

# Mindsets for Learning English: A Comparison of Costa Rica and Japan

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## Abstract

In this paper, the authors describe a quantitative study comparing the mindsets of high school students in Costa Rica and Japan. The authors aimed first to find out whether students displayed a tendency towards a growth mindset in their English studies. Then, the authors looked for clear differences between the two nations. The results indicated that students appeared to have growth mindsets in both Costa Rica and Japan for studying English. However, when the two nations were compared, it was discovered that students in Costa Rica have significantly stronger growth mindsets for English ( $t(123) = 6.76, p < .001, d = 1.21$ ), as well as in sports, and in general. Reasons for the Costa Rican students having stronger growth mindsets and pedagogical implications are also discussed.

## 1. Introduction

The level of students' motivation is almost always pointed out as one of the main elements for achievement in second language (L2) learning and foreign language learning. Thus, it goes without saying that a considerable amount of research on the role of motivation in the L2 learning process and how language teachers can increase their students' drive to learn has been published, especially over the past half a century (e.g., Gardner & Lambert, 1972; Gardner, 1985; Dörnyei, 1994; Ushioda, 1996; Dörnyei & Ushioda, 2009). Motivation should be considered as one of the key components that determine why some students thrive while some others struggle to fit in the schooling system (Pintrich, 2003). In the present study, the authors look at *mindsets*, a part of motivation that has received much attention in the field of psychology, but the effects of which are yet to be investigated deeply in the field of second language acquisition (SLA). In this paper, the authors hope to contribute to filling this gap by looking at the

mindsets of language learners in two vastly different English as a foreign language (EFL) environments: Costa Rica and Japan.

## 2. Literature Review

### 2.1 Studies of Mindsets in Psychology

The way humans respond to situations in which they feel they may fail has been discussed by various researchers in the field of psychology. One of the earlier studies, conducted by Seligman, Maier, and Geer (1968), suggested that when animals, including humans, are in situations in which they feel they have no control over the outcomes (i.e., a feeling of helplessness), they tend to give up. A few years later, Dweck and Reppucci (1973) suggested that when faced with difficult challenges, some children may indeed give up as suggested by Seligman and his colleagues, but others may thrive on challenges and see such situations as opportunities to learn, despite the possibility that they may fail. The Self-worth Theory (Covington, 1992) suggests that some

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children may make little or no effort in their studies *on purpose* when they are faced with circumstances in which they feel they may fail. Such children feel that if they made much effort to overcome the challenge, but failed, it would hurt their egos as peers and family members viewed their failures as indications of not being smart enough; it would be better for them if they made little effort and be seen as lazy. Then, in the 1990s, the Implicit Theories were presented by Dweck, Chiu, and Hong (1995) as an explanation for the difference between taking a risk (and perhaps failing) in arduous situations or choosing an easier route.

Developed over more than 20 years of research, the ideal behind *implicit theories* helps understand humans' attitudes when faced with situations in which they feel they may fail (Dweck, Chiu, & Hong, 1995; Dweck, 1999). According to implicit theories, the attitude one has when faced with a challenging situation can be divided into two sectors: an *entity theory* and an *incremental theory*. The former refers to the belief that intelligence is innate and that regardless of the efforts one may exert, the level of intelligence will not change. On the other hand, the latter, an incremental theory, describes those who have a strong belief that intelligence is malleable, and with hard work anyone is capable of reaching high levels of intelligence and performance in his or her chosen fields. Dweck (1999) explains, however, that the distinction between the entity theory and incremental theory is not clear-cut. It is possible, and in fact more likely than not, that one will hold an entity theory for one field and the incremental theory for another. Therefore, it may be possible, for example, that a student holds an entity theory for mathematics; he/she believes that one's skill in mathematics is a gift from birth. However, the same student may possess the incremental theory in learning a particular sport, holding the belief that if one practices hard enough, he or she will become better at the chosen sport.

With the Implicit Theories proving to be an

accurate way of describing humans' beliefs regarding the innateness of intelligence in various fields (e.g., Knee, 1998; Ommundsen, 2001), Dweck (2006) created a more accessible terminology for implicit theories: *mindsets*. Likewise, the entity theory has since been more commonly referred to as the *fixed mindset*, and the incremental theory as a *growth mindset*. For ease of understanding, in this paper, we shall use the mindset terminology.

## 2.2 Mindsets in SLA

Although there has been an abundance of material published on mindsets in psychology research, the literature on mindsets in the field of Second Language Acquisition (SLA) has been relatively thin. One of the earliest contributions was that of Mercer and Ryan (2009), who conducted a study using the data generated in tertiary-level EFL contexts in Austria and Japan. Semi-structured, in-depth interviews were carried out with five Austrian and four Japanese university students. A highlight of their work is the clarification that the likelihood of students clearly having just the fixed mindset or just the growth mindset is very low in EFL learning. Thus, a student who has a growth mindset when practicing writing, for example, may believe that regardless of how hard he or she practices speaking, his or her pronunciation will not improve significantly: a trait of the fixed mindset. Therefore, it is appropriate to think that students do not have only one kind of mindset but rather have a tendency towards a particular mindset to variable degrees.

Through Mercer and Ryan's study, it was suggested that Japanese people tend to have a more uniformed growing mindset for language learning, in comparison with Austrians, where responses showed a more variable tendency. Japanese people tend to give much greater emphasis on the role of effort rather than to talent. However, as explained by the authors, their findings are not conclusive since the participants might have been responding to implanted cultural scripts and not to their own

beliefs. Furthermore, Mercer and Ryan suggested that mindsets might play a crucial role in the goal setting of language learners and that, even in cases where a strong growth mindset exists, learners may feel lost without the tools and knowledge of strategies to put their effort in the right direction. Consequently, and as suggested by Braten and Olaussen (1998), it is essential to engage learners in instructional practices that equip them with the necessary strategies and skills to guarantee their efforts lead to actual improvement.

In the present study, the authors aimed to conduct a comparison between the mindsets of high school students in two different countries to add to the understanding of the growth mindset in EFL environments. The two countries in the present study were Japan and Costa Rica: two EFL environments. Costa Rica is an under-developed country that has taken multiple actions to improve the educational level of its citizens since the last armed revolution in 1948. At that time, the national government decided to abolish the army and made a declaration of constitutional reform that guaranteed 8% of the annual gross domestic product would be invested in the public educational system. Moreover, a significant amount of capital has been put aside to open public universities that facilitate the education of teachers and professionals in many fields as required by Costa Rican people. On the other hand Japan, one of the most advanced countries in the world, possess a rich background in the field of education. The education system in Japan is well-respected globally, but there are often discussions held concerning ways to improve the quality of Japanese students' English proficiency, especially the skill of speaking.

In this study, the authors aim to compare the mindsets towards the learning of English of high school students in these two countries, investigating whether notable differences can be observed between these two culturally and geographically different nations.

### 3. The Study

#### 3.1 Research Questions

In this study, the authors aim to answer the following research questions (RQs):

RQ1. Do high school students in Costa Rica and Japan appear to have growth mindsets in learning English as a foreign language?

RQ2. Do any salient differences appear in the results for Costa Rica and Japan?

#### 3.2 Methodology

The authors used a questionnaire by Leis (in review) based on the work of Crandall, Katkovsky, and Crandall (1965) to get a general idea of the mindsets of the participants in six separate categories: English, Mathematics, Japanese (Spanish), Physical Education, General, and Metacognitive Skills (i.e., Self-reflection). The first four categories were chosen in an attempt to gain a broad understanding of the participants' general mindsets as well as conduct a comparison among basic subjects regularly studied at school. The category General was added to include items that did not belong to the other categories. The final category of Metacognitive Skills was added for the authors' interest and was not included in the statistical analyses in this study. Items in the questionnaire included those that looked at the participants' understanding of the importance of having control over one's learning and performance, traits of the growth mindset, (i.e., Growth Mindset Knowledge) and actually acting in a way that reflects these traits (i.e., Growth Mindset Behavior). In the questionnaire, participants were asked to choose from two options to indicate how they would act in various situations (i.e., Growth Mindset Behavior) or reasons for a variety of circumstances occurring (i.e., Growth Mindset Knowledge). The reliability of the categories within the questionnaire was, admittedly, low ( $\alpha < .70$ ), confirming the advice of Dweck (1999) and Mercer and Ryan (2009) that one does not

necessarily hold only a growth mindset or only a fixed mindset in all skills. Because in this paper the authors aimed to simply gain general knowledge on students' mindsets, the reliability of each category was not considered to be detrimental to the results. See Appendix A, B, and C for the English, Spanish, and Japanese versions of the questionnaire.

### 3.3 Participants

#### 3.3.1 Costa Rican subjects

The Costa Rican sample consisted of a total of 59 students from a high school in a city in northwest Costa Rica. The average age of the subjects was 16.14 (*SD* = .97), and there were 34 males and 25 females.

#### 3.3.2 Japanese subjects

The Japanese sample consisted of a total of 66 students from a public high school in a city in northeast Japan. The average age of the subjects was 15.56 (*SD* = .50), and there were 40 males and 26 females. Table 1 shows a description of the participants in this study.

Table 1.  
A Description of the Subjects in the Present Study

Country	Number	Male	Female	Age ( <i>SD</i> )
Costa Rica	59	34	25	16.14 (.97)
Japan	66	40	26	15.56 (.50)

## 4. Results

Through the first RQ, the authors aimed to get a general idea of whether students in Costa Rica and Japan tend to have growth mindsets in their English studies. To do this, the scores were first averaged according to each category (i.e., English, Mathematics, First Language (i.e., Spanish or Japanese), Sports, and General). Then, a one-way analysis of variance (ANOVA) was conducted to find if any statistically significant differences could be observed among the categories (excluding metacognitive strategies) within each country. This was followed by a Tukey Test to

see which categories showed significant differences with English.

The results for the Costa Rican participants showed a strong tendency to have a growth mindset in learning English. English was the category with the highest score. The ANOVA showed a significant difference did exist among the categories,  $F(4, 290) = 10.67, p < .001$ , with the post-hoc Tukey Test having statistically significant differences ( $p < .001$ ) between English and Math, First Language, and Sports. Although there was a large difference between English and General ( $p = .07$ ), it was not considered statistically significant. Table 2 shows the descriptive statistics for the Costa Rican participants in this study.

Table 2.  
Descriptive Statistics for the Costa Rican Participants

Category	Mean	SD	Skewness	Kurtosis	95% CI
English	1.86	.16	-.75	-.45	1.82, 1.90
Mathematics	1.64	.23	.17	-.82	1.58, 1.70
Spanish	1.64	.25	-.45	.08	1.58, 1.70
Sports	1.69	.21	-.53	-.14	1.63, 1.75
General	1.75	.23	-.72	.46	1.69, 1.81

Notes. Fixed mindset = 1; Growth mindset = 2; Standard deviations are shown in parentheses.

The results showed a slight trend for Japanese students to have a growth mindset in their English studies, suggesting that they attributed their effort, not natural ability to their performances. The ANOVA for the Japanese participants revealed significant differences among the groups,  $F(4, 325) = 6.37, p < .001$ . The post-hoc Tukey Test, however, suggested no statistically significant differences between English and the other categories. Interestingly, Sports appeared as the lowest category. In a similar study conducted with Japanese university students around three years older than the participants in the present study, the category "Sports" was highest, with statistically significant differences with English (Leis, 2017). Table 3 shows the descriptive statistics with averages, standard deviations (SD), Skewness, Kurtosis, and

95% confidence intervals (95% CI) for the Japanese participants in this study.

**Table 3.**  
Descriptive Statistics for the Japanese Participants

Category	Mean	SD	Skewness	Kurtosis	95% CI
English	1.62	.23	-.34	.34	1.56, 1.67
Mathematics	1.58	.26	-.22	-.41	1.51, 1.64
Japanese	1.71	.25	-.87	.65	1.65, 1.77
Sports	1.50	.22	-.18	-.61	1.45, 1.56
General	1.59	.24	.08	-.43	1.53, 1.65

Notes. Fixed mindset = 1; Growth mindset = 2.

In the second RQ, the authors aimed to compare the results of the Costa Rican and Japanese subjects. Independent samples *t* tests were conducted to compare the results for the Costa Rican and Japanese participants. The results showed that the Costa Rican participants appeared to have significantly stronger growth mindsets in the categories of English ( $t(123) = 6.76, p < .001, d = 1.21$ ), Sports ( $t(123) = 4.83, p < .001, d = .88$ ), and General ( $t(123) = 3.89, p < .001, d = .68$ ). Table 4 displays a summary of the results of the analyses.

**Table 4.**  
Statistical Descriptions for the Participants in this Study.

Country	English	Mathematics	First Language	Sports	General
Costa Rica	1.86 *	1.64	1.64	1.69 *	1.75 *
Japan	1.62	1.58	1.71	1.50	1.59

Notes. Fixed mindset = 1; Growth mindset = 2; \*  $p < .001$ ; First Language refers to the study of Spanish in Costa Rica and Japanese in Japan.

The results raise many issues for language teaching in Costa Rica and Japan. These will be discussed in the next section.

## 5. Discussion

The results of this study suggest that students in the Costa Rican sample tended to have stronger growth mindsets for studying English, in sports, and in general. In this section, the authors discuss possible reasons for this. Because it was not feasible

to conduct interviews with the subjects, the results are based only on responses to the questionnaires. Therefore, as also mentioned by Mercer and Ryan (2009), it is hard to identify whether the meaning behind an obtained response reflects students' personal beliefs or they are automatic answers related to social construction. Nevertheless, it is possible to speculate about some of the possible reasons for these differences, focusing on English.

The geographical proximity of Costa Rica to the United States may be one of the reasons for the stronger growth mindsets among the Costa Rican participants in learning English. Even with the increasing global coverage of the Internet providing Japanese students with relatively simple access to native-speakers of English, much of this is limited to input (e.g., reading online magazines, watching videos on video-sharing websites, listening to podcasts). The increased output through hands-on, face-to-face experience with native speakers that is more likely in Costa Rica may enable students to experience taking risks of mistakes and the benefits such actions bring, a trait of the growth mindset. The closeness to the United States for the Costa Rican participants may also affect their culture, ways of thinking, fashion, and business partnerships.

The location of Japan, of course, cannot be made physically closer to a nation in which English is the first language, but language teachers can encourage students to make more use of computer-assisted language learning for interactions in English. Interactions with native speakers through social networking systems and online video-chatting may increase the opportunities for linguistic output among Japanese students, thus requiring more risk-taking. As mentioned by Leis (2017), Japanese students tend to have the knowledge that one's success depends on one's efforts and that taking risks reaps benefits, especially in language learning. However, Japanese students still appear to be hesitant to transfer that belief into action. Therefore, Leis continues, teachers need to find ways of allowing students experience

the benefits of their risks and mistakes. Once experiencing the positive results of taking risks, a stronger growth mindset might be seen among Japanese language students. Increasing linguistic output through online activities may be one way of achieving this.

Another hint for the stronger growth mindset for English among the Costa Rican students may lie in tourism. Costa Rica is a small country, with a total population below 5 million people, whose economy relies heavily on the tourism industry. This increases the possibilities for students to have interactions with English native speakers and view having high English language proficiency as being indispensable for future employment. As reported by the national institute of tourism, in their statistical yearbook of tourism, a total of 2,925,128 people visited the country during 2016, with 1,233,277 (i.e., 42.16%) of those visitors being from the United States (Instituto Costarricense de Turismo, 2017). Japan, on the other hand, saw 24,039,053 visitors in the same year, with 1,242,702 (i.e., 5.2%) being from the United States (JTB Tourism Research & Consulting Co., 2017). Although the United States is only one example of an English-speaking nation, others such as the United Kingdom (1.2%), Canada (1.1%), and Australia (1.9%) showed even lower percentages. The majority of visitors to Japan were from nations in Southeast Asia, such as China (26.5%), Korea (21.2%), and Taiwan (17.3%). A higher awareness that English can be used as a lingua franca to communicate with visitors from Southeast Asia among Japanese students may increase the growth mindset in their language studies.

In recent years, there have been more calls for higher awareness of English as a lingua franca (ELF) and understanding of the importance of communication in English among non-native speakers of the language (e.g., Seidlhofer, 2005; Widdowson, 2015). Although the concept of ELF has received its share of criticism (e.g., O'Regan, 2014), it is gradually becoming more accepted

among scholars and language teachers. With such a high percentage of visitors to Japan coming from countries in which English is not the mother tongue spoken, it may be beneficial for teachers in Japan to include higher awareness of the opportunities to use English with those from, what Kachru (1992) coined, the Expanding Circle countries. In this respect, the students in the Japanese sample show similarities to the students in the rural sample of Lamb's (2012) study in Indonesia, in which "families had less influence on rural learners' motivation, probably because there was less awareness of the potential advantages of knowing English, and learners had less positive views of learning English outside school, having fewer opportunities for such learning" (p. 1016). In the Japanese context, language teachers can play the role as motivator by increasing the awareness of opportunities to use English more regularly. Having a greater awareness of ELF through regular language classes and communicating with other non-native speakers of English who are visiting Japan, may lead to students seeing the benefits of their efforts, thus strengthening their growth mindsets for learning English.

## 6. Conclusion

Conducting comparisons of language learners in different educational settings can bring many benefits to teachers. In the present study, the authors compared the mindsets of high school students in Costa Rica and Japan. Although students in both samples displayed a tendency toward having growth mindsets in their English studies, the Costa Rican students' growth mindsets were significantly stronger. Because having the growth mindset leads to one being more aware of the control he/she has over one's learning, and that effort, not innate ability, is a reflection of success, it is necessary for language teachers in the Japanese context to look to Costa Rica for hints on how to increase the strength of their students' growth mindsets. A higher awareness



of the benefits of taking risks in language practice as well as looking for more opportunities to actively use English outside of the classroom are two ways discussed in this paper. When students are given more opportunities to go beyond simply believing in the growth mindset and actually experience the benefits of behaving with this outlook, there is little doubt that increases in proficiency will surely follow.

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## Appendices

### Appendix A

The English version of the questionnaire used in this study. For ease of understanding in this paper, the first choice in each item represents a fixed mindset; the second option represents a growth mindset. Likert scales for items 2-5 have been removed.

### Questionnaire Regarding High School Students' Study Habits

This is a questionnaire to increase understanding about the study habits of high school students. There are four parts to this questionnaire. Follow the instructions to complete each part. There are no right or wrong answers. Please answer as honestly as possible.

#### Part 1

Age

14 15 16 17 18 19 20+

Gender

Male Female

#### Part 2

Imagine the following situations. Choose the answer that best matches you.

*You have trouble understanding what your English teacher is saying in class. Why is this?*

- He/She is speaking too quickly.
- You are not concentrating enough.

*You have a choice of two English courses at university. Which do you take?*

- An easier course that you will most likely pass without much trouble.
- A challenging course that you will have to study hard for but still might not pass.

*Your math teacher gives you a choice for homework, a simple problems that you will finish in about ten minutes, or a quite difficult problem that will take you an hour to complete. Which will you choose?*

- The easier problems.
- The difficult problem.

*Your classmate is very good at math. Why is this?*

- He/She was born with great math ability.
- He/She studies math hard every day.

*The person sitting next to you in your Japanese class is able to write much more neatly than you. Why is this?*

- He/She has an ability to write neatly.
- You haven't practiced writing enough.

*You have a choice of two books to read for your Japanese homework. Which do you choose?*

- A simple book that won't take long to read.
- A classic book that is difficult, makes you think a lot, and will take time to complete.

*You have trouble remembering what your teacher taught you in your Japanese class. What should happen next?*

- The teacher should explain the content better.
- You should concentrate and listen more carefully.

*You are going for a morning run. A person much older than you runs past you. What do you do?*

- Run faster to keep up with that person.
- Keep at your own pace.

*You are a member of a basketball team and are going to have a practice game. Which team do you want to play against?*

- A strong team that will beat you.
- A weak team that you will beat easily.

*You are a member of a soccer team. Which of the following would you prefer to be?*



- The most talented player on a weak team.
- The least talented player on a strong team.

*When you get a test returned, which will you do?*

- Compare to the class average.
- Compare to your previous test.

*Your teacher asks a difficult question in class. You are not confident, but think you might know the answer. What do you do?*

- Wait for someone else to answer the question.
- Raise your hand and try to answer the question.

*Which of the following sentences best describes the reason teachers give tests in class?*

- They want to find out who the smartest students in the class are.
- They want students to find their weak and strong points in that subject.

### Part 3

Imagine the following situations. Complete the sentences by choosing the way you feel best matches you.

*Your teacher gives you a good score in a speech given in English class. This is because...*

- ... your teacher likes you.
- ... you practiced hard for the speech.

*The person sitting next to you in English class has very good pronunciation. This is because ...*

- ... he/she has lived abroad for some time.
- ... he/she practiced English pronunciation a lot.

*You find a mathematical function very difficult to understand. This is because ...*

- ... your teacher hasn't explained it well enough.
- ... you haven't thought about it hard enough.

*Your math teacher gives you a problem to complete. You finish it quite quickly. This is because ...*

- ... it was an easy problem.
- ... you worked seriously on the problem.

*You are teaching Chinese characters (kanji) to elementary school students. They remember the characters very well.*

*This is because ...*

- ... you taught them well.
- ... they practiced a lot at home.

*You practice skiing and become able to ski the beginner slope without falling. Next time you go skiing with your friend, you will want to ...*

- ... continue skiing on the beginner slope without falling.
- ... try the intermediate slope, where you will probably fall.

*If someone wanted to become a doctor, scientist, or teacher, but couldn't, it was because ...*

- ... he/she wasn't smart enough.
- ... he/she didn't study hard enough.

### Part 4

Do you do the following things in your regular studies? Read the sentences and choose 6 if you always do that and 1 if you never do it.

*I reflect on my study methods.*

I never do so    1    2    3    4    5    6  
I always do so

*I take memos during class in order to get better scores in tests.*

*If I get a low score in a test, I think how to improve my study methods.*

*I set a study goal in each of my subjects.*

*I always look for effective ways to remember class content better.*

## Appendix B

The Spanish version of the questionnaire used in this study. For ease of understanding in this paper, the first choice in each item represents a fixed mindset; the second option represents a growth mindset. Likert scales for items 2-5 have been removed.

### Cuestionario sobre su parecer del proceso educativo.

El propósito de este estudio es ganar un entendimiento más profundo sobre el parecer de los niños y jóvenes costarricenses sobre el proceso educativo. El cuestionario consta de 4 partes. Lea las instrucciones cuidadosamente y responda según su parecer. Esto no es un examen. No hay respuestas correctas o incorrecta. Su respuesta no afectará su nota. Por favor sea honesto con sus respuestas puesto que las mismas serán utilizadas como parte de esta investigación.

Muchas gracias por su cooperación.

#### Primera Parte

La primera parte consiste en información personal básica. Recuerde que esta información solo será utilizada en esta investigación y no será hecha pública.

*¿Cuál es su edad?*

14    15    16    17    18    Mayor de 18 años

*Sexo*

Masculino      Femenino

#### Segunda Parte

Imagine la siguiente situación. Escoja la opción que más se acerque a su opinión.

*Usted tiene problemas para entender lo que su profesor de inglés está diciendo en clases. ¿Por qué sucede esto?*

- El o la profesora habla muy rápido.

- Usted no está lo suficientemente concentrado.

*Usted tiene dos opciones de curso de inglés en la universidad. ¿Cuál escogería?*

- Un curso fácil que sabe pasará sin necesidad de un gran esfuerzo.  
 Un curso desafiante en el cual tendría que estudiar arduamente y esforzarse y aun así correr el riesgo de reprobar.

*Su profesor de matemáticas le da dos opciones para la tarea, un problema simple que podrá resolver en aproximadamente diez minutos, o un problema considerablemente más difícil que le tomará una hora en resolver. ¿Cuál escogería?*

- El problema simple.  
 El problema difícil.

*Su compañero es realmente bueno en matemáticas. ¿Por qué?*

- Él nació con una gran habilidad matemática.  
 Él estudia matemáticas todos los días.

*La persona que se sienta a su lado en la clase de español es capaz de hacer redacciones mejores que las suyas. ¿A qué se debe esto?*

- Él o ella tienen una habilidad para escribir.  
 Usted no ha practicado redacción lo suficiente.

*Usted tiene dos opciones de libros para leer. ¿Cuál escoge?*

- Un libro simple que no le tome tiempo leer.  
 Un libro clásico que es difícil, lo hará pensar y tomará tiempo en completar.

*Usted tiene problemas recordando lo que su profesor enseñó en la clase de español. ¿Que debe de suceder después?*

- El profesor debe explicar la materia de mejor manera.  
 Usted debe concentrarse y escuchar con mayor cuidado.

*Usted sale a correr en la mañana. Una persona mucho mayor que usted lo adelanta. ¿Qué debe hacer usted?*

- Correr más rápido para alcanzar a esa persona.
- Mantener su propio paso.

*Usted es miembro de un equipo de baloncesto y van a tener un juego de práctica. ¿Qué equipo deben enfrentar?*

- Un equipo fuerte que los derrotará.
- Un equipo débil que podrán vencer.

*Usted es miembro de un equipo de fútbol. ¿Cuál de las siguientes posiciones le gustaría ocupar?*

- El jugador más talentoso de un equipo débil.
- El jugador menos talentoso en un equipo fuerte.

*¿Cuándo el profesor le regresa un examen, usted que hace?*

- Comparar su nota con la de los compañeros.
- Comparar la nota con el examen previo.

*Su profesor hace una pregunta difícil en la clase. Usted no se encuentra totalmente seguro, pero cree que podría tener la respuesta. ¿Usted qué haría?*

- Esperar a que alguien más responda la pregunta.
- Levantar la mano y dar su respuesta.

*¿Cuál de las siguientes oraciones mejor describe la razón por la cual los profesores hacen exámenes en la clase?*

- Ellos quieren identificar a los estudiantes más inteligentes de la clase.
- Ellos quieren que los estudiantes encuentren sus debilidades y fortalezas en esas asignaturas.

### Tercera Parte

Imagine la siguiente situación. Complete la oración escogiendo la opción que mejor describa la forma en que usted se siente.

Su profesor le da una buena calificación en un discurso (speech) hecho en inglés. Esto se debe a que ...

- usted le agrada al profesor.
- usted se preparó bien para dar el discurso.

La persona que se sienta a su lado en la clase de inglés tiene una muy buena pronunciación. Esto se debe a que...

- él/ella ha vivido en el extranjero un tiempo.
- él/ella practica la pronunciación mucho la pronunciación del inglés.

Usted encuentra una función matemática muy difícil de entender. Esto se debe a que...

- Su profesor no lo ha explicado lo suficientemente claro.
- Usted no se ha esforzado lo suficiente en entenderlo.

Su profesor de matemática le da un problema a resolver. Usted lo resuelve rápidamente. Esto se debe a que...

- era un problema simple.
- usted trabajó seriamente en resolver el problema.

Usted le está explicando algunas reglas gramaticales a niños de escuela. Después de unos días ellos las recuerdan bien. Esto se debe a que...

- usted les explicó bien.
- ellos practicaron las reglas en casa.

Usted aprende a esquiar y logra hacerlo de buena forma en una ruta para aprendices sin caerse. La siguiente vez que tenga la oportunidad de esquiar con sus amigos a usted le gustaría...

- continuar esquiando en la ruta para aprendices y reducir el riesgo de caerse
- tratar una ruta de dificultad intermedia, donde probablemente se caiga.

Si alguien quiere estudiar para ser un doctor, científico o profesor, pero no logra su objetivo, es porque...

- No es lo suficientemente inteligente.
- No se esforzó lo suficiente para lograrlo.

### Cuarta Parte

¿Hace usted las siguientes cosas en sus estudios regulares? Lea las oraciones y seleccione 6 si siempre lo hace y 1 si nunca lo hace.

*Yo reflexiono sobre mis métodos de estudio.*

Yo nunca lo hago 1 2 3 4 5 6  
Yo siempre lo hago

*Yo tomo apuntes durante la clase a fin de mejorar mis notas en los exámenes.*

*Si obtengo una mala calificación en una prueba, pienso en cómo mejorar mis métodos de estudio.*

*Yo planeo un objetivo de estudio en cada asignatura.*

*Yo siempre busco un método efectivo para recordar de mejor manera el contenido de las asignaturas.*

### Appendix C

The Japanese version of the questionnaire used in this study. For ease of understanding in this paper, the first choice in each item represents a fixed mindset; the second option represents a growth mindset. Likert scales for items 2-5 have been removed.

### 高校生の学習に関するアンケート

この調査は日本の高校生の学習に対する考えや信念をよりよく理解するためのものです。このアンケートは4つのパートから成り立っています。それぞれの指示に従い、回答を記入してください。これはテストではありませんので、「正解」も「不正解」もありません。この調査結果は研究目的のためだけに使われますので、正直にお答えください。

よろしく願いいたします。

### PART 1

PART 1 はあなた自身についてです。次の項目の

正しいものを選択するか、空欄に回答を入力してお答えください。全ての質問をお答えください。

#### 年齢

14 15 16 17 18 19 20以上

#### 性別

男性 女性

#### 海外経験

行ったことがない 2週間以内  
2週間～3ヶ月 3ヶ月～6ヶ月  
6ヶ月～1年間 1年間以上

#### 英語力

全然できません 0 1 2 3 4 5 6 7 8 9 10  
ネイティブスピーカー並み

#### 学年

1年 2年 3年

### Part 2

各項目の状況を考え、質問にお答えください。

英語の先生が授業中に言っていることがわからない。  
なぜなら

- 先生が喋るのが早すぎるから。
- 気が散ってしまっているから。

大学で2種類の英語の授業のコースから選択できる。  
どちらを選択する？

- それほど苦勞せずに合格できるであろう、より簡単なコース。
- 一生懸命勉強してももしかしたら合格できないかもしれない、困難なコース。

数学の先生が宿題を2つのうちから1つを選べと言う。1つは10分くらいで終わらせるであろう簡単な問題、もう1つは1時間はかかるかなり難しい問題。私が選ぶのは、

- 簡単な問題。
- 難しい問題。

あなたの同級生は数学がとても得意。なぜなら

- 数学の才能があったから。
- 毎日一生懸命数学を勉強していたから。

国語の授業で隣に座っている人が、あなたよりはるかに字がきれいだと思う。なぜなら

- その人には字をきれいに書く能力があるから。
- あなたが字の練習を十分にしていないから。

国語の宿題で2冊のうちから1冊を読まなければならない。どちらの本を選ぶ？

- 読むのに時間があまりかからない簡単な本。
- 難解で、色々なことを考えさせられる、読み終わるのに時間がかかる名作。

国語の授業で先生が教えてくれたことをなかなか覚えられないとする。どうすれば解決できると思う？

- 先生がもっとうまく説明するべき。
- 自分が授業に集中して、注意深く聞くべき。

朝、日課にしているジョギングに出かける。あなたよりかなり年上の人に追い抜かされる。あなたは次のどちらのタイプ？

- その人に遅れまいと、走るスピードを上げる。
- 自分のペースで走り続ける。

あなたはバスケットチームの一員で、練習試合をすることになっている。どちらのチームとやりたい？

- 負けてしまうであろう強いチーム。
- 簡単に勝てる弱いチーム。

あなたはサッカーチームの一員です。どちらの状況の方が良い？

- 弱小チームで一番才能がある選手。
- 強豪チームで一番才能がない選手。

テストが返却されたら、あなたはどのようにする？

- その時のクラスの平均と比較する。
- 前の自分のテスト結果と比較する。

授業中に先生が難しい質問をしてくる。あなたにはそこまで自信はないが、答えを知っているかもしれない

とも思える。あなたの取る行動は？

- 誰か他の人が答えるのを待つ。
- 手を上げて、答えてみる。

授業中に先生達がテストをする理由はどちらだと思う？

- クラスで一番頭の良い学生が誰かを把握したいから。
- 学生達に自分の得手不得手を理解してもらいたいから。

### Part 3

それぞれの項目における状況を想像し、各状況であなた自身が考えると思うことに最も良く当てはまるものを選択して下さい。

あなたが英語の授業で行ったスピーチに先生が高得点を与えたとする。なぜなら

- 先生があなたを気に入っているから。
- あなたがスピーチのために一生懸命練習したから。

英語の授業であなたの隣に座っている人の発音が素晴らしい。なぜなら

- その人は海外にしばらく住んでいたから。
- その人は英語の発音練習をたくさんしたから。

ある数学の関数の問題が難しく理解できない。なぜなら

- 先生が十分に説明してくれていないから。
- 自分が十分に考えていないから。

数学の先生があなたに問題を解くように言う。あなたはとても早く終えることが出来た。なぜなら

- 簡単な問題だったから。
- 真剣に取り組んだから。

あなたは小学生に漢字を教えている。その子どもたちがとても良く漢字を覚えた。なぜなら

- あなたが上手に教えたから。
- 子どもたちが家でたくさん練習したから。

スキーを練習していて、転ばずに初級者用のコースを滑ることが出来るようになった。次回、友人と一緒にスキーに行くなら、

- 転ばずに滑ることができる初級者用コース。
- 転ぶことになるだろう中級者用コース。

ある人が、医者、科学者、教師になりたかったが、なれなかった。なぜなら

- その人は十分に賢くなかったから。
- その人は十分に勉強しなかったから。

#### Part 4

あなたが次の事柄にどの程度共感できるかを、1から6の番号の中からひとつを選んでお答えください。

自分の勉強法が効果的かどうか振り返る。

全くしない 1 2 3 4 5 6

必ずする

試験でいい点数がとれるように授業中よくメモをとる。

全くしない 1 2 3 4 5 6

必ずする

試験で悪い点を取ってしまった時には、勉強のやり方を改善しようとする。

全くしない 1 2 3 4 5 6

必ずする

各科目の学習の明確な目標を設定する。

全くしない 1 2 3 4 5 6

必ずする

授業の内容をよりよく覚えるために、いつも効果的な方法を探す。

全くしない 1 2 3 4 5 6

必ずする