COMMENTARY

Which Matters More, Cognitive or Non-cognitive Ability?

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"Since we all have different cognitive profiles, educators should take those individual differences very seriously."

-Howard Gardner

ROM a psychological perspective, both cognitive and non-cognitive abilities are significant drivers of human growth. The ability to gather, choose, and comprehend information is referred to as cognitive ability. To be more specific, it consists of human abilities to comprehend the nature and characteristics of objects, as well as how they relate to one another, fundamental laws, and the future course of the world. Any skill that is not cognitive is considered non-cognitive. Examples include emotional maturity, empathy, and interpersonal skills, which are essential for people to deal with various contexts.

Academics have determined that cognitive capacity measuring methods can be classified into two categories: self-evaluation and operational tests (Dong, et al., 2016). Nevertheless, there are controversies over the definition and measurement of non-cognitive ability, which has impeded the growth of empirical research on non-cognitive skills. After looking at 12 frameworks for measuring non-cognitive skills in China and other countries, Zhou (2020) tries to put non-cognitive skills into three categories: goal achievement, interpersonal cooperation, and emotion regulation. These categories correspond to how to deal with school and career advancement, how to work with others, and how to accept oneself, respectively.

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The exam results of students' academic disciplines are the most widely utilized indicator for gauging their cognitive aptitude. The most prominent example is the PISA (Program of International Student Assessment) test, which is sponsored by the Organization for Economic Co-operation and Development (OECD). Initiated by the OECD in 2000, it is a cross-national (regional) and cross-cultural program that assesses students' academic proficiency in reading, mathematics, and science as well as their capacity to apply knowledge to real-world issues and predicts how competitive they will be in the future. However, there has not been a lot of research on students' noncognitive abilities; it wasn't until the 2010s that the OECD started formally organizing global research on the topic. To conduct an organized analysis of student social and emotional skills, the OECD collected samples from eleven cities in 10 different nations. The results of the research show that students' social and emotional abilities have a major impact on their academic performance, expectations for their education and careers, psychological wellbeing, and levels of creativity and curiosity. According to research results based on a sample from China, Chinese students perform exceptionally well in reading and mathematics, but there is great potential for development in their sense of belonging to and happiness with the school, as well as in their self-efficacy and self-regulation (Zhao et al., 2021).

Chinese scholars started studying students' non-cognitive talents in 2013 and have since concentrated on theorizing about their importance for academic advancement. A Narrative Review on Studies of Non-cognitive Ability in China in this issue provides a summary of research on this topic in China and draws the conclusion from the body of literature that non-cognitive skills significantly and favorably affect students' academic quality improvement and general student development (Zhou, 2022).

Every student must possess both cognitive and non-cognitive skills. Nevertheless, China's school education plays a limited role in developing student non-cognitive ability because examination-oriented instruction overemphasizes so-called "intellectual education" while ignoring the cultivation of student social and emotional skills; the student is treated as an exercise-and test-obsessed machine as opposed to a whole person with independent thought. Therefore, the incorporation of non-cognitive ability into pedagogical research and the school evaluation system has significant practical consequences. It is anticipated that this study will stimulate additional conversations on student non-cognitive capability within the educational community and contribute to the growth of student non-cognitive skills.

References

Dong, H., Ning, W. N., & Hou, G. H. (2016). Cognitive ability measurement: A literature review based on inclusive design. *Industrial Engineering and Management*, 2016(5):111-116. DOI: https://doi.org/10.19495/j.cnki.1007-5429.2016.05.017

- Zhao, F., Meng, W., Li, F., & Zhou, L. (2021). 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. *Best Evidence in Chinese Education*, 2021(8):1169-1195. DOI: https://doi.org/10.15354/bece.21.re055
- Zhou, J. Y. (2021). The measurement and empirical performance of non-cognitive skills of primary and secondary school students: Based on the data from six provincial administrative regions in China. *Peking University Education Review*, 2021(1):87-108. DOI: https://doi.org/10.12088/pku1671-9468.202101005
- Zhou, C. (2022). A narrative review on studies of non-cognitive ability in China. *Science Insights Education Frontiers*, 12(1):1675-1689. Doi: https://doi.org/10.15354/sief.22.re062

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Conflict of Interests: None. Doi: 10.15354/sief.22.co017