达人分享：中国和美国大一新生对比实用英语考试 PDF转换可能丢失图片或格式，建议阅读原文 https://www.100test.com/kao_ti2020/581/2021_2022__E8_BE_BE_E4_BA_BA_E5_88_86_E4_c96_581652.htm A study of college freshmen in the United States and in China found that Chinese students know more science facts than their American counterparts -- but both groups are nearly identical when it comes to their ability to do scientific reasoning。 Neither group is especially skilled at reasoning, however, and the study suggests that educators must go beyond teaching science facts if they hope to boost students’ reasoning ability。 我要收藏 Researchers tested nearly 6,000 students majoring in science and engineering at seven universities -- four in the United States and three in China. Chinese students greatly outperformed American students on factual knowledge of physics -- averaging 90 percent on one test, versus the American students’ 50 percent, for example。 But in a test of science reasoning, both groups averaged around 75 percent -- not a very high score, especially for students hoping to major in science or engineering。 The finding defies conventional wisdom, which holds that teaching science facts will improve students’ reasoning ability。 The study shows that, contrary to what many people would expect, even when students are rigorously taught the facts, they don’t necessarily develop the reasoning skills they need to succeed. Because students need both knowledge and reasoning, we need to explore teaching methods that target both。 In the United States, only one-third of students take a year-long physics course before they graduate from

high school. The rest only study physics within general science courses. Curricula vary widely from school to school, and students can choose among elective courses。 In China, however, every student in every school follows exactly the same curriculum, which includes five years of continuous physics classes from grades 8 through 12. All students must perform well on a national exam if they hope to enter college, and the exam contains advanced physics problems。 Each system has its strengths and weaknesses. In China, schools emphasize a very extensive learning of content knowledge, while in the United States, science courses are more flexible, with simpler content but with a high emphasis on scientific methods. We need to think of a new strategy, perhaps one that blends the best of both worlds。 