2025年度入試

記述問題（英語）

Read the following passage and answer the questions.
次の英文を読んで、下の設問に答えください。

1.To thrive in the new labor market, society needs citizens who desire challenges and can cope with difficulties. In the past, it was enough for people to be "knowers"—to know facts and specific skills and then use them. However, as technology makes many jobs obsolete (Acemoglu & Autor, 2011; Autor, 2014; Kraft & Grace, 2016), the new jobs created by technology require a thirst for challenge and learning (Deming, 2015). This is because routine tasks and well-defined problems can be handled by automated solutions (Lu, 2015). Therefore, it is critical that people also become "learners"—those who habitually seek out difficult-to-acquire expertise that can help them succeed in the future (National Research Council, 2012).

2.This issue becomes important in high school, especially in math classes, which are crucial for many young people. Advanced math skills form the base for higher-level science, technology, engineering, and math (STEM) courses and future STEM jobs (National Research Council, 2010, 2012). Math literacy can improve logical reasoning skills that can be widely used by everyone (National Research Council, 2010). However, students can choose to avoid challenging math content in high school (Carroll et al., 2017; Schiller et al., 2010). One way they do this is by opting out of math classes that take them out of their comfort zone. The avoidance of math challenges has been confirmed in research. In a survey with a nation-wide sample of 9th grade students in the United States (Yeager, 2019), researchers asked a question to measure the interest in completing challenging math tasks. The researchers gave the students a choice between two extra credit math assignments—one with easy problems that required little thinking and the other with very challenging problems that would promote learning. Fully 63% of 9th grade students in the United States chose the easy math assignment that would teach them nothing new, meaning that only 37% chose the hard one that they could learn from. Data collected from a study in Norway also showed a significant avoidance of challenging learning tasks. Thus, avoiding math challenges is not only a U.S. phenomenon.

3.The fact that nearly two-thirds of U.S. 9th graders avoided a challenging math assignment (even when there were no consequences) is important because the purpose of education is to expand skills and knowledge. Therefore, even if schools and teachers offer opportunities for students to deepen their knowledge and push beyond their current skill levels, many students

might still avoid those learning opportunities. This trend could make them less prepared for the realities of the current and future global economy. Therefore, a major goal is to motivate adolescents to take on the challenges presented to them in high school. In other words, how can we begin to inspire “nations of learners?”

4.This text explains additional research about the potential for growth mindset programs to inspire challenge-seeking in large samples of high school students. The growth mindset is the idea that intellectual abilities are not fixed and that it is possible, through learning, to develop stronger abilities—that is, a stronger brain (Aronson et al., 2002; Blackwell et al., 2007; Paunesku et al., 2015; Yeager et al., 2016). Growth mindset programs invite students to learn scientific information about the potential to develop one’s intellectual ability and the brain’s potential to form new or stronger connections when it learns (Aronson et al., 2002; Blackwell et al.,2007; Paunesku et al., 2015; Yeager et al., 2016). Students then reflect on what this means for their learning, including how their brain connections could develop and grow stronger when they try hard on challenging work, change their learning strategies, or ask for help from others (Yeager & Dweck, 2012).

5.The effect of these mindset messages is to change the meaning of challenges, so that learning challenges are seen as opportunities for students to grow their intellectual abilities (Hong et al.,1999; Molden & Dweck, 2006). When students believed that their abilities could be developed, challenging assignments had a different, more positive, meaning, and setbacks were less likely to result in the belief that one lacks raw intelligence (Blackwell et al., 2007; Hong et al., 1999). Furthermore, students felt freer to adopt the goal of learning (even when faced with the possibility of failure) rather than adopting the goal of avoiding failure by selecting tasks that are easy for them (Blackwell et al., 2007; Robins & Pals, 2002).

6.In other research, students’ mindsets have been shown to effect success outcomes. (Dweck & Yeager, 2019). A fixed mindset has been related to brain activity involved in mistake-processing, such that those with a fixed mindset had less processing of error feedback when they had an opportunity to correct a mistake (Mose et al., 2011). At deep levels of brain activity analysis, students with a fixed mindset showed more of a “threat” response to poor academic performance, in the form of higher stress hormone levels, compared to students with more of a growth mindset (Lee et al., 2019). Further, students’ mindsets cause different reflective tendencies. For instance, those with a fixed mindset tend to compare themselves to those below them (so they can feel better than poor performers), while those with a growth mindset tend to compare themselves to people who did better than them (so they can learn more effective strategies; Nussbaum & Dweck, 2008). Finally, students who learn about the growth mindset message have shown increases in motivation and effort, such as trying harder

on a math quiz (Bettinger et al., 2018), revising their work, or staying after class for extra help (Blackwell et al., 2007).

7.It has recently become possible to deliver growth mindset practice using relatively short, self-administered online modules lasting under an hour. For instance, the National Study of Learning Mindsets (NSLM; Yeager, 2019) evaluated a growth mindset intervention in a nation-wide sample of U.S. public schools (Yeager et al., 2019). The focus of the practice was on improving grades, and indeed it improved lower-achieving 9th grade students' school performance at the end of the school year. Further analysis showed that the practice increased the rate of the students that enrolled in advanced math the next year. This research requires further analysis to confirm the findings and consider that the intervention effects on grades alone did not mean there were effects on challenge-seeking. After all, students may choose easier courses to help ensure higher grades.

8.Given the significant impacts of being a learner for economic success, a high priority for research is to clarify, verify, and extend our understanding of the role of growth mindset in challenge-seeking. Future research should evaluate the high-quality of the previous research so that we understand the conditions under which the effects occur.

9.Based on this research evaluation, high schools that are interested in promoting greater challenge-seeking and reducing fixed mindsets should strongly consider implementing the growth mindset program. Regardless, the present results confirm the need to find ways to reduce the fears that individuals face as they confront intellectual challenges. How might we craft classrooms and workplaces that communicate that challenge is a route to learning, rather than something that makes people feel as though they are not talented enough? And what about home environments or online learning environments? The future of mindset science has much to learn about—and hopefully much to contribute to—these questions of great importance.

Adapted from:

Rege, M., Hanselman, P., Solli, I. F., Dweck, C. S., Ludvigsen, S., Bettinger, E., ... & Yeager, D. S. (2021). How can we inspire nations of learners? An investigation of growth mindset and challenge-seeking in two countries. *American Psychologist*, *76*(5), 755.

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Answer all four sections. All answers should be written in the designated parts of the answer booklet.
４つのセクションすべてに解答しなさい。各問題の解答は、それぞれ指定された解答用紙に記入すること。

SECTION 1: True/False Questions

Read each sentence and circle the correct answer in the answer booklet.

Example:
There are nine paragraphs in the passage.

TRUE / **FALSE**

1) In the new labor market, it is enough for people to only know facts and specific skills.

TRUE / FALSE

2) Advanced math skills are only important for students planning to pursue careers in science technology, engineering, and math (STEM) fields.

TRUE / FALSE

3) The majority of 9th grade students in the United States chose challenging math assignments in a nationwide survey.

TRUE / FALSE

4) Avoidance of challenging math tasks is a phenomenon unique to the United States.

TRUE / FALSE

5) Growth mindset programs aim to teach students that intellectual abilities can be developed.

TRUE / FALSE

6) Growth mindset interventions have shown no significant impact on students' academic performance.

TRUE / FALSE

7) High schools should consider implementing growth mindset programs to promote challenge-seeking.

TRUE / FALSE

8) Growth mindset interventions can only be delivered through lengthy, in-person training sessions.

TRUE / FALSE

SECTION 2: Multiple-choice questions

Read each question and circle the correct answer in the answer booklet.

9) What is required to thrive in the new labor market?

1. Being able to handle obsolete jobs
2. Having a desire for challenges and coping with difficulties
3. Avoiding technological advancements
4. Completing routine tasks efficiently

10) In the survey mentioned, what percentage of 9th grade students in the United States DID NOT choose the easy math assignment?

1. 50%
2. 63%
3. 37%
4. 25%

11) What is the core idea behind growth mindset programs?

1. Intellectual abilities are fixed and cannot be developed
2. Learning scientific facts improves intelligence
3. Intellectual abilities can be developed through learning
4. Only talented students can benefit from challenging work

12) How do students with a growth mindset view challenging assignments?

1. As threats to their intelligence
2. As opportunities to grow their intellectual abilities
3. As a waste of time
4. As a means to avoid failure

13) How do students with a fixed mindset tend to compare themselves?

1. To people who perform better than them
2. To people who perform worse than them
3. To their past performances
4. To their future potential

14) According to paragraph 3, what is a consequence of the trend of avoiding challenging math assignments?

1. Students may become less prepared for future STEM careers
2. Schools may stop offering advanced math courses
3. Teachers may focus more on easier subjects
4. Students may develop better logical reasoning skills

15) Which two approaches to learning does the text generally explain?

1. Theoretical mindset and practical mindset
2. Individual learning and collaborative learning
3. Fixed mindset and growth mindset
4. Passive learning and active learning

16) What do the researchers recommend for future research?

1. Comparing the effectiveness of various teaching methods
2. Exploring the impact of technology on job creation
3. Clarifying, verifying, and extending understanding of the role of growth mindset in challenge-seeking
4. Investigating the relationship between math literacy and logical reasoning skills

SECTION 3: Summary Question

Read the question and write your answer in English.

17) Paragraphs 4, 5, and 6 explain research regarding growth and fixed mindset. Using the information included in the text, explain the concepts of growth mindset and fixed mindset in your own words. Also include your understanding of how growth mindset and fixed mindset affects students. Your answer should be about 10 lines of text. Write your answer in the answer booklet.

IMPORTANT NOTE: You may use some key words from the passage in your answer but do **NOT** copy sentences from the passage. Points will not be given for copied sentences.

SECTION 4: Short response question

Read the question and write your answer in English.

18) The passage discussed the impact of growth mindset on high school students. Based on the definitions given in the text, do you think you have a growth mindset or a fixed mindset? How do you think you developed this mindset? How has this mindset affected your ability to learn? Discuss your opinion in relation to the ideas in the passage. Support your answer by giving and explaining examples. It is recommended that you give example of what you have studied or learned from other sources. Your answer should be about 15 lines of text. Write your answer in the answer booklet.