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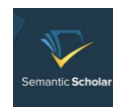
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Non-Cognitive Abilities The Indispensable Contributor to Adolescents’ Development

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“If I meet other people and criticize their weaknesses, I rob myself of higher cognitive power. But if I try to enter deeply and lovingly into another person’s good qualities, I gather in that force.”

—Rudol Steiner

THE previous view of education quality paid more attention to the appearance of cognitive ability: test scores. However, a lot of practice and research have proved that the level of cognitive ability cannot completely predict the development of an individual in school and society. The non-cognitive abilities of individuals represented by communication, cooperation, emotional management, etc. can help improve students’ cognitive level and regulate students’ learning motivation; help students achieve better academic performance and achievement; Income has an impact, which ultimately affects the individual’s happiness. These kind of specific abilities other than cognitive abilities, which have a profound and lasting impact on individual adaptation and social development, are core abilities that individuals gradually form in the process of growth and development, and are also called “social and emotional abilities”. The term was promoted by the “Social and Emotional Learning” (SEL) promoted by UNICEF worldwide, and the Study on Social and Emotional Skills (SSES) implemented by the Organization for Economic Cooperation and Development (OECD).

OECD has been committed to promoting the development of youth social and emotional skills. In December 2017, the OECD released the “Social and Emotional Skills: Happiness, Connectivity, and Success” report, which plans to evaluate the social and emotional skills of students aged 10-15 in

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some countries and cities around the world. The research started in 2017, spanning three years, and conducted field surveys and evaluations in 2019. At the end of 2019, the first round of evaluation was conducted in 10 cities in 9 countries around the world. On September 7, 2021, the OECD's first global youth social and emotional ability assessment report was officially released. The report showed that social and emotional abilities had an impact on education, health and quality of life (happiness, life satisfaction, and test anxiety). Important factors affecting social and emotional abilities include school belonging, teacher-student relationship, campus bullying and so on.

As one of the countries that participated in the first round of testing, China conducted an assessment work in 151 elementary and middle schools in 10 districts and counties of Suzhou, Jiangsu Province, and surveyed 7,550 students in the 10-year-old and 15-year-old groups. At the same time, a questionnaire survey of parents, teachers and principals was carried out, and more than 26,000 samples were obtained. Based on the OECD international student social and emotional ability evaluation data, a series of research results on the social and emotional ability evaluation of Chinese students have been formed.

The current issue of the *Best Evidence in Chinese Education (BECE)* focuses on the research and evaluation of the development of adolescents' social and emotional abilities, and shares the results of Chinese scholars' research on the SSES evaluation of their own adolescents. Gao et al. (2021) analyzed the performance of Chinese adolescents from the perspective of task ability; Liu et al. (2021) focused on the analysis of the emotional regulation ability of Chinese adolescents; Tang et al. (2021) concentrated on the performance of Chinese adolescents in collaboration ability; Shao et al. (2021) focused on the openness of Chinese youth; Huang et al. (2021) discussed the performance of Chinese youth in their communicative abilities. These five short reports introduced in detail the performance of Chinese young people in the SSES test from five aspects: task ability, emotion regulation, collaboration ability, open ability and communication ability. They analyzed what factors affected the development of these abilities, and further explored how to improve these abilities through education policies and practices.

On this basis, Zhao et al. (2021) gave an overview of China's participation in the OECD global youth social and emotional competence assessment, introduced and analyzed the significance and value of OECD's global youth social and emotional competence and the progress of related research. Meanwhile, they gave a more detailed account of the development of youth social and emotional competence assessment in China, and discussed the social and emotional competence testing. Cheng (2021) also used the OECD SSES test as a model to discuss the aspects that should be considered in the non-cognitive ability assessment in terms of measurement methods, measurement tools, and test subjects. At the same time, he also gave feedback on possible problems in the global assessment. Some thoughts have come out.

This issue of the journal focuses on the theme of the assessment of adolescents' social and emotional abilities, and published a brief report and summary of the results of the test of adolescents' social and emotional abilities from China. We also try to introduce the results of the global youth social and emotional ability assessment conducted by OCED from multiple aspects, as well as the performance of Chinese youth in this assessment, so as to provide timely and accurate information for follow-up related research.

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Exploration of the Non-Cognitive Ability Assessment

The Scientific Value of the Survey on Social and Emotional Skills

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“The cognitive development of the players is enormously important, as well as social competence and character values such as discipline and teamwork.”

–Joachim Low

COMPARED with cognitive skills, non-cognitive skills cannot be accomplished through simple academic level tests. It is more through self-reported research and observation reports of others. These two methods are relatively easy to be proposed and tested, but they are easily affected by social expectations, response style and familiarity, resulting in deviations from the real results (Braun et al., 2001; He & Van de Vijver, 2015). Therefore, non-cognitive ability assessment is more challenging.

The PISA test coordinated by the Organization for Economic Cooperation and Development (OECD) has become a teaching evaluation test system recognized by countries. The test measures the cognitive skills of 15-year-old adolescents around the world by testing and comparing students' reading, mathematics, and science every three years. Since most of the content of the test is the cognitive category of the students, it is considered that “too much emphasis on standardized testing, narrowing the content of students' learning, ..., paying too much attention to the cognitive ability of young people while ignoring the development of non-cognitive ability” (Huang, 2019).

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In recent years, the OECD has also begun to focus on the research and development of non-cognitive capability. It tried to introduce international evaluation standards to test students' creativity to test the "soft skills" of students from various countries, that is, social and emotional skills such as creativity, teamwork, communication and negotiation, and named it Social and Emotional Skills.

Based on related research, the evaluation framework for students' social and emotional skills has been constructed, and the evaluation project of "Social and Emotional Skills" for adolescents were launched in 2018. This aims to evaluate the social and emotional skills of young people in participating countries and cities, and how to improve these skills through education, so as to promote the balanced development of cognitive skills and social emotions. At the end of 2019, the first round of official evaluation was completed in 10 cities in 9 countries around the world. On September 7, 2021, the OECD officially released the global report on the Survey on Social and Emotional Skills at its headquarters in Paris, France.

The evaluation of the SSES project is based on complex measurement methods designed to capture characteristics that are difficult to quantify. It uses the "Big Five" personality characteristics as the fundamental test system. It measures 19 specific social and emotional skills produced by the "five" personality factors of psychology. Furthermore, through a tripartite questionnaire of parents, teachers, and schools, collect information about the learning environment of students' homes, schools, and communities, and finally obtain information about the conditions or practices that cultivate or hinder the development of these key skills.

In terms of measurement methods, unlike other large-scale international assessments PISA conducted before, the OECD measures social and emotional skills based on the student-parent-teacher "triangulation" model (Kankaraš et al., 2019). That is, in addition to the traditional student self-evaluation, the indirect evaluation of the students' social and emotional skills by parents and teachers has improved the reliability of the evaluation. In order to achieve mutual verification between the collected information, the primary guardian is responsible for filling out the student-related information in the parent questionnaire. The teacher questionnaire is completed by the teacher who knows the student best, and each teacher is responsible for no more than 10 students. The school questionnaire is completed by the school principal or person in charge.

In terms of measurement tools, in order to solve the validity problem and correct the methodological limitations of self-reporting and observer reporting, the SSES test combines quantitative and qualitative methods. After many rounds of empirical inspection and testing, the evaluation rubric for each skill is finally developed. The rubric is not composed of simple, straightforward, and simple items of a certain reading level, but contains a series of overall items that share the same orientation and measure the same structure. Multiple rounds of inspection and testing include cognitive inter-

view, online survey, topic experimental test, trial test and final formal test (OECD, 2021, September 7).

As for the test subjects, the SSES evaluation comprehensively considers the age of the students and the sample size when selecting the samples to ensure that the samples are highly effective and representative. Compared with PISA, the SSES test object has been expanded, not only for 15-year-old students, but also for 10-year-old students. Each country participating in the project has no less than 6,000 test subjects. In addition to students, the objects also involve parents of students, teachers who are most familiar with students, and school principals or principals (OECD, 2021). Prior to this, other social and emotional competence tests have been carried out internationally, such as the Program for the International Assessment of Adult Competencies (PIAAC), the International Early Learning Study (IELS) and the Teaching and Learning International Survey (TALIS). TALIS is aimed at teachers, PIAAC and IELS are skills tests for adults and 5-year-old children respectively. Therefore, in addition to more diverse testers, the SSES test also fills in the gap in the experience data of 10 to 15-year-old teenagers in the relevant international tests.

Compared with the existing research on social and emotional ability in the world (such as the social emotional learning project organized by “Academic, Social and Emotional Learning” in the United States, the “Teacher Emotional Intelligence” training project developed by the Yale Center for Emotional Intelligence at Yale University and the United Nations The UNICEF “Social Emotional Learning” project, etc.), the SSES project achieved a breakthrough in sample size and region. SSES is based on a representative sample of students and is the first large-scale international study on the social and emotional skills of 10-year-old and 15-year-old adolescents and their impact on learning outcomes. Even though many of the indicators and measurement dimensions it uses are derived from existing research, its greatest value lies in allowing these indicators and measurement dimensions to be measured and comparable on a large scale in different countries and cultural backgrounds. This not only promotes peer learning between countries, but also provides an international model for global non-cognitive ability testing.

At the same time, we are also worried about some problems that may exist in the SSES test. For example, did they pay attention to cultural and language differences in the preparation of the test questionnaire and interpretation of the results? Will using the same questionnaire or scale between people of different languages and cultures affect the accuracy of the data? Will it cause people to distrust the questionnaire translation? From the previous PISA test, although a series of measures have been taken to improve the reliability and validity of the test tool during the test, the limitations of geopolitics, linguistics and cultural background cannot be completely eliminated (Forestier, & Adamson, 2017). In addition, in terms of the representativeness of sample selection, the first round of testing was conducted in 10 cities in 9 countries around the world. Then there were obvious differences in economy,

politics, culture and education among these 10 cities, which will inevitably affect the performance of students in social and emotional skills. How to define the relationship between the social and emotional skills of students and the factors mentioned above is also a question that needs to be explored (Zhou, 2021).

Based on the above considerations, how to enhance the effectiveness of cross-regional non-cognitive ability assessment is of great significance. For example, in the evaluation method, the use of intelligent information technology (facial expression, action posture, eye movement, infrared brain imaging, etc.) can be used to explore diversified evaluation methods. In the evaluation tools, more contextual evaluation tasks are created. Using real problem situations as the carrier, examine students' creativity, perseverance, emotional regulation ability and social interaction and other advanced and complex constructions (Zhang & Liu, 2021). In addition, in terms of evaluation indicators, relying on the general indicators in the SSES project to help build localized evaluation indicators for each country, and conduct multi-level and dynamic monitoring and measurement of social and emotional ability indicators, thereby forming a scientific localized evaluation system (Zu & Kyllonen, 2019).

Finally, we should know that non-cognitive ability is different from cognitive ability. It's not about highlighting specific characteristics to the maximum, but about achieving balance. Therefore, the idea of the SSES project is not to create rankings, but to provide teachers, educators and policy makers with a "balanced" image in more dimensions. The final result of SSES is not a simple international competition, but aims to find out the effectiveness and blind spots of each country's education policy through evaluation, further analyze the problems existing in the education development of each country, and show their respective achievements and advantages to provide countries with experiences from other countries that can be used for reference.

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Overview and Insight from the China Research Report on the Global Youth Survey of Social and Emotional Skills by the Organization for Economic Cooperation and Development

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Abstract. *Social and emotional skills are important for students in 21st century study, life, and future work. In 2018, the Organization for Economic Cooperation and Development (OECD) officially launched the first round of social and emotional skills tests for 10-year-old and 15-year-old students worldwide. After 3 years of research, the first round of global data collection ended and at the end of 2019 the OECD published the Social and Emotional Ability Assessment International Report. As one of the participating cities, Suzhou, China, successfully completed the first round of testing and released a series of reports. This article summarizes the research work of the OECD and China on social and emotional capabilities of students and discusses a few insights from the data.*

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SOCIAL and emotional abilities are widely regarded by researchers as core elements of human growth and development. The United Nations Educational, Scientific and Cultural Organization (UNESCO) proposed that education in the 21st century must break the constraints of a singular emphasis on academic, scientific and technological ability. Rapid world changes and increasing maturity of the application of automation technology, make the development of social emotional abilities crucial (UNESCO, 2019). The Organization for Economic Cooperation and Development (OECD) also emphasizes that, in modern life, children's success is inseparable from a complete set of cognitive, social and emotional skills, such as achieving goals and interacting with others. The ability to cooperate effectively and manage emotions is essential to meet the challenges of the 21st century (OECD, 2015). Therefore, it has become the consensus of educators worldwide to regard social and emotional abilities as an important component of student training.

OECD started the Survey of Social and Emotional Skills (SSES) research in 2013, with the aim to promote the balanced development of cognitive ability and social emotional ability. Compared to earlier started projects that focused on cognitive ability (e.g., PISA, IELTS, PIAAC and others), the SSES project fills a gap in the OECD ability assessment project and guides the future development of global education and the shift in the focus of talent training. The SSES project is not a simple international competition. Rather, it aims to discover the effectiveness and blind spots of various countries' education policies through evaluation and research. The objective is to analyze problems existing in the development of education in various countries and show their respective achievements and advantages, to provide countries around the world with experiences from other countries.

In 2018, the Social and Emotional Skills Assessment was officially launched. At the end of 2019, the first round of the official assessment was completed in 10 cities from nine countries around the world. On 7 September 2021, the OECD released a global assessment report (OECD, 2021) at its headquarters in Paris based on this survey. The report provides an overview of the social and emotional abilities of young people in the ten participating cities, and reports on the factors that affect social and emotional abilities. From an international perspective, it provides information for the improvement of social and emotional abilities, educational decision-making and educational practice in various countries.

Definition and Value of Social and Emotional Capabilities

Definition of Social and Emotional Competence

The proposed assessment of social emotional ability is based on research of social and emotional ability. Social skills are considered a cognitive skill that allows effective performance in a group. Social skills encompass skills found in the three dimensions of communication, cooperation and identification. These skills ultimately enable individu-

als to show appropriate behaviors during group activities (Gold, 2009), including communication skills and the ability to cooperate with others. Emotional ability refers to a person's ability to master their own emotions, to bear external pressure, and to use emotions to facilitate interpersonal relationships, including empathy, emotion recognition, emotion regulation, understanding of experiences, and recognition of one's own desires (Huy, 1999). Emotional competence develops through interpersonal communication, social structure and culture (Turner & Stets, 2005). Thus, some scholars combine these abilities under the term social emotional competence.

Elias et al. (1997) defined social and emotional competence as the ability to understand, manage and express the social and emotional aspects of life. This ability can help individuals successfully manage their life affairs, such as learning, establishing interpersonal relationships, solving daily problems, and adapting to complex needs in growth and development. Osher et al. (2016) suggested that social emotional competence is a series of core competencies related to self-adjustment and social development that children master and apply, including recognizing and managing emotions, setting and achieving positive goals, appreciating others, establishing and maintaining good relationships, and making responsible decisions.

At the national level, the British Ministry of Education defines social-emotional competence as including the five aspects of "self-awareness, managing feelings, motivation, empathy, and social skills" (Lendrum & Humphrey, 2010). Singapore's Ministry of Education suggests social-emotional competence is at the core of 21st century skills and goals, describing social emotional competence as "skills for recognizing and managing emotions, developing care for others, making responsible decisions, building positive relationships, and effectively handling challenging situations" (Tan et al., 2017). Australia also pays attention to the development of students' social and emotional well-being; its definition includes seven dimensions: overall social and emotional health, psychological flexibility, positive social orientation, positive work orientation, positive school indicators, positive family indicators, and positive community indicators (Frydenberg et al., 2017). China's "Social Emotional Learning and School Management Improvement Project" team proposed that social emotional competence is the ability to acquire knowledge, skills, and attitudes to enable the emotional experience of understanding and managing relationships with themselves, with others, and with the collective; it includes self-awareness and self-management, cognition and management of others, collective cognition and collective management (Mao et al., 2018).

Related organizations have also expounded on the definition of social emotional competence. For example, the American non-profit organization, Collaborative for Academic, Social, and Emotional Learning (CASEL), works from a perspective of joint development of human cognition, sociality, and emotion, suggesting that social emotional capabilities specifically include self-awareness, self-management, social awareness, relationship skills, and responsible decision making. The World Economic Forum (2016) summarized ten social and emotional skills, including four competencies (problem solving/critical thinking, creativity, communication, and collaboration) and six

character qualities (curiosity, initiative persistence/grit, adaptability, leadership, social and cultural awareness). The Organization for Economic Co-operation and Development (OECD) defines social and emotional skills as an individual ability consisting of a characteristic quality of individuals facing different situations. The OECD (2015) divides this quality into three categories: 1) the ability to achieve goals, including persistence/perseverance, self-control, and the passion to achieve goals; 2) the ability to collaborate with others, including social interaction, respect, and care; and 3) emotional management capabilities, including self-esteem, optimism, and self-confidence.

Thus, while the definition of social emotional abilities differs among theoretical foundations and research perspectives, scholars, organizations, countries, and researchers, all definitions emphasize the involvement of an individual's abilities to manage internal and interpersonal domains.

The Value of Social and Emotional Capabilities

Social and emotional abilities are of great significance to individual development and affect students' academic and life success. Numerous domestic and foreign scholars have conducted research on the value of social and emotional abilities from different perspectives. Such research has helped individuals achieve professional success and happiness in life and has promoted the overall ability of individuals to meet the requirements of future social contexts. Several studies focus on the impact of social and emotional skills on student academic achievement.

Social and Emotional Abilities Affect Academic Performance

Nearly all empirical studies on social emotional ability have confirmed that social emotional ability has a positive impact on students' academic performance. Durlak et al. (2011) conducted a meta-analysis of the results of the Social and Emotional Learning (SEL) program covering 213 schools and 270,034 students from kindergarten to high school. Using meta-analysis of the results of the program revealed that compared to control students, students who received the intervention of the SEL project had an 11% higher performance (Alzahrani et al., 2019). The authors also note that social and emotional abilities have an impact on children's learning outcomes and their ability to engage in good behavior.

Elias (2008) studied third grade students from urban ethnic minorities in the United States and showed that the social emotional ability of these minority students had significant predictive ability on their academic performance, with a regression coefficient of 0.619. Zhou (2010) and Liu (2017) found that, in Chinese students, a complex interaction exists between children's personality, academic performance, and social adjustment. They also found that social and emotional abilities of students, as assessed by parents, can significantly predict student academic performance (regression coefficient = 0.37). Liu (2017) found that self-esteem, self-motivation, and emotional percep-

tion components of the trait emotional intelligence can significantly predict mathematical ability in primary school students.

Social and Emotional Abilities Affect Personal Income

Many empirical studies have shown that cognitive ability has a positive effect on wages and economic growth (Hanushek, 2013). The potential explanatory effect of non-cognitive abilities on income, independent of cognitive abilities, has also received attention (Huang & Xie, 2017). Heckman (2006) found that non-cognitive abilities not only affect educational decision-making, but also affect an individual's social performance and professional income in a study of participants in the General Educational Development (GED) program in the United States. Some scholars suggest that non-cognitive skills, like obedience, loyalty and persistence, are more important than cognitive skills, especially in the low-skilled labor markets (Bowles & Gintis, 2002), such as the service industry (Mýna Kureková et al., 2016). Other studies have supported this conclusion. Adhitya et al. (2019) analyzed data from the Fifth Indonesia Family Life Survey (IFLS), and found that personality characteristics affect job prospects in the labor market. For example, conscientiousness and extroversion had a significant positive effect on job success. Responsible people tend to work hard, be productive, punctual, and organized. Extroverted individuals were more willing to take on social activities and leadership roles, and this had a positive impact on their careers.

Succi & Canovi (2020) used a questionnaire to compare views of students and employers on the importance of soft skills in different European countries and found that 86% of respondents indicated that they have paid increasing attention to soft skills in the past 5-10 years, and that companies believe soft skills are more important than academic performance of students/graduates.

Social Emotional Ability Contributes to Personal Happiness

Harvard University began a comprehensive longitudinal study in 1938 that has lasted nearly a century. The longitudinal study involves three classes of people, including 268 Harvard graduates, 456 urban blue-collar males, and 90 high-IQ middle-class women. Researchers tracked participants from birth to old age to explore correlates of happiness and longevity. In 2012, the project leader released an adult development prospective report that, combined with the analysis of tracking data in these 814 people for nearly a century, found that happiness is closely related to good interpersonal relationships and an optimistic attitude (Vaillant, 2012).

Other research results also show that personal happiness is closely related to social emotional ability. On the one hand, good social and emotional abilities can continuously and cumulatively affect other areas of an individual's life, help students better adapt to school life, achieve better academic performance, obtain a higher professional status, and effectively enhance life satisfaction (Heckman & Kautz, 2012). On the other hand, the level of students' social and emotional ability is directly related to their future marital status, health status, and moral level. For example, social and emotional abilities

play an important role in improving health-related outcomes (e.g., obesity, cardiovascular and cerebrovascular diseases), which is beneficial to their health and longevity (OECD, 2015; Atkins et al., 2020). Perseverance, emotional stability and social skills enable people to better transform ideas into actions, establish positive relationships with family, friends and communities, avoid unhealthy lifestyles and dangerous behaviors, reduce anti-social behaviors, and protects individuals from infringements of aggressive behavior, leading to a greater positive life experience (Liu & Liang, 2021).

OECD research also indicates social and emotional skills have a positive impact on personal well-being and social progress; such skills act by promoting a healthy weight, alleviating depression, reducing problem behaviors, increasing subjective well-being, improving life satisfaction, and increasing helpful life behaviors. Increased higher education, enhances the ability of individuals to translate intentions into actions, and improves the life prospects of disadvantaged children. At present, most OECD countries and partner economies recognize the need to strengthen the development of students' social and emotional capabilities. Both national and local policy documents of these countries emphasize the importance of enhancing a student's autonomy, sense of responsibility, and ability to cooperate with others.

OECD's Research and Promotion of Social and Emotional Capabilities

Although scholars have reached a basic consensus on the definition and value of social and emotional competence, there seems to be little on how to best measure these skills. Based on the CASEL competency framework, nine social and emotional assessment tools have been identified that can be used for the reference and selection of school districts and schools (Wiglesworth, Humphrey, Kalambouka & Lendrum, 2010). A Social Emotional Competence Questionnaire (SECQ) based on the CASEL theoretical model has been developed that aims to assess children and adolescents (grades 3-12) based on self-reports about themselves and others, and how they respond in home, school and community environments (Haggerty et al., 2011; Zhou, Ee, 2012).

The OECD has been measuring the abilities of students since the 1990s using large-scale international education evaluation projects to allow participating countries to examine their own education quality and fairness and to develop efficiency from the perspective of international comparison. This allows countries to stabilize and improve education by monitoring the indicator system and to promote education reform and development. Since the beginning of the 21st century, the OECD has included measures of students' non-cognitive abilities, with the goal of quantifying other aspects of personal development through assessment of students' social, emotional and other non-cognitive abilities.

From March 23 to 24, 2014, policy makers, including 11 education ministers and deputy ministers, took part in an OECD informal ministerial meeting on skills for social progress in Sao Paulo, Brazil. They agreed it was necessary to promote development of a "complete child" with a balanced set of cognitive, social and emotional skills

so that they can better face the challenges of the 21st century (OECD, 2015). On March 10, 2015, the OECD released “Skills for Social Progress: The Power of Social and Emotional Skills,” a report that presents the OECD’s comprehensive analysis of the role of emotional skills, and a strategy to improve these skills. The report includes an analysis of the impact of social and emotional skills on individual happiness and social progress (covering all aspects of life, including education, labor market output, health, family life, citizen participation, and life satisfaction). The report draws four important conclusions: 1) sense of responsibility, social skills, and emotional stability are the most important dimensions of social and emotional skills affecting children’s future prospects; 2) early intervention in social and emotional skills can effectively improve skills and reduce education, labor market, and social inequality; 3) within a cultural and linguistic background, social and emotional skills can be reliably assessed; and 4) providing relevant information and formulating guidelines will help educate stakeholders to promote children’s social and emotional development (OECD, 2015). On this basis, the OECD organized and established a social and emotional skills research project team in 2016 to carry out the evaluation of social and emotional skills and to set up a steering committee composed of internationally renowned experts that could provide guidance and attract participating countries and regional representatives.

In December 2017, the OECD released the report, “Personality matters: Relevance and assessment of personality characteristics,” that evaluated the socio-emotional skills of students aged 10-15 years-old in some cities and countries around the world over three years (OECD, 2017). The outcome was an approved monitoring tool of the development of students’ social and emotional skills to explore the impact of personal, family and school characteristics on the development of students’ social and emotional skills. Further, the monitoring tool can be used to assess which emotional and social skills best predict students’ later achievements. Decision makers and practitioners can then be provided with reliable, effective and internationally comparable information on the development of students’ social and emotional skills. In addition, policies and measures that can be implemented for improvement can be made available.

Research Subjects

SSES is aimed at students aged 10 years and 15 years. The project team believes that the 10-year-old student group (between 10 years and 3 months to 11 years and 2 months) is able to express personal feelings relatively stable. This earliest age group is in the middle stage of elementary school. The 15-year-old student group (15 years and 3 months to 16 years and 2 months) is in formal education, has not yet undergone vocational education triage, and is done in cooperation with the International Student Assessment Project (PISA) The student groups in middle school are consistent, which is convenient for data comparison.

Research Model

Since Goldberg first proposed the “Big Five” personality factors (openness, conscientiousness, extroversion, affinity, and neuroticism) in 1971, these personality factors have been used in large sample research. Repeated discovery until it becomes a factor of a personality trait model recognized by the western psychology circle (Mueller & Plug 2006). The social and emotional competence assessment framework constructed by the OECD is based on the Big Five personality traits model, and considers five dimensions: 1) task performance (conscientiousness); 2) emotional control (emotional stability); 3) collaboration (affinity); 4) openness; 5) interactions with others (extroversion) (Kankaraš, 2017).

Task performance includes achievement motivation, i.e., setting high standards for oneself and working hard to achieve these standards; self-discipline, i.e., controlling impulse, delaying gratification and maintaining focus; conscientiousness, i.e., fulfilling promises; and perseverance, i.e., persistence and commitment to goals. Emotional control includes stress-reduction (effectively adjusting anxiety and coping with pressure); restraint (controlling temper and emotions); optimism (a positive attitude toward individuals and life). Interactions with people others includes vitality (staying active throughout the day); decisiveness (controlling behavior); and being kind (willingness to interact with others). Collaboration includes empathy (looking at problems from the perspective of others); cooperation (getting along with others); and trust (believing that most people have good intentions). Openness includes curiosity (a willingness to learn and explore new things); creativity (generating new ideas or products); and inclusiveness (being open to diverse views). Complex skills include self-efficacy (belief in one’s ability to complete tasks and achieve goals); critical thinking (being able to reflect on oneself and base ideas on independent thinking and critical analysis); and metacognition (recognizing and adjusting the thinking process and subjective experience).

Using the *Big Five Personality* traits, the OECD selected three to four social and emotional abilities under each dimension, for a total of 19 skills. Each skill is described by approximately 10 items, and a Likert five-point scale used by survey respondents for each question. After the second round of on-site testing in 2018, the four skills of perseverance, courage, metacognition and critical thinking, which had low reliability and efficiency, were deleted, leaving a final version with 15 skills (**Figure 1**). Through surveys of students, parents and teachers, mutual confirmation is used to measure the development level of students’ social and emotional abilities and to relate other variables to the development of social and emotional abilities (Chernyshenko et al., 2018).

Research Methods

The SSES project uses a random stratified sampling method, requiring each participating country or region to randomly select schools first, and then randomly select students who meet the age requirements from within these schools. The SSES project requires that each participating country or region select 3,000 10-year-old and 15-year-old students. In addition to the information from these 6000 students, information about their parents, teachers, and schools are also needed because the information collected by the

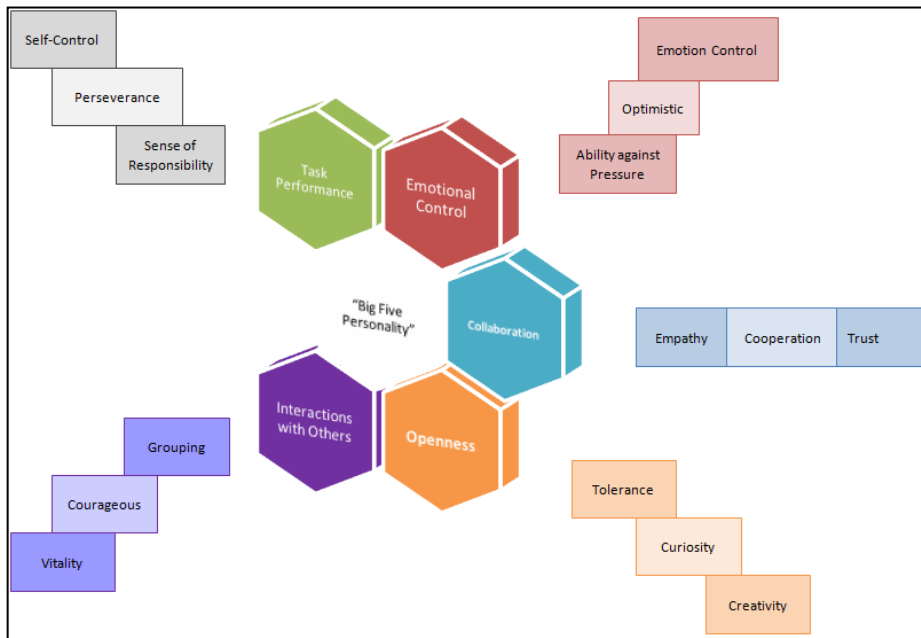


Figure 1. The Five Dimensions and 15 Sub-Competencies in the Assessment.

SSES project includes not only information about students' social and emotional skills, but also information about their long-term home and school environment. The project team developed four types of questionnaires; one for students and one for each of parents, teachers, and principals closely related to the growth of the students. At the same time, schools provided data on each student's academic performance and school behavior. Triangulation of measures was used to improve objectivity and accuracy in measures of students' social and emotional abilities (Kankaraš et al., 2019).

Student questionnaires included personal background information, such as student's learning expectations, ideal jobs, interactions with parents and friends, school life, etc., as well as self-evaluation information on social and emotional skills and behavior. Each selected student had a parent or guardian fill out a parent questionnaire, which includes family background information, such as family economic and social status, parent-child interaction information, child-child interaction information, parent's understanding and practice of social and emotional skills. In addition, parents were asked to evaluate their child's social and emotional skills. Each selected student also had a teacher familiar with him or her fill out the teacher questionnaire. The teacher questionnaire includes background information on the teacher, such as teaching practice, professional development, and the teacher's understanding and practice of social and emotional skills. The teacher also provided an evaluation of the student's social and emotional skills. Finally, the principal of each selected middle school filled out a principal questionnaire. The principal questionnaire includes information on the community where the school is located, the overall situation of teachers and students, the school's

teaching and evaluation policies regarding social and emotional skills, and the organization and management of the school (Fang, 2020).

After the selection of survey items in 2017, followed by the field test in 2018 and official test results in 2019, the OECD's formal assessment of social and emotional abilities finally settled on a student questionnaire containing 65 questions (the 15-year-old group has 68 questions). The parent questionnaire contains 53 questions, the teacher questionnaire contains 34 questions and the principal questionnaire contains 32 questions. It is worth noting that after the OECD integrated the data analysis of all participating countries, some items that did not meet measurement standards were deleted for the final form of the test questionnaire (OECD, 2021). After two years of work, on September 7, 2021, the OECD presented the first round of evaluation results of the Global Social and Emotional Ability Research Project.

A Survey of the Social and Emotional Abilities of Chinese Adolescents

In the international comparative study of social and emotional skills organized by the OECD, 10 cities in 9 countries, including the United States, Russia, Finland, South Korea, Canada, Italy, Portugal, and Turkey, participated in the project. China was also a participating country with 151 primary and secondary schools in six districts and four county-level cities under the jurisdiction of Suzhou City participating in the assessment project, including 3,647 10-year-old students and 3,621 15-year-old students. After comparative analysis of the data, the project team positioned the development level of Chinese students' social and emotional ability development in different age stages in the world, further explored factors affecting the development of Chinese students' social and emotional abilities, and proposed intervention measures.

Overview of the SSES Project in China

Advancement of the SSES project is divided into three phases: 2017 is the tool development phase (item trial); 2018 is the field test phase (field test); and 2019 is the official evaluation phase (main study). In April 2018, China formally joined the project, and subsequently carried out translation of various instruction manuals, localization of assessment tools, training of assessors, and training of school coordinators, school sampling, and on-site testing. In November 2018, the China Social and Emotional Ability Project Team cooperated with the Suzhou Bureau of Education to conduct on-site tests with 1,500 students from 30 primary and secondary schools in 10 districts and counties of Suzhou. At the same time, 1,500 students' parents, 858 teachers and 30 principals filled out a questionnaire survey. From the end of 2018 to the first half of 2019, the project team conducted follow-up surveys, data sorting and classification, and wrote field test survey reports to prepare for the official evaluation in the second half of 2019.

Sample Selection

In the next formal testing phase, all schools in the ten districts and counties of Suzhou participated in sampling, and random sampling was conducted at the levels of schools and students. For school sampling, 76 schools were sampled from 387 primary schools (10-year-old students), and 75 schools were sampled from 88 high schools and vocational schools (15-year-old students). For student sampling, based on the teacher-student association table provided by the sampled school, 50 students were randomly selected among students enrolled at the school. After these two steps, a total of 7,550 primary and secondary school students from 151 primary and secondary schools had been selected. In the formal testing phase, the overall participation rate of the sampled students was as high as 96.26%, and a total of 7,268 students completed all tests, representing 150,964 elementary and middle school students in Suzhou. Among the 7,268 students in the final sample, 3,647 (50.2%) were in the 10-year-old group, 3,621 (49.8%) were in the 15-year-old group; 3,838 (52.8%) were boys, 3,417 (47%) were girls, and 13 (0.2%) had unknown gender; 3,447 students (47.4%) were studying in schools in the downtown area, and 2,459 students (33.8%) were studying in schools in counties and towns. There are 1,362 students in rural schools (18.7%). Among the 15-year-old students, 2,811 (77.6%) and 810 (22.4%) were enrolled in regular high schools and vocational high schools, respectively. While carrying out the student survey, another 7,136 parents, 3,732 teachers and 151 principals participated in filling out the parent questionnaire, teacher questionnaire and principal questionnaire respectively (Zhang et al., 2021).

Evaluation Tools

The social and emotional ability evaluation items included four types of evaluation questionnaires: student, parent, teacher and principal questionnaires. Among them, the student questionnaire mostly concerns students' self-assessment of their social and emotional abilities, but also includes items related to the student's school and family environment. The parent questionnaire includes information about the child's social and emotional abilities, the child's growth history, the family environment, and the parents' social and emotional abilities. The teacher questionnaire collects the teacher's assessment of the student's social and emotional abilities and the teacher's report on the school's learning environment. The principal's questionnaire covers the broader social background of the school and its students, and the existing resources and programs at the school aimed at improving the learning environment.

The 2019 OECD Official Assessment of Social and Emotional Ability provided seven online assessment questionnaires at the Suzhou assessment site. There were two student questionnaires, one for the 10-year-old group and one for the 15-year-old group. The parent questionnaire for these two age groups is the same. The teacher questionnaire consists of two parts. The first part, completed by teachers of both age groups, includes the teacher questionnaire survey and auxiliary test anchor questions. Every participating teacher completed this part. The second part had two versions, one for the 10-year-old group and the other for the 15-year-old group. The teacher was asked to

complete this part for each student who “he/she knows best.” The main questionnaires for the two age groups are the same (Zhang et al., 2021).

Variable Table of Influencing Factors

Data analysis also examines factors that affect students’ social and emotional abilities. Factors come from the five main categories of background variables, student variables, teacher variables, school variables, and family variables. The relationship between social, family and student variables is also examined, for a total of 30 basic measures, as shown in **Table 1**.

China SSES Test Results

Data analysis results are presented in three parts. The first part uses descriptive statistics to show the overall scores of social and emotional abilities, as well as the Big Five personality traits and its 12 sub-categories in terms of age, gender, urban and rural areas, and school categories. The second part uses multiple regression analysis to explore the effect of social and emotional abilities of 10-year-old and 15-year-old students on outcome variables, such as personal life and behavior. The third part uses multiple regression analysis to examine the influencing factors of social and emotional abilities, including the effects of background variables, student variables, teacher variables, school variables, and family variables.

The Development Level of Chinese Students’ Social and Emotional Abilities

● **Task Abilities**

Students in the 10-year-old group have higher task ability than those in the 15-year-old group, and the monthly age within the 10-year-old and 15-year-old groups is positively correlated with task ability. Within age groups, 10-year-old girls have higher task ability than boys, while the task ability of 15-year-old boys is higher than that of girls. Urban students have higher task abilities than rural students (Gao et al., 2021).

● **Emotional Abilities**

Students in the 10-year-old group generally have higher scores in the emotional regulation dimension than those in the 15-year-old group. Students in the 10-year-old group generally believed that they were very optimistic and did a good job of emotional control, but the parents of the 10-year-old group did not agree. Contrarily, the 15-year-old students’ self-evaluation scores were lower than the scores from their parents. Students in both age groups were below the international average for stress resistance, which also has the lowest score among the 15 abilities. Boys perform better than girls overall when it comes to emotional regulation, especially in terms of stress resistance. The performance of students in urban areas is better overall than that of students in rural areas (Liu et al., 2021).

● **Collaboration**

Table 1. Table of Variables Affecting Social and Emotional Abilities.

| Main Variable | Basic Variable |
|---------------|---|
| Background | Gender; age; socio-economic status (parents' highest education, family possessions, family equipment, family book collection) |
| Student | Sense of security; friendships; good habits of friends; high expectations of friends; extensive social relationships; indoor activity time; online time; outdoor activity time; growth mindset |
| Teacher | Teaching age; educational background; opportunities to participate in social-emotional ability-related training (referred to as "training opportunities"); frequency of participation in social-emotional ability-related training (referred to as "training frequency"); teacher-student relationship; high teacher expectations, etc. |
| School | School belonging; school cooperation atmosphere; school competition atmosphere; campus bullying; extracurricular activities, etc. |
| Family | Parenting style (understanding father/understanding mother, punitive father/punitive mother); parent-child issues; high expectations of parents |

The students in Suzhou, China self-report collaboration as quite high, especially empathy, trust, and cooperation abilities, which are higher than the international average. The self-evaluation score of the 10-year-old group is significantly higher than that of the 15-year-old group, while the evaluation scores of parents and teachers of the two age groups are relatively close. The collaboration ability of female students in the 10-year-old group is higher than that of boys, while in the 15-year-old group, boy collaboration scores are higher than that of girls. In addition, students in central urban areas are generally better than rural students in collaboration ability (Tang et al., 2021).

● **Openness**

For the average of the three sub-categories of openness (tolerance, curiosity, and creativity), the self-evaluation of Suzhou students is higher than the international average. In contrast, the 15-year-old group's self-evaluation is lower than that of the 10-year-old group, and boys' self-evaluation is higher than that of girls, especially in terms of creativity. This gap in creativity scores between boys and girls is even larger in the 15-year-old group. The openness of students in central urban schools is significantly higher than that of rural students, but the effect size is not large (Shao et al., 2021).

● **Communication Ability**

The overall score of Suzhou students in communication ability is higher than the world average, indicating that the confidence of Suzhou students in themselves is higher than the international average. The difference in self-evaluation of communication ability between students in the 10-year-old group and the 15-year-old group is relatively large, while the gap in parental evaluation for the two age groups is relatively small. There are also significant differences in the communication abilities of students of different gender groups. Girls in the 10-year-old group show significantly higher level of sociability and courageousness than the boys. The vitality of boys in the 10-year-old group and 15-year-old group are significantly higher than that of girls. Student communicative ability

in central urban schools is higher than that in county and rural areas. There is no significant difference in the communication ability between ordinary high school and vocational high school students (Huang et al., 2021).

The scores of students in all 15 social and emotional abilities are slightly higher in the 10-year-old group than in the 15-year-old group (the standard deviation of the 10-year-old group is 83.68-124.40, and the standard deviation of the 15-year-old group is 73.00-91.94). Within the two age groups, no significant gender differences are present in most social and emotional abilities. However, among the 10-year-old students, girls scored higher in most social and emotional abilities, especially in empathy, cooperation, rapport, perseverance and tolerance, whereas among the 15-year-old students. With the exception of tolerance, boys scored higher than girls in most social and emotional abilities. The social and emotional abilities of most students are not significantly affected by the school's socioeconomic level for either age group. However, a general trend exists for the scores of social and emotional abilities of students from schools with high socioeconomic levels to be slightly higher than those of students from schools with low and medium socioeconomic areas. Students in ordinary high schools and vocational high schools have no significant differences in social and emotional abilities, but students in ordinary high schools generally score slightly higher in tolerance, curiosity, and creativity.

Factors Affecting the Development of Chinese Students' Social and Emotional Abilities

Elucidating the factors that affect the development of Chinese students' social and emotional abilities is an important goal of the evaluation project. In this regard, China's assessment project starts with the analysis of social background, summarizes the relationship between social and emotional abilities and various influencing factors from background variables, individual student factors, family factors and school factors, and collects students' non-intellectual data through field investigations. The data on development level are then placed in the international environment for horizontal comparison, and finally specific educational intervention measures are proposed.

In the evaluation report of task ability, family education and school education have a great influence on students' task ability. Among them, in family education, different types of parents have different effects on students' task ability. Understanding mothers have a stable and positive influence on the task ability of students in both age groups, while the influence of punitive parents is more complicated. Punitive mothers in the 10-year-old group have a positive effect on students' task ability, but punitive fathers have a negative effect on perseverance. In the 15-year-old group, punitive fathers have a positive influence on students' task ability and punitive mothers have a negative effect on students' self-control and responsibility. In school education, teacher-student relationship, school belonging, and school cooperation atmosphere have the greatest impact on students' task abilities, reflecting the key role of school environment in the formation of students' responsibility levels (Gao et al., 2021).

Of the many factors that affect emotional ability, more than 30 variables in the five categories of background, student, teacher, school, and family all have consistent and significant effects on students' emotional regulation abilities, and most of these are positive effects. In background variables, the higher the parents' educational background and the greater the number of family possessions and book collections, the better the students' emotional regulation ability. In student variables, security, friend relationships, outdoor activity time and growth-oriented thinking have a significant positive impact on emotional regulation, while online time has a significant negative impact on emotional regulation. In teacher variables, the quality of the teacher-student relationship is positively correlated with a student's emotional regulation, and teachers' participation in social and emotional ability cultivation training helps the students' ability development. In school variables, the three variables of school atmosphere of cooperation, extra-school activities and especially, the sense of belonging to school significantly increase development of students' abilities. In family variables, understanding parents, especially understanding fathers, have a positive effect on the development of children's emotional regulation ability, while parent-child problems have a negative effect on ability development (Liu et al., 2021).

In the analysis of factors affecting collaboration ability, the 30 scales can be divided into positive and negative. Most are positive factors, including family possessions, family collection of books, sense of security, friendship, good friends, indoor activity time, outdoor activity time, understanding mothers, understanding fathers, high expectations of parents, teacher-student relationship, school belonging, school atmosphere of cooperation, and off-campus activities. Negative factors for collaboration include online time, parent-child problems (Tang et al., 2021).

The openness of students is also affected by student, teacher, school and family factors. For background variables, parents' highest education level, family possessions, and family's collection of books have a significant positive impact on the openness of both 10-year-old and 15-year-old groups. Among student variables, security, friendship, good habits, outdoor activities, time- and growth-oriented thinking have a significant positive impact on the openness of students. One age group difference is that "widespread social friendship" has a negative impact on creativity in 10-year-old students, while it has a positive impact on creativity in 15-year-old students. Teacher education and teacher-student relationship have a significant positive impact on openness for both groups of students. Among school variables, the sense of belonging to school, school atmosphere of cooperation, school atmosphere of competition, and off-campus activities all have significant positive effects on openness. Among family variables, parenting style and parental expectations have a significant impact on students' openness. Students in both age groups with understanding parents have a greater openness. In the 10-year-old group, punitive mothers also have a positive impact on students' openness. Parent-child difficulties have a significant negative impact on openness (Shao et al., 2021).

Students' communicative ability is also affected by numerous variables. In student variables, sense of security, friendships, friends with good habits and personal out-

door activity time significantly increase communication abilities of 10-year-old and 15-year-old students, while time spent online has a significant negative effect on the communication ability of students. The teacher-student relationship has a significant positive effect on the communication ability of both 10 and 15-year-old students. The sense of belonging to school and extracurricular activities significantly affect students' communicative ability in a positive way. Parental rearing styles have a significant positive impact, while parent-child problems have a significant negative impact, on students' communication skills (Huang et al., 2021).

From the general analysis results, the sense of belonging to school, cooperative learning atmosphere, friendships, and sense of security are positively correlated with the social and emotional abilities of most students. High scores in school belonging are closely related to social and emotional abilities. Parent-child issues and greater participation in daily online activities are negatively correlated with all social and emotional abilities.

The Relationship between Students' Social and Emotional Abilities and Personal Life and Behavior

In addition to the basic level assessment, the Chinese assessment project team analyzed the correlation between 15 social and emotional abilities and the personal life characteristics and behavioral performance of students in the 10-year-old and 15-year-old groups. Characteristics included academic performance (language, mathematics and art), psychological well-being (current psychological well-being, life satisfaction and exam anxiety), and involved in classroom activities, smoking and 10 other behavioral indicators. Life satisfaction, current psychological well-being, and exam anxiety are similarly affected by a student's age and gender. Older students, especially older girls, showed lower life satisfaction and lower current psychological well-being, and higher test anxiety. In terms of related abilities, optimism is most closely related to life satisfaction and current psychological well-being, followed by vitality and trust. Exam anxiety is most influenced by anti-stress and optimism abilities of students (Yuan et al., 2021).

To measure behavior performance, the project team set up 10 and 14 behavior indicators in the questionnaire surveys of students, parents, and teachers for each age group, such as whether they are "honest" and "do housework," or "have difficulty concentrating." For the 15-year-old age group, additional behavior indicators were included, such as "handling the extra change", "playing truant", "and smoking" and "drinking." All 15 social and emotional abilities are negatively correlated with students' negative behaviors. For example, inattention and insomnia are negatively correlated with most social and emotional abilities. Especially in the 15-year-old group, all 15 social and emotional abilities are weakly correlated with bad behaviors such as absenteeism, smoking, and drinking, while positive behavior indicators, such as observing rules and participating in classroom activities, have moderate to strong correlations with most social and emotional abilities (Yuan et al., 2021).

Conclusions and Enlightenment

China has begun to pay attention to improving students' non-cognitive abilities such as collaboration and emotional abilities. In June 2013, the Ministry of Education issued "Opinions of the Ministry of Education on Promoting the Reform of Comprehensive Evaluation of Education Quality in Primary and Secondary Schools," which noted that it is necessary to "effectively reverse the tendency of evaluating the quality of primary and secondary schools solely based on students' academic test scores and school enrollment rates, and promote the overall development of students." Healthy Growth, with key indicators such as personality quality, emotional behavior control, interpersonal communication and curiosity and thirst for knowledge, included in the annex "Comprehensive Evaluation Index Framework for Primary and Secondary Education Quality (Trial)" are all social and emotional skills. The main components of the survey have strong similarities with the corresponding indicators of the OECD's social and emotional skills (Ministry of Education of China, 2013).

In September 2016, the research report, "Core Competence of Chinese Student Development," was released. It clearly stated that students should have the necessary qualities and key abilities to adapt to lifelong learning and lifelong development. These key abilities are divided into three aspects: cultural foundation, independent development, and social participation. It is comprehensively expressed as the six qualities of humanistic background, scientific spirit, learning to learn, healthy living, responsibility, and practical innovation, which are further refined into 18 basic qualities such as humanistic feelings, aesthetic appeal, rational thinking, social responsibility, national identity, and labor awareness. In the document, non-cognitive ability is introduced into pedagogy research and education evaluation system, and development of non-cognitive abilities in young people is emphasized in basic education in China (Core Literacy Research Group, 2016).

However, according to the latest data from the International Student Assessment Project (PISA) released in December 2019, although Chinese teenagers ranked first in the world in the three cognitive abilities tests of reading, mathematics and science, they showed a low sense of belonging to the school, low levels of satisfaction with schools, lack of autonomy and self-consciousness for self-planning (Du, 2019), there is still much room for improvement in the non-cognitive abilities of Chinese students (Zhang, 2020).

The evaluation of social and emotional abilities carried out this time is a response to China's long-standing problems of emphasizing cognitive abilities and neglecting non-cognitive abilities: the cultivation of Chinese youth's social and emotional abilities is of great significance to the promotion of China's educational reform. This is not only the presentation of the SSES evaluation results, but also some enlightenment based on the analysis of the China Social and Emotional Ability Evaluation Report.

Social and Emotional Abilities can be Improved with Intervention

The measurement results of social emotional skills only illustrate a state, and ultimately point to specific intervention methods. Social and emotional abilities are different from cognitive abilities, and they are more malleable. From the perspective of life course, adolescents are very sensitive to external interventions from family, school, etc. Some important non-cognitive abilities such as achievement motivation, self-discipline and sense of responsibility are moldable in the adolescence. During this period, through effective educational intervention and systematic learning, the development of children's social and emotional abilities can be promoted, and the children's happiness and achievement motivation can be improved.

The "Perry Preschool Education Project" is the best example of success with non-cognitive interventions. The project included 123 children aged 3 to 4-years with an intellectual development level below 85 points in a comparative experiment that conducted educational interventions on social and emotional abilities of 58 children in the experimental group (children were randomly assigned to experimental or control group), teaching them how to be friendly with others and conducting weekly home visits to improve the parent-child relationship; the remaining 65 children in the control group received no educational intervention. Subsequently, the two groups of children were followed up until they reached adulthood. The study found that educational intervention had no impact on the cognitive abilities of these children, but greatly improved their social and emotional abilities, leading them to have happier marriages, more harmonious family relationships, better health, a higher quality of life and lower crime rates (Berrueta-Clement, 1984).

In China, in 2012, the Department of Teacher Work of the Ministry of Education of China and UNICEF cooperated on the "Social and Emotional Learning and School Management Improvement Project." The project took place in 250 project schools in five provinces (cities, districts) in western China and implemented pilot projects aimed at improving students' social and emotional abilities. Through the cooperation of school, family and community education, China is promoting the social and emotional learning of children and young people, so that students can learn self-esteem and self-management, will have social awareness and good interpersonal communication skills, can understand the emotions of others and have empathy, can form positive interpersonal relationships and creatively solve problems and can make responsible decisions in a variety of different situations (Mao et al., 2018). The project is an overall intervention that includes thematic courses, teaching reforms, changes in the school environment, and home-school cooperation. Further, the project provides an intervention template that can be used as a reference for improving the social and emotional abilities of Chinese young people.

In 2018, the China Education Innovation Research Institute of Beijing Normal University released the "21st Century Core Literacy 5C Model Research Report" (in Chinese), which listed communication and cooperation as one of the five core literacy components of young people in the 21st century. Within this component, communication and teamwork focused on reflecting individual social skills, communication emphasized respect, understanding, empathy and cooperation emphasized the necessity of

persistence and compromise under the premise of achieving common goals (Xu et al., 2020; Kang et al., 2020). Driven by that report, the research and intervention practice for improving Chinese adolescents' non-cognitive abilities has been further developed.

Cultivation of Students' Social and Emotional Abilities is a Systematic Project

The results of the SSES evaluation point to four aspects in the cultivation of social and emotional abilities: students, parents, teachers and schools. Many successful intervention programs in the past have shown the same characteristics. First, establish a good, close and supportive relationship between parents, teachers and children, and provide guidance. Second, ensure home, school, and workplace consistency with the quality of the community's learning environment. Third, provide skills training for children and teachers using orderly, active, focused and clear learning practices. Fourth, establish a connection project between children and adolescents, and ensure previous inputs are tracked and supplemented (OECD, 2015). The cultivation of social and emotional abilities must be regarded as an ecosystem, with multiple levels including students, teachers, parents, and communities.

At the nation level, many countries incorporate social and emotional skills learning along with academic skills learning into their education policies. Schools should be encouraged to adjust their curricula, focusing on character education and relationship education. For example, since the United States Congress approved the "Partnership in Character Education Program" in 1994, funding has been provided to state and local educational institutions to support the development of character education (US Department of Education, 2005). The same is true in South Korea; in the national curriculum revised in 2009, creativity and character education were the focus of reform, and "creative experience learning activities" were introduced to strengthen students' creativity and character education in primary and secondary school curricula (National Youth Policy Institution, 2009). In 2019, the United Kingdom's Department of Education issued a statutory guideline on relationship education, requiring that relationship education and health education is included in the compulsory courses of primary and secondary schools starting from September 2020, to help students be adequately prepared for future life (UK Department for Education, 2019).

In recent years, China has gradually realized the importance of non-cognitive abilities in curriculum reform and has promoted the cultivation of non-cognitive abilities, focusing on the training and assessment of students' non-cognitive abilities in terms of curriculum and evaluation. In this way, the education system pays attention to well-rounded development of students.

In addition, the development of social and emotional abilities must be synergetic. The OECD evaluation results show that schools, teachers, families, and communities all play an important role in improving the social and emotional capabilities of individuals. Methods that can improve social and emotional skills include optimizing the family, school and community environments, creating a family atmosphere that is conducive

to improving social and emotional abilities, enhancing students' sense of belonging to the school, improving teacher training regarding social and emotional abilities. The teachers' own social and emotional abilities can be used to directly influence students, constructing a new type of teacher-student relationship. Acknowledging the subjectivity of families, communities, and students, respecting the wishes of students, paying attention to the emotions of stakeholders, forming a joint force for education, and striving to create an ecosystem full of emotional care are all further ways in which social and emotional skills might be improved.

The Evaluation of Social and Emotional Abilities Requires More Localized Measurement Indicators

As a soft skill, social and emotional abilities cannot be measured through traditional academic level tests in the same way as cognitive abilities, but instead rely mostly on self-reporting and observer reporting methods. The self-reporting method is the subjective report of emotional cognition, feeling and experience from the perspective of the experience. To avoid the subjectivity of a single perspective, such data are typically confirmed using other observers' reports. Another method of evaluation is to base evaluation on a specific theoretical model, determining the dimensions and indicators of evaluation, formulating evaluation tool scales, collecting data on students' social and emotional behavior, and evaluating students' social and emotional abilities through experiments and data.

Social and emotional abilities attach importance to performance-based and strengths-based evaluations and focus on students' strengths and growth thinking. The method used in the SSES test is to build an evaluation dimension based on the Big Five personality traits model. At the same time, it absorbs the evidence from the previous methods. In addition to students, the SSES collects relevant questionnaire information from parents, teachers, and schools, providing a check of data to ensure objective and accurate evaluation results.

Before now, limited by a lack of evaluation methods, the effectiveness of social and emotional abilities has not been effectively tested. Although some domestic scholars have tried to use foreign verified evaluation tools, such as the East Asia-Pacific early child development scales (EAP-ECDS) developed by the Asia-Pacific Early Childhood Network (Rao et al., 2014) and the caregiver-reported early development index (CREDI) for children aged 0-3 years developed by Professor Dana Charles McCoy of Harvard University in the United States (McCoy et al., 2018). The CREDI scales evaluate all aspects of child development and were introduced to China (Zhang, et al 2018), but due to the differences between Chinese and Western cultural backgrounds and educational systems, the effectiveness of its evaluation has been questioned. In the context of cultivating social and emotional abilities to promote the overall development of students, a lack of evaluation tools are a key factor restricting development of social and emotional abilities in our country. Therefore, it is urgent to build Chinese localized evaluation indicators (Zhang & Liu, 2021). Although the SSES test still uses the inter-

national measurement tools provided by the OECD, in terms of specific factors, more consideration is given to localization, and the design of the questionnaire can be better adapted by participating countries. Each participating country can add or modify questionnaire items. For example, in the Chinese test, the socio-economic status variables are not directly provided in the OECD Youth Social and Emotional Ability Research Database. China lists the highest education level of parents, family possessions, family equipment, and family book collection. Related basic variables are incorporated into background variables to consider the impact of background factors of Chinese families on students' social and emotional abilities.

Although we agree with the results of the SSES test, based on the representativeness and objectivity of the test results, we still have a couple of reservations about the SSES test. First, in terms of sample selection, can a sample of a city accurately represent all Chinese youth? Second, do international measurement tools suit Chinese students in a different cultural context? Can China build up localized evaluation indicators of measurement tools to promote the overall development of its students?

In summary, the construction of China's social and emotional ability measurement indicators requires the joint efforts of researchers in China, must follow the principles of science and operability, carry out a large number of empirical studies, and conduct multi-level and dynamic social and emotional ability indicators. Localized monitoring and measurement will form a localized scientific evaluation system to promote the well-rounded development of students.

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Task Performance

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

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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 $r = 0.72$), 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 sub-abilities 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 ($p < 0.01$, $\beta = -0.02$) had a negative and significant effect on sense of responsibility. Time spent online ($p < 0.01$, $\beta = -0.08, -0.10, -0.13$) 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 ($p < 0.01$, $\beta = 0.04, 0.01, 0.01$), educational background ($p < 0.01$, $\beta = 0.01, 0.02, 0.03$), frequency of participation in social and emotional ability training ($p < 0.01, \beta = 0.05, 0.02, 0.04$), and teacher-student relationship ($p < .01$, $\beta = 0.18, 0.19, 0.20$) had positive and significant effects on students' task ability. Among them, the teacher-student relationship had the most positive influence. Teachers' high expectations ($p < 0.01$, $\beta = 0.04, 0.01$) 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 ($p < 0.01$, $\beta = -0.02, -0.02, -0.02$) had a negative and significant effect. In the 15-year-old group, the teacher-student relationship ($p < 0.01$, $\beta = 0.15, 0.20, 0.20$) 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 ($p < 0.01$, $\beta = -0.02, -0.01, -0.01$) had a negative and significant effect on all sub-abilities.

In terms of the school variables, in the 10-year-old group, school belonging ($p < 0.01$, $\beta = 0.26, 0.32, 0.33$), school cooperation atmosphere ($p < 0.01$, $\beta = 0.15, 0.17, 0.17$) and off-campus activities ($p < 0.01$, $\beta = 0.07, 0.08, 0.11$) had positive and significant effects on students' task ability. School belonging had the greatest positive impact. Bullying ($p < 0.01$, $\beta = -0.03, -0.01$) 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 ($p < 0.01$, $\beta = 0.13, 0.27, 0.29$) and school cooperation atmosphere ($p < 0.01$, $\beta = 0.12, 0.11, 0.13$) had the most positive and significant influences. Additionally, school bullying ($p < 0.01$, $\beta = -0.09, -0.05, -0.05$) had a negative and significant effect.

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

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Emotional Regulation

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

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RECENTLY, an article published in the *Journal of East China Normal University (Education Sciences)* was based on the data of 10-year-old and 15-year-old students in Suzhou City, China participating in the OECD social and emotional ability assessment. The study used descriptive statistics, difference testing, regression analysis, and other statistical methods to conduct a comprehensive analysis of the emotional regulation performance of Suzhou students.

Emotion regulation is an important part of one's social and emotional ability. In the OECD's research on social and emotional ability, based on the theory of the "Big Five Personalities", the connotation of emotional regulation is defined as whether a person can manage emotional well, effectively adjust negative emotions and cope with pressure, as well as maintain a positive and optimistic attitude towards one's personal life and social career development. In view of the emotional adjustment methods of adolescents and the characteristics that they cannot accurately observe and express, the emotional adjustment dimensions of the OECD Social and Emotional Ability Assessment measure stress resistance, optimism, and emotion control. One carries out the three-demonstration analysis based on the performance of the item's ability. The emotional state will have an important impact on one's study, work, and personal life. A large number of empirical studies indicate that emotional regulation is closely related to health and well-being, but especially overall physical and mental health. The OECD pointed out in its re-

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search report that emotion regulation is of great significance to the life development of children and adolescents and is closely related to many life outcome variables (such as educational expectations, test anxiety, life satisfaction, happiness, health, etc.). With the increasing uncertainty of current social development, students must face many sudden changes in learning, living environment, and interpersonal relationships. In this case, regulating emotions is particularly important for students. When cannot adapt and adjust, anxiety, depression, pessimism, and other emotions may result. Therefore, it is extremely important and urgent to teach young students to regulate and manage emotions well.

The sampling of the OECD Youth Social and Emotional Ability Research is systematically conducted from all eligible schools and students in the participating cities, specifically to all primary and secondary schools in the 6 districts and 4 county-level cities under the jurisdiction of Suzhou City. The study uses a stratified two-stage cluster sampling method. The 10-year-old group and the 15-year-old group constituted 3,800 and 3,750 subjects, respectively, with the total sample size being 7,550. The research results are divided into three parts, including overall condition, analysis on predictive variables of emotion regulation, and variables of emotion regulation and life outcome. The analysis shows differences in the students' abilities to resist stress, their optimism, and emotional control according to age, gender, urban and rural areas, and school categories. There is a correlation among the 15 abilities of the "Big Five Personalities" model, which one can analyze from multiple levels through regression analysis. One may also explore the predictive variables of students' emotion regulation and the influence of emotion regulation on the five major life outcome variables. The details are as follows:

The Overall Situation of Emotional Regulation

The overall performance of Suzhou students in emotional regulation reveals the scores of various sub-abilities of emotional regulation, the correlation between emotional regulation and other sub-abilities, and the differences in age, gender, urban and rural areas, and school types of emotional regulation. The study found that among 10-year-old students, anti-stress, optimism, and emotional control were significantly related to other abilities ($p < 0.01$). Optimism and emotional control were at a medium-to-high level, with an impact coefficient of 0.60. Anti-stress and optimism were at a medium-to-high level. The level-related influence coefficient was 0.57, and emotional control and anti-stress were also related to the middle and high levels, with an influence coefficient of 0.57. Anti-stress, optimism, and emotional control were significantly related to other abilities ($p < 0.01$) among students in the 15-year-old group. Optimism and emotional control were related to a medium-to-high level, with an impact coefficient of 0.62. Anti-stress and optimism were related to a medium-to-high level. The influence coefficient was 0.60. Emotional control and anti-stress were also related to the middle to high level, and the influence coefficient was 0.57.

There were also significant differences in the score performance of various sub-abilities of emotion regulation in age, gender, urban and rural areas; the differences between general high school and vocational high school were insignificant. There is a substantial difference between the age-based tripartite evaluations of students, parents, and teachers. The evaluations of the 10-year-old group by students and teachers are 0.08-66 points higher than those of the 15-year-old group, while the parents' evaluations of the 10-year-old group are lower than 15 11-23 points in the age group. With the increase of age, the difference in the ability of male and female students in the dimension of emotion regulation will change. In the lower age group, there is little difference between boys and girls, but in the higher age group, boys have better emotional regulation ability than girls. Students in the central city indicate better emotional regulation than that of the rural students. The urban-rural differences in the three abilities of anti-stress, optimism, and emotion control in the 10-year-old group are statistically significantly different from 0 ($p < 0.01$), indicating the central city students' emotional regulation is significantly higher than in rural areas. The 15-year-old students have relatively small differences in the mean of these 3 abilities, and there is no statistically significant difference.

Analysis of Predictors of Emotion Regulation

It is necessary to use multiple regression to analyze the factors that affect emotional regulation development, including background variables, student variables, teacher variables, school variables, and family variables.

Regarding the background variables, in the 10-year-old group of students, the two variables of family possessions and the number of family books have stable and significant positive effects on the three emotional regulation abilities. The P values are all less than 0.01, and the coefficients respectively are 0.24, 0.09. In the 10-year-old group of students, the three variables of parents' highest education, family possessions, and family book collection have stable and significant positive effects on the three abilities of emotional regulation. The P values are all less than 0.01, and the coefficients are 0.01, 0.17, 0.01, respectively.

Regarding student variables, in general, whether it is a 10-year-old or a 15-year-old student, the six variables of security, friendship, good habits of friends, friendliness of classmates, outdoor activity time and growth-oriented thinking are all related to emotional regulation. The item ability has a significant and stable positive impact ($p < 0.01$), and a wide range of social relationships negatively impacts the 10-year-old group of students ($p < 0.01$) and positively impacts the 15-year-old group of students ($p < 0.01$).

Regarding teacher variables, for the 10-year-old group of students, the two variables of teacher-student relationship and teaching age have stable and significant positive effects on the three abilities of emotional regulation dimensions ($p < 0.01$), with coefficients around 0.18 and 0.05. For the 15-year-old students, the three abilities of the teacher-student relationship in the

emotional regulation dimension have stable and significant positive effects ($p < 0.01$), with a coefficient of about 0.16. Whether it is a 10-year-old or a 15-year-old student, the teacher-student relationship can have a stable and significant positive impact on the three abilities of stress, optimism and emotional control. In addition, for the 10-year-old group of students, the teacher's high expectations have a negative impact on students' emotional regulation ($p < 0.01$), but for the 15-year-old group, similar effects are not obvious ($p = 0.01$).

Regarding school variables, for the 10-year-old group of students, the three variables of school belonging, school cooperation atmosphere, and extra-school activities have stable and significant positive effects on the three abilities of emotion regulation ($p < 0.01$), with 0.32, 0.15, and 0.09 coefficients, respectively. For 15-year-old students, similar to 10-year-old students, the three variables of school belonging, school cooperation atmosphere, and extra-school activities have stable and significant positive effects on the three abilities of 15-year-old students in the emotional regulation dimension ($p < 0.01$), with coefficients of 0.40, 0.05, and 0.09, respectively.

Regarding family variables for the 10-year-old group of students, the three variables of understanding fathers, understanding mothers, and parents' high expectations have stable and significant positive effects on the three emotional regulation abilities ($p < 0.01$) with coefficients of 0.14, 0.11, and 0.06, respectively. Parent-child problems and punitive fathers have a significant negative impact on the three abilities ($p < 0.01$), and the coefficients are 0.17 and 0.00, respectively. This shows that the discordant parent-child relationship and strict fathers hinder students' emotional regulation abilities. For the 15-year-old group of students, the three variables of understanding fathers, punitive fathers, and parents' high expectations have stable and significant positive effects on the three abilities of emotional regulation dimensions ($p < 0.01$), with coefficients of 0.11, 0.05, and 0.07, respectively. The difference in the 10-year-old group is that the strictness of the father's discipline positively correlated to a child's ability to regulate emotions. The degree of influence of understanding parents is generally higher than that of punitive parents, and for 15-year-old students, the influence of fathers is greater than that of mothers. Moreover, punitive mothers have a negative influence on children's emotional regulation. In addition, consistent with the 10-year-old group, the parent-child problem also has a significant negative impact on the three abilities ($p < 0.01$), with a coefficient of about 0.23.

Emotion Regulation and Life Outcomes

From the perspective of academic performance and educational expectations, for the 10-year-old group of students, the optimism of emotional regulation and emotional control has a stable and positive impact on students' performance in Chinese, Mathematics, and Art ($p < 0.01$). In contrast, the influence of optimism is greater (coefficients are 0.06, 0.06, 0.05, respectively). Compared with students in the 15-year-old group, optimism and emotional con-

trol have different effects on the performance of each subject and their educational expectations. From the perspective of global awareness, whether it is a 10-year-old, or a 15-year-old student, anti-stress, optimism, and emotional control have a positive and significant impact on their global awareness ($p < 0.01$). This indicates that improving anti-stress, optimism, and emotional control could increase the global awareness of students of different age groups. From the perspective of health, whether it is a 10-year-old or a 15-year-old student, the emotional regulation ability has a significant positive impact on one's health status ($p < 0.01$), indicating that one's optimism, ability to resist stress and emotional control can enhance one's health. From the perspective of quality of life, whether it is a 10-year-old or a 15-year-old student, the ability to resist stress, optimism and emotional control has a significant positive impact on happiness and satisfaction ($p < 0.01$), and a significant negative for test anxiety influence ($p < 0.01$), that is, the better the emotional regulation ability, the less test anxiety. From the perspective of social relations, the assessment of social and emotional abilities mainly includes variables such as being close to family members (parents) and close to others (companion relations). From the analysis results, in both groups, emotional regulation ability has a significant positive impact on close family members and others to whom one is close ($p < 0.01$), indicating that the ability to resist stress, optimism, and emotional control can be improved. These abilities can make students closer to family and others.

Therefore, as an important dimension of social and emotional ability, emotion regulation is affected by different subjects and many variable factors. Under the current rapidly developing and changing social background, it becomes increasingly important for students to have strong emotional regulation abilities. Accordingly, this study presents some research recommendations: In terms of concepts, we must attach great importance to cultivating students' emotional regulation-related abilities; in implementation, we must master and use strategies and models for emotional regulation; all relevant subjects must clarify their own roles, explore effective paths, and form a joint force for educating people. We should also promote the improvement of students' emotional regulation levels.

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Collaboration

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

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COLLABORATION is essential to social and emotional competence. Accordingly, collaboration has always been considered a key indicator and core accomplishment of students' development. People who excel at collaboration can successfully cooperate with others, reduce interpersonal conflict and achieve the final goal by maintaining a positive attitude. For children and adolescents, greater collaboration means more pro-social behaviors and fewer problem behaviors. Collaboration is also important for students' life development and is closely linked to some life outcome variables, such as educational expectations, health and well-being, according to the OECD. Based on evaluation data out of Suzhou, China, the study under review presents the evaluation results of teenagers' cooperation ability from different dimensions and levels. The authors present the research results from three aspects, including the predictive variable analysis of collaboration ability and the life outcome variable of collaboration ability. Analysis shows that the students' empathy, trust, and cooperation capabilities differ depending on age, gender, urban & rural areas, and school types; correlation exists in the 15 kind of abilities of the "Big Five Personalities". Through regression analysis from multiple aspects explored the prediction variables; the researchers explored the student's ability of collaboration and cooperation ability in the 5 major categories of life outcome variables. Specific research results are as follows:

General Situation of Collaboration Ability

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This paper describes the overall performance of students in Suzhou in collaboration ability, showing the score of each sub-ability of collaboration ability, the correlation between collaboration ability and other sub-ability, and the differences of age, gender, urban and rural areas, and school types in collaboration ability. The study found students in Suzhou self-evaluated quite high, and their self-reported empathy, trust, and cooperation abilities were higher than the international average (i.e., more than 500 points). Moreover, the self-evaluation score of the 10-year-old group was significantly higher than that of the 15-year-old group. The correlation between empathy and cooperation was high ($r = 0.76$ in the 10-year-old group, $r = 0.75$ in the 15-year-old group). There was a moderate correlation between empathy and trust ($r = 0.51$ in the 10-year-old group, $r = 0.53$ in the 15-year-old group). Trust and cooperation were also moderately correlated ($r = 0.55$ in the 10-year-old group, $r = 0.64$ in the 15-year-old group). Collaboration ability and other social and emotional abilities show a high level of unity, and students who have a high level of collaboration ability tend to have a high level of other abilities. There are significant differences in age, gender, and urban and rural areas in terms of collaboration ability. On the whole, the 10-year-olds were more cooperative than the 15-year-olds. Boys at age 10 were less cooperative than girls, but the opposite was true at age 15. But for both 10-year-olds and 15-year-olds, inner-city students showed higher levels of collaboration than those from rural areas.

Factors Influencing Collaboration Ability

The authors used multiple regression to analyze the influence of background variables, students' variables, teachers' variables, school variables and family variables on students' empathy, trust, and cooperation.

With concern to background variables, for the 10-year-old group, the two variables of family possession and family book collection both had stable and significant positive effects on students' cooperative ability ($p < 0.01$). For the 15-year-old group, parents' highest educational background, family ownership, and family book collection had a stable and significant positive effect on collaboration ability ($p < 0.01$). In addition, by comparing the coefficients of the three variables, it appears that the influence degree of family ownership is much higher than that of parents' highest educational background and family book collection, and the influence coefficient is up to 0.25. Generally speaking, family ownership and family book collection have consistent and significant influences on the cooperative ability of the two age groups.

As for the student variables, for the 10-year-old group, the five variables of security, friend relationship, good habit friends, indoor activity time, and outdoor activity time all have a stable and significant positive influence on one's cooperative ability. In addition, from the size of the standardized coefficient, the influence degree of the three variables of security, friendship, and habit friends is much higher than the indoor and outdoor activity time, the

correlation coefficient is higher than 0.10. For the 15-year-old group, the six variables of security, friend relationship, friends with good habits, indoor activity time, outdoor activity time, and growth thinking have a stable and significant positive impact on the cooperative ability. From the size of the standardization coefficient, the influence degree of security, friendship, and habitual friends is higher than other variables. In addition, high expectations of friends and time spent online had significant negative effects on the 15-year-old group ($p < 0.01$, $\beta =$ was around -0.06).

Among the teacher variables, for 10-year-old students, teaching age, teacher's education background, and teacher-student relationship all have stable and significant positive effects on a student's collaboration ability ($p < 0.01$). For the 15-year-old group, only the teacher-student relationship had a stable and significant positive effect on collaboration ability ($p < 0.01$, $\beta = 0.24$), while teaching age had no significant effect on trust and cooperation. Teacher's education background had no significant effect on empathy. Overall, the teacher-student relationship had a consistent and significant effect on collaboration in both age groups.

As for school variables, school belonging, school cooperation atmosphere, and off-campus activities all had stable and significant positive effects on collaboration ability for 10-year-old students ($p < 0.01$). From the standardized regression coefficient, the degree of school belonging ($p < 0.01$ $\beta = 0.34, 0.29, 0.39$) was higher than that of school cooperative atmosphere ($p < 0.01$, $\beta = 0.25, 0.24, 0.22$). The influence degree of cooperative atmosphere in school was higher than that of off-campus activities ($p < 0.01$, $\beta = 0.10, 0.06, 0.10$). The 15-year-old group was similar to the 10-year-old group in that school belonging, school cooperation atmosphere, and off-campus activities had a stable and significant positive effect on their collaboration ability, and school belonging had the highest effect ($p < 0.01$, $\beta = 0.38, 0.42, 0.45$).

As for the family variables, for the 10-year-old group, the three variables of considerate mother, considerate father, and parents' high expectations all have a stable and significant positive impact on the cooperative ability. In terms of the normalization coefficient, the influence degree of understanding mother ($p < 0.01$, $\beta = 0.15, 0.12, 0.14$) was higher than that of understanding father. In addition, parent-child problems have a significant negative impact on collaboration ability. For the 15-year-old group, the five variables of understanding father, punishing father, understanding mother, punishing mother, and high parental expectations all had a stable and significant positive impact on a student's cooperative ability.

Collaboration and Life

In terms of education, empathy, trust, and cooperation had positive effects on Chinese, Mathematics, and Art scores for 10-year-old students ($p < 0.01$), but some effects were statistically insignificant, such as cooperation on mathematics score ($p = 0.17$) and empathy on art score ($p = 0.17$). Cooperation had

a significant positive effect on educational expectation ($p < 0.01$, $\beta = 0.07$), but trust had a significant negative effect on educational expectation ($p < 0.01$, $\beta = 0.06$). For the 15-year-old group, cooperation has a significant positive impact on Chinese, Mathematics, and educational expectations. Additionally, trust has a significant positive effect on artistic achievement and educational expectations. From the perspective of global consciousness, both empathy and cooperation have significant positive effects on global consciousness, and the influence degree of empathy is higher than that of cooperation. However, trust has a significant negative impact on global consciousness, but the impact degree is relatively low. From the perspective of health variables, whether 10 years old or 15 years old, collaboration ability has a significant positive impact on students' self-health evaluation ($p < 0.01$). From the perspective of subjective well-being, life satisfaction and test anxiety, empathy, trust, and cooperation have significant positive effects on students' subjective well-being and life satisfaction. They also seem to improve students' happiness and satisfaction. Trust and cooperation have negative effects on test anxiety, which can alleviate the anxiety caused by the test. For the 15-year-old group, empathy has a significant positive effect on subjective well-being and a significant negative effect on test anxiety; Trust has a significant positive effect on subjective well-being and life satisfaction, and a significant negative effect on test anxiety. Cooperation has significant positive effects on subjective well-being, life satisfaction, and test anxiety.

Therefore, strategies seeking to improve students' cooperation abilities should take a combined point and surface approach. The role of one or a type of factor should not be unilaterally emphasized but rather considered according to individuals, families, teachers, schools, and communities. Among other factors, understanding parenting and time spent online need more attention. In addition, the ability to cooperate has positive significance for the development of students' careers, but it still needs to be analyzed scientifically and objectively. Collaboration has a positive effect on some life outcome variables, but for other variables, such as students' academic performance, the results of the Suzhou analysis did not convey a completely positive signal.

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Open-Mindedness

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

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AS one of the five dimensions of social and emotional ability, open-mindedness is derived from the openness factor of the “Big Five Personality”, which describes one’s willingness to try and accept novel experiences. People with a high level of open-mindedness are more creative and artistic, while those with low level of openness are more obedient to tradition and pragmatic, but lack of innovation. According to the OECD research framework, open-mindedness includes tolerance, curiosity and creativity. This study is based on data collected from 10-year-old and 15-year-old students in Suzhou city participating in the OECD social and emotional ability assessment. It uses descriptive statistics, difference testing and regression analysis to present the performance of Suzhou students’ open-mindedness. This allows the study to provide reference for the accurate assessment of teenagers’ social and emotional abilities, in addition to further developing the quality of education in China. The study presents data results from the following three parts: the first part presents the overall score of open-mindedness, the correlation between open-mindedness and other sub-abilities, and the age difference of open-mindedness (comparison between 10 and 15 years old group), gender difference, urban-rural difference, and the difference between general high and vocational high; the second part presents the factors influencing open-mindedness through regression analysis, including background variables, individual factors, family upbringing, teacher factors, and school factors; the third part presents the effects of tolerance, curiosity and creativity on academic achievement (Chinese, math, art), edu-

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cational expectation, global consciousness, closeness to family, closeness to others, health, life happiness, life satisfaction, test anxiety and other life outcome variables of 10 and 15 year old students through regression analysis. The results are as follows:

The Overall Status of Open Capacity

From the scores of openness, Suzhou students' self-evaluate open-mindedness at a higher level, indicating that their confidence in themselves is higher than the international average. At the same time, the self-rating of students in the 10-year-old group is lower than that in the 15-year-old group. The same is true for parents' and teachers' ratings, which are themselves similar. In the distribution graphs of each sub-ability score of the two age groups, there is a small peak in the high end of the distribution graph of the 10-year-old group. The reason for this phenomenon may be that some elementary school students are susceptible to social expectations, leading them to be more likely to give what they think society may deem the "best" option.

From the perspective of the correlation between open-mindedness and other sub-abilities and compared with the international sample, the Suzhou sample has a higher correlation between tolerance, curiosity, and creativity in its openness. Moreover, the correlation coefficients are all higher than 0.5. There are also higher correlation coefficients between open-mindedness' sub-abilities and the sub-abilities of other abilities. Among them, open-mindedness has a higher correlation with task ability and collaboration ability. The correlation coefficient between curiosity and perseverance in the 10-year-old group is 0.69, and the correlation coefficient with cooperation score is 0.67. In contrast, the correlation is low between openness and emotional regulation and communication skills, while the correlation coefficient of the 15-year-old group is slightly lower than that of the 10-year-old group.

From the perspective of the difference in openness, the scores of openness of 15-year-old boys and girls are significantly lower than those of 10-year-olds. This is especially the case for the curiosity and creativity scores, with an effect size of about 0.8. Here, compared with boys, girls experience a decline. This result is particularly serious and deserves focused attention; gender differences in the openness of the 10-year-old group are small, with the only significant differences in tolerance scores (girls are higher than boys). The effect is weak, and there is a gender difference in the 15-year-old group. As a result, girls are more tolerant than boys, but they score significantly lower than boys in curiosity and creativity in these groups. In both urban and rural areas, the openness of students in schools in central urban areas is significantly higher than schools in rural areas, but the effect size is not large; in general, they are higher in vocational schools except for girls' creativity scores, while other indicators are significantly higher than those of vocational high school students.

Influencing Factors of Openness

Use multiple regression to analyze the factors that affect openness, including the effects of background variables, student variables, teacher variables, school variables, and family variables on tolerance, curiosity, and creativity.

Regarding background variables, among the 10-year-old students, parents' highest education level, family possessions and family book collection significantly positively affect tolerance, curiosity and creativity. The positive influence coefficients of the parents' highest educational background were 0.01, 0.01, and 0.04, respectively. The positive influence coefficients of family possessions were 0.45, 0.49, 0.47, respectively, and the positive influence coefficients of family book collection were 0.07, 0.06, and 0.09, respectively. Among students in the 15-year-old group, age, parents' highest education, family possessions, and family collections significantly positively affect tolerance, curiosity, and creativity. The positive coefficients of age are 0.61, 0.66, and 0.51, respectively, with parents being the highest. The positive influence coefficients of educational background were 0.02, 0.02, and 0.03, respectively. The positive influence coefficients of family possessions were 0.31, 0.31, 0.38, respectively, while the positive influence coefficients of family book collection were 0.05, 0.05, and 0.06, respectively.

Regarding student variables, among the 10-year-old students, security, friendships, and good habits significantly positively affect tolerance, curiosity, and creativity. Friends' high expectations and online time significantly negatively affect tolerance, curiosity, and creativity. Among the students in the 15-year-old group, one's sense of security, friendships, good habit friends, extensive social relationships, outdoor activity time, and growth-oriented thinking all significantly positively affect students' tolerance, curiosity and creativity. Friends' high expectations and online time significantly negatively affect students' tolerance, curiosity and creativity.

Regarding teacher variables, the teacher-student relationship significantly positively affects the tolerance, curiosity and creativity of students in the 10-year-old group and the 15-year-old group ($p < 0.01$; 10-year-old group: β is 0.12, 0.14, 0.11, respectively; 15-year-old group; $\beta = 0.14, 0.15, \text{ and } 0.13$). The training frequency has a significant positive effect on the three abilities of the 10-year-old group ($p < 0.01$, $\beta = 0.01, 0.01, \text{ and } 0.01$, respectively). Among the three abilities of the 15-year-old group, the influence is significantly negative ($p < 0.01$, $\beta = -0.01, -0.00, -0.01$, respectively).

Regarding school variables, except that the standard regression coefficient of school bullying on curiosity scores is insignificant, other factors including school belonging, school cooperation atmosphere, school competition atmosphere, and extra-school activities all significantly positively affect the tolerance of the 10-year-old and 15-year-old students Degree, curiosity and creativity.

Regarding family variables, whether it is a 10-year-old or a 15-year-old student, understanding mothers, understanding fathers, and parents' high expectations all significantly positively affect students' tolerance, curiosity, and creativity. Parent-child issues significantly negatively affect three abilities (p

< 0.01; 10-year-old group: $\beta = -0.04, -0.07, -0.04$, respectively; 15-year-old group; $\beta = -0.05, -0.07, -0.04$ respectively).

Openness and Life Outcomes

Among the 10-year-old students, tolerance, curiosity and creativity have significant positive effects on educational expectations, global awareness, health, happiness, satisfaction, and closeness to family and others. Among the 15-year-old students, tolerance, curiosity and creativity have significant positive effects on global awareness, health, happiness, satisfaction, and closeness to others. In addition, whether it is a 10-year-old or a 15-year-old group, the regression coefficients of curiosity scores on various variables of life outcomes have reached an extremely significant level, indicating the high importance of curiosity in students' lives.

It is therefore necessary to strengthen encouragement and guidance for high school girls, rural school students, and vocational school students to prevent "stereotype threats" caused by various gaps. During the enrollment stage of freshmen, we should protect students' curiosity and creativity, set reasonable course difficulty and academic burden, and prioritize inspiring freshmen's curiosity and cultivating students' active learning spirit. In addition, protecting and developing the curiosity of students is the key to the development of social and emotional abilities.

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Communicative Competence

The Fifth Report of the Social and Emotional Competence Test of Chinese Adolescents

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COMMUNICATIVE ability is embodied as “extroversion” in the Big Five Personality Test. Extroversion is an extremely important concept in personality psychology and a more common personality trait. Typically, it includes boldness, self-confidence, liveliness, enthusiasm, optimism, and being. In studying adolescents’ social and emotional abilities, the OECD designed a communication competence evaluation framework based on “extroversion” in the “Big Five Personality” model based on the physical and mental development characteristics of 10-year-old and 15-year-old adolescents. In the OECD evaluation framework, there are three sub-dimensions of communicative competence: happy group, courage and vitality. This study is based on the evaluation data of Suzhou City in China and presents the evaluation results of the communicative ability dimension of the youth social and emotional ability survey in various ways. The data results are presented in the following three parts. The first part uses descriptive statistics to illustrate the overall score of communicative ability, the correlation coefficient of communicative ability and other sub-abilities, and the differences of each ability in age, gender, urban and rural areas, and school categories. The second part uses factors that affect the ability to communicate through multiple regression analysis, including background variables, student variables, teacher variables, school variables, family variables, and the impact of student happiness, courage and vitality. Finally, the third part uses multiple regression analysis of the 10-year-old and 15-year-old groups to determine the influence of happiness, courage and vitality on life outcome variables such as

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health and well-being. Research indicates:

The Overall Status of Communication Skills

From the average and standard deviation of the three sub-abilities of the students in the 10-year-old group and the 15-year-old group in Suzhou, the overall score of the students in Suzhou is higher than the world average. This indicates the depth of the development of the social and emotional abilities Suzhou's students. The high level also shows that the confidence of Suzhou students in themselves is higher than the international average. Moreover, compared with the international sample, the three sub-abilities of the Suzhou sample's communicative competence have correlate more among the three sub-competences: music group, courage and vitality. The music group and vitality show a significant middle correlation. Among the 10-year-old group of students, the correlation coefficient is 0.55, and the correlation coefficient is 0.61 among the 15-year-old students. Although courage also relates to music and vitality, the correlation coefficients are all below 0.5. There is a high degree of correlation between communication ability, emotion regulation, and collaboration ability.

In addition, there are significant differences in the ability to communicate among different ages, genders, urban and rural areas, and school types. The 10-year-old group and the 15-year-old group have a large gap in self-evaluation, while the gap in parental evaluation is relatively small, indicating that parents' evaluations of students in the three dimensions of happiness, courage and vitality tend to be more consistent, and there is a question as to whether parent evaluation can be considered student self-evaluation. The self-evaluation level of the 10-year-old students on their own happiness, courage and vitality is higher than that of the 15-year-old students. In the dimension of music group, girls in the 10-year-old group have significantly higher music group ability than boys. Students in the 15-year-old group show the opposite situation, with boys' music group ability significantly higher than that of girls. Regarding the courageous dimension, girls in the 10-year-old group are slightly more courageous than boys, and there is no obvious difference between boys and girls in the 15-year-old group. In terms of vitality, boys exceed girls in the 10-year-old and 15-year-old groups. The difference in performance between male and female students in the group is even greater at the age of 15. Whether it is the 10-year-old group or the 15-year-old group, students in central urban schools can communicate much better than students in county and rural areas, but the difference between county and rural is insignificant.

Influencing Factors of Communicative Ability

Use multiple regression to analyze the factors that affect the ability of communication, including background variables, student variables, teacher variables, school variables, family variables, and the impact of students' happiness, courage and vitality.

Regarding background variables, among the 10-year-old students, family possessions and family book collection significantly positively affect the three abilities of music group, courage and vitality ($p < 0.01$), and the positive influence coefficients of family possessions are 0.40 and 0.36, respectively. 0.46, the positive influence coefficients of family collections are 0.07, 0.06, and 0.07, respectively. Among 15-year-old students, gender, family possessions, family equipment and family book collection are key factors affecting students' happiness, courage and vitality ($p < 0.01$). Household possessions and household equipment significantly positively affect the communication ability of 15-year-old students. The positive impact coefficients of household possessions are 0.22, 0.21, and 0.34. The positive impact coefficients of household equipment are 0.07, 0.07, and 0.02, respectively.

Regarding student variables, whether in the 10-year-old group or the 15-year-old group, the sense of security, friend relationship, good habit friends, and outdoor activity time all significantly and positively impact courage and vitality ($p < 0.01$), while time spent on the Internet have a significant effect on the three items. Ability has a significant negative impact (except for the courage of the 10-year-old group, $p = 0.11$).

Regarding teacher variables, whether for the 10-year-old or 15-year-old students, the teacher-student relationship has a significant impact on their happiness, courage and vitality ($p < 0.01$, β is around 0.10). For the 10-year-old students, the teacher's teaching age has a significant positive effect on music group and vitality, and the frequency of the teacher's social and emotional ability training has a significant positive effect on music group and courage ($p < 0.01$). In contrast, the 15-year-old group's music group was not significantly affected by the teacher's teaching age ($P=0.37$), and courage was not significantly affected by the teacher's academic qualifications ($p = 0.71$). The music group, courage, and vitality were affected by the teacher, with an expected positive effect being more significant ($p < 0.01$, β is 0.04, 0.09, 0.03, respectively).

Regarding school variables, whether it is a 10-year-old group or a 15-year-old group, the school's sense of belonging, school cooperation atmosphere and extracurricular activities all have a significant impact on their communication ability ($p < 0.01$). Of these, the school's sense of belonging has the highest degree of positive influence. The directional coefficient can reach about 0.50. In creating a school atmosphere, the younger group is more suitable for cooperation, while the older group can appropriately encourage competition.

Regarding family variables, for the 10-year-old group of students, understanding fathers and mothers had a significant positive impact on students' happiness, courage and vitality ($p < 0.01$), while understanding mothers had positive effects on the students' three abilities. The impact is greater (β is 0.08, 0.04, 0.06, respectively). Punishment parents have different influences on students' communicative ability. The specific manifestation is that punishment mothers positively influence the three abilities of students, while punishment fathers have no significant influence. For students in the 15-year-

old group, two different parenting styles and parents' high expectations have a significant positive impact on students' happiness, courage and vitality, while parent-child relationship problems have a significant negative impact ($p < 0.01$).

Communication Skills and Life Results

From the perspective of academic performance, for the 10-year-old group of students, happiness, courage and vitality generally have a significant positive effect on the performance of China, mathematics and art (except for vitality for art, $p = 0.46$), and other P values are less than 0.01. From the perspective of educational expectations variables, only courage significantly impacts educational expectations ($p < 0.01$, $\beta = 0.16$), indicating that more courageous students have higher expectations of their own learning performance. For 15-year-old students, vitality has a significant positive impact on Chinese performance ($p < 0.01$, $\beta = 0.14$). Guogan significantly and positively impacts educational expectations ($p < 0.01$, $\beta = 0.05$). From the perspective of mathematics and art achievements, the influence of communication skills is insignificant. From the perspective of global awareness among both 10-year-old and 15-year-old groups, the communicative abilities of group, courage and vitality all have a significant positive impact on global awareness ($p < 0.01$). From the perspective of social relations, music group and vitality have a significant positive impact on students' social relations in both age groups ($p < 0.01$). From the health point of view, vitality and music group have a significant positive impact on both groups, especially vitality, which has a greater degree of influence than music group; the correlation coefficient can reach 0.27. From the perspective of quality of life, happiness, courage and vitality have a significant positive impact on the subjective well-being and life satisfaction of the 10-year-old students, and they have a significant negative impact on test anxiety ($p < 0.01$, $\beta = -0.10, -0.16, -0.53$, respectively). Lequn and vitality have a significant positive impact on the subjective well-being and life satisfaction of 15-year-old students, while courage and vitality have a significant negative impact on test anxiety ($p < 0.01$, $\beta = -0.08, -0.40$, respectively).

The results indicate that encouraging young people to develop good peer relationships plays an extremely important role in the formation and development of their happiness, courage and vitality. Both teachers and students must understand, trust, and respect each other, as well as form a basis of equal communication. A harmonious relationship between teachers and students is an important guarantee for promoting students' communication skills. To create a positive school atmosphere, a good school atmosphere is a key to improving students' communication skills. Parents should form a positive family education and create a democratic and harmonious family atmosphere to promote the development of happiness, courage and vitality.

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