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Mindfulness Moderates the Relationship Between Vocabulary Recall and Foreign-Language Performance: A Preliminary Survey of Hanoi city Student Non-Professional

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Abstract:

In recent times, many Vietnamese students have signed up for very active mindfulness meditation classes. This fact has received significant attention from scientists to add to the evidence of previous studies. Enrich the research literature, and This study explores how mindfulness meditation practise moderates the relationship between vocabulary recall and vocabulary levels. And foreign language learning performance of students in Vietnam. This study was conducted through a cross-sectional survey using an intentional sampling technique (n=200). Multivariable linear regression analysis and moderator regression were applied to prove the hypotheses. Research results show a positive and meaningful association between mindfulness meditation practice, vocabulary memory level and foreign language learning performance of students. In particular, mindfulness meditation acts as a moderator of the relationship between the level of vocabulary thanks to the foreign language learning performance of students.

Keywords: Mindfulness; Remembering New Words (RNW); Final Grade of English Course (EGEC); Foreign language learning; Vietnamese students; Vocabulary retention.

1. Introduction

Many Vietnamese students take meditation classes because of the benefits it brings. Many residential meditation classes are opened to suit different audiences, including students. There are free mindfulness meditation classes available to all. However, there is still a lack of quantitative studies evaluating the impact of mindfulness meditation on vocabulary ability and performance in foreign language learning. There have been many studies on the role of mindfulness in different cultural contexts. For example, evaluate the impact of a semester-long mindfulness meditation course in 152 first-year Taiwanese university students and compare it with 130 controls. Ching, Koo, Tsai, & Chen, 2015) showed that a semester-long mindfulness meditation course could improve academic performance and the attention and memory aspects of cognitive functioning knowledge of Taiwanese university students (Ching, Koo, Tsai, & Chen, 2015).

Memorization is establishing information in memory (Richards, Platt, & Platt, 1992). Memory plays a significant role in human life and is an indispensable condition for people to have a regular and stable psychological life. It stores the cognitive process results so that people can learn, train, and develop their intelligence. In learning a foreign language, memory must be trained. Memorization strategies as

a vocabulary learning technique are more effective than using word lists to improve vocabulary proficiency (Soner Sozler, 2012), by visualizing a situation in which words can be used (Zare, 2012), encoding vocabulary into phonological and semantic memory clusters (Henning, 1973). In contrast, learning a second or foreign language is viewed as a process of memory activation and language attention enhancement, leading to language storage, retention, and increased learning outcomes and language development (Faizah Saleh AL-Hammadi, 2012).

Many studies have found various benefits of mindfulness for education such as improved attentional functions and cognitive flexibility (Adam Moore & Peter Malinowski, 2009), improved learning (Zeilhofer, 2020), produces positive effects on cognitive performance, including memory (Quek, Majeed, Kothari, Lua, Ong, & Hartanto, 2021), speech fluency, and flexibility cognitive skills (Marciniak, Sheardova, Pavla, Daniel, Rastislav, & Jakub, 2014), help them easily handle difficult situations at work and school (Gina Paul & Steven, 2007), improve efficiency classroom learning (Jian Wei Lin & Li Jung Mai, 2018), induces cognitive flexibility as well as other attentional functions, performing significantly better than those who did not meditate on attention (Moore & Malinowski, 2009), creating the habit of remembering (Filipović, 2018), making connections between facts and concepts (Emanuel Bylund & Scott Jarvis, 2010), improving student learning outcomes (Fiebert) , & Mead, 1981), helping learners self-regulate in learning, trained learners have improved self-discipline, self-assessment ability, cognitive skills, ability to organize and manage learning materials practice; improve their ability to manage anxiety (Corti & Gelati (2020).

There have been many studies on the relationship between mindfulness practice and foreign language learning performance. However, there is still a lack of studies that explore the moderating role of mindfulness practice on the relationship between vocabulary memorization and the effectiveness of foreign language tuition. The objective of this study was to explore the relationship between mindfulness practice and vocabulary memory level and foreign language learning performance and through the regulatory role of mindfulness practice in regulating the relationship between vocabulary memory level and language learning performance foreign-language. This study aims to fill this theoretical gap while providing further evidence on the effect of mindfulness on improving vocabulary memory and improving students' foreign language achievement.

2. Literature Reviews

2.1. Relationship between Mindfulness and Memory

According to Malinowski (2013), mindfulness has its roots in Buddhist teachings and is one of the five Buddhist practices: faith, effort, concentration, and wisdom. Alternatively, mindfulness is responsive attention and awareness of events and experiences as they happen in the present moment (Brown & Ryan, 2003) (Brown & Ryan, 2003). The practise of mindfulness meditation impacts beneficial effects on motivation and memory over time, with potential effects on educational and career achievement (Brown, Goodman, Ryan, & Anālayo, 2016). Any experience derived from internal or external stimuli is perceived, recognized, and accepted without evaluation (Furthermore, Kabat-Zinn, 2003; 2008). Mindfulness improves communication and memory in foreign language learning through processes that improve information encoding (Lueke & Lueke, 2019), attention and memory enhancement (Nicole, Mark, Zindel, & Scott 2007), beneficial effects on motivation and episodic memory (Brown, Goodman, Ryan, & Anālayo, 2016), positive effects on memory and emotional regulation (Dubert) et al., 2016; Jha, Stanley, Kiyonaga, Wong, & Gelfand, 2010).

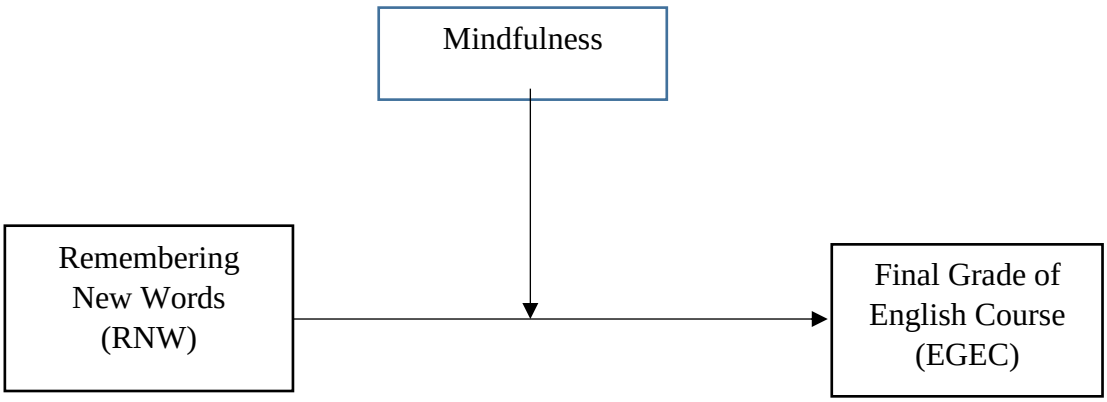
Learners cultivate mindfulness as an effective and efficient technique for improving cognitive function and memory (Mrazek, Franklin, Phillips, Baird, & Schooler, 2013). Significant improvement in memory capacity (Quach), Jastrowski, & Alexander, 2016) significantly improved spatial processing, visual acuity, memory (Zeidan, Johnson, Diamond, David, & Goolkasian, 2010), improved attention and memory and reduce depressive symptoms, improve memory performance and sustained attention (Chambers, Lo, & Allen, 2008).

2.2. Relationship between Mindfulness and Foreign Language Learning:

Mindfulness has facilitated students' foreign language learning process and cultivated creativity and intelligence, cooperative learning, providing students with opportunities to explore their perceptions, learn from others, reflect and think critically (Wang & Liu, 2016). Under the conditions of mindfulness practice, the foreign language classes showed significant signs of increased academic and cognitive achievement compared with the comparison group (Zeilhofer, 2020), attention and reduced distraction (Mortimore, 2020). 2017), facilitating the learning process, cultivating creativity and intelligence; Mindful collaborative learning has provided students with opportunities to explore their perceptions, learn from others, reflect and think critically (Wang & Liu, 2016), collaborate and facilitate beneficial for language learning (Fatemeh Moafian, Hooshang Khoshsima, Javad Salehi Fadardi, & Francesco Pagnini, 2019). Mindfulness is a positive and consistent predictor of foreign language motivation both directly and indirectly (Afsaneh Ghanizadeh & Hossein Makiabadi and Samaneh Abdi Navokhi, 2019).

From the research overview, the authors have built a mindfulness research model that regulates the relationship between vocabulary memory and foreign language learning performance, as shown in Figure 1 below:

Figure 1. The Research Model



In the above research model, the independent variables Mindfulness and RNW affect the dependent variable EGEC. The Mindfulness variable moderates the relationship between RNW and EGEC to varying degrees. It is the task that the author needs to study to clarify the relationship between these variables.

3. Hypotheses

H1. Mindfulness has a positive and significant impact on vocabulary retention of foreign language learners.

H2. Mindfulness has a positive and significant impact on students' foreign language achievement.

H3. Mindfulness regulates the relationship between students' vocabulary memorization and foreign language learning performance.

4. Research Method

4.1. Surveyed Area

The study was conducted at universities in Hanoi in July 2020. At this point, the student has received the semester's GPA report. This place has more than = Up to this point, Hanoi has 43 public universities, 14 private universities, 30 higher education institutes. Participating in the survey were non-native language students whom a local teacher had guided to practice a short mindfulness meditation before entering the classroom to learn skills in listening to a foreign language conversation and doing grammar exercises.

As of this moment, Hanoi has 43 public and 14 private universities and 30 other higher education institutes.

4.2. Research Samples and Methods:

To carry out this study, the authors conducted a survey, collecting opinions of the study participants in two steps: preliminary investigation and formal investigation.

4.3. Preliminary investigation:

The research team used a qualitative method by in-depth interviews with educational and psychologist researchers to adjust the research scale and improve the questionnaire to suit the characteristics of the survey area close. The questionnaire was built based on the results of the research overview and experts' opinions, including two parts. Part 1 is used to collect information on the demographics of research participants such as age, gender, and major. Part two collects Information on GPA, significant memorization, and mindfulness practice. (GPA is calculated according to the provisions of Decision No. 43/2007/QD-BGDĐT and Circular No. 57 /2012/TT-BGDĐT of the Ministry of Education and Training of Vietnam). Information about students' ability to remember vocabulary is collected by a multiple-choice test to remember the meaning of 100 words learned during the semester. Gather information about mindfulness practices using The State Mindfulness of Mind Scale (MSM). = information on mindfulness practices collected by the State Mindfulness of Mind Scale (MSM). MSM was developed by (Analayo 2004; Bodhi, 1993; Bishop et al., 2004), based on previous research on mindfulness and related constructs (e.g., Langer, 1989). Researchers (Brown & Ryan, 2003; Messick, 1995; Haynes, Richard, & Kubany, 1995) and more recently Galia Tanay & Amit Bernstein (2013) have respectively developed this measure. MSM consists of two elements, State Mindfulness of Mind with 15 items and State Mindfulness of Body with six items. In this study, the research team inherited the State Mindfulness of Mind factor = 15 items. Because it did not match the research objective, the State Mindfulness of Body factor was withdrawn from the questionnaire.

The English questionnaire was translated into Vietnamese by two professional interpreters. The translation process is carried out according to the rules to adapt between Vietnamese cultures. A single Vietnamese version was created after discussion and consensus between the translators and the principal investigator. A professional bilingual expert in education contributed to this version to create a final version. This final version was pre-tested on 40 participants selected to represent age, sex, and training central demographically. During the assessment, participants were asked to complete this final version. Minor corrections followed to improve the question structure for better understanding, and the final Vietnamese version was completed using the official survey.

4.4. Official investigation

A selection of students from universities in Hanoi participated in the study. They are the ones who have followed the mindfulness guidelines from instructors, monks, and experts on mindfulness practices. The questionnaire was sent directly to the respondents by the non-random sampling method. As a result, 200 good votes were obtained, achieving a response rate of 100% Demographic information of study participants (Table 1).

Table 1. Demographic characteristics of survey participants

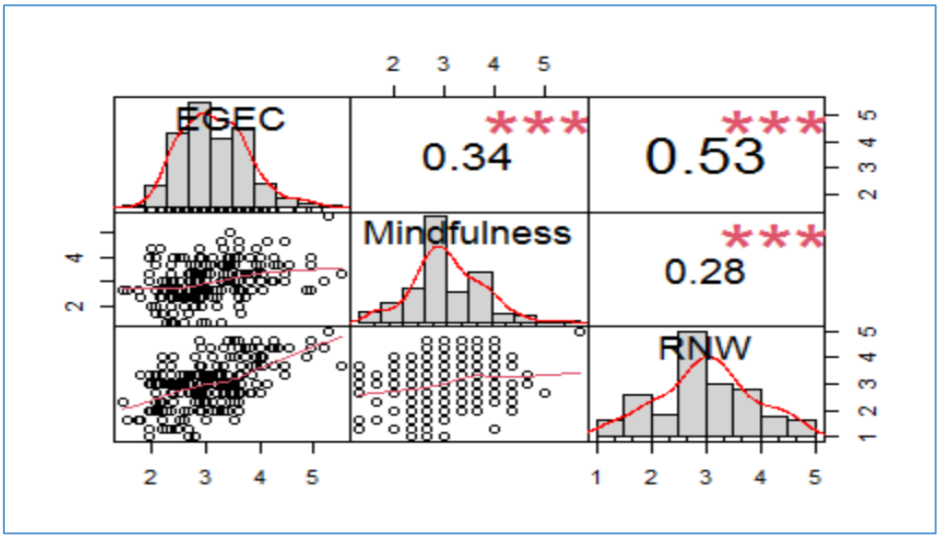
		Bachelor'sprogram							
		Accountant		Economy		Law		Public policy	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Age	19 years old	8	29.6%	9	33.3%	6	22.2%	4	14.8%
	20 years old	9	30.0%	2	6.7%	11	36.7%	8	26.7%
	21 years old	9	27.3%	8	24.2%	10	30.3%	6	18.2%
	22 years old	9	27.3%	10	30.3%	8	24.2%	6	18.2%
	23 years old	6	22.2%	3	11.1%	10	37.0%	8	29.6%
	24 years old	14	28.0%	10	20.0%	17	34.0%	9	18.0%
Gender	Female	28	30.1%	22	23.7%	25	26.9%	18	19.4%
	Male	27	25.2%	20	18.7%	37	34.6%	23	21.5%

5. Research Results

5.1. Pearson correlation analysis

The author uses Pearson correlation analysis to analyze the correlation between quantitative variables. Table 2 shows that, at the 5% level of significance, the correlation coefficient shows that the relationship between the dependent and independent variables is statistically significant (Sig. < 0.05). The magnitude of the correlation coefficients ensures that multicollinearity does not occur. Therefore, other statistics can be used to verify the relationship between variables.

Table 2. Pearson correlation analysis results



5.2. Moderation regression Analysis

Next, the author conducts multivariable linear regression analysis on the relationship between two independent variables: Mindfulness, RNW and one dependent variable: EGEC and Moderation regression Analysis to determine the Mindfulness variable that moderates the relationship between

variables. RNW and the EGEC variable. Table 3 shows that model1 has R2 = 0.320 and model2 has R2 = 0.343, showing that the built linear regression model fits the data set model1 = 0.320 % and model 2 = 0.343%, respectively. Both models show that the two independent variables have no statistical significance on the dependent variable.

Table 5. Moderation regression Analysis

	Dependent variable:	
	EGEC	
	(Model 1)	(Model 2)
Mindfulness	0.206***	
	(0.061)	
RNW	0.415***	
	(0.054)	
Mindfulness		0.184***
		(0.054)
RNW		0.392***
		(0.051)
Mindfulness:RNW		0.132**
		(0.054)
Constant	1.214***	3.053***
	(0.212)	(0.046)
Observations	200	200
R2	0.320	0.343
Adjusted R2	0.313	0.333
Residual Std. Error	0.637 (df = 197)	0.628 (df = 196)
F Statistic	46.270*** (df = 2; 197)	34.060*** (df = 3; 196)
Note:		*p<0.1; **p<0.05; ***p<0.01

Table 5 shows that, with 95% confidence, the hypotheses proposed by the research team are accepted. Specifically, model1 shows that the variable RNW has the most substantial effect on the EGEC variable with $\beta = 0.415$, followed by the Mindfulness variable with $\beta = 0.206$. Model2 shows that the Mindfulness variable moderates the relationship between the RNW variable and the GPA variable with $\beta = 0.291$, which means that the increase or decrease of the Mindfulness variable makes the relationship between the RNW variable and the EGEC variable also increase or decrease.

6. Discussion and Conclusion

Research results show that correctness has a relationship with the ability to remember vocabulary and the performance of foreign language learning. It means that mindfulness has a positive and meaningful impact on vocabulary memory and language learning performance. This finding is similar to that of (Nicole, Mark, Zindel, & Scott 2007; Brown, Goodman, Ryan, & Anālayo, 2016; Dubert et al., 2016; Jha, Stanley, Kiyonaga, Wong, & Gelfand, 2010). These researchers suggest that mindfulness

improves language learning by improving communication and memory through information encoding processes.

In particular, the research results also show that mindfulness regulates the relationship between vocabulary memory and students' foreign language learning performance. It is our new finding that has not been found in any other studies yet.

From these results, the following conclusions can be drawn:

Firstly, it is recommended to apply mindfulness in conjunction with foreign language learning as it can be beneficial for university lecturers and students (Harumi Takiguchi, 2015). Mindfulness practice improves academic performance as it helps control inhibitions, improves memory and enhances cognitive function (Reilly, 2020), improves learner concentration, allows learners to continue to get more knowledge from the lesson (Robert, 2013), improves alertness better (Ostafin & Kassman, 2012).

Second, sharing the facts about foreign language classes at university is essential because teaching is a challenging and demanding profession, even at a high level and in the best of circumstances. To learn foreign languages more successfully, teachers need to constantly research and experiment to discover and test the most effective teaching methods (Harumi Takiguchi, 2015). Teachers need to teach mindfulness creatively and effectively to improve students and feel motivated and more engaged in their learning (Harumi Takiguchi, 2015), which increases their motivation for learners (Olga, 2020). It is significant because the language for cognition is contextual and transient (Zeithaml, Berry, & Parasuraman, 1988).

7. Limitations

As with other empirical studies, there are limitations to this study that should be considered when discussing the results. First, our survey method reflects the respondents' subjective perception of the questions being investigated. Subjective data has some inherent disadvantages that are hard to avoid in surveys (Pakpour, Gellert, Asefzadeh, Updegraff, Molloy, & Sniehotta 2016). Our data is collected over a single period of productional data does not allow dynamic assessment of factors affecting vocabulary memory and foreign language learning performance, affecting our results' applicability (Xin, Liang, Zhanyou, & Hua, 2019). Future research should combine cross-sectional and longitudinal studies.

The intentional sampling method has certain limitations, not fully reflecting population characteristics (Lin et al., 2016; Strong et al., 2018). Our survey was conducted within a cultural context of Vietnam and therefore requires more general statements that can be made by applying the development research model and research conclusions to other countries and cultures (Sun et al., 2012).

There is also how other aspects of mindfulness affect vocabulary retention and language learning performance. Future studies should explore moderating variables (individual differences; duration, frequency, and style of meditation practice) (Michael & Christopher 2019). Furthermore, the low R2 of both models leads to a decrease in the significance of the model. In further studies, it is necessary to increase the sample size to improve the model.

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9. Conflict of interest

The author declares that there is no conflict of interest.

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