**Task Difficulty and Private Speech in Typically Developing and At-Risk Preschool Children**

**Supplementary Tables**

**Table 1***Task difficulty effect on the frequency and proportion of speech types across groups*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Typically Developing | |  | At-Risk | |
|  | Duplo 1 | Duplo 2 |  | Duplo 1 | Duplo 2 |
|  | Mean(SD) | Mean(SD) |  | Mean(SD) | Mean(SD) |
| *Frequency* |  |  |  |  |  |
|  | *(n=52)* | |  | *(n=25)* | |
| Total Utterances p/ma, b | 5.94(4.67) | 7.09(4.27) |  | 8.22(5.35) | 8.91(3.34) |
|  |  |  |  |  |  |
|  | *(n=52)* | |  | *(n=25)* | |
| Private Utterances p/m | 4.88(4.37) | 5.66(3.79) |  | 6.51(4.34) | 7.13(3.01) |
|  |  |  |  |  |  |
|  | *(n=51)* | |  | *(n=24)* | |
| Social Utterances p/m | 0.94(1.04) | 1.32(1.26) |  | 1.45(1.38) | 1.64(1.03) |
|  |  |  |  |  |  |
| *Proportion* |  |  |  |  |  |
|  | *(n=50)* | |  | *(n=24)* | |
| Proportion Private Speech | 0.76(0.28) | 0.80(0.17) |  | 0.77(0.24) | 0.80(0.13) |
|  |  |  |  |  |  |
|  | Card Sort 1 | Card Sort 2 |  | Card Sort 1 | Card Sort 2 |
|  | Mean(SD) | Mean(SD) |  | Mean(SD) | Mean(SD) |
| *Frequency* |  |  |  |  |  |
|  | *(n=52)* | |  | *(n=23)* | |
| Total Utterances p/m | 4.41(4.75) | 4.96(4.42) |  | 6.97(5.90) | 6.78(5.15) |
|  |  |  |  |  |  |
|  | *(n=50)* | |  | *(n=23)* | |
| Private Utterances p/mb | 3.00(3.46) | 2.91(3.02) |  | 4.98(4.29) | 4.53(4.11) |
|  |  |  |  |  |  |
|  | *(n=51)* | |  | *(n=22)* | |
| Social Utterances p/ma, b | 0.88(1.05) | 1.57(1.56) |  | 1.65(1.67) | 2.03(1.39) |
|  |  |  |  |  |  |
| *Proportion* |  |  |  |  |  |
|  | *(n=37)* | |  | *(n=20)* | |
| Proportion Private Speecha | 0.73(0.29) | 0.61(0.29) |  | 0.68(0.26) | 0.62(0.26) |
|  |  |  |  |  |  |

p/m is per minute

a Significant task difficulty effect

b Significant group effect

**Table 2***Task difficulty effect on private speech internalisation across groups*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Typically Developing | |  | At-Risk | |
|  | Duplo 1 | Duplo 2 |  | Duplo 1 | Duplo 2 |
|  | *(n=48)* | |  | *(n=23)* | |
|  | Mean(SD) | Mean(SD) |  | Mean(SD) | Mean(SD) |
| Internalisation Scorea, b | 2.77(1.28) | 2.30(1.03) |  | 2.34(1.00) | 1.99(0.33) |
|  |  |  |  |  |  |
|  | Card Sort 1 | Card Sort 2 |  | Card Sort 1 | Card Sort 2 |
|  | *(n=31)* | |  | *(n=18)* | |
|  | Mean(SD) | Mean(SD) |  | Mean(SD) | Mean(SD) |
| Internalisation Score | 2.58(1.40) | 2.41(1.26) |  | 1.93(1.00) | 2.28(1.20) |

p/m is per minute

a Significant task difficulty effect

b Significant group effect

**Table 3***Task difficulty effect on the frequency of private speech content subtypes across groups*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Typically Developing | |  | At-Risk | |
|  | Duplo 1 | Duplo 2 |  | Duplo 1 | Duplo 2 |
|  | Mean(SD) | Mean(SD) |  | Mean(SD) | Mean(SD) |
|  | *(n=50)* | |  | *(n=24)* | |
| Forethought Utterances p/ma | 0.69(0.90) | 0.74(0.77) |  | 0.44(0.62) | 0.84(0.72) |
|  |  |  |  |  |  |
|  | *(n=51)* | |  | *(n=25)* | |
| Performance Utterances p/m | 1.68(2.42) | 2.52(2.29) |  | 2.83(3.42) | 3.10(1.74) |
|  |  |  |  |  |  |
|  | *(n=51)* | |  | *(n=24)* | |
| Self-Reflection Utterances p/ma | 0.34(0.53) | 0.89(0.87) |  | 0.58(0.61) | 1.18(0.93) |
|  |  |  |  |  |  |
|  | Card Sort 1 | Card Sort 2 |  | Card Sort 1 | Card Sort 2 |
|  | Mean(SD) | Mean(SD) |  | Mean(SD) | Mean(SD) |
|  | *(n=52)* | |  | *(n=24)* | |
| Forethought Utterances p/m | 0.46(1.13) | 0.21(0.52) |  | 0.48(1.15) | 0.49(1.05) |
|  |  |  |  |  |  |
|  | *(n=50)* | |  | *(n=23)* | |
| Performance Utterances p/mb | 0.93(1.56) | 1.14(1.60) |  | 1.83(2.31) | 1.92(2.16) |
|  |  |  |  |  |  |
|  | *(n=50)* | |  | *(n=22)* | |
| Self-Reflection Utterances p/m | 0.60(1.27) | 0.33(0.69) |  | 0.58(0.80) | 0.62(1.03) |
|  |  |  |  |  |  |

p/m is per minute

a Significant task difficulty effect

b Significant group effect

**Table 4**

*Statistics from the for the interaction between task difficulty and age (centred at the mean) in the 2-way mixed ANCOVAS with task difficulty condition (easy, hard) as the repeated measure, group (typically developing, at-risk) as the between-subjects factor, age in months centred at the mean as a covariate, on all speech variables during the Duplo task*

|  |  |  |  |
| --- | --- | --- | --- |
| Speech Variable | *F* | *p* | *η² p* |
| Frequency p/m of Total Utterances | 6.60 | .01 | .08 |
| Frequency p/m of Private Speech Utterances | 3.09 | .08 | .04 |
| Frequency p/m of Social Speech Utterances | 5.26 | .03 | .07 |
| Proportion of Private Speech | 1.38 | .25 | .00 |
| Level of Internalisation Score | 0.16 | .69 | .00 |
| Frequency p/m of Forethought Utterances | 0.40 | .53 | .01 |
| Frequency p/m of Performance Utterances | 0.93 | .34 | .01 |
| Frequency p/m of Self-Reflection Utterances | 0.08 | .77 | .00 |

**Table 5**

*Statistics from the for the interaction between task difficulty and age (centred at the mean) in the 2-way mixed ANCOVAS with task difficulty condition (easy, hard) as the repeated measure, group (typically developing, at-risk) as the between-subjects factor, age in months centred at the mean as a covariate, on all speech variables during the card sort task*

|  |  |  |  |
| --- | --- | --- | --- |
| Speech Variable | *F* | *p* | *η² p* |
| Frequency p/m of Total Utterances | 0.05 | .82 | .00 |
| Frequency p/m of Private Speech Utterances | 1.32 | .25 | .02 |
| Frequency p/m of Social Speech Utterances | 2.15 | .15 | .03 |
| Proportion of Private Speech | 3.62 | .06 | .06 |
| Level of Internalisation Score | 1.49 | .23 | .03 |
| Frequency p/m of Forethought Utterances | 4.45 | .04 | .06 |
| Frequency p/m of Performance Utterances | 1.65 | .20 | .02 |
| Frequency p/m of Self-Reflection Utterances | 4.29 | .04 | .06 |