THE QUALITY OF SCHOOL AGE CHILDREN’ REPORTS ON FAMILY SES. SYSTEMATIC REVIEW

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SES variables are always required in sociological and educational.

More and more surveys of school-age children as a focal group of interest.

“Project 17-17”, USSR, late 60-s. (Астафьев, Шубкин, 1998)

Coleman’s project in USA. (Coleman, 1966)

First International Mathematics Study (FIMS) (Husen, 1967)

PIRLS, TIMSS, PISA and many others. National and international.
Researchers rely on the students’ responses on factual questions (parents’ education, occupation, articles in home and other family SES related questions).

Whether students are competent enough to provide accurate answers?
Books in the home TIMSS and PISA – same students. Wave 1 - parents

Data from longitudinal study “Trajectories in Education and Career” (Russia)
Mothers education TIMSS and PISA. Same students. One year gap

Data from longitudinal study “Trajectories in Education and Career” (Russia)
Research Question

- Which SES measures appear to have higher consistency in the responses of children and parents?
- To what extent different SES measures are prone to be missed?
- Are there any respondents’ characteristics that are related with the response quality?
SES measures

- Big three:
  - Parents’ education
  - Parents’ occupation
  - Income
- Cultural capital
  - Parents’ education
  - Cultural practices
  - Books at home
- Family structure
- Indirect measures of wealth
  - Home possessions
Methodology

☐ Systematic review (Petticrew & Roberts, 2006) of the studies devoted to investigation of the quality of children responses on family SES variables.

☐ Papers selection criteria:
  ☐ Research about the quality of the school age children answers on the family SES questions;
  ☐ Methodological focus;
  ☐ We mostly focused on the papers published since 1990, as in 1989 similar review had been done (Looker, 1989);
  ☐ English or Russian language.

☐ Approaches to look for relevant papers:
  ☐ Snowball method.
  ☐ Search in the citation and periodical databases (SCOPUS, WoS, JSTOR, EBSCO, Science Direct and others).
16 papers were included in our final list.

- 14 on research question 1 about consistency.
- 11 on research question 2 on missing data issue.
- 8 on research question 3 about students’ characteristics and response quality.

SES measures

- 14 - Parents’ education
- 13 - Parents’ occupation
- 4 – Form of parents’ occupation
- 3 - Family structure
Most samples are high school students

From articles we took:
- Correlation coefficients between children and parents answers
- Percent of agreement
- Cohen’s Kappa (inter-rater agreement)

We averaged these coefficients
Results. Consistency

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Correlation</th>
<th>% of agreement</th>
<th>Cohen’s Kappa</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mother</td>
<td>Father</td>
<td>Mother</td>
</tr>
<tr>
<td>Mean / median</td>
<td>0.7</td>
<td>0.7</td>
<td>69 / 74%</td>
</tr>
<tr>
<td>Range</td>
<td>0.4 - 0.9</td>
<td>0.5 - 0.9</td>
<td>20 - 94%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education</th>
<th>Correlation</th>
<th>% of agreement</th>
<th>Cohen’s Kappa</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Mother</td>
<td>Father</td>
<td>Mother</td>
</tr>
<tr>
<td>Mean / median</td>
<td>0.6</td>
<td>0.6</td>
<td>65 / 69%</td>
</tr>
<tr>
<td>Range</td>
<td>0.6 - 0.9</td>
<td>0.4 - 0.9</td>
<td>39 - 86%</td>
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</table>
Results. Missing data

<table>
<thead>
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<th></th>
<th>Occupation</th>
<th></th>
<th>Education</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mother</td>
<td>Father</td>
</tr>
<tr>
<td>Mean / median</td>
<td>12% / 9%</td>
<td>7% / 5%</td>
<td>7% / 5%</td>
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<tr>
<td>Range</td>
<td>0.6 - 46%</td>
<td>1 – 34%</td>
<td>0.7 - 15%</td>
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</table>

- Results differ from paper to paper more than for consistency.
- “Do not know” option usually is also available in “parents’ education” question and a substantial share of student ticks it.
Results. Students characteristics

Parents-children consistency:
- Age
- Achievements
- Family structure
- Family SES (according to parents’ responses)

Missing answers:
- Age
- Family structure
The percentage of agreement between parents and children rarely exceeds 80% for occupation and 70% for education.

In average is 65-70% of coincidence.

Correlation is about 0.7 for occupation and 0.6 for education.

Results for “parents’ occupation” questions is a little bit better than for “parents’ education” questions.

In general school age children tend to misreport one category up or down in all SES proxies. So merging categories may increase consistency.

Lack of research on books at home, home possessions and other SES indicators.
Thank you!

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Mothers education TIMSS and PISA. One year gap

<table>
<thead>
<tr>
<th></th>
<th>TIMSS</th>
<th>PISA</th>
<th>Vocational education</th>
<th>University or more</th>
<th>Total</th>
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<tbody>
<tr>
<td>&lt; = secondary</td>
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<td>256</td>
<td>27</td>
<td>336</td>
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<tr>
<td>education</td>
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<td>1544</td>
<td>1734</td>
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<tr>
<td>Total</td>
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<td>1836</td>
<td>1850</td>
<td>3774</td>
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</tbody>
</table>

78.4% agreement
12% in TIMSS “Do not know”. Where are they in PISA?