**Appendix**

Table A1. Items in self-concept measure

|  |  |
| --- | --- |
| Item | Answer- scale |
| a) I am just not good at mathematics/ Danish\* | 1 – Completely disagree2 – Slightly disagree3 – Neither agree or disagree4 – Slightly agree5 – Completely agree |
| b) I get good grades in mathematics/ Danish |
| c) I learn new things quickly in mathematics/ Danish |
|  |
| d) I have always believed that mathematics/ Danish is one of my best subjects |
| e) I understand even the most difficult topics in mathematics/ Danish |
|  |

Note: The answer scale is shown as it was presented in the survey.\* Item is reverse coded for the measure.

Table A2. Items in GSB measure for students/teachers

|  |  |
| --- | --- |
| Item | Answer- scale |
| a) Mathematics/ Danish is easiest for... | 1 - girls23456 - both girls and boys7891011 - boys |
| b) Students with the best prerequisites for mathematics/ Danish are… |
| c) The weakest students in mathematics/ Danish are... \* |
| d) Interest in mathematics/ Danish is biggest among... |
| e) Students making the biggest effort in mathematics/ Danish are… |
| f) Students who understand mathematics/ Danish the best are… |
| g) Students who care the most about mathematics/Danish are... |

Note: The answer scale is shown as it was presented in the survey.\* Item is reverse coded for the measure.

Table A3. Descriptive statistics for mathematics, by gender. Mean (SD)

|  |  |  |  |
| --- | --- | --- | --- |
|  | Male | Female | Total |
| Self-concept | 2.471(1.002) | 1.986(1.032) | 2.229(1.045) |
|  |  |  |  |
| Achievement | 0.617(1.113) | 0.501(1.159) | 0.559(1.137) |
|  |  |  |  |
| Student GSB | 5.143(1.667) | 4.741(1.334) | 4.942(1.522) |
|  |  |  |  |
| GSB, male peers | 5.114(1.147) | 5.059(1.137) | 5.087(1.142) |
|  |  |  |  |
| GSB, female peers | 4.764(0.937) | 4.718(0.897) | 4.741(0.917) |
|  |  |  |  |
| Relative female/male achievement | -0.113(0.551) | -0.095(0.541) | -0.104(0.546) |
|  |  |  |  |
| SES, father | 2.754(0.756) | 2.759(0.761) | 2.757(0.758) |
|  |  |  |  |
| SES, mother | 2.951(0.816) | 2.872(0.838) | 2.912(0.828) |
|  |  |  |  |
| GSB, teacher | 3.767(0.516) | 3.780(0.501) | 3.774(0.509) |
|  |  |  |  |
| Female teacher | 0.645(0.479) | 0.616(0.487) | 0.631(0.483) |
|  |  |  |  |
| Teacher age | 45.066(10.297) | 45.768(10.572) | 45.416(10.435) |
|  |  |  |  |
| Teacher experience | 16.284(10.457) | 17.049(10.887) | 16.666(10.675) |
|  |  |  |  |
| Teacher master's degree' | 0.068(0.253) | 0.064(0.246) | 0.066(0.249) |

Table A4. Descriptive statistics for language, by gender. Mean (SD)

|  |  |  |  |
| --- | --- | --- | --- |
|  | Male | Female | Total |
| Self-concept | 2.396(0.857) | 2.522(0.857) | 2.459(0.859) |
|  |  |  |  |
| Achievement | 0.940(0.877) | 1.085(0.855) | 1.012(0.868) |
|  |  |  |  |
| Student GSB | 6.523(0.580) | 6.508(0.703) | 6.515(0.644) |
|  |  |  |  |
| GSB, male peers | 6.527(0.222) | 6.543(0.210) | 6.535(0.216) |
|  |  |  |  |
| GSB, female peers | 6.539(0.238) | 6.514(0.256) | 6.527(0.247) |
|  |  |  |  |
| Relative female/male achievement | -0.129(0.430) | -0.162(0.426) | -0.146(0.428) |
|  |  |  |  |
| SES, father | 2.733(0.756) | 2.750(0.755) | 2.742(0.755) |
|  |  |  |  |
| SES, mother | 2.931(0.830) | 2.899(0.844) | 2.915(0.837) |
|  |  |  |  |
| GSB, teacher | 3.570(1.412) | 3.762(1.434) | 3.666(1.426) |
|  |  |  |  |
| Female teacher | 0.732(0.443) | 0.770(0.421) | 0.751(0.433) |
|  |  |  |  |
| Teacher age | 45.765(10.430) | 45.270(10.641) | 45.518(10.534) |
|  |  |  |  |
| Teacher experience | 17.397(10.748) | 17.261(10.485) | 17.329(10.613) |
|  |  |  |  |
| Teacher master's degree' | 0.104(0.305) | 0.068(0.251) | 0.086(0.280) |

Table A5. Correlation matrix – mathematics. Boys below and girls above diagonal.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 1.Self-concept | 1.000 | 0.547\*\*\* | -0.116\* | -0.023 | -0.074 | 0.077 | 0.162\*\*\* | 0.088 | 0.054 | 0.002 | -0.010 | -0.055 | 0.065 |
| 2. Achievement | 0.574\*\*\* | 1.000 | -0.168\*\*\* | -0.154\*\*\* | -0.199\*\*\* | 0.284\*\*\* | 0.267\*\*\* | 0.233\*\*\* | 0.045 | 0.032 | 0.075 | 0.030 | 0.025 |
| 3. Student GSB | 0.269\*\*\* | 0.154\*\*\* | 1.000 | 0.519\*\*\* | 0.524\*\*\* | -0.443\*\*\* | 0.007 | 0.005 | 0.210\*\*\* | -0.035 | -0.072 | -0.090 | 0.113\* |
| 4. GSB, male peers | 0.132\*\* | 0.134\*\* | 0.575\*\*\* | 1.000 | 0.802\*\*\* | -0.640\*\*\* | 0.037 | 0.015 | 0.366\*\*\* | -0.128\*\* | -0.187\*\*\* | -0.172\*\*\* | 0.174\*\*\* |
| 5. GSB, female peers | 0.122\*\* | 0.102\* | 0.551\*\*\* | 0.807\*\*\* | 1.000 | -0.666\*\*\* | 0.039 | 0.004 | 0.333\*\*\* | -0.044 | -0.113\* | -0.136\*\* | 0.134\*\* |
| 6. Relative female/male achievement | -0.129\*\* | -0.181\*\*\* | -0.445\*\*\* | -0.646\*\*\* | -0.661\*\*\* | 1.000 | 0.004 | 0.055 | -0.397\*\*\* | -0.149\*\* | 0.126\*\* | 0.062 | -0.021 |
| 7. SES, father | 0.160\*\*\* | 0.310\*\*\* | 0.064 | 0.022 | 0.006 | 0.041 | 1.000 | 0.354\*\*\* | 0.010 | -0.040 | -0.098\* | -0.099\* | -0.022 |
| 8. SES, mother | 0.118\* | 0.268\*\*\* | 0.008 | -0.033 | -0.046 | 0.085 | 0.502\*\*\* | 1.000 | 0.020 | -0.027 | -0.062 | 0.009 | 0.028 |
| 9. GSB, teacher | 0.133\*\* | 0.248\*\*\* | 0.232\*\*\* | 0.335\*\*\* | 0.267\*\*\* | -0.398\*\*\* | 0.117\* | 0.114\* | 1.000 | 0.208\*\*\* | -0.016 | 0.077 | -0.016 |
| 10. Female teacher | 0.037 | 0.129\*\* | -0.135\*\* | -0.187\*\*\* | -0.156\*\*\* | -0.081 | 0.116\* | 0.143\*\* | 0.273\*\*\* | 1.000 | 0.040 | 0.102\* | 0.045 |
| 11. Teacher age | 0.040 | 0.057 | -0.084 | -0.107\* | -0.072 | 0.025 | -0.034 | -0.101\* | 0.040 | 0.129\*\* | 1.000 | 0.834\*\*\* | 0.152\*\*\* |
| 12. Teacher experience | 0.018 | 0.070 | -0.081 | -0.115\* | -0.123\*\* | 0.004 | 0.012 | -0.042 | 0.108\* | 0.193\*\*\* | 0.817\*\*\* | 1.000 | 0.083 |
| 13. Teacher master's degree' | -0.007 | 0.074 | 0.110\* | 0.136\*\* | 0.088 | 0.035 | 0.098\* | 0.120\*\* | -0.097\* | 0.130\*\* | 0.116\* | 0.057 | 1.000 |

\* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001.

Table A6. Correlation matrix – language. Boys below and girls above diagonal.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 1.Self-concept | 1.000 | 0.340\*\*\* | 0.091\* | 0.014 | 0.018 | -0.069 | 0.047 | 0.023 | 0.105\* | 0.082 | -0.056 | -0.074 | -0.065 |
| 2. Achievement | 0.311\*\*\* | 1.000 | -0.020 | 0.021 | -0.065 | -0.151\*\*\* | 0.204\*\*\* | 0.253\*\*\* | 0.134\*\* | -0.115\*\* | -0.006 | -0.019 | 0.033 |
| 3. Student GSB | -0.011 | -0.059 | 1.000 | -0.012 | 0.010 | 0.071 | -0.060 | -0.073 | -0.076 | 0.036 | 0.029 | 0.029 | 0.022 |
| 4. GSB, male peers | -0.017 | -0.131\*\* | 0.012 | 1.000 | -0.005 | -0.217\*\*\* | 0.006 | -0.020 | 0.319\*\*\* | -0.002 | -0.062 | -0.127\*\* | -0.222\*\*\* |
| 5. GSB, female peers | 0.048 | -0.051 | 0.010 | 0.016 | 1.000 | 0.238\*\*\* | -0.026 | -0.028 | -0.171\*\*\* | 0.069 | 0.006 | 0.026 | 0.049 |
| 6. Relative female/male achievement | 0.122\*\* | 0.280\*\*\* | -0.105\* | -0.323\*\*\* | 0.150\*\*\* | 1.000 | 0.018 | -0.018 | -0.220\*\*\* | 0.064 | 0.208\*\*\* | 0.116\*\* | 0.304\*\*\* |
| 7. SES, father | 0.074 | 0.318\*\*\* | -0.049 | -0.066 | -0.200\*\*\* | 0.033 | 1.000 | 0.336\*\*\* | 0.005 | -0.082 | 0.089\* | 0.100\* | 0.089\* |
| 8. SES, mother | 0.060 | 0.276\*\*\* | -0.019 | -0.052 | -0.149\*\*\* | 0.021 | 0.477\*\*\* | 1.000 | 0.031 | 0.018 | 0.119\*\* | 0.132\*\* | 0.025 |
| 9. GSB, teacher | -0.071 | 0.027 | 0.105\* | 0.311\*\*\* | -0.196\*\*\* | -0.280\*\*\* | 0.033 | 0.031 | 1.000 | 0.018 | -0.146\*\*\* | -0.168\*\*\* | -0.175\*\*\* |
| 10. Female teacher | -0.014 | -0.003 | -0.023 | 0.012 | -0.006 | 0.094\* | -0.007 | -0.003 | 0.055 | 1.000 | -0.101\* | -0.135\*\* | -0.199\*\*\* |
| 11. Teacher age | -0.025 | 0.074 | -0.018 | -0.121\*\* | -0.066 | 0.123\*\* | 0.111\*\* | 0.058 | -0.146\*\*\* | -0.100\* | 1.000 | 0.871\*\*\* | 0.013 |
| 12. Teacher experience | -0.039 | 0.044 | -0.053 | -0.174\*\*\* | -0.070 | 0.050 | 0.105\* | 0.081 | -0.118\*\* | -0.102\* | 0.870\*\*\* | 1.000 | 0.006 |
| 13. Teacher master's degree' | 0.027 | 0.196\*\*\* | -0.085\* | -0.241\*\*\* | 0.100\* | 0.360\*\*\* | 0.131\*\* | 0.079 | -0.210\*\*\* | -0.212\*\*\* | -0.030 | -0.047 | 1.000 |

\* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001.