context had similar patterns.
- For all three measurement points the proportion of interactions between students with regard to all observations was comparable (between 11 % and almost 17 %).
- Differentiation and interactions between students were positively correlated at the first two measurement points. That means that more differentiated instructions are accompanied with more interactions.
- Interactions between students were negatively correlated with on-task behaviour.
  → Next, we will continue longitudinal analyses with a focus on causal relationships and multi-level evaluation. Furthermore, the relationship between differentiation and student outcomes, e.g. academic success and social competencies, will be analysed.

Literature


Contact

Stefanie Bosse
stbosse@uni-potsdam.de
University of Potsdam, Psychology for Primary Education

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