REPORT

Task Performance

Report on the Study of Social and Emotional Skills of Chinese Adolescents (I)

Xingyuan Gao, Hongyan Chen, Jie Wu, & Jingzhong Huang

East China Normal University, Shanghai 200241, China

TASK performance is greatly significant in the field of education. The OECD defines Task Performance as the ability to function based on conscientiousness in the "Big Five" personality domains. People with high Task Performance tend to also have significant conscientiousness. In other words, they are more self-controlled, more responsible, and more persistent. As a result, they focus well on tasks and earn better grades. Task Performance includes self-control, responsibility, and perseverance.

The study surveyed 3,647 10-year-old students and 3,621 15-year-old students in Suzhou (China) on their Task Performance by using self-assessment questionnaires, parent surveys, and teacher evaluation.

The main results of the study are as follows:

The Overall Status of Task Performance

In general, Suzhou (China) students' self-assessment of Task Performance is higher on average than their international peers (and significantly higher than the international average of 500 points). The 10-year-olds also rated their Task Performance higher than the 15-year-olds.

After calculating the Pearson correlation coefficients among self-control, responsibility, perseverance, and 12 sub-abilities of other four abilities under task ability, it became clear that responsibility was the most correlated with perseverance (the 10-year-olds r = 0.72; the 15-year-olds = 0.72), followed by self-control and perseverance (the 10-year-olds r = 0.66; the 15-year-olds r = 0.60). In relation to other abilities, perseverance, and empathy (the 10-

year-olds r = 0.67), sense of responsibility, perseverance and cooperation (r = 0.67; r = 0.69), perseverance was highly correlated with curiosity (the 10-year-olds r = 0.69).

To further explore whether students with high Task Performance also perform well in other abilities, this study further explores whether high-level students in the top 25% of self-control, responsibility, and perseverance can also become the top 25% of high-level students with other abilities. The results showed that, in the 10-year-old group, the proportion of the students with high self-control in the four items of trust, happiness, courage, and vitality was less than 50%. In the 15-year-old group, the proportion of students with high self-control in 10 items of high ability, such as resistance to pressure, optimism, empathy, trust, cooperation, tolerance, creativity, teamwork, determination, and vitality, is less than 50%. In the 10-year-old group, the proportion of students with a high sense of responsibility in the three high abilities (trust, happy group, and courage) is less than 50%. In the 15-year-old group, the proportion of students with a high sense of responsibility scoring high in resistance to pressure, optimism, emotion control, trust, tolerance, creativity, cheerfulness, determination, and vitality, is less than 50%. In the 10-year-old group, the proportion of the students with a high perseverance in trust, teamwork and determination was less than 50%. In the 15-year-old group, the proportion of students with a high perseverance in resisting pressure, tolerance, fun, and determination was less than 50%. Overall, the proportion of students scoring high in different abilities was higher in the 10-year-old group than in the 15-year-old group. The only exception was that the high-grit 15-year-olds had a higher proportion of high conscientiousness than the 10-year-olds.

In terms of the age difference, according to the self-assessment results, the 10-year-olds were more competent than the 15-year-olds in all Task Performances, especially the sense of responsibility. Teacher evaluations showed that 10-year-olds outperformed 15-year-olds in both conscientiousness and perseverance. Parents' evaluations showed that the 15-year-olds outperformed the 10-year-olds in all Task Performances.

In terms of gender difference, the 10-year-old girls were significantly more than boys in self-control ($p = 0.01$), sense of responsibility ($p < 0.01$) and perseverance ($p = 0.01$). Among the 15-year-olds, boys' self-control ($P < 0.01$) and perseverance ($p < 0.01$) were significantly higher than girls'. As for effect size, the differences were low, to the extent that even in the 15-year-old group with the highest effect size, the Cohen's SD was only 0.22.

In terms of the difference between urban and rural areas, all students in the central urban schools are significantly more than the rural students in self-control ($p < 0.01$), sense of responsibility ($p < 0.01$), and perseverance ($p < 0.01$). From the perspective of effect size, differences in ability were low, and the highest effect size derived from the sense of responsibility and perseverance in the 10-year-old group (Cohen's SD = 0.23).

The research in the educational environments themselves mainly explores the differences between general high school and vocational high

school among 15-year-old students. The results show that the boys in ordinary high school have higher self-control than those in vocational high school. In other indicators, there was no significant difference between boys and girls, ordinary high school students, and vocational high school students.

Predictive Variable Analysis of Task Performance

This study selected variables related to student questionnaires and teacher questionnaires so as to form background variables, individual factors, family upbringing, teacher factors, and school factors. It adopted multiple linear regressions to explore five major factors affecting students' Task Performance.

In terms of background variables, the study found that at age 10, Gender (female) ($p < 0.01$, $\beta = 0.02, 0.05, 0.02$), family possession ($p < 0.01$, $\beta = 0.27, 0.22, 0.27$) and family book collection ($p < 0.01$, $\beta = 0.08, 0.12, 0.10$) were all positive and significant effects on students' self-control, sense of responsibility and perseverance. Month age had a positive and significant effect on self-control ($p < 0.01$, $r = 0.02$). Home equipment had a negative and significant effect on perseverance ($p < 0.01$, $\beta = -0.01$). In the 15-year-old group, monthly age ($p < 0.01$, $\beta = 0.03, 0.03, 0.02$), parental education ($p < 0.01$, $\beta = 0.05, 0.03, 0.03$), family ownership ($p < 0.01$, $\beta = 0.17, 0.14, 0.20$), and family book collection ($p < 0.01$, $\beta = 0.07, 0.08, 0.08$) positively and significantly affected students' self-control, sense of responsibility and perseverance. Gender (female) ($p < 0.01$, $\beta = -0.14, -0.04, -0.12$) for all subabilities and home devices ($p < 0.01$, $\beta = -0.03, -0.03$) had a negative and significant effect on self-control and perseverance.

In terms of the student variable, the study found that in the 10-year-old group, The individual factors of students included security ($p < 0.01$, $\beta = 0.23, 0.23, 0.29$), friendship ($p < 0.01$, $\beta = 0.13, 0.17, 0.16$), friends with good habits ($P < 0.01$, $\beta = 0.19, 0.20, 0.21$), and indoor activity time ($p < 0.01$, $\beta = 0.02, 0.03, 0.02$), outdoor activity time ($p < 0.01$, $\beta=0.03, 0.07, 0.06$) and growth thinking ($p < 0.01$, $\beta = 0.03, 0.05, 0.05$) had positive and significant effects on students' self-control, responsibility and perseverance. At the same time, high expectations of friends ($p < 0.01$, $\beta = -0.01, -0.01$) had a negative and significant effects on sense of responsibility and perseverance, friendly classmates on perseverance ($p < 0.01$, $\beta = -0.01$), and extensive social relations ($p < 0.01$, $\beta = -0.02$) had negative and significant effects on self-control. Time spent online ($p < 0.01$, $\beta = -0.04, -0.07, -0.05$) had a negative and significant effect on self-control, responsibility and perseverance. In the 15-year-olds group, the individual factors of students included security ($p < 0.01$, $\beta = 0.11, 0.20, 0.28$), friendship ($p < 0.01$, $\beta=0.10, 0.14, 0.12$), good habit friends ($p < 0.01$, $\beta = 0.14, 0.13$), classmate friendliness ($p < 0.01$, $\beta = 0.05, 0.05, 0.02$), extensive social relationships ($p < 0.01$, $\beta = 0.04, 0.02, 0.04$), indoor activity time ($p < 0.01$, $\beta = 0.03, 0.05, 0.07$), outdoor activity time ($p < 0.01$, $\beta = 0.05, 0.06, 0.07$) and growth thinking ($p < 0.01$, $\beta = 0.09, 0.11, 0.12$) had positive and significant effects on students' self-control, re-

sponsibility and perseverance. Comparatively, high expectations of friends ($p < 0.01$, β =-0.02) had a negative and significant effect on sense of responsibility. Time spent online ($p < 0.01$, β = -0.08, -0.10, -0.13) also had a negative and significant effect on self-control, responsibility and perseverance.

For the teacher variable, in the 10-year-old group, Age of teaching ($p < 0.01$, β = 0.04, 0.01, 0.01), educational background ($p < 0.01$, β = 0.01, 0.02, 0.03), frequency of participation in social and emotional ability training ($p < 0.01$,β=0.05, 0.02, 0.04), and teacher-student relationship ($p < .01$, β = 0.18, 0.19, 0.20) had positive and significant effects on students' task ability. Among them, the teacher-student relationship had the most positive influence. Teachers' high expectations ($p < 0.01$, β = 0.04, 0.01) had a positive and significant effect on self-control and responsibility, though it did not have a positive effect on perseverance. The chance to participate in training related to social and emotional competence ($p < 0.01$, β = -0.02, -0.02, -0.02) had a negative and significant effect. In the 15-year-old group, the teacher-student relationship ($p < 0.01$, β = 0.15, 0.20, 0.20) had the largest positive and significant influence, while the teacher's teaching age and their training opportunities had no significant influence on any of the sub-abilities. Teacher training frequency ($p < 0.01$, β = -0.02, -0.01, -0.01) had a negative and significant effect on all sub-abilities.

In terms of the school variables, in the 10-year-old group, school belonging ($p < 0.01$, β = 0.26, 0.32, 0.33), school cooperation atmosphere ($p < 0.01$, β = 0.15, 0.17, 0.17) and off-campus activities ($p < 0.01$, β = 0.07, 0.08, 0.11) had positive and significant effects on students' task ability. School belonging had the greatest positive impact. Bullying ($p < 0.01$, β = -0.03, -0.01) had a negative and significant effect on self-control and perseverance. Results among 15-year-olds were similar to those for the 10-year-olds. Among them, school belonging ($p < 0.01$, β = 0.13, 0.27, 0.29) and school cooperation atmosphere ($p < 0.01$, β = 0.12, 0.11, 0.13) had the most positive and significant influences. Additionally, school bullying ($p < 0.01$, β = -0.09, -0.05, -0.05) had a negative and significant effect.

In terms of family variables, in the 10-year-old group, considerate mother ($p < 0.01$, β = 0.08, 0.12, 0.13), punishment mother ($p < 0.01$, β = 0.05, 0.05, 0.05), considerate father ($p < 0.01$, β = 0.12, 0.11, 0.14), and high parental expectations ($p < 0.01$, β = 0.15, 0.13, 0.13) positively and significantly affected students' self-control, sense of responsibility and perseverance. Paternity problems ($p < 0.01$, β = -0.15, -0.13, -0.15) had a negative and significant effect on all child abilities, while punitive fathers ($p < 0.01$, β = -0.02, -0.02) had a negative and significant effect on conscientiousness and perseverance. In the 15-year-old group, considerate mothers ($p < 0.01$, β = 0.09, 0.10, 0.09), considerate ($p < 0.01$, β = 0.10, 0.13, 0.14), punishment fathers ($p < 0.01$, β = 0.03, 0.07, 0.07), and high parental expectations ($p < 0.01$, β = 0.09, 0.11, 0.12) positively and significantly affected students' self-control, as well as their sense of responsibility and perseverance. Parent-child problems ($p < 0.01$, β = -0.12, -0.16, -0.22) had a certain negative and significant impact on self-control, sense of responsibility, and perseverance, while

punitive mothers ($p < 0.01$, $\beta = -0.03, -0.02, 0.02$) had a negative and significant impact on self-control and sense of responsibility, but they positively and significantly affected perseverance.

Task Performance and Life

This study further used multiple linear regression to explore how students' Task Performance affects students' academic achievement and educational expectations, global consciousness, social relationships (whether they are close to family, close to others), health, quality of life (happiness, satisfaction, test anxiety) and other life outcomes.

In the categories of achievement and educational expectations, in the 10-year-old group, self-control and sense of responsibility positively and significantly affect students' expectations of Chinese, Mathematics, Art, and Education. Perseverance also has a positive and significant effect on Mathematics, Art, and Educational expectations, but the positive effect on Chinese achievement is insignificant. The results for the 15-year-olds were inconsistent with those for the 10-year-olds. Self-control has a positive and significant effect on achievement in Chinese and educational expectation but has an insignificant negative effect on one's achievement in Mathematics. It also has a negative and significant effect on Art. Responsibility had a positive and significant effect on a student's achievement in Art, but an insignificant negative effect on Math and Language achievement. It had an insignificant though positive effect on Educational expectations.

In terms of global consciousness, the three sub-abilities of Task Performance had positive and significant effects on global consciousness in both 10-year-old and 15-year-old groups. Among them, self-control has the greatest influence.

In terms of test anxiety, in the 10-year-old group, self-control, sense of responsibility and perseverance has positive and significant effects on students' happiness and satisfaction. They have negative and significant effects on test anxiety. In other words, it seems that high task ability improves students' satisfaction and happiness but also relieves their test anxiety. There is a difference in the influence of self-control between the 15-year-old and 10-year-old groups. Self-control has a negative and significant effect on the happiness of the 15-year-old group, and a positive and significant effect on test anxiety, but no significant effect on satisfaction.

In terms of social relationships, in the 10-year-old group, Task Performance has a positive and significant impact on closeness to family members and others. Of these, perseverance has the greatest influence. The situation differed somewhat in the 15-year-olds group. Although the sense of responsibility, and perseverance had a positive and significant effect on closeness to family and other people, self-control had a negative and significant effect.

Encouraging adolescents to develop good Task Performance, according to the evidence, plays an extremely important role in the formation and development of students' self-control, sense of responsibility and perseverance.

School educators must realize that Task Performance is at least as important as cognitive ability for academic achievement and long-term quality development among students. Educational policymakers should consider how to provide resources for social and emotional skills education to parents of all classes, as well as encourage them to participate in improving students' Task Performances. Educational researchers should strive to make breakthroughs in social and emotional competence in education research going forward and thereby establish the most suitable way for the development of the task competence of Chinese teenagers.

Source: Journal of East China Normal University (Educational Sciences), 2021, 39(09):33-46.

***Correspondence to**:*
Jingzhong Huang
East China Normal University
Shanghai 200241
China
Email: zjhuang@dedu.ecnu.edu.cn

***Conflict of Interests**: None.*

***Doi:** 10.15354/bece.21.rp031*