

Need for Cognition and Ability Self-Concepts as Predictors of Changes in School Grades
Supplementary Tables

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[add acknowledgements and funding if applicable]

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Supplementary Tables

Tables 1-4 provide the descriptives and intercorrelations of the variables involved in the correlation analyses for the subjects German, Math, Physics, and Chemistry. For details, see main text.

Table 1

Spearman correlations and descriptive statistics of the variables in the analyses on German grades

| | GRD1 | ASC1 | INT1 | HFS1 | FOF1 | NFC1 | GRD2 | ASC2 | INT2 | HFS2 | FOF2 | NFC2 |
|----------|-------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| GRD1 | — | .53 | .45 | .26 | -.17 | .33 | .67 | .51 | .40 | .25 | -.18 | .35 |
| ASC1 | | <i>.93</i> | .66 | .16 | -.13 | .18 | .58 | .76 | .60 | .08 | -.05 | .16 |
| INT1 | | | <i>.92</i> | .16 | -.11 | .23 | .44 | .54 | .63 | .17 | -.14 | .20 |
| HFS1 | | | | <i>.86</i> | -.30 | .62 | .21 | .16 | .11 | .57 | -.17 | .50 |
| FOF1 | | | | | <i>.88</i> | -.42 | -.20 | -.22 | -.13 | -.29 | .59 | -.43 |
| NFC1 | | | | | | <i>.89</i> | .35 | .21 | .16 | .62 | -.32 | .71 |
| GRD2 | | | | | | | — | .58 | .46 | .24 | -.21 | .41 |
| ASC2 | | | | | | | | <i>.92</i> | .68 | .10 | -.13 | .25 |
| INT2 | | | | | | | | | <i>.91</i> | .11 | -.06 | .19 |
| HFS2 | | | | | | | | | | <i>.87</i> | -.28 | .66 |
| FOF2 | | | | | | | | | | | <i>.90</i> | -.39 |
| NFC2 | | | | | | | | | | | | <i>.89</i> |
| Mean | 3.24 | 3.68 | 3.49 | 2.92 | 1.86 | 4.46 | 3.36 | 3.65 | 3.42 | 2.72 | 1.71 | 4.69 |
| SD | 0.79 | 0.82 | 0.99 | 0.57 | 0.61 | 0.84 | 0.80 | 0.76 | 0.94 | 0.56 | 0.61 | 0.87 |
| Min | 1.00 | 1.00 | 1.00 | 1.14 | 1.00 | 2.19 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.50 |
| Max | 5.00 | 5.00 | 5.00 | 4.00 | 4.00 | 6.94 | 5.00 | 5.00 | 5.00 | 4.00 | 3.71 | 6.88 |
| Skew | -0.01 | -0.38 | -0.33 | -0.23 | 0.45 | 0.16 | -0.13 | -0.26 | -0.26 | -0.02 | 0.89 | 0.07 |
| Kurtosis | -0.24 | -0.12 | -0.37 | -0.07 | -0.34 | 0.14 | -0.38 | 0.08 | -0.51 | 0.17 | 0.47 | -0.45 |

Note. $N = 221$ -259 due to missings; $p < .05$ for $|r_s| > .21$; coefficients in the diagonal are Cronbach's α , bold-faced coefficients give the 53-59 week retest reliability; GRD = Grade German, ASC = Ability Self-Concept German, INT = Interest in German, HFS = Hope for Success, FOF = Fear of Failure, NFC = Need for Cognition at measurement occasion 1, and 2, respectively

Table 2

Spearman correlations and descriptive statistics of the variables in the analyses on Math grades

| | GRD1 | ASC1 | INT1 | HFS1 | FOF1 | NFC1 | GRD2 | ASC2 | INT2 | HFS2 | FOF2 | NFC2 |
|----------|-------|------------|------------|------------|-------|------------|------------|------------|------------|------------|------------|------------|
| GRD1 | — | .68 | .56 | .24 | -.17 | .30 | .54 | .56 | .46 | .29 | -.11 | .34 |
| ASC1 | | .95 | .79 | .26 | -.21 | .28 | .42 | .73 | .58 | .38 | -.19 | .26 |
| INT1 | | | .93 | .30 | -.19 | .35 | .38 | .66 | .68 | .42 | -.20 | .31 |
| HFS1 | | | | .86 | -.30 | .62 | .16 | .24 | .30 | .57 | -.17 | .50 |
| FOF1 | | | | | .88 | -.42 | -.21 | -.22 | -.18 | -.29 | .59 | -.43 |
| NFC1 | | | | | | .89 | .26 | .27 | .35 | .62 | -.32 | .71 |
| GRD2 | | | | | | | — | .64 | .58 | .30 | -.12 | .40 |
| ASC2 | | | | | | | | .95 | .80 | .37 | -.21 | .31 |
| INT2 | | | | | | | | | .94 | .45 | -.17 | .42 |
| HFS2 | | | | | | | | | | .87 | -.28 | .66 |
| FOF2 | | | | | | | | | | | .90 | -.39 |
| NFC2 | | | | | | | | | | | | .89 |
| Mean | 3.11 | 3.20 | 3.18 | 2.92 | 1.86 | 4.46 | 3.19 | 3.37 | 3.33 | 2.72 | 1.71 | 4.69 |
| SD | 1.02 | 1.01 | 1.14 | 0.57 | 0.61 | 0.84 | 1.10 | 0.98 | 1.10 | 0.56 | 0.61 | 0.87 |
| Min | 1.00 | 1.00 | 1.00 | 1.14 | 1.00 | 2.19 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 | 2.50 |
| Max | 5.00 | 5.00 | 5.00 | 4.00 | 4.00 | 6.94 | 5.25 | 5.00 | 5.00 | 4.00 | 3.71 | 6.88 |
| Skew | -0.05 | -0.12 | -0.20 | -0.23 | 0.45 | 0.16 | -0.18 | -0.35 | -0.39 | -0.02 | 0.89 | 0.07 |
| Kurtosis | -0.63 | -0.65 | -0.88 | -0.07 | -0.34 | 0.14 | -0.61 | -0.39 | -0.61 | 0.17 | 0.47 | -0.45 |

Note. $N = 218$ -259 due to missings; $p < .05$ for $|r_s| > .17$; coefficients in the diagonal are Cronbach's α , bold-faced coefficients give the 53-59 week retest reliability; GRD = Grade Math, ASC = Ability Self-Concept Math, INT = Interest in Math, HFS = Hope for Success, FOF = Fear of Failure, NFC = Need for Cognition at measurement occasion 1, and 2, respectively

Table 3

Spearman correlations and descriptive statistics of the variables in the analyses on Physics grades

| | GRD1 | ASC1 | INT1 | HFS1 | FOF1 | NFC1 | GRD2 | ASC2 | INT2 | HFS2 | FOF2 | NFC2 |
|----------|-------|-------|-------|-------|-------|------|------------|------------|------------|------------|------------|------------|
| GRD1 | — | .59 | .46 | .22 | -.13 | .27 | .66 | .45 | .41 | .28 | -.13 | .28 |
| ASC1 | | .95 | .80 | .17 | -.09 | .25 | .45 | .65 | .65 | .32 | -.11 | .26 |
| INT1 | | | .94 | .17 | -.08 | .23 | .36 | .64 | .71 | .31 | -.18 | .23 |
| HFS1 | | | | .86 | -.30 | .62 | .27 | .20 | .25 | .57 | -.17 | .50 |
| FOF1 | | | | | .88 | -.42 | -.10 | -.15 | -.13 | -.29 | .59 | -.43 |
| NFC1 | | | | | | .89 | .39 | .25 | .32 | .62 | -.32 | .71 |
| GRD2 | | | | | | | — | .50 | .45 | .39 | -.15 | .41 |
| ASC2 | | | | | | | | .96 | .85 | .35 | -.23 | .23 |
| INT2 | | | | | | | | | .94 | .38 | -.19 | .29 |
| HFS2 | | | | | | | | | | .87 | -.28 | .66 |
| FOF2 | | | | | | | | | | | .90 | -.39 |
| NFC2 | | | | | | | | | | | | .89 |
| Mean | 3.11 | 2.66 | 2.61 | 2.92 | 1.86 | 4.46 | 3.07 | 2.52 | 2.45 | 2.72 | 1.71 | 4.69 |
| SD | 1.03 | 0.99 | 1.16 | 0.57 | 0.61 | 0.84 | 0.93 | 1.03 | 1.19 | 0.56 | 0.61 | 0.87 |
| Min | 0.00 | 1.00 | 1.00 | 1.14 | 1.00 | 2.19 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.50 |
| Max | 5.00 | 5.00 | 5.00 | 4.00 | 4.00 | 6.94 | 5.25 | 5.00 | 5.00 | 4.00 | 3.71 | 6.88 |
| Skew | -0.12 | 0.10 | 0.24 | -0.23 | 0.45 | 0.16 | -0.17 | 0.35 | 0.52 | -0.02 | 0.89 | 0.07 |
| Kurtosis | -0.24 | -0.70 | -0.90 | -0.07 | -0.34 | 0.14 | 0.14 | -0.50 | -0.69 | 0.17 | 0.47 | -0.45 |

Note. $N = 191$ -259 due to missings; $p < .05$ for $|r_s| > .13$; coefficients in the diagonal are Cronbach's α , bold-faced coefficients give the 53-59 week retest reliability; GRD = Grade Physics, ASC = Ability Self-Concept Physics, INT = Interest in Physics, HFS = Hope for Success, FOF = Fear of Failure, NFC = Need for Cognition at measurement occasion 1, and 2, respectively

Table 4

Spearman correlations and descriptive statistics of the variables in the analyses on Chemistry grades

| | GRD1 | ASC1 | INT1 | HFS1 | FOF1 | NFC1 | GRD2 | ASC2 | INT2 | HFS2 | FOF2 | NFC2 |
|----------|-------|------------|------------|------------|-------|------------|------------|------------|------------|------------|------------|------------|
| GRD1 | — | .51 | .44 | .28 | -.25 | .32 | .72 | .44 | .40 | .37 | -.23 | .35 |
| ASC1 | | .96 | .82 | .23 | -.13 | .16 | .46 | .70 | .62 | .21 | -.12 | .18 |
| INT1 | | | .95 | .18 | -.03 | .18 | .39 | .67 | .68 | .24 | -.10 | .19 |
| HFS1 | | | | .86 | -.30 | .62 | .27 | .24 | .21 | .57 | -.17 | .50 |
| FOF1 | | | | | .88 | -.42 | -.19 | -.15 | -.06 | -.29 | .59 | -.43 |
| NFC1 | | | | | | .89 | .36 | .20 | .20 | .62 | -.32 | .71 |
| GRD2 | | | | | | | — | .52 | .49 | .36 | -.26 | .36 |
| ASC2 | | | | | | | | .96 | .86 | .26 | -.15 | .26 |
| INT2 | | | | | | | | | .94 | .24 | -.08 | .26 |
| HFS2 | | | | | | | | | | .87 | -.28 | .66 |
| FOF2 | | | | | | | | | | | .90 | -.39 |
| NFC2 | | | | | | | | | | | | .89 |
| Mean | 3.12 | 2.52 | 2.48 | 2.92 | 1.86 | 4.46 | 3.15 | 2.44 | 2.37 | 2.72 | 1.71 | 4.69 |
| SD | 0.95 | 1.06 | 1.20 | 0.57 | 0.61 | 0.84 | 0.83 | 1.06 | 1.21 | 0.56 | 0.61 | 0.87 |
| Min | 1.00 | 1.00 | 1.00 | 1.14 | 1.00 | 2.19 | 1.25 | 1.00 | 1.00 | 1.00 | 1.00 | 2.50 |
| Max | 5.00 | 5.00 | 5.00 | 4.00 | 4.00 | 6.94 | 5.00 | 5.00 | 5.00 | 4.00 | 3.71 | 6.88 |
| Skew | 0.06 | 0.34 | 0.49 | -0.23 | 0.45 | 0.16 | 0.20 | 0.32 | 0.56 | -0.02 | 0.89 | 0.07 |
| Kurtosis | -0.59 | -0.65 | -0.75 | -0.07 | -0.34 | 0.14 | -0.53 | -0.63 | -0.74 | 0.17 | 0.47 | -0.45 |

Note. $N = 171$ -259 due to missings; $p < .05$ for $|r_s| > .18$; coefficients in the diagonal are Cronbach's α , bold-faced coefficients give the 53-59 week retest reliability; GRD = Grade Chemistry, ASC = Ability Self-Concept Chemistry, INT = Interest in Chemistry, HFS = Hope for Success, FOF = Fear of Failure, NFC = Need for Cognition at measurement occasion 1, and 2, respectively