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Honours Project Research Paper

*Investigating ESL learners' language mindsets, metacognitive strategies, and*

*learning achievements in a Hong Kong Secondary school*

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**Declaration**

I, SHEN Xuyi          declare that this research report represents my own work under the supervision of Dr. WAN Lai Yin Sarah, and that it has not been submitted previously for examination to any tertiary institution.

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## Abstract

Mindset, people's beliefs about whether intelligence is fixed or malleable, have been extensively discussed in the field of Second Language Acquisition and educational psychology. And it has been found as a strong predictor of ESL learners' Self-regulated Learning (SRL) strategies. Previous researchers have discovered that learners using SRL strategies tend to perform better in English Examinations. Considering mindsets have a domain-specific manner, the significance of Language mindsets, and people's beliefs about whether language intelligence is fixed or malleable, have been addressed. However, limited research has investigated Hong Kong ESL learners' language mindset and its relationship with SRL strategies. To provide more insights into the topic, a quantitative correlational study investigating ESL learners' language mindsets, metacognitive strategies, and learning achievements in a Hong Kong Secondary school was conducted. The participants of this study were 31 secondary students aged 13-17 from a secondary school in Hong Kong. participants were asked to complete 2 questionnaires online, which measured their language mindsets and SRL strategies in learning English. Pearson correlation was conducted to examine the relationship among the variables. It is found that students tend to hold a growth language mindset with some fixed beliefs. No significant has been found between language mindset and the overall SRL strategies used. However, a positive relationship between two subtypes of SRL strategies, goal setting and planning, and persistence when faced with challenges, and language mindset has been discovered. A relatively strong positive correlation between the SRL strategies of goal setting and planning, persistence when faced with challenges and self-evaluation, and English academic achievement was found. The study calls for a joint effort from teachers and schools to promote growth language mindsets and SRL strategies in learning and teaching.

# 1. Introduction

As a world language, English has long been believed that play a vital role in educational settings (Bailey, Golach & Arbor, 1986). Especially in regions like Hong Kong, where English is a non-native language but learned by students as a compulsory subject in schools. To better help learners improve language proficiency, it is crucial to understand and investigate their learning motivation (Bai & Wang, 2020). Among various motivational beliefs, the growth mindset has been widely discussed in Second Language Acquisition (SLA), especially in primary and secondary school settings (Terada, 2017). Meanwhile, Language learners' language beliefs (Horwitz, 1999) also have been extensively investigated in the field of applied linguistics and educational psychology. In recent years, building on the prior knowledge and findings of growth mindsets, the concept and significance of language mindsets have been emphasized in understanding English as a Second Language (ESL) learners' learning motivation (Lou & Noels, 2019). Both growth mindset and growth language mindset have been found to be positively correlated to self-regulated learning (e.g., Burnette et al., 2013; Molden & Dweck, 2006; Wang & Bai, 2017). Self-regulated learning refers to one's self-determined and proactive thoughts, emotions, and behaviors to achieve educational goals (Zimmerman, 2000). Evidence from studies revealed a positive relationship between growth mindsets and self-regulated learning strategies among students (Bai & Wang, 2020). Particularly in the Hong Kong schools setting, scholars have suggested that higher achievers tend to proactively apply SRL strategies (Wang & Bai, 2017. However, little is known about Hong Kong ESL learners' language mindsets and whether language mindset is positively associated with self-regulated learning strategies and the impacts on students' English learning achievements. Hence the present study aims to examine Hong Kong Secondary school students' language

mindsets, investigate the relationship between language mindset and English SRL strategies, and its impacts on students' English academic achievements.

**Research questions:**

1. What kinds of beliefs do Hong Kong secondary students have about their language intelligence?

2. What is the relationship between language mindsets and English SRL strategies among Hong Kong secondary students?

3. What is the relationship between English SRL strategies and English academic achievements among Hong Kong secondary students?

## 2. Literature review

### 2.1 Self-regulated learning and Self-regulated learning strategies

Based on Zimmerman(2000)'s definition of Self-regulation, it involves generating ideas, emotions, and actions that are planned and applied in a circular way to achieve individual goals. In terms of academic self-regulation, it involves time management, attentiveness and concentration on instructions, strategies for organizing, rehearsing, and coding information, the establishment of an efficient learning environment, and resource management. Self-regulation is consisted of three psychological aspects, including being motivated, applying strategies, awareness of one's own performance, and being sensitive to environmental and social factors (Wang & Bai, 2017). In other words, students who are self-regulated are motivated to set personal goals and make plans for achieving them through the utilization of appropriate strategies. With self-awareness of their performance, students actively conduct self-monitoring of their goals and strategies and make use of resources in their environment like seeking assistance from others. According to the cyclical phases for the process of self-regulated proposed

by Zimmerman(2000), there are three essential phrases involved, forethought, performance, and self-reflection. First, the forethought phases are identified as the actions and beliefs that individuals invest effort for learning, like motivation and the actions of planning and setting goals. Second, the performance phase is the process of individuals staying attentive to the tasks to perform well, including making learning records and self-monitoring, lastly, the self-reflection phrase represents the process of evaluating and observing one's learning behaviors and performance. Students make judgments about their learning based on their self-reflections. Based on the previous findings and discussion on self-regulation, Wang (2004) specifically provided a definition for self-regulation in the context of second language acquisition (SLA). It is defined as an individual's ongoing adjusting of the applied language learning strategies to attain personal goals through interaction with others across social and cultural contexts (Wang, 2004).

SRL strategies are defined as the measurements of the strategies learners apply to develop beneficial learning styles, including monitoring, and regulating the learning activites, and proactively adjust their strategies used according to the feedback received (Zimmerman, 2000). Scholars have reported that motivational beliefs like growth mindsets are not a direct attribution for learning outcomes. Learners' academic engagement is found as a direct predictor of learners' academic achievements (Wang & Bai, 2017; Bai& Wang, 2020). In different kinds of engagements, Students' utilization of Self-regulated learning (SRL) strategies positively relates to their academic performance (Zimmerman and Martinez-Pons,1986; Tilfarlioglu & Cinkara, 2009), and particularly, it is also found to be a critical contributor to English language learning performance in the ESL context (Wang & Bai, 2017; Xiao & Yang, 2019). Scholars

have found that SRL strategies are not only positively correlated with students' standardized examination performance, but also more frequently adopted by higher achievers who tend to seek social assistance from teachers (Zimmerman and Martinez-Pons,1986). In other words, lower achievers are the ones who need help the most, without essential SRL strategies, they are also the ones that are least likely to ask for help. In general, efficient learners are always aware of their learning progress and performance even before receiving the test results, which indicates their adequate skills in self-monitoring. Self-regulated learners proactively set goals and sub-goals, choose and utilize different strategies, frequently monitor and evaluate their learning, and modify their progress to achieve the goals (Zimmerman & Schunk, 2006). On the other hand, students who are less self-regulated or have less knowledge in applying SRL strategies tend to struggle in knowing their strengths and weaknesses and how these impact their performance on tasks. With difficulties in regulating their learning, these students tend to avoid challenging tasks to avoid failure and protect their self-esteem. They also tend to have more severe procrastination in finishing assignments or tasks, which further hinders their learning progress. The social cognitive theory ( Schunk,1994) has suggested that students' learning strategies and behaviors are tightly connected to their social experiences like interacting with teachers and peers. And their former learning experiences might have a powerful influence on their present understanding of learning, strategies they apply, and the endeavor they devote for improvement.

In recent years, scholars have also investigated the impacts of SRL strategies on ESL learners' English academic performance in China and Hong Kong. For example, Bai and Wang (2020) examined the use of three types of metacognitive SRL strategies,

"monitoring," "effort regulation," and "goal setting and planning," in Hong Kong primary students. They discovered these three strategies were positively associated with students' outstanding English performance. Similarly, Nisbet (2005) and his colleagues also found that metacognitive strategies are the most substantial contributors to good performance in the Test of English as a Foreign Language (TOEFL) of Chinese ESL learners. In another study, the reading capacity of Taiwanese ESL students who set goals was improved compared to those who did not use the goal-setting strategies (Shih & Reynold, 2018). In terms of effort regulation and showing persistence in facing challenges, these strategies provide learners with positive reactions to dealing with setbacks, help them concentrate when facing distractions, and commit to their goals (Shih & Reynold, 2018). Hence, SRL strategies were hypothesized to have a positive correlation with Hong Kong secondary school students' English learning achievements.

## 2.2 The role of mindsets in SRL strategies used

Motivational beliefs are essential factors that drive one's learning behaviors and influence academic outcomes (Wigfield & Cambria, 2010; Zimmerman, 1990). However, as Zimmerman (2000) stated, even if students know about SRL strategies without the intention or desire to use them, their learning might be less likely to benefit. Motivational beliefs associated with SRL commonly include self-efficacy and intrinsic value. Notably, growth mindsets have been discussed in a tremendous amount of research as essential motivational beliefs that significantly benefit students' ESL/EFL learning (Bai & Guo, 2019). Considering the sociocultural context, scholars suggest that a growth mindset may be a crucial factor that influences Asian ESL learners' academic outcomes (Bai & Wang, 2020; Bai, Wang & Nie, 2021). Given that mindsets

significantly link to educational outcomes, researchers are growing interested in investigating language mindsets. Accordingly, recent research in Second Language Acquisition has emphasized conceptualizing and measuring language mindsets and proven that language mindsets were strongly associated with ESL learners' learning motivation ( Lou & Noels, 2016; Ryan & Mercer, 2012).

### 2.2.1 Growth mindset

Mindsets are defined as beliefs about whether individuals' traits are malleable or fixed (Dweck, 2008). Dweck (1999) indicates that people's mindsets construct how they perceive and explain the social world. The mindsets behind are categorized as entity theory and incremental theory. People who hold an entity theory of intelligence or fixed mindset "see intellectual ability as something of which people have a fixed, unchangeable amount," while people who hold an entity theory of intelligence or growth mindset "see intellectual ability as something that can be grown or developed over time" (Yeager and Dweck, 2012, p. 303). For instance, students with growth mindsets are motivated to improve capacity by effort because they view intelligence as something that can be changed by malleable factors (e.g., effort). And they tend to accept challenging tasks that help them to master skills and knowledge. By contrast, students with fixed mindsets tend to pay less effort when facing setbacks or challenges because they believe that intelligence is decided by fixed personal qualities (e.g., genes).

A growth mindset is considered a crucial motivational belief that influences students' learning outcomes to cultivate adaptive and excellent learners (Burnette, O'Boyle, VanEpps, Pollack, & Finkel, 2013). Recently, the role of mindsets on learners' SRL strategy use and language competence in the ESL context has attracted the increasing

attention of researchers. And there is significant evidence proving the beneficial outcomes of a growth mindset on ESL learners' self-regulated language learning. Burnette et al. (2013) researched the relationship between a growth mindset and SRL. The results indicated that a growth mindset predicted learners' goal setting, goal operation, and monitoring. In recent years, Bai and Wong (2020) investigated the influences of motivational beliefs on Hong Kong secondary students' SRL strategy use. The researchers found that a growth mindset plays a more crucial role in enhancing SRL strategies use and writing competence than self-efficacy and intrinsic value. Similarly, a growth mindset is also an essential predictor of SRL strategy use in Hong Kong primary school ESL learners (Bai, Wang & Nie, 2021). Although the importance of growth mindsets in ESL students' SRL strategy use has been discussed, there is a lack of research about the impacts of learners' language mindsets on their SRL strategy use, influencing students' language learning achievement. As mindsets are complex and thought to function in a domain-specific manner, varying across individuals and academic domains (Lou & Noels, 2019). For instance, a student might think his English language ability is mutable while math ability is immutable (Dweck, 2013; Lou & Noels, 2016). Given its uniqueness from other academic subjects, language mindsets instead of mindsets about general intelligence have been suggested as a more important concept for understanding language learning motivation and academic achievements (Lou & Noels, 2016). Hence, it is necessary and meaningful to obtain a domain-specific understanding of language mindsets and their impacts on ESL learners' SRL strategy use and academic outcomes.

### 2.2.2 Language mindsets

Former research findings have indicated that language learners tend to hold different beliefs about their language ability, and the beliefs influence their learning motivation, engagement, and behaviors (Horwitz, 1999; Barcelos & Kalaja, 2011). However, in recent years, researchers have focused on language learners' fixed or malleable beliefs about language aptitude. Mercer and Ryan (2012) posited that individuals hold different beliefs from language intelligence is static or mutable, which aligned with Dweck's (1999) implicit theory and other previous studies on language beliefs (Horwitz, 1988; Mengels et al., 2006). Distinguishing language mindsets and other mindsets is significant because people commonly hold different beliefs about specific domains (Lou & Noels, 2017). For instance, students might believe that their Science ability is fixed and cannot be changed, while their sports ability can be improved through constant practice. As language learning involves both classroom learning and using the language in authentic contexts like talking with native speakers of the target language, it is considered a special educational domain that is different from mindsets in other academic or social domains (Lou & Noels, 2017).

Language mindsets are defined as individuals' mindsets about whether one's language intelligence is fixed or can be developed (Lou & Noels, 2020). Drawing from the earlier studies about mindsets and language beliefs, Lou and Noels (2019) proposed three categories of language mindsets and an instrument for assessment, including General language intelligence beliefs (GLB), Second language aptitude beliefs (L2B), and Age sensitivity beliefs about language learning (ASB). First, aligning with Dweck's implicit theory, GLB refers to beliefs about general language intelligence is fixed or malleable. Some researchers posited that linguistic intelligence that attributes to abilities in

completing language tasks is fixed. For example, the capability of becoming an exceptional translator or linguist is the talent that you either have or not. Secondly, L2B particularly relates to second language aptitude beliefs that focus on whether the ability to learn a second language (L2) is fixed or developed through effort (Horwitz, 1988). The debate about whether the aptitude to learn a second language is determined by genetic factors or is malleable through effort and practice has been widely discussed. Corresponding with the critical period hypothesis for language learning and the common belief about the "golden period" for second language learning (Horwitz, 1988), the ASB concerns whether language capacity is mutable up to a certain age and becomes immutable after that, or whether language ability can be developed at any age. Some scholars strongly believe that the ability to acquire a second language is only malleable up to a certain young age, and then declines after because of neurobiological changes (DeKeyser, 2000). Parallel with the popular belief that adults are not able to develop proficiency in a new language to a native level while younger children can. On the contrary, Abello- Contesse(2009) argues that age is not a biological factor that inhibits the capability of second language learners.

Language mindsets tend to influence students' self-regulating behaviors (Burnette et al., 2013; Molden, Plakes & Dweck, 2006). Students who hold a growth language mindset are more self-improvement oriented (Lou & Noels, 2016). They play an active role in their learning and proactively take effective actions to achieve goals and self-improvement (Waller & Papi, 2017). On the contrary, students with a fixed language mindset often apply self-defensive strategies to avoid challenging tasks and learning opportunities to prevent potential setbacks (Molden, Plakes & Dweck, 2006). Corresponding with these previous findings, the Mindset-goals-responses model (Lou

& Noels, 2016) indicates that learners with fixed language mindsets tend to have higher anxiety and resistance to learning a new language. When facing setbacks, students with fixed mindsets also show more fear for failure because they regard failure as an indication of lacking natural talents and the ability to improve. And the fear of failure also causes students to avoid any feedback on their learning outcomes, reject challenging tasks, and put more effort into accomplishing assignments (Sadeghi et al, 2020; Lou & Noels, 2020; Lou & Noels, 2016).

However, little is known about Hong Kong students' different beliefs about language intelligence. Although previous research has focused on investigating the relationship between learner's mindset and SRL strategies used, language mindset is a unique domain in the educational setting. Hence, it is considered meaningful to examine the relationship between language mindsets and English SRL strategies, especially in the Hong Kong context. Hence, the present study aims to gain insights into Hong Kong students' language mindsets and explore the relationship between language mindsets, SRL strategies, and English academic achievements.

## 3. Methodology

### 3.1 Research Design

To investigate the relationship between ESL learners' language mindsets, English SRL strategies, and English academic achievement, a quantitative research method is employed in this research, which includes two self-report questionnaires. To examine students' language mindsets and English SRL strategies, two questionnaires are distributed for students to indicate their personal opinions and perceptions of the items.

## 3.2 Setting and Participants

A total of 31 secondary school students aged 13-17, which comprised both females and males, were recruited as the participants in the research. The participants are from a local Band 3 secondary school in Fanling. The school uses Chinese as its medium of Instruction. The participants are considered higher achievers in the forms. According to the schoolteacher, students in this target school generally come from a lower socio-economic background or underprivileged households. And English has long been regarded as the most challenging subject for students in this school. Convenience sampling was used in this study because the participants are selected from the researcher's previous field experience school. To invite participants, the researcher's former supporting teacher, who is teaching in the school, helped announced and promoted this study.

## 3.3 Instruments

### Language mindsets

Participants' language mindsets were measured by the Language Mindset Inventory (LMI) (Lou & Noels, 2017) which aims to assess L2 learners' general language intelligence, L2 aptitude, and age-sensitivity beliefs. The scale consists of 18 statements that nine items measure growth language mindset (e.g., "You can always improve your language intelligence substantially") and 9 items measure fixed language mindset (e.g., "To be honest, you can't really change your basic ability to learn and use new languages. "). They are divided into three sub-scales of language mindsets: (1) General Langauge Intelligence Beliefs (GLB), (2) Second Language Attitude Beliefs (L2B), and (3) Age Sensitivity Beliefs about Language Learning (ASB). And each subscale can be separated into the growth and fixed dimensions. Students were asked to respond on a

6-point Likert rating scale from 1 (Strongly disagree) to 6 (Strongly agree). The value of the Cronbach's alpha of the inventory was .84 (Salkind, 2007). Based on the instructions on using LMI (Lou & Noels, 2017), the mean scores of language mindset, and the mean scores of three dimensions (e.g. GLB) are calculated. And the mean score of language mindset and its subscale was calculated by compounding the reversed fixed items with the growth items. Hence, higher scores show stronger inclination to growth language mindset beliefs and weaker inclination to fixed mindset beliefs. The double translation was conducted to generate a Chinese version of the questionnaire for students (See Appendix A).

**English Self-regulated learning strategies**

To examine foreign language learning strategies, Oxford (1990) made the Strategy Inventory for Language Learning (SILL) and it has been widely utilized in former research. Nevertheless, SILL was not developed based on the self-regulation theories and did not address specifically different SRL strategies. Although The Motivated Strategies for Learning Questionnaire (MSLQ) is one of the most popular instruments to evaluate SRL strategies, some of the subscales cannot particularly reflect the field of language learning. More recently, the Questionnaire of English Self-regulated Learning Strategies (QESRLS) was developed for the context of learning English as a foreign language by Pape & Wang (2005), which is based on self-efficacy theory (Bandura, 1997), The self-regulated learning interview scale (Zimmerman & Martinez-Pons, 1986), and SILL (Oxford, 1990). In this study, participants' English Self-regulated learning strategies were measured using The Questionnaire of English Self-regulated Learning Strategies (QESRLS), including 64 items in 11 categories. The categories include strategies like goal setting and planning, seeking social assistance, and

reviewing records. They range from cognitive strategies to commonly used English learning strategies. The value of Cronbach's alpha of the QESRLS is 0.96 (Pape & Wang, 2005). Students were asked to indicate their frequencies of using each strategy by choosing one item : 0 = "I never use it," 1 = "I seldom use it," 2 = "I sometimes use it," 3 = "I often use it." The value of the Cronbach's alpha of the inventory was .96 (Wang et al., 2007). The double translation was conducted in order to generate a Chinese version of the questionnaire for students (See Appendix B).

**English academic achievement**

Participants' English academic achievement will be presented by the participants' latest English test scores in the school examination. After obtaining the consent from the participants and the school,  the exam results were collected from the participants' English teacher and input for the further correlational analysis. The school English examination consists of five parts, General English, Writing, Speaking, Listening, and Dictation. It evaluates students' overall English performance, which includes writing, speaking, listening skills, vocabulary, and grammatical knowledge.

**Reliability**

Analysis was employed on the scales above to examine the internal reliability of the scales used in this study. The scale measuring language mindsets LMI has a Cronbach's alpha value of .931, which demonstrates that the reliability of this scale is excellent. The QESRLS examining English SRL strategies has a Cronbach's alpha value of .914, which indicates ideal reliability as well.

**3.4 Data Collection**

Due to the COVID-19 pandemic outbreak, schools were under suspension when the data collection process was conducted. Therefore, two questionnaires were generated in Google forms and prepared to be sent to participants as online questionnaires. After obtaining concerts from the local secondary school, students who were willing to participate in this study were given the link to the online questionnaires. They were clearly informed of the purpose and the procedure of the study. They were also informed that there was no potential risk involved in the study and they were allowed to withdraw from the study at any time without any consequences. For participants who are all aged below 15, both the participant's consent form and a parental consent form were given to and signed by the participants and their parents. Participants then completed and submitted the two online questionnaires, Language Mindset Inventor(LMI) and Questionnaire of English Self-regulated Learning Strategies (QESRLS), to the researcher. Then, the participants' latest English examination results were collected from the class teacher. The data collected were analyzed using SPSS software and Excel.

**3.5 Data Analysis**

After completing the data collection and input, a data cleaning process was conducted. Two samples were deleted from the original data because the participants' names were missing in the responses, which caused the data to be unidentifiable. A descriptive analysis was then conducted to gain a summative view of the data collected and develop descriptive statistics of the main variables, including the demographic variables, language mindsets, English self-regulated learning strategies, and English examination scores. Next, Pearson Correlation was adopted to further investigate and analyze the relationship among the variables.

## 4. Results

### 4.1 Descriptive Analysis

The frequencies and the proportions of the participants' gender and attending English tutorials are shown in table 1 and table 3 respectively. The participants consisted of females (65.5%) and males (34.5%). And over half of the participants (59.4%) do not attend extra English tutorials to improve their language proficiency. The mean and standard deviation of the participants' demographic variables of English learning, like self-evaluation of English proficiency are indicated in table 3. Participants reported their opinions on a 0-3 Likert point scale, in which the results indicated that participants have a relatively low self-evaluation of their English proficiency ($M = 1.10$, $SD = .67$). Most of the students do not receive extra support from family to help them with their English learning at home ($M = .41$, $SD = .73$). While students are also not quite used to including English media in their daily entertainment activities, like watching English movies, listening to English songs, and reading English books ($M = 1.69$, $SD = 1.00$). Correspondingly, most of the students do not proactively use English outside class($M = 1.00$, $SD = .89$) With regard to the variables, the mean and standard deviation of language mindsets, self-regulated learning strategies, and English examination scores are shown in table 4. The results of English test scores indicated that students lack outstanding English proficiency in general ($M = 62.46$, $SD = 18.3$).

The first research question of this study was intended to investigate Hong Kong ESL learners' mindsets about learning the English language. The data were collected through the Language Mindset Inventory and the results are presented in this section. As mentioned, the Language Mindset Inventory consists of three subscales, General Language Intelligence Beliefs (GLB), Second language attitude beliefs (L2B), and Age

sensitivity beliefs about language learning (ASB). The mean score of  Language mindsets and the three subscales were compared with the average value of the choices (i.e. 3.50). Therefore, a mean score of the scale or subscale higher than 3.50 indicates the participants' inclination to agree with the growth items. On the other hand, a mean score lower than 3.50 implied that the participants tended to agree with the fixed items.

On the whole, the mean score of the participants'  language mindsets ($M$ = 3.74, $SD$ = .80) was slightly higher than 3.50, which indicated that they generally agreed with the growth beliefs of language mindset, upholding a growth language mindset with some fixed beliefs. However, the maximum (5.00) and minimum (1.11) mean scores of language mindsets demonstrated distinct individual differences in students' language beliefs. While some participants embraced language intelligence is malleable and can be changed by practice and effort, others perceived the opposite idea that language intelligence is fixed. In terms of the three subscales of language mindset, the mean scores of GLB (3.61), L2B (3.75), and ASB (3.79) were all slightly stronger than 3.50. The results of GLB implied that the participants'  inclination of believing in the incremental nature of language intelligence and individuals can always do something to change it. Regarding the L2B, the participants were inclined to agree that people can work hard to improve their foreign language proficiency and disagree that people can't change their proficiency due to a lack of natural talent. Finally, the results of ASB indicated that the surveyed ESL learners believed that, regardless of one's age, people can perform well as long as they invest enough time and effort while disagreeing with age hindering the effectiveness of learning a foreign language.

The mean score of the participant's English Self-Regulated Learning strategies and the three subtypes were compared with the average value of the choices (i.e. 1.50). Therefore, a mean score of the scale or subscale higher than 1.50 indicates the participants' more frequent application of the strategies. On the other hand, a mean score lower than 1.50 implied that the participants tend not to apply the strategies. Overall, the results of participants' English SRL strategies ($M = 1.46$, $SD = .38$) showed that they only occasionally apply different SRL strategies in English learning. For the subtypes of SRL strategies, only the three subtypes of strategies indicated in Table 4 were found more frequently used among the participants. The mean score of using strategies of *self-evaluation* ($M = 1.75$, $SD = .56$) is higher than 1.50, which indicates the surveyed ESL learners' habit of self-checking their assignments before submission and evaluating the task difficulty in order to adjust their way of completing it. The result of *persistence when faced with challenges* ($M = 1.58$, $SD = .46$) is slightly higher than 1.50, which implied that the participants tend to try multiple times and seek different ways to resolve problems facing challenges. The mean score of *goal setting and planning* ($M = 1.85$, $SD = .71$) showed that the participants generally set learning goals and make study plans for their language learning. Compared to the other strategies, the mean score for *goal setting and planning* is the highest, which indicated that the participants apply this strategy more often than the others.

Table 1.

*Frequency and Proportion of the Gender of Participants*

|  | Frequency | Percent | Valid percent | Cumulative percent |
|---|---|---|---|---|
| Female | 19 | 65.5 | 65.5 | 65.6 |
| Male | 10 | 34.5 | 34.5 | 100 |
| Total | 29 | 100.0 | 100 | |

Table 2.

*Frequency and Proportion of attending English tutorials of Participants*

|  | Frequency | Percent | Valid percent | Cumulative percent |
|---|---|---|---|---|
| Not attending English tutorials | 19 | 59.4 | 59.4 | 59.4 |
| Attending English tutorials | 10 | 31.3 | 31.3 | 100 |
| Total | 29 | 100.0 | 100 | |

Note. *N*=29.

Table 3.

*Means and standard deviations of participants' age, self-evaluation of English proficiency, receiving English learning support from family, the habit of reading English books, listening to English songs and watching English movies, and using English in daily life.*

|  | Maximum | Minimum | Mean | Standard Deviation |
|---|---|---|---|---|
| Age | 17.00 | 14.00 | 14.83 | .76 |
| Self-evaluation of English Proficiency | 2.00 | .00 | 1.10 | .67 |
| Receiving support on English Learning from family | 2.00 | .00 | .41 | .73 |
| Habit of reading English books, listening to English music, and watching English movies. | 3.00 | .00 | 1.69 | 1.00 |
| Using English in daily life | 3.00 | .00 | 1.00 | .89 |

Note. *N*=29.

Table 4.
*Means and standard deviations of participants' English test scores, language mindset, and English SRL Strategies.*

|  | Maximum | Minimum | Mean | Standard Deviation |
|---|---|---|---|---|
| English test scores | 32.5 | 100.00 | 62.46 | 18.30 |
| Language Mindset | 5.00 | 1.11 | 3.74 | .80 |
| GLB | 5.33 | 1.00 | 3.61 | .81 |
| ASB | 5.33 | 1.33 | 3.79 | .96 |
| L2B | 5.67 | 1.33 | 3.75 | .83 |
| SRL strategies | 2.08 | .67 | 1.46 | .38 |
| Self-evaluation | 2.75 | .00 | 1.57 | .56 |
| Goal setting and planning | 3.00 | .00 | 1.85 | .71 |
| Persistence when faced with challenges | 2.5 | .75 | 1.58 | .46 |

Note. *N*=29.

## 4.2 Correlational Analysis

To further analyze the correlations among the above variables, Pearson correlation was conducted (see Table 5). After data analysis, it is discovered that language mindset is positively associated with the strategies of *persistence when faced with challenges* and *goal setting and planning* respectively *r=.479, p < 0.01 r = .404, p < 0.01.* Similarly, ASB is found positively correlated with *persistence when faced with challenges* and *goal setting and planning respectively, r=.400, p < 0.01 r = .372, p < 0.01.* Based on the correlational analysis, there is no significant correlation between English test scores and language mindset, nor between English test scores and the overall English SRL strategies. However, English test scores are found to be positively correlated with the SRL strategies of *self-evaluation, persistence when faced with challenges,* and *goal setting and planning respectively r = .511, p < 0.01, r = .468, p < 0.01, r = .432, p < 0.01 .* And there is a positive relationship between participants' age and SRL strategies used in English learning *r = .482, p < 0.01.*

*Table 5.*

*Correlation between  Language Mindset, SRL Strategies, and English test scores*

| Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. Age | - | | | | | | | | | |
| 2. English test scores | -.298 | - | | | | | | | | |
| 3. GLB | -.180 | .124 | - | | | | | | | |
| 4. L2B | -.260 | .222 | -.056 | - | | | | | | |
| 5. ASB | -.304 | .246 | .091 | .551** | - | | | | | |
| 6. Language Mindset | -.260 | .228 | .033 | .787** | .905** | - | | | | |
| 7. Self-evaluation | .363 | .511** | .047 | -.130 | -.131 | -.049 | - | | | |
| 8. Persistence when faced with challenges | -.049 | .468** | .254 | .190 | .400* | .479* | .217 | - | | |
| 9. Goal setting and planning | .293 | .432** | .190 | .306 | .372* | .404* | .415* | .464* | - | |
| 10. SRL strategies | .482** | .226 | .216 | .143 | .240 | .261 | .496** | .529** | .650** | - |

Note. $N$=29. **. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).

## 5. Discussion

This study aims at investigating Hong Kong secondary students' beliefs about language intelligence, which are also regarded as their language mindsets in the English language. And it also aims to investigate the relationship between language mindset, English SRL strategies, and English academic achievement.

## 5.1 Language mindsets

In this research, the first research question intends to investigate Hong Kong ESL learners' language mindsets. It is found that the students adopted mixed language mindsets with a significant inclination to growth mindset beliefs. In terms of the three different types of mindsets, namely, GLB, L2B, and ASB, students also adopted a growth language mindset with some fixed beliefs. In other words, students expressed both growth and fixed beliefs for all the subtypes but overall the beliefs leaned towards incremental. The results of students upholding a mixed language mindset corresponded with previous research findings which discovered the dynamic nature of mindsets. As a group learners hold diverse beliefs and as individuals, people tend to expose both growth and fixed mindsets (Lou & Noel, 2019).

The finding of Hong Kong ESL learners generally upholding a growth language mindset also aligns with Lou & Noel's (2019) discussion about the influence of a society's language ideologies and acknowledgment of multilingualism on language mindsets. The researchers suggested that growth language mindsets may be more common in multilingual societies. Living in an environment where most people are exposed to different languages, people are less likely to regard language intelligence and ability as unchangeable. With trilingual in Cantonese, English, Mandarin, biliteracy in English and Chinese, and various languages spoken by ethical minority groups, Hong Kong is a dynamic multilingual city with multiculturalism (Li 2017). The surveyed ESL learners immersing in such an environment could explain the finding that they endorsed a more incremental mindset about language. However, this finding contracted with Claro et al. (2016) and Destin et al. (2019)'s findings that those who are from higher

socioeconomic backgrounds are more likely to upload growth mindsets. The participants are studying in a local school in Fanling and most of them are from normal or relatively underprivileged households that might not have sufficient financial resources to provide them with extra learning resources or support. Based on the demographic information collected, more than half of the students do not receive any family support for their English learning. Although students studying in a band 3 school is considered lower achievers, most of the students do not attend English tutorials, which might be due to low intention for improvement or financial difficulties. However, the participants in this study are youngsters aged between 14 to 17, who are labeled as neo-digital natives who can easily and skillfully access global culture and different languages through technology and social media. As mentioned in the results, some of the students have the habit of watching English movies and listening to English songs. Considering this aspect, they might be more opened minded they are more likely to have incremental language beliefs compared to the older generation. With a dynamic nature, mindsets also tend to be different in cross-cultural contexts (Lou & Noels, 2019). From a socio-cultural perspective, societies like Hong Kong are greatly influenced by and rooted in Confucian values, in which effort has long been emphasized by generations. And self-improvement is significantly promoted by East Asian countries while self-enhancement and self-preservation are affirmed in Western societies (Lou & Noels, 2019). Therefore, the influential rooted values in Hong Kong society might also be an essential contributor to ESL learners' growth language mindsets as well.

## 5.2 Language mindsets and SRL strategies

The second research question in this study aims to explore the relationship between language mindset and English SRL strategies. Language mindset is found to be

significantly and positively correlated with two types of SRL strategies, *goal setting and planning,* and p*ersistence when faced with challenges. Goal setting and planning* is also considered a very beneficial metacognitive strategy for Hong Kong students because they generally lack an efficient English environment (Li, 2018). When students learn something new, they take the initiative to set personal goals for the upcoming learning progress and think about ways to master the knowledge by coming up with feasible plans (Paris & Paris, 2001). In fact, this finding confirmed scholars' previous findings that a growth mindset is positively associated with learners' persistence and goal setting (Burnnet et al., 2013). Particularly in a Hong Kong primary school setting, Barry and Wang (2020) also discussed that compared to other motivational beliefs, a growth mindset is a stronger predictor of the metacognitive strategy goal setting and planning. It also aligns with Lou & Noel's (2016) discussion on language mindset and goal orientation. In the research, it is discovered that participants with a fixed language mindset were less likely to set learning goals and show less interest in continuing to learn the second language. Therefore, students with a growth language mindset view language intelligence as something that they can change and improve by investing effort, thus they tend to orient individual learning goals and actively make a study plan for their English. However, the inventory applied in this study has limitations in that it couldn't examine whether growth mindset learners set more performance-oriented goals or mastery-orientated goals. Learners with a growth language mindset are also sensitive to a learning environment that they tend to create an efficient and appropriate language learning environment for themselves, like finding a more appropriate place to study when the environment is too distracting for them. With self-set learning goals and plans, they also show higher resistance to distractions and stay focused on tasks. Moreover, Lou & Noels (2019) conceptualized

a Language Mindset Meaning System (LMMS) with a particular focus on learners' language-mindset-driven motivational processes in challenging situations. The positive correlation found between the SRL strategy persistence when faced with challenges in this study aligns with the researchers' discussions. According to the Self-regulation tendency in LMMS, learners with growth language mindsets tend to be more persistent and adopt self-improvement strategies. They tend to regard challenges as opportunities to sort out what is needed to achieve improvement and look for more effective learning strategies and feedback to facilitate learning (Lou & Noels, 2019). For example, when they have difficulties studying English, instead of giving up or procrastinating, learners with a growth language mindset tend to be perseverant, searching for related learning resources and documents to help them overcome the obstacles. On the other hand, learners who uphold a fixed language mindset generally do not apply this strategy and apply self-defense strategies by avoiding challenges and protecting themselves from making mistakes or failures (Lou & Noels, 2019).

When examining the different dimensions of language mindsets, goal setting and planning, and persistence when faced with challenging situations are also positively correlated with ASB. The result might indicate that students who do not perceive age as a significant factor that inhibits their language development are more likely to proactively apply these SRL strategies to promote their language proficiency. However, the surveyed ESL learners might uphold a growth ASB because they are still young students and haven't been affected by the socio-cultural factors that demotivate adult learners and change their ASB. More investigation and discussion need to validate these findings and the relevant factors in future research.

## 5.3 SRL strategies and English academic achievement

In this study, the average utilization of English SRL strategies by students is not ideal, indicating Hong Kong ESL learners might lack essential knowledge or skills in using SRL strategies to help with their English learning. As various contexts can influence learning, cultural values and social norms reflect students' socialization and learning behaviors (Salili & Lai, 2003). And students' learning is greatly impacted by school and classroom dynamics. Thus, students' lack of using SRL strategies might also demonstrate the insufficient focus on integrating SRL strategies in Hong Kong English classrooms. Similarly, a study on Chinese College students' SRL strategies also revealed that students' lack of SRL strategies might be caused by the traditional teacher-centered pedagogy in Chinese institutions where students' learning is generally led by teachers' instructions instead of themselves (Wang et al., 2012). Teacher-centered, "spoon-feeding" and route-learning approaches are commonly rooted in Hong Kong and Mainland China's classrooms (Rao & Chan, 2012). In Hong Kong classrooms where teachers are the dominator, students are not encouraged to establish their ownership of learning, thus they tend not to develop SRL strategies to regulate and facilitate their learning. Although a teacher-centered approach might be effective in boosting students' examination scores by inputting students with content knowledge directly, it is not helpful for promoting SRL strategies in students nor benefiting students' future learning. As discovered by Matsuyama et al., (2019) among Japanese undergraduate students, shifting the classroom from teacher-centered to student-center could significantly promote learners' SRL strategies even if they are very used to the teacher-centered approach. This could also explain the weak correlation found between SRL strategies and students' English academic performance. Although quite a few studies have demonstrated that students who apply more SRL strategies perform better

in examinations, the correlation might be insignificant because students only occasionally use the strategies.

However, it is found that three types of SRL strategies, self-evaluation, goal setting and planning, and persistence when faced with challenges are positively linked to students' English language achievement. This finding aligns with Wang and Bai's (2020) study on Hong Kong primary students' metacognitive learning strategies and English academic performance, which demonstrated students who use more effort regulation and goal setting and planning strategies perform better in examinations. The strategies of *effort regulatio*n and *persistence when faced with challenges* shares a mutual function that it helps learners stay persistent and focused when working with difficult tasks. As a common SRL strategy, self-evaluation involves learners' habits of self-checking their assignment before submission, evaluating the level of learning materials, and adjusting their tactics accordingly (Pape & Wang, 2005). Learners who adopt this strategy tend to be more careful and check their answers before submitting the papers, which in turn helps them avoid careless mistakes and produce more high-quality work in examinations. And this might explain the evident association between self-evaluation and exam performance.

Additionally, older students are found to more frequently apply sufficient SRL strategies to improve their language proficiency. Previous research conducted among adults aged 20-49 has found that older students tend to apply more SRL strategies than younger students (Radovan, 2010). However, limited research investigated the influence of age on SRL strategies in teenagers. As discussed by Schunk (1994), students' previous learning experiences and socio-cultural factors could greatly

influence their perception, knowledge, and utilization of SRL strategies. Hence, in this research, students who are older might have received more supportive and beneficial student-teacher interaction in daily classroom learning, which in turn helps them more frequently apply the SRL strategies to benefit their learning.

## 6. Implication

The present study suggests that teachers can promote a high level of growth language mindsets in students. It could be effectively facilitated through daily student-teacher interaction. Teachers praising students for how smart they tend to develop stronger fixed mindsets in students in which they view intelligence as a fixed natural talent (Mueller and Dweck, 1998). When students are praised for intelligence, they tend to avoid challenges and choose easier tasks, so they won't fail and be viewed as less intelligent or talented (Pomerantz & Kempner, 2013). On the other hand, praising students in terms of the effort or process is beneficial for students to regard intelligence as a changeable trait that can always be improved (Mueller and Dweck, 1998). In reality, it is common that a teacher comforts a student who fails at some subject by saying 'maybe even smart people just aren't good at this too" ted to orient a fixed mindset and demotivates the student from trying harder for improvement( Rattan, Good, and Dweck, 2012). Therefore, in the language classroom, teachers' paise for language learners' progress can be embedded in formative feedback, to encourage a growth language mindset in students. Formal interviews or workshops about mindsets are also efficient for promoting a growth mindset (Yeager et al., 2013; see also Yeager & Walton, 2011). The school can first conduct teacher professional development sessions to help teachers equip with more profound knowledge about growth mindset. Then workshops can be

delivered to students in a continuous way, which directly nurtures a growth mindset in students.

Another pedagogical implication this current study addresses is promoting SRL strategies in students to benefit their academic performance and long-term learning. According to Zimmerman (1998), teachers can easily incorporate SRL strategies into classroom instruction. Empirical research evidence has proven that teachers' pedagogies, including the learning activities , can affect students' motivational goals and SRL strategies (Blumenfeld & Hoyle, 1988; Wolters & Pintrich, 1998). More recently, scholars also addressed that Task-based language teaching (TBLT) significantly promotes students' learning engagement, and motivation, encourages them to take ownership of their learning, and more frequently apply SRL strategies(Shi et al., 2021). Although TBLT has been highly promoted by the Educational Bureau, teachers might be too focused on teaching examination strategies, which caused a lack of time in applying TBLT in classrooms. As discussed above, a student-centered classroom is beneficial for students to develop SRL strategies even when they have been exposed to a teacher-centered approach for a long time. Hence, this present study suggests that teachers and the school should strike a balance between preparing students for examinations and shifting the classrooms to a student-centered one, which benefits students' SRL abilities and their life-long learning.

## 7. Limitation

There are several limitations in this study that need to be addressed. First, the survey data was collected online due to the Covid-19 outbreak during the time the study was

conducted. Participants completing the online questionnaires at home without the researcher or teachers' supervision might influence the quality or reliability of the data and results. Secondly, students might potentially fill in the responses in ways that will be preferred by the researchers or teachers in self-reports. This may cause an overestimation of the correlation between the variables. Future research should include multiple ways, such as qualitative interviews with the participants and teachers, classroom observations, and objective school reports to investigate students' language mindsets and SRL strategies more effectively and in-depth. Lastly, since there is limited research on investigating Hong Kong secondary ESL learners' SRL strategies and language mindsets, this current study is limited by available resources as references.

## 8. Conclusion

This current study has investigated Hong Kong Secondary ESL learners' language mindsets and the relationship between Language mindset, SRL learning strategies, and academic achievement. The study has found out that the survey ESL learners generally uphold a mixed language mindset with an inclination towards the growth language mindset. No significant has been found between language mindset and the overall SRL strategies used. However, a positive relationship between two subtypes of SRL strategies, goal setting and planning, and persistence when faced with challenges, and language mindset has been discovered. The results also indicated that the learners only occasionally apply SRL strategies, which in turn might explain the weak correlation between SRL strategies and English academic achievement. Nevertheless, a relatively strong positive correlation between the SRL strategies of goal setting and planning, persistence when faced with challenges and self-evaluation, and English academic

achievement was found. Further, the study interprets learners' language mindsets from multiple perspectives. And more importantly, it discussed the potential reasons behind Hong Kong ESL learners' infrequent SRL strategies used and suggested feasible ways to improve the situation. This research calls for a joint effort from the school, educators, and the Education Bureau to further nurture ESL learners' growth language mindsets and promote SRL strategies in classrooms, which may benefit students to be motivated, self-regulated, and competent language learners.

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## 10.Appendix

<div align="center">

**Appendix A**
**Questionnaire 1**
**Language Mindset Inventory (LMI)**
**(Lou & Noels, 2016)**

</div>

Please rate how much you agree or disagree with these statements.

| Language beliefs | Strongly disagree | Moderately Disagree | Slightly disagree | Sightly agree | Moderately agree | Strongly agree |
|---|---|---|---|---|---|---|
| 1. To be honest, you can't really change your language intelligence. | 1 | 2 | 3 | 4 | 5 | 6 |
| 2. Your language intelligence is something about you that you can't change very much. | 1 | 2 | 3 | 4 | 5 | 6 |
| 3. You have a certain amount of language intelligence, and you can't really do much to change it. | 1 | 2 | 3 | 4 | 5 | 6 |
| 4.*You can always improve your language intelligence substantially. | 1 | 2 | 3 | 4 | 5 | 6 |
| 5.*No matter who you are, you can significantly improve your language intelligence level. | 1 | 2 | 3 | 4 | 5 | 6 |
| 6.*No matter how much language intelligence you have, you can always improve it quite a bit. | 1 | 2 | 3 | 4 | 5 | 6 |
| 7. You can't change how capable you are of learning new languages. | 1 | 2 | 3 | 4 | 5 | 6 |
| 8. To be honest, you can't really change your basic ability to learn and use new languages. | 1 | 2 | 3 | 4 | 5 | 6 |

| | | | | | |
|---|---|---|---|---|---|
| 9. To a large extent, your ability to learn new languages is innate and you can't change much. | 1 | 2 | 3 | 4 | 5 | 6 |
| 10.*You can always improve how good you are at learning new languages. | 1 | 2 | 3 | 4 | 5 | 6 |
| 11.*No matter who you are, you can always improve your basic ability to learn new languages. | 1 | 2 | 3 | 4 | 5 | 6 |
| 12.*No matter how much ability you have in learning new languages, you can improve it considerably. | 1 | 2 | 3 | 4 | 5 | 6 |
| 13.After a certain young age, you have very limited ability to learn new languages. | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.You don't really have the ability to learn new languages after a certain young age. | 1 | 2 | 3 | 4 | 5 | 6 |
| 15.Your ability to learn new languages is restricted after a certain young age, and you can't really change it. | 1 | 2 | 3 | 4 | 5 | 6 |
| 16.*No matter how old you are, you can always improve your ability to learn new languages. | 1 | 2 | 3 | 4 | 5 | 6 |
| 17.*Regardless of age, you can significantly improve how good you are at learning new languages. | 1 | 2 | 3 | 4 | 5 | 6 |
| 18.*Even after a certain young age, you can substantially improve your ability to learn new languages. | 1 | 2 | 3 | 4 | 5 | 6 |

## Appendix A
## Questionnaire 1
## Language Mindset Inventory (LMI)
## (Lou & Noels, 2016)

根據以下的標度選擇一個答案，以表明你對每個描述的同意度。

| 語言心態 | 強烈不同意 | 部分不同意 | 小部分不同意 | 小部分同意 | 部分同意 | 強烈同意 |
|---|---|---|---|---|---|---|
| 1. 老實說，你沒辦法改變自己的語言智力。 | 1 | 2 | 3 | 4 | 5 | 6 |
| 2. 語言智力是你無法改變多少的東西。 | 1 | 2 | 3 | 4 | 5 | 6 |
| 3. 你的語言智力有限，你沒辦法做什麼來改變智力的高低。 | 1 | 2 | 3 | 4 | 5 | 6 |
| 4. 你總能使自己的語言智力大幅進步。 | 1 | 2 | 3 | 4 | 5 | 6 |
| 5. 不管你是誰，你都能使你的語言智力顯著提升。 | 1 | 2 | 3 | 4 | 5 | 6 |
| 6. 不管你的語言智力高低，你總能讓它有所進步。 | 1 | 2 | 3 | 4 | 5 | 6 |
| 7. 你無法改變自己學習新語言的能力。 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8. 說實話，你不太能改變自己學習新語言的基本能力。 | 1 | 2 | 3 | 4 | 5 | 6 |
| 9. 總的來說，學習新語言的能力是天生的，你無法改變太多。 | 1 | 2 | 3 | 4 | 5 | 6 |
| 10. 你總是可以提升自己學習新語言的能力。 | 1 | 2 | 3 | 4 | 5 | 6 |
| 11. 不管你是誰，你都能提升自己學習新語言的基本能力。 | 1 | 2 | 3 | 4 | 5 | 6 |
| 12. 不管你學習新語言的能力如何，你總是能使它大幅進步。 | 1 | 2 | 3 | 4 | 5 | 6 |
| 13. 過了一定年齡後，你學習 | 1 | 2 | 3 | 4 | 5 | 6 |

|  | 新語言的能力會變得非常有限。 | | | | | | |
|---|---|---|---|---|---|---|---|
| 14. | 過了幼年時期的某個年齡後，你就沒有學習新語言的能力了。 | 1 | 2 | 3 | 4 | 5 | 6 |
| 15. | 過了幼年時期的某個年齡後，你學習語音的能力會受限並且你不太能改變它。 | 1 | 2 | 3 | 4 | 5 | 6 |
| 16. | 不管你幾歲，你總是能提升自己學習新語言的能力。 | 1 | 2 | 3 | 4 | 5 | 6 |
| 17. | 無論幾歲，你都可以提升自己學習新語言的能力。 | 1 | 2 | 3 | 4 | 5 | 6 |
| 18. | 即使過了年幼時期的某個年齡，你都可以提升自己學習語言的能力。 | 1 | 2 | 3 | 4 | 5 | 6 |

**Questionnaire OF English Self-Regulated Learning Strategies (QESRLS)**
(Pape & Wang, 2003)

Please rate the following items based on your usage of the strategies.

| SRL Strategies | I never use it | I seldom use it | I sometimes use it | I always use it |
|---|---|---|---|---|
| 1. Check my English homework before turning it in. | 1 | 2 | 3 | 4 |
| 2. Proofread my English composition after I complete writing. | 1 | 2 | 3 | 4 |
| 3. Adjust my reading speed according to the difficulty of thearticle. | 1 | 2 | 3 | 4 |
| 4. When I finish my English composition, I have a rest and thenread it again to check whether it should be revised. | 1 | 2 | 3 | 4 |
| 5. Write an outline before writing English compositions. | 1 | 2 | 3 | 4 |
| 6. Write an outline after reading an English article. | 1 | 2 | 3 | 4 |
| 7. Summarize the main idea of each paragraph when reading. | 1 | 2 | 3 | 4 |
| 8. Summarize the theme of an English article when I read it. | 1 | 2 | 3 | 4 |
| 9. Classify new words in order to memorize them. | 1 | 2 | 3 | 4 |
| 10. Use Chinese phrases which are similar to English words in pronunciation to memorize the pronunciation of these words. | 1 | 2 | 3 | 4 |

| | | | | |
|---|---|---|---|---|
| 11. Make a chart to summarize the grammatical points learned. | 1 | 2 | 3 | 4 |
| 12. Recite similar words all together. | 1 | 2 | 3 | 4 |
| 13. Compare the similarities and differences between English and Chinese. | 1 | 2 | 3 | 4 |
| 14. Memorize English words whose pronunciations are similar. | 1 | 2 | 3 | 4 |
| 15. Memorize a new word by memorizing where I learn it. | 1 | 2 | 3 | 4 |
| 16. Consider how to say something in English in my mind before saying it out loud. | 1 | 2 | 3 | 4 |
| 17. When I listen to English, I translate it into Chinese to help me understand it. | 1 | 2 | 3 | 4 |
| 18. Translate what I have read in English into Chinese to help me understand it. | 1 | 2 | 3 | 4 |
| 19. Think out a composition in Chinese before writing it in English. | 1 | 2 | 3 | 4 |
| 20. Underline key points during my English reading. | 1 | 2 | 3 | 4 |
| 21. Make sure to write a topic sentence in each paragraph in writing. | 1 | 2 | 3 | 4 |
| 22. Make sure that the content of each paragraph supports its topic sentence in English writing. | 1 | 2 | 3 | 4 |
| 23. Recite English texts in the process of studying English. | 1 | 2 | 3 | 4 |
| 24. Review the cards of new words in order to memorize them. | 1 | 2 | 3 | 4 |
| 25. Read texts I have learned again and again in order to | 1 | 2 | 3 | 4 |

recite them.

| | | | | |
|---|---|---|---|---|
| 26. Write new words many times in order to memorize the spellings. | 1 | 2 | 3 | 4 |
| 27. Read new words repeatedly in order to memorize them | 1 | 2 | 3 | 4 |
| 28. Consult teachers when I encounter difficulties in the process of studying English. | 1 | 2 | 3 | 4 |
| 29. If I cannot follow someone's English, I let him/her speak slowly. | 1 | 2 | 3 | 4 |
| 30. Ask classmates when I have questions in my English study. | 1 | 2 | 3 | 4 |
| 31. Keep reading when I encounter difficulties in English reading | 1 | 2 | 3 | 4 |
| 32. Read an English article several times if I don't understand it the first time. | 1 | 2 | 3 | 4 |
| 33. Search related documents when I have difficulties in studying English. | 1 | 2 | 3 | 4 |
| 34. Listen to tape-recorded English several times if I cannot under-stand it the first time. | 1 | 2 | 3 | 4 |
| 35. Listen to American or British broadcasts to improve my pronunciation. | 1 | 2 | 3 | 4 |
| 36. Use sentence patterns just learned to make new sentences for practice. | 1 | 2 | 3 | 4 |
| 37. Send emails to friends in English on my initiative. | 1 | 2 | 3 | 4 |
| 38. Try my best to find opportunities to practice my oral English. | 1 | 2 | 3 | 4 |
| 39. Watch English TV programs on my initiative . | 1 | 2 | 3 | 4 |
| 40. Listen to English radio | 1 | 2 | 3 | 4 |

programs on my initiative.

| | | | | |
|---|---|---|---|---|
| 41. Try to use various English expressions to express the same meaning. | 1 | 2 | 3 | 4 |
| 42. Use words just learned to make new sentences on my initiative. | 1 | 2 | 3 | 4 |
| 43. Write down the mistakes I often make in the process of studying English. | 1 | 2 | 3 | 4 |
| 44. Take notes in English classes. | 1 | 2 | 3 | 4 |
| 45. Reward myself when I make progress in studying English. | 1 | 2 | 3 | 4 |
| 46. Have a break when I am tired during my English study. | 1 | 2 | 3 | 4 |
| 47. Set a goal to study English. | 1 | 2 | 3 | 4 |
| 48. Make a study plan in the process of studying English. | 1 | 2 | 3 | 4 |
| 49. When a friend wants to play with me but I have not finished my homework yet, I do not play until I finish my homework. | 1 | 2 | 3 | 4 |
| 50. Find a quiet place when the environment is disturbing. | 1 | 2 | 3 | 4 |
| 51. Review English texts I have learned. | 1 | 2 | 3 | 4 |
| 52. Review my notes of English class before examinations. | 1 | 2 | 3 | 4 |
| 53. Pay attention to what pronouns refer to during reading. | 1 | 2 | 3 | 4 |
| 54. Guess the meaning of new words by considering their contexts. | 1 | 2 | 3 | 4 |
| 55. Guess what people mean by reading their expressions and move-ments when watching an English movie. | 1 | 2 | 3 | 4 |
| 56. When I listen to English, I pay attention to the stressed words or phrases | 1 | 2 | 3 | 4 |

in order to comprehend
the sentence.

| | | | | |
|---|---|---|---|---|
| 57. Use the title of an English article to help understand that article. | 1 | 2 | 3 | 4 |
| 58. When somebody speaks English, I guess what he/she will say according to what he/she has said. | 1 | 2 | 3 | 4 |
| 59. When I talk with somebody in English, I pay attention to his/her expressions to check if he/she can follow me. | 1 | 2 | 3 | 4 |
| 60. When I read an English article, I imagine the scene described in the article in order to memorize what I have read. | 1 | 2 | 3 | 4 |
| 61. Memorize meanings of words by using prefixes and suffixes. | 1 | 2 | 3 | 4 |
| 62. Pay attention to English speakers' tones. | 1 | 2 | 3 | 4 |
| 63. Pay attention to the beginning and end of each paragraph in my English reading. | 1 | 2 | 3 | 4 |
| 64. Use my background knowledge to comprehend English articles. | 1 | 2 | 3 | 4 |

## Appendix B
## Questionnaire 2
## Questionnaire OF English Self-Regulated Learning Strategies (QESRLS)
(Pape & Wang, 2003)

根據以下的標度選擇一個答案，以表明你使用每項策略的頻率。s

| 英文自主學習策略 | 我從不使用它 | 我很少使用它 | 我有時使用它 | 我經常使用它 |
|---|---|---|---|---|
| 1. 在交功課之前，我會檢查我的英文功課。 | 1 | 2 | 3 | 4 |
| 2. 完成寫作後我會核對一遍。 | 1 | 2 | 3 | 4 |
| 3. 我會根據文章難度調整閱讀速度。 | 1 | 2 | 3 | 4 |
| 4. 當我完成英文寫作時，我會休息一下，然後再讀一遍以檢查是否需要修改它。 | 1 | 2 | 3 | 4 |
| 5. 寫英語作文之前，我會寫一個大綱。 | 1 | 2 | 3 | 4 |
| 6. 閱讀一篇英文文章之後，我會寫一篇大綱。 | 1 | 2 | 3 | 4 |
| 7. 閱讀的時候，我會總結每一段的大意。 | 1 | 2 | 3 | 4 |
| 8. 閱讀一篇文章的時候，我會總結它的主題。 | 1 | 2 | 3 | 4 |
| 9. 我會把新單詞分類來記住它們。 | 1 | 2 | 3 | 4 |
| 10. 我會用與英語單詞相似發音的中文短語來記憶這些單詞的發音。 | 1 | 2 | 3 | 4 |
| 11. 我會用表格來總結學過的語法點。 | 1 | 2 | 3 | 4 |
| 12. 我會把相似的單詞一起背誦。 | 1 | 2 | 3 | 4 |
| 13. 我會對比中文和英文的不同點和相似點。 | 1 | 2 | 3 | 4 |
| 14. 我會記住英文發音相似的單詞。 | 1 | 2 | 3 | 4 |
| 15. 我會通過記住我學這個新單詞的地方來記住它。 | 1 | 2 | 3 | 4 |

| | | | | |
|---|---|---|---|---|---|
| 16. | 在說英文之前，我會在腦海中思考一遍如何用英文表述。 | 1 | 2 | 3 | 4 |
| 17. | 當我聽英文時，我會在腦海中把它翻譯成中文來幫助我理解它。 | 1 | 2 | 3 | 4 |
| 18. | 我會把讀到的英文翻譯成中文來幫我理解它。 | 1 | 2 | 3 | 4 |
| 19. | 在用英文寫一篇作文之前，我會先用中文把作文想好。 | 1 | 2 | 3 | 4 |
| 20. | 閱讀英語文章時我會劃下重點。 | 1 | 2 | 3 | 4 |
| 21. | 在英文寫作中，我會確保每一段都有一句主題句。 | 1 | 2 | 3 | 4 |
| 22. | 在英文寫作中，我會確保每段的內容都支撐該段的主題句。 | 1 | 2 | 3 | 4 |
| 23. | 在學習英文的過程中我會背誦文章。 | 1 | 2 | 3 | 4 |
| 24. | 我會溫習新單詞的單詞卡來記住它們。 | 1 | 2 | 3 | 4 |
| 25. | 我會不斷反覆閱讀學過的文章來背誦它們。 | 1 | 2 | 3 | 4 |
| 26. | 我會通過書寫多次新單詞來記住它們的拼寫。 | 1 | 2 | 3 | 4 |
| 27. | 我會反覆地讀新單詞來記住它們。 | 1 | 2 | 3 | 4 |
| 28. | 在學習英文的過程中，遇到困難時我會詢問老師。 | 1 | 2 | 3 | 4 |
| 29. | 如果我無法聽懂某人的英文，我會讓他/她講慢一點。 | 1 | 2 | 3 | 4 |
| 30. | 當我對我的英文學習有疑問時，我會向同學請教。 | 1 | 2 | 3 | 4 |

| | | | | | |
|---|---|---|---|---|---|
| 31. | 當我在閱讀英文文章但遇到困難時，我會反覆閱讀。 | 1 | 2 | 3 | 4 |
| 32. | 如果第一次閱讀一遍英文文章但看不懂時，我會讀多幾遍。 | 1 | 2 | 3 | 4 |
| 33. | 當我學習英文遇到困難時，我會查閱相關資料。 | 1 | 2 | 3 | 4 |
| 34. | 如果第一次聽英文錄音但聽不懂時，我會聽多幾遍。 | 1 | 2 | 3 | 4 |
| 35. | 我會聽英國或美國的廣播來提升我的發音。 | 1 | 2 | 3 | 4 |
| 36. | 我會通過造句來練習剛學過的句式。 | 1 | 2 | 3 | 4 |
| 37. | 我會主動用英文給朋友發電郵。 | 1 | 2 | 3 | 4 |
| 38. | 我會盡力找機會來練習我的口語。 | 1 | 2 | 3 | 4 |
| 39. | 我會主動看英文電視節目。 | 1 | 2 | 3 | 4 |
| 40. | 我會主動聽英文電台節目。 | 1 | 2 | 3 | 4 |
| 41. | 我會嘗試用不同的英文表達來表達相同的含義。 | 1 | 2 | 3 | 4 |
| 42. | 我會主動用剛學過的單詞來造新的句子。 | 1 | 2 | 3 | 4 |
| 43. | 我會寫下我在英文學習過程中常犯的錯誤。 | 1 | 2 | 3 | 4 |
| 44. | 在英文課堂上記筆記。 | 1 | 2 | 3 | 4 |
| 45. | 我在學習英文過程中有進步時，我會獎勵自己。 | 1 | 2 | 3 | 4 |
| 46. | 我學習英文的過程中感到疲勞時，我會休息一下。 | 1 | 2 | 3 | 4 |
| 47. | 我會為學習英文設定一個目標。 | 1 | 2 | 3 | 4 |
| 48. | 我會在學習英文的過程中制定一個學習計畫。 | 1 | 2 | 3 | 4 |
| 49. | 當有一個朋友想跟我一起玩但我未完成作業時，我會先完成作業再跟他/她玩。 | 1 | 2 | 3 | 4 |

| | | | | |
|---|---|---|---|---|
| 50. 當周圍（學習）環境太吵時，我會找一個安靜地方。 | 1 | 2 | 3 | 4 |
| 51. 複習我學過的英文課文。 | 1 | 2 | 3 | 4 |
| 52. 在考試之前，我會複習我的英文課堂筆記。 | 1 | 2 | 3 | 4 |
| 53. 閱讀時，我會注意代詞所指的內容。 | 1 | 2 | 3 | 4 |
| 54. 我會通過思考語境來猜測新單詞的意思。 | 1 | 2 | 3 | 4 |
| 55. 看英文電影時我會通過觀察人物的表情和動作來猜測他們表達的意思。 | 1 | 2 | 3 | 4 |
| 56. 當我聽英文時，我會留意重音的單詞或短語來理解整個句子的意思。 | 1 | 2 | 3 | 4 |
| 57. 我會利用文章標題來幫助理解文章。 | 1 | 2 | 3 | 4 |
| 58. 當某人在講英文時，我會通過他/她所講的來猜測他/她將要講什麼。 | 1 | 2 | 3 | 4 |
| 59. 當我和某人在用英文交流時，我會留意他/她的表情來看他/她是否理解我在說什麼。 | 1 | 2 | 3 | 4 |
| 60. 當我閱讀一篇英文文章時，我會想像文中描述的情節來記住我讀過的內容。 | 1 | 2 | 3 | 4 |
| 61. 我會通過利用前綴和後綴來記住單詞的意思。 | 1 | 2 | 3 | 4 |
| 62. 我會留意講英文的人的語調。 | 1 | 2 | 3 | 4 |
| 63. 閱讀英文文章時，我會留意每段的開頭和結尾。 | 1 | 2 | 3 | 4 |
| 64. 我會利用我的背景知識來理解英文文章 | 1 | 2 | 3 | 4 |

**THE EDUCATION UNIVERSITY OF HONG KONG**
**Department of Psychology**

**CONSENT TO PARTICIPATE IN RESEARCH (FOR SCHOOL)**

**An investigation of ESL learners' language mindsets, metacognitive strategies and learning achievements in Hong Kong Secondary schools**

My school hereby consents to participate in the captioned project supervised by Wan Lai Yin and conducted by SHEN Xuyi, who is the staff and student of the Department of Psychology in The Education University of Hong Kong.

I understand that information obtained from this research may be used in future research and may be published. However, our right to privacy will be retained, i.e., the personal details of my students' will not be revealed.

The procedure as set out in the **attached** information sheet has been fully explained. I understand the benefits and risks involved. My students' participation in the project are voluntary.

I acknowledge that we have the right to question any part of the procedure and can withdraw at any time without negative consequences.

Signature: _____

Name of Principal/Delegate*: _____ (Prof/Dr/Mr/Mrs/Ms/Miss*)

Post: _____

Name of School: _____

Date: _____
*(\* please delete as appropriate)*

**INFORMATION SHEET**


**An investigation of ESL learners' language mindsets, metacognitive strategies and English Language achievements in Hong Kong Secondary schools**

Your school is invited to participate in a project supervised by Dr Wan Lai Yin Sarah and conducted by SHEN Xuyi, who is the staff and student of the Department of Psychology in The Education University of Hong Kong.

The purpose of this research is to examine Hong Kong secondary school students' language mindset, investigate the relationship between language mindset and metacognitive strategies, and its impacts on students' English academic achievements. Both mindset and metacognitive strategies are considered highly important to understand secondary students' English learning achievement. However, little is known about Hong Kong secondary school students' language mindset and its relationship with metacognitive strategies used and English academic achievement. Your participation in this research will provide more in-depth insights for us on this topic.

The participants are 60 secondary school students, aged between 14 and 16. The school's English teacher will contact the students for the study and send the link of the questionnaires to the students. The participants will complete two online questionnaires, which will take around 20 minutes. The first questionnaire, Language Mindset Inventory(LMI), examines participants' language mindset. There are 18 items in this questionnaire. Students will rate the items based on their level of agreement. The second questionnaire, The Motivated Strategies for Learning Questionnaire, examines participants' metacognitive strategies used in English learning. There are 44 items in this questionnaire. Students will rate the items based on their level of agreement or behaviors in class.

There is no potential risk in this study. Please understand that your students' participation is voluntary. They have every right to withdraw from the study at any time without negative consequences. All information related to your students'/teachers' will remain confidential, and will be identifiable by codes known only to the researcher.

The research results will be reported through an oral presentation and may be published in the form of a journal article.

If you would like to obtain more information about this study, please contact SHEN Xuyi at telephone number ▮▮▮▮▮▮▮ or her supervisor Dr Wan Lai Yin Sarah at telephone number ▮▮▮▮▮.

If you have any concerns about the conduct of this research study, please do not hesitate to contact the Human Research Ethics Committee by email at hrec@eduhk.hk or by mail to Research and Development Office, The Education University of Hong Kong.

Thank you for your interest in participating in this study.

SHEN Xuyi
Student Investigator

# 香港教育大學
## 心理學系

## 參與研究同意書

### 考察香港中學以英語作為第二語言學習者的中學生的語言思維，元認知策略和英語學習成績

本人＿＿＿＿＿＿＿＿＿＿同意參加由溫麗妍負責監督,沈栩亦執行的研究項目。她/他們是香港教育大學教育與人類發展學院的教員/學生。

本人理解此研究所獲得的資料可用於未來的研究和學術發表。然而本人有權保護自己的隱私，本人的個人資料將不能洩漏。

研究者已將所附資料的有關步驟向本人作了充分的解釋。本人理解可能會出現的風險。本人是自願參與這項研究。

本人理解我有權在研究過程中提出問題,並在任何時候決定退出研究，更不會因此而對研究工作產生的影響負有任何責任。


參加者姓名:

參加者簽名: ＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿


日期: ＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

# 有關資料

## 考察香港中學中以英語作為第二語言學習者的中學生的語言思維，元認知策略和英語學習成績

誠邀閣下參加溫麗妍負責監督,沈栩亦負責執行的研究計劃,。她/他們是香港教育大學教育與人類發展學院的教員/學生。

本研究的目的是考察香港中學生的語言思維，並研究語言思維和元認知策略之間的關係，以及其對學生英語學習成績的影響。思維和元認知策略都被認為對了解中學生的英語學習成績非常重要。然而，人們對香港中學生的語言思維及其與元認知策略的使用和英語學業成績的關係知之甚少。你的參與將為我們在這個課題上提供更深入的見解。

參與者是 60 名中學生，年齡在 14 至 16 歲之間。學校的英語老師會聯繫你參加研究。你將被要求完成 2 個調查，大約需要 20 分鐘。第一份線上調查問卷旨在調查學生的英語語言思維，其中包含 18 項陳述，你將根據個人看法選擇對每項陳述的同意度。第二份線上調查旨在調查學生的元認知策略，其中包含 44 項陳述，你將根據自身情況選擇對每項陳述的滿意度。英文科老師會將線上調查問卷發送給你完成。完成後研究員將在線上直接瀏覽、收集調查結果。

這項研究沒有潛在的風險。閣下的參與純屬自願性質。閣下享有充分的權利在任何時候決定退出這項研究,更不會因此引致任何不良後果。凡有關閣下的資料將會保密,一切資料的編碼只有研究人員得悉。

研究結果將通過口頭報告進行匯報，並可能以期刊文章的形式發表。

如閣下想獲得更多有關這項研究的資料,請與 沈栩亦 聯絡,電話██████████████ 或聯絡她的導師溫麗妍,電話 █████████。

 如閣下對這項研究的操守有任何意見,可隨時與香港教育大學人類實驗對象操守委員會聯絡(電郵: hrec@eduhk.hk；地址:香港教育大學研究與發展事務處)。

謝謝閣下有興趣參與這項研究。


沈栩亦
學生研究員

**Appendix G**
香港教育大學
心理學系

**參與研究同意書**

**考察香港中學中以英語作為第二語言學習者的中學生的語言思維，**
**元認知策略和英語學習成績**

茲同意敝子弟＿＿＿＿＿＿＿＿＿＿＿參加由溫麗妍負責監督,沈栩亦 執行的研究項目, 她/他們是香港教育大學教育與人類發展學院的教員/學生。

本人理解此研究所獲得的資料可用於未來的研究和學術發表。然而本人有權保護敝子弟的隱私,其個人資料將不能洩漏。

研究者已將所附資料的有關步驟向本人作了充分的解釋。本人理解可能會出現的風險。本人是自願讓敝子弟參與這項研究。

本人理解本人及敝子弟皆有權在研究過程中提出問題,並在任何時候決定退出研究, 更不會因此而對研究工作產生的影響負有任何責任。

參加者姓名:

＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

參加者簽名:

＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

父母姓名或監護人姓名:

＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

父母或監護人簽名:

＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

日期:

＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

# 有關資料

## 考察香港中學中以英語作為第二語言學習者的中學生的語言思維，元認知策略和英語學習成績

誠邀閣下及 貴子女參加溫麗妍負責監督,沈栩亦負責執行的研究計劃。她/他們是香港教育大學教育與人類發展學院的教員/學生。

本研究的目的是考察香港中學生的語言思維， 並研究語言思維和元認知策略之間的關係， 以及其對學生英語學習成績的影響。思維和元認知策略都被認為對了解中學生的英語學習成績非常重要。然而， 人們對香港中學生的語言思維及其與元認知策略的使用和英語學業成績的關係知之甚少。你的參與將為我們在這個課題上提供更深入的見解。

參與者是 60 名中學生， 年齡在 14 至 16 歲之間。學校的英語老師會聯繫學生參加研究。學生將在線上完成 2 份調查問卷， 大約需要 20 分鐘。第一份線上調查問卷旨在調查學生的英語語言思維， 其中包含 18 項陳述， 學生將根據個人看法選擇對每項陳述的同意度。第二份線上調查旨在調查學生的元認知策略,其中包含 44 項陳述,學生將根據自身情況選擇對每項陳述的滿意度。英文科老師會將線上調查問卷發送給學生完成。完成後研究員將在線上直接瀏覽、收集調查結果。

這項研究沒有潛在的風險。你的孩子參與這個項目是自願的。你和你的孩子完全有權在任何時候退出研究， 而不會有負面的後果。所有與您孩子有關的信息都將是保密的， 並且只有研究人員知道的代碼可以識別。

閣下及 貴子女的參與純屬自願性質。閣下及 貴子女享有充分的權利在任何時候決定退出這項研究,更不會因此引致任何不良後果。凡有關 貴子女的資料將會保密,一切資料的編碼只有研究人員得悉。

研究結果將通過口頭報告進行匯報， 並可能以期刊文章的形式發表。

如閣下想獲得更多有關這項研究的資料,請與 沈栩亦 聯絡,電話████
████████ 或聯絡她的導師溫麗妍,電話 ████████。

如閣下或 貴子女對這項研究的操守有任何意見,可隨時與香港教育大學人類實驗對象操守委員會聯絡(電郵: hrec@eduhk.hk ；地址:香港教育大學研究與發展事務處)。

謝謝閣下有興趣參與這項研究。

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