

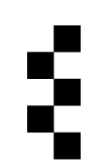


# **Developing growth language learning mindsets to facilitate L2 motivation among secondary students**

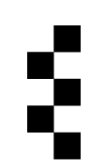
**Claudia Tapia Castillo**

**PhD in English Language Teaching**

**July, 2023**

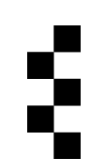


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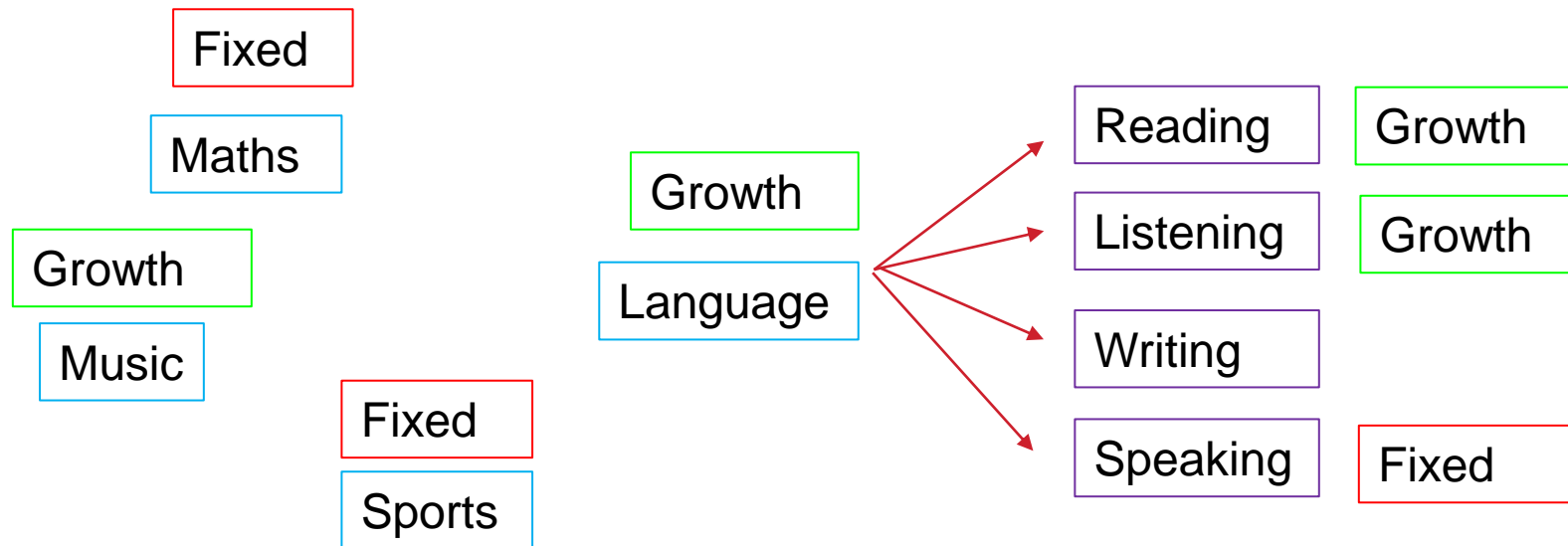
# Mindsets: Definition

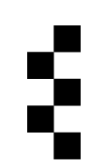
- According to Dweck (2017), there are two types of mindsets: fixed and growth
- People with fixed mindsets believe that their ability or intelligence cannot be changed and individuals with growth mindsets believe that their abilities can be improved by effort and practice



# Mindsets

- People might possess different mindsets for different aspects of their lives because mindsets can function separately of one another (Ryan & Mercer 2012)

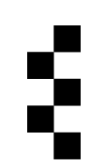




# Language Mindsets

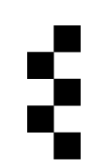
Mercer & Ryan (2010) and Ryan & Mercer (2011, 2012) have described fixed and growth language learning mindsets:

- Fixed language mindsets believe that outstanding language learning is possible when people have a natural talent or ability which cannot be changed
- Growth language mindsets think that the abilities for language learning can be developed through effort, practice and hard work



# Why are mindsets important?

- Motivation is the main driving force that initiates the process of learning a second language and sustains it throughout the long-term learning process (Dörnyei, 2005)
- Mindsets are implicit beliefs about intelligence. Implicit beliefs are beliefs we are unaware of; however, they affect our behaviour as much as our explicit beliefs do (Williams et al., 2015)
- Mindsets are essential to motivation since they can influence the manner individuals think, feel and act in different aspects of their lives (Dweck, 2017)

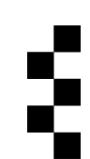


# Mindsets: We can change them!

Dweck (2008) highlights that teachers have a key role to play in this process and recommends different ways that could lead to growth mindsets in the classrooms; for example:

- ✓ teaching the new science of brain plasticity
- ✓ emphasizing the importance of challenge, effort and making mistakes

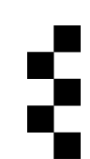
Mercer and Ryan (2010) recommend EFL teachers to discuss with second language learners their beliefs about learning a new language to check whether these beliefs might be preventing them from having a growth mindset and help them to change their wrong conceptions



# Chilean Context

- English has been a compulsory subject in the Chilean educational system from 5th to 12th grade since 1998 (British Council, 2015)
- English at the primary level has been gradually included (Barahona, 2016)
- The government's objective is that students can get to have a B1 level by the end of secondary school (Programa Inglés Abre Puertas, 2017)
- According to the Association of Language Testers in Europe (ALTE) a student must have between 350 and 400 hours of Formal English study to get a B1 level
- This information suggests that the National Curriculum should allow students to reach the B1 level before leaving their secondary education since the hours of study proposed by the Study Plans of the Ministry of Education exceed what is indicated here

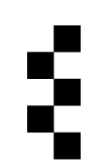




# Chileans' level of English

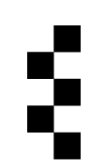
- The English level of Chilean students is tested when they are in 11th grade and it has been evaluated on three occasions: 2010, 2012 and 2014
- In the first testing, 11% of students passed the exam
- The results of the second and third tests are shown in the following table:

<b>Year</b>	<b>B1</b>	<b>A2</b>	<b>A1</b>	<b>Below A1</b>
<b>2012</b>	8,2 %	9,6 %	26,8 %	55,4 %
<b>2014</b>	12,6 %	12,0 %	22,3 %	53,2 %



## Chileans' level of English 2

- The results of these standardised examinations demonstrate that most of the students do not have a basic level of English
- Agencia de Calidad (2019) released the conclusions of a National English Study carried out in 2017, which was conducted on a sample basis of 11th-grade students. Only three out of ten 11th grade students achieved the expected basic learning for 8th grade



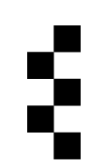
## **Studies have shown the dramatic difference between students of different socioeconomic backgrounds**

English level:

- The students from the lowest-income families have the lowest English level (Agencia de Calidad, 2015, 2019)

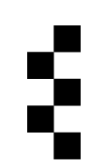
Mindsets:

- Students from these families have more fixed-oriented mindsets than students from high status (Claro et al., 2016)
- Fewer growth mindset teachers work in low socioeconomic status schools compared to high socioeconomic status schools (Claro et al., 2021)



# What can be done?

- Previous studies (e.g. Blackwell et al., 2007; Yeager et al., 2019) conducted in other parts of the world, such as the USA, have shown positive results of growth mindsets on motivation and learning
- However, there are no such studies in the Chilean context
- Also language learning mindsets have been scarcely investigated worldwide



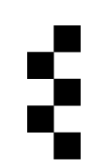
# Research Questions

RQ 1: Can sessions to promote growth language mindsets have an impact on students' mindsets?

RQ 2: Can sessions to promote growth language mindsets have an impact on students' L2 motivation

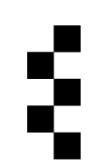


# Methodology



# Research Design

**A pre-experimental one-group pre-, post- and delayed post-test design** with a **mixed methodology** approach—which involves integrating **quantitative** and **qualitative** research components—was chosen to test the effectiveness of sessions to promote growth mindsets and increase L2 motivation



# Research Design 2

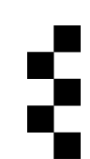
April 2020: Pre-questionnaire (86 participants)

May – June 2020: 12 online sessions  
Diary entry questions

June 2020: Post-questionnaire (49 participants)

September 2020: Delayed post-questionnaire (38 participants)

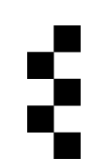




# Participants: Chilean secondary students

Gender	Age	Type of school	Grade	Self-rated English level
Female	(14 Y)	Public	9 <sup>th</sup> G	A1
50	5	42	3	20
Male	(15 Y)	Semi-Private	10 <sup>th</sup> G	A2
36	35	44	40	25
	(16 Y)		11 <sup>th</sup> G	B1
	26		32	25
	(17 Y)		12 <sup>th</sup> G	B2
	18		11	13
	(18 Y)			C1
	2			3

Students were from eight schools located in four cities of Chile: Santiago, Valparaíso, La Serena and Graneros



## **Sessions to develop growth language learning mindsets**

Session 1: Your brain is malleable!

Session 2: Making mistakes

Session 3: Don't be afraid of asking questions!

Session 4: Love challenges

Session 5: Failure

Session 6: You can learn anything!

Session 7: Language learning beliefs

Session 8: Age-sensitivity beliefs

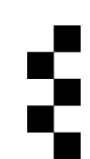
Session 9: Beliefs on how to improve your skills and SMART goals

Session 10: Strategies to develop reading and writing skills

Session 11: Strategies to develop listening and speaking skills

Session 12: Strategies to develop vocabulary and grammar

The sessions were created thinking of an A1 English level as according to Agencia de Calidad (2015, 2019), most secondary students in Chile have a low English level



# Students' questionnaire

## Language Mindset Inventory

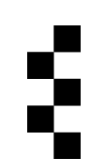
- General language beliefs (e.g. “To be honest, you can’t really change your language intelligence”)
- Second language learning beliefs (e.g. “It is difficult to change how good you are at foreign languages”)
- Beliefs about age sensitivity of language learning (e.g. “How well a person speaks a foreign language depends on how early in life he/she learned it”)
- **Lou & Noels, 2016; Noels & Lou, 2015.**

## L2MSS Questionnaire

- The Ideal L2: reflect the type of L2 users they aspire to be in the future (e.g. “Whenever I think of my future, I imagine myself being able to use English”)
- The ought-to L2: learners' L2 attributes that they believe they must possess as a result of obligations or responsibilities (e.g. “I consider learning English important because the people I respect think that I should do it”)
- Attitudes to learning English: English learning experiences (e.g. “I really enjoy learning English”)
- **Papi, 2010; Papi & Teimouri, 2012; Ryan, 2009 & Taguchi et al., 2009.**

This questionnaire was rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

This questionnaire was answered before and after the sessions  
Analysis: Statistical Package for Social Science (SPSS) version 25



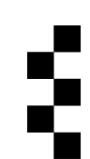
# Diary entry questions

## Every 3 sessions (3,6,9,12)

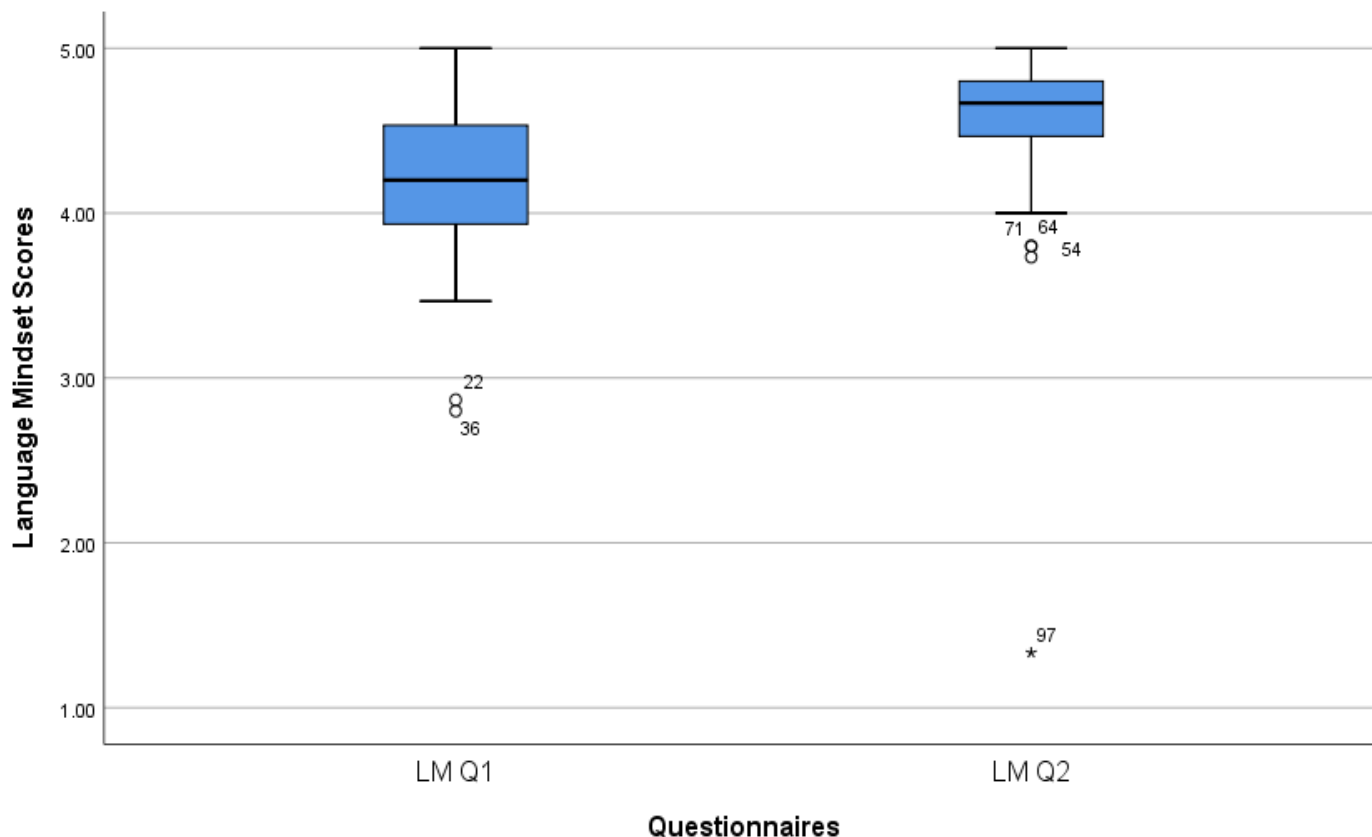
- Analysis: NVIVO 2021 using a thematic analysis
1. Have the sessions been helpful for you? Explain why
  2. What do you like about learning English?
  3. What difficulties (if any) do you encounter in the English classes?
  4. Have your beliefs about second language learning changed after these sessions?



# Results



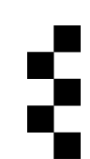
Boxplots of LM Q1 and LM Q2 (n = 49)



RQ 1: Can sessions to promote growth language mindsets have an impact on students' mindsets?

The twelve online sessions improved students' language mindsets

The Wilcoxon signed-rank test revealed that the results of the LM Q2 were significantly higher after the sessions (Md = 4.67) compared to before (Md = 4.20),  $z = -4.41$ ,  $p < .001$ .



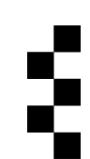
# Theme 1

## **The sessions facilitated the development of growth language mindsets**

### **Code 1: Change of Language Learning Beliefs**

*Sara, sessions 7, 8 and 9; question 4*

My beliefs about learning English or a new language have changed a lot since before these sessions, I thought it was too late to learn English, but now I have new expectations, and I know that I will be able to achieve it as many other people have done, I know that there will be difficulties, but in the end, I am sure that I will learn to handle English in a good way.



# Theme 1.

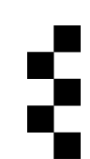
**The sessions facilitated the development of growth language mindsets**

**Code 2: Change of beliefs after understanding that failure and mistakes are part of the learning process**

*Jessica, sessions 1, 2 and 3; question 4*

Yes, they have changed me, and for the better. Many times I felt silly because I was not fluent in English and other people were better than me, but I realized that all people who study a new language practice. They'll always make mistakes and get frustrated, but it's part of learning, and okay, you don't have to give up. I like to learn something new. If I need to make a mistake 100 times, I will.





## Theme 2

### **Some students already had a growth language mindset**

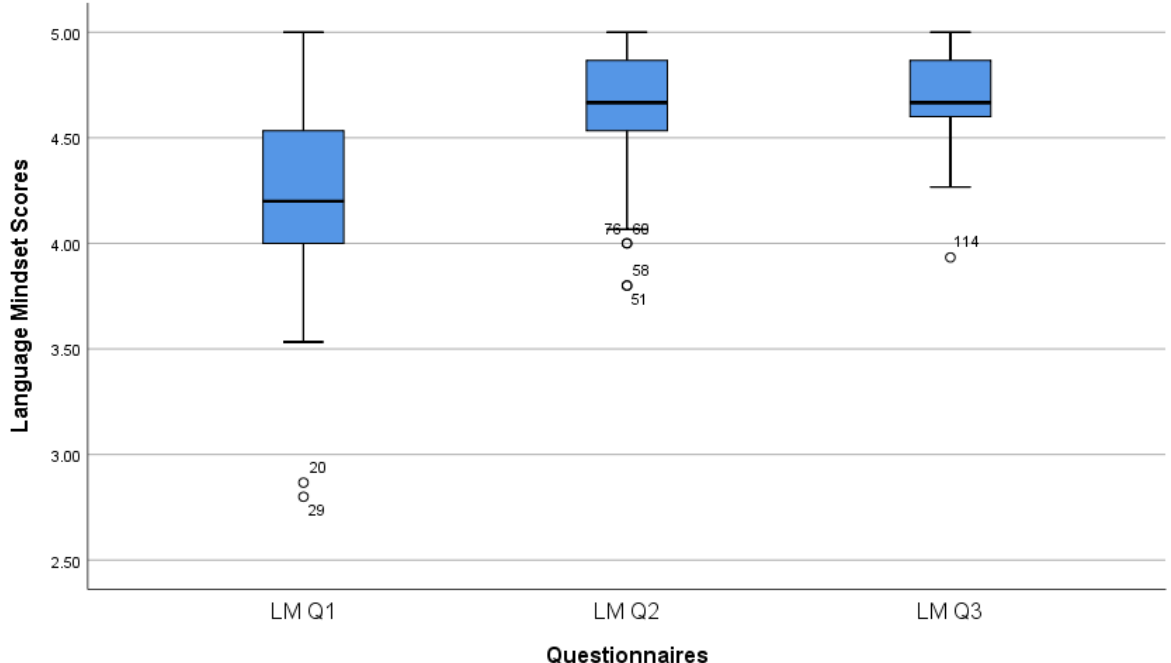
#### **Code 1: The sessions helped to strengthen existing growth mindsets**

*Samuel, sessions 1, 2 and 3; question 4*

Rather than changing my beliefs, the sessions reminded me of them. Because over time, you usually demand more and more of yourself, which makes the fears of getting things wrong and the fear of asking, thinking that other people might make fun of you for not knowing something you should know. The videos were of vital help to remind me that these fears are normal, “things happen” (Making mistakes is right).

# RQ 1: Can sessions to promote growth language mindsets have an impact on students' mindsets?

Boxplots of the scores of LM Q1, LM Q2, and LM Q3 (n = 38)



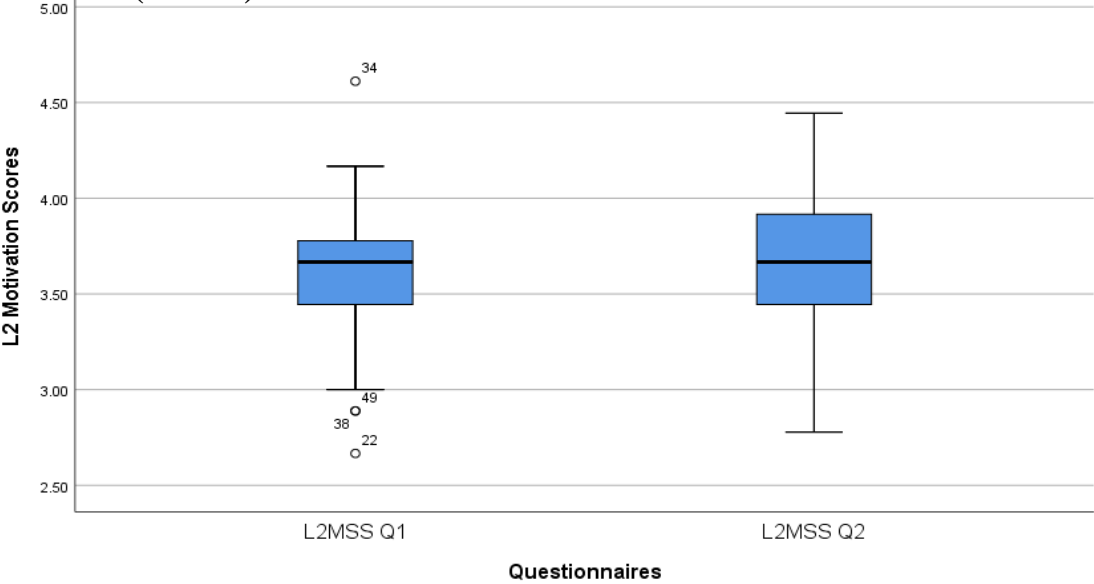
Another Wilcoxon Signed Ranks Test was performed to evaluate whether the sessions had a prolonged positive effect on the students

The results of the LM Q2 (Md = 4.67) were equal to the results of the LM Q3 (Md = 4.67), which was taken three months after the sessions,  $z = -1.83$ ,  $p = .068$

There is a significant difference between the language mindset questionnaire 1 and 2, and it is possible to see that the scores maintained equally high three months after the sessions took place

## RQ 2: Can sessions to promote growth language mindsets have an impact on students' L2 motivation?

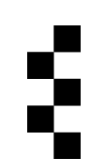
Boxplots of L2MSS Questionnaires 1 and 2  
(n=37)



A Paired-samples t-test was conducted.

There was a significant difference in the scores for L2MSS Q1 (M = 3.60, SD = .370) and L2MSS Q2 (M = 3.69, SD = 3.73) conditions;  $t(46) = 2.16, p = .036$ .

These results showed a low but significant improvement in students' motivation after completing the 12 online sessions.



## **Theme 1: The sessions helped increase students L2 motivation**

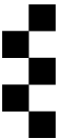
### **Code 1: The sessions included students' language learning motivation**

*Angelina (sessions 1, 2 and 3; question 4):*

No [my beliefs have not changed], because knowledge can always be increased. It only takes time, dedication, tools and desire to learn. These sessions motivate me much more to learn English, and I think it is something I can achieve if I really dedicate myself to it. This represents for me a great challenge that I intend to finish successfully.

*Sara (sessions 10, 11 and 12; question 1):*

Yes! they have been quite useful. I am very happy to have received these sessions, now I feel very motivated, and with new tools to learn English or take these same to learn another language, I know that I can fail in the attempt, but I can try again without giving up, and I know that I will be able to master the language.



## **Theme 2: The sessions were helpful beyond L2 motivation**

### **Code 1: The sessions facilitated English development**

*Alex (sessions 1, 2 and 3; question 1):*

Yes, they have been useful to me. For the moment, I already knew several of the topics addressed in the sessions; however, I think they are very useful for learning to listen and understand the language. Generally, the English that we are taught in school is reading guides, reading comprehension and grammatical rules. I feel that it is more learning to write than you have understanding and/or listening. In that sense, the sessions contribute to listening comprehension of the language.

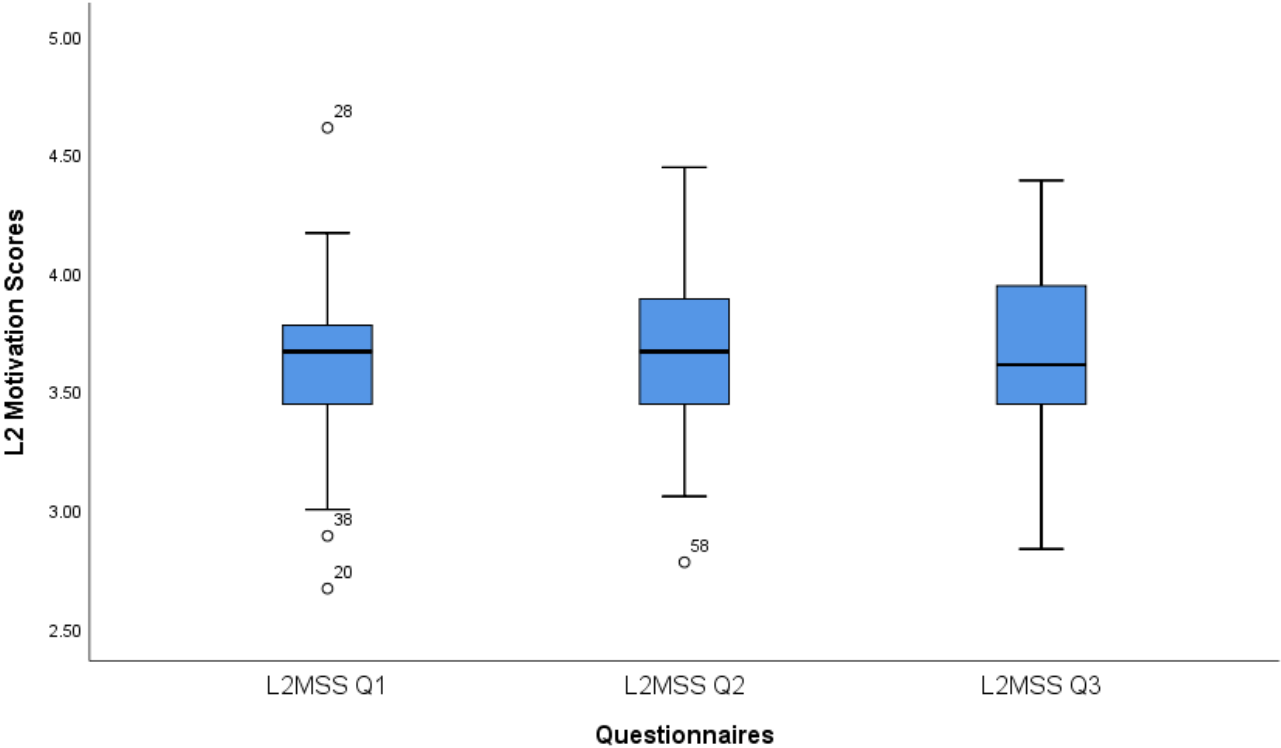
### **Code 2: The sessions helped students to become more autonomous learners**

*Lucía (sessions 10, 11 and 12; question 4):*

I started to take habits like speaking English at a certain time of the day, talking with my friends in English and in general, carefully observing the lyrics of the songs I listen to, as well as with the series. Before, I stayed with the translations, but I noticed that it was much better to adapt than to translate.

## RQ 2: Can sessions to promote growth language mindsets have an impact on students' L2 motivation?

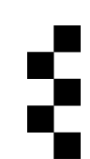
Boxplots of L2MSS Questionnaires 1 and 2 ( $n = 37$ )



Prolonged effect on students' L2 motivation

Results showed that even though the results of the third questionnaire were higher than the scores in questionnaire 1, these did not have a significant statistically difference:

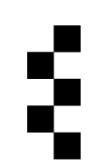
L2MSS Q1 ( $M = 3.61, SD = .371$ ) and L2MSS Q3 ( $M = 3.66, SD = 3.74$ ) conditions;  $t(36) = 1.12, p = .27$ .



# Summary:

## Benefits of facilitating growth language mindsets

- Students changed incorrect language learning beliefs and became more growth mindset oriented
- 37% of the students' boosted their motivation to learn languages
- 66% of the students reported that the sessions were not only useful for the topics but also emphasised that the sessions helped them in their English development
- In the last two sets of sessions, 32% of the students mentioned that the online sessions helped them to develop their autonomy



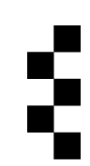
# Discussion

The increased motivation effects decreased three months after the sessions.

This result might suggest that other factors (e.g. COVID-19) might have affected the students' motivation.

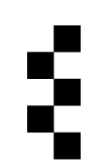
Another interpretation is that growth mindsets should not only be part of a formal intervention but should be constantly supported to influence motivation (as suggested by recent research, e.g., Dweck & Yeager, 2021; Murphy et al., 2021). Some data from this investigation justifies this claim. Students who already had a growth mindset before starting the sessions enhanced their motivation due to the sessions. This shows that learning and reflecting on growth mindset concepts can stimulate L2 motivation.





## **From theory to practice**

Some studies have revealed that students with growth mindsets get better outcomes when teachers (Gouëdard, 2021; Yeager et al., 2022) and the school context (Yeager et al., 2019) support the growth mindset input. Therefore, recent studies (e.g. Dweck & Yeager, 2021; Murphy et al., 2021) suggest that the focus of research should change to teachers rather than students and propose the development of a growth mindset classroom culture.



1. Before the lesson

- 1.1 Design a growth-mindset oriented lesson plan

2. At the beginning of the lessons

- 2.1 Explain the importance of challenging aims

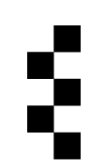
3. In-class strategies to promote growth language learning mindsets

- 3.1 Support students in their goal setting

- 3.2 Support students' mistakes and difficulties

- 3.3 Explain the benefits of brain malleability

- 3.4 Provide opportunities to develop language learning strategies



### 3.5 Discover the students' language learning mindsets

3.5.1 Beliefs concerning general language ability, language learning ability and age sensitivity.

3.5.2 Beliefs concerning the learning context

3.5.3 Beliefs concerning specific language learning domains

### 3.6 Promote the students' reflection

### 3.7 Provide feedback and praise considering the growth mindset research

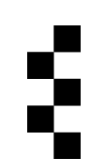
3.7.1 Praise the effort

3.7.2 Feedback as a learning resource

3.7.3 Assessments and feedback

3.7.4 Do not provide comfort feedback

3.7.5 Do not label students

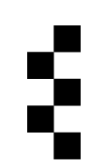


# Questions or comments?

If you have questions or comments or want to know more about this research, please contact me.

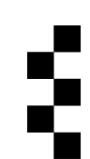
I would be happy to tell you more about this study

Claudia V. Tapia Castillo  
[miss.claudiatapia@gmail.com](mailto:miss.claudiatapia@gmail.com)



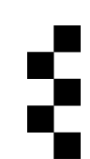
# Limitations

A critical limitation of this study was the small sample size and the participants' profiles. It was not possible to recruit more participants due to COVID-19 restrictions. The participants who joined this research were mainly growth mindset oriented, and motivated to learn English. Therefore, to understand the generalisation of these findings, researchers should gather a more significant number of participants to test the effectiveness of fostering growth language mindsets on motivation. By doing so, researchers could examine the growth mindset effects on participants with more fixed mindset orientations and lower motivation. This might help to increase the studies' external validity.



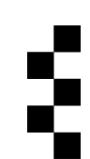
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