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# The learning styles of pre-service teachers

## Los estilos de aprendizaje de docentes en formación

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### **ABSTRACT**

The main aims of this research are to highlight the importance of identifying what learning styles are being used by undergraduate English students in a teacher training program and describe how they combine their learning strategies with the learning styles. This study used a mixed-method research design to make an exploratory and explanatory description of students' learning styles. Data were collected using two instruments: The VARK questionnaire and an unstructured interview. The study took place in a public School of Languages at a University in Veracruz. The total sample included 69 beginner English students who filled the VARK questionnaire. To collect qualitative data, four beginner English students participated in an individual interview. The findings revealed that students use multimodal learning styles to learn a second language and that participants use sustainable strategies with their learning style preference.

### **KEYWORDS:**

Language Learning Styles, English Language, VARK Model, Pre-service Teachers, Multimodal Learning Preferences.

### **RESUMEN**

Los principales objetivos de esta investigación son destacar la importancia de identificar qué estilos de aprendizaje utilizan los estudiantes de inglés de un programa de formación de profesores y describir cómo combinan sus estrategias de aprendizaje con los estilos de aprendizaje. Se utilizó un diseño de investigación de método mixto para hacer una descripción exploratoria y explicativa de los estilos de aprendizaje de los estudiantes. Los datos se recogieron mediante dos instrumentos: el cuestionario VARK y una entrevista no estructurada. El estudio

se llevó a cabo en una escuela pública de idiomas en una universidad de Veracruz. La muestra total incluyó a 69 estudiantes principiantes de inglés que completaron el cuestionario VARK. Para recoger datos cualitativos, cuatro estudiantes fueron entrevistados. Los resultados revelaron que los estudiantes utilizan estilos de aprendizaje multimodales para aprender una segunda lengua. Además, se descubrió que los participantes utilizan estrategias sostenibles con su preferencia de estilo de aprendizaje.

**PALABRAS CLAVES:** Estilos de aprendizaje de idiomas, Estrategias de aprendizaje, Modelo VARK, Docentes en formación, Preferencias de aprendizaje multimodal.

### **INTRODUCTION**

The problem of educational quality in higher education has been a recurring theme in recent years in Mexico. Higher-order education at universities proposes having a new vision for the formation of students' learning styles. This approach to education should guarantee an academy formation that involves students' learning skills development. Consequently, it ought to enhance teachers' development of teaching resources concerning the characteristics of students (Steiman, 2005). By merging students' needs and teachers' suitable implementations, students might reach autonomy by self-directing their learning processes. However, this is a shared task, which implies responsibility from the institution, teachers, and the students.

Although the learning style is an important factor for the students' learning process, there have not been enough efforts by the educational systems to identify the learning and teaching styles that are most effective in acquiring a second language and obtaining better academic results (Jhaish, 2010). It seems that teachers pay little importance to know the learning style preferences of their students to incorporate them in their teaching and at the same time, students are not aware of how they learn and how they could improve their language learning processes.

In this sense, Herrera (2007) explains that "the main role of the university professor is to enable, facilitate and guide his or her students to gain intellectual access to the contents and professional practices of a given discipline" (as is cited in Lucía & Oswaldo, 2009, p.76). Therefore, it is essential to define student's learning styles and the type of individual intelligence so that teachers can adapt the methodologies they use.

Identifying students' learning styles can help professors to improve learners' academic performance. With the objective of knowing the student learning styles, many scholars have created different models. One of the most popular models to categorize the various types of learning styles is Neil Fleming's VARK model which provides a quantification of students' preferences in each one of the four learning types.

### **LITERATURE REVIEW**

Learning is the most fundamental activity in education. Krashen (2004) explains that learning is the product of formal instructions and is a conscious process that results in the individual acquiring new knowledge. It can be concluded that learning is more in-depth than memorizing and recalling information. It involves understanding, associating thoughts, and establishing connections between previous and new knowledge with the ability to transfer knowledge to different environments. It means that learning is an active process in which the learner acquires knowledge through daily life.

Scholars interpret learning styles in a variety of ways. In the field of education, it has been agreed that learning styles play a relevant role in the language learning process. Dunn and Dunn (1976, as cited in Reid, 1987) define learning style as “a term that describes the variations among learners in using one or more senses to understand, organize and retain experience” (p. 89). It means that every learner may have a combination of learning styles (single or multimodal learning style preferences) are implemented in their learning process based on their abilities.

Besides, there are some advantages why it is necessary to know students' learning style. As reported by Davis (1993), “First, understanding the learning styles may help to grasp and explain the difference observed among students. The second advantage is that teachers and institutions can formulate a variety of English strategies according to the strengths of each learner in the classroom. Finally, this can help students to expand their learning strategies according to their learning style” (p. 786).

The concept of learning styles has been explored by various educationalists and researchers. There are several learning models of different versions to understand the different learning styles that people use to acquire knowledge. One of the most commonly and widely used models is the VARK model proposed by Neil Fleming in 1987. This is a perceptual model to provide a profile of instructional preferences whose prefix letters VARK stand from Visual (V), Aural (A), Read/Write (R), and Kinesthetic (K).

According to Ldpride (2009), “Visual learners think in pictures and learn best in visual images. They depend on the instructor's or facilitator's non-verbal cues such as body language to help with understanding.” (as cited in Gilakjani, 2012, p. 105). Meanwhile “Aural learners discover information through listening and interpreting information by the means of pitch, emphasis, and speed” (as cited in Gilakjani, 2012, p. 106).

Khongpit, Sintanakul and Nomphonkrang (2018), declare that Read/Write learners place importance on the accuracy of language and are keen to use quotes, lists, texts, books, and manuals. They have a strong reverence for words (as cited in Bilkist, 2019 p. 25). Ldpride (2009) explains that “Individuals that are kinesthetic learn best with an active “hands-on” approach. These learners favor interaction with the physical world. Most of the time kinesthetic learners have a difficult time staying on target and can become unfocused effortlessly” (as cited in Gilakjani, 2012, p. 106).

The VARK model suggests that there are four main types of learning style preferences: Visual, Aural, Read/Write, and Kinesthetic, which learners use to increase their knowledge. However, research has proved that learners have the best learning when they apply multimodal learning styles. As Prithishkumar & Michael (2014), point out:

“Every learner may have a combination of learning styles, as he/she prefers different learning styles and techniques (i.e., multimodal learning preference). Whereas some learners may have only one dominant style of learning (i.e., unimodal learning preference)” (as cited in Alqunayeer, Al-Qassim & Zamir, 2015, p. 82)“.

Bimodal or trimodal learners differ slightly from those with a single or unimodal preference because they can apply different learning styles to learning and communicating. It means that they can adapt their teaching-learning style in combination with another learning style to ensure effective learning or to make good decisions.

This study was performed under a mixed-method research design to make an exploratory and explanatory description of the research participants. According to Tashakkori and Creswell (2007), mixed methods are defined as “research in which the investigator collects and analyzes data, integrates the findings and draws inferences using both qualitative and quantitative approaches or methods in a single study” (p. 4). From this perspective, mixed methods research not only contributes to a clear understanding of the study but also benefits from this combination of data collection results. It is believed that the outcome of one method can help develop or even inform the other method.

Aliaga and Gunderson (2002) describe quantitative research as “the explanation of phenomena by collecting numerical data that are analyzed using mathematically based methods (in particular statistics)” (as cited in Mujis, 2004, p. 1). Furthermore, quantitative methods are based on data that can be objectively measured numerically. The data analysis is through numerical comparison and statistical analysis to express facts and reveal research patterns.

The researcher used a quantitative exploratory design to identify the learning styles of pre-service teachers through an online questionnaire. A quantitative approach was necessary to provide statistical evidence concerning the learning style preferences. Thus, the purpose of this study is to find out the major, minor, and negligible learning style preferences and other variations that may arise.

On the other hand, qualitative research aims to understand the phenomena occurring on the subject of research, such as behavior, perception, motivation, action, etc. (Moloeng, 2007). This study attempted to analyze words, reporting detailed views of information with the help of a variety of empirical materials. Denzel and Lincoln (2005) define qualitative research as:

[...] a situated activity that locates the observer in the world. It consists of a set of interpretive, material practices that make the world visible. These practices transform the world. They turn the world into a series of representations, including field notes, interviews, conversations, photographs, recordings, and memos to the self. At this level, qualitative research involves an interpretive, naturalistic approach to the world (p. 3).

The objective was not to quantify or test something but rather to analyze and interpret the words of the participants in a natural setting to find out the participants’ learning styles. Based on the explanation above, this kind of information was compatible with this paper.

### **The context**

The study took place in a public School of Languages at a University in Veracruz. The University is one of the most important universities in the state of Veracruz. The English Language program accepts 200 students from different regions from the state of Veracruz and Mexico intending to prepare professionals in teaching or translation.

### **Sample for the quantitative study**

The study was aimed at identifying the modal learning style preferences of beginner students who had started their studies in August 2020 (n=200). The sample of this study was selected randomly. The main reason why the researcher decided to use random sampling is that everyone in the population had the same chance to participate in the study can be part of the sample. The



total sample included 69 beginner English students at a teacher education program, 41 female (59.42%) and 28 male (40.57%). The students ranged between 18-28 years of age. Their English proficiency level ranged from A2+ to B1; they all shared a similar educational background in that they have already faced a variety of different learning environments in public or private schools. To ensure the reliability of the research, the researcher relied on Calculating Sampling for a finite population, obtaining a confidence level of 97% and a margin of error of 10.6%.

**Calculating Sample for finite population**

<b>Sample Size</b>		<u>69</u>	
<b>Population Size:</b>		200	
ERROR FOR 95%	Confidence Level	9.6%	Margin of error
ERROR PARA 97%	Confidence Level	10.6%	Margin of error

**Participants for the qualitative study**

Four participants, one student for each learning style (Visual, Aural, Read/Written, and Kinesthetic) was selected to inquire about their learning style. The Visual participant is a 19-year-old student with a B1 level of English, she took English courses 2 years prior to being enrolled for the bachelor’s degree. The Aural participant is an 18-year-old female student with an A2+ English level who learned English in a public school. The Read/Write participant is a 19-year-old male student with B1+ level of English who learned English autonomously. The kinesthetic participant is a 18-year-old male student with an A2 + level of English who attended an English course in a private school for a year and a half before being accepted into the English language degree.

They had already answered the online VARK questionnaire. The main reason the participants were chosen was that they may know what kind of learning activities make them understand the lesson more easily. In addition, their answers provided a deeper understanding of the topic.

**Data collection techniques**

In this study, data were collected using two instruments: a questionnaire and an unstructured interview. The researcher used a quantitative approach by using the VARK questionnaire, which aimed to identify students’ learning styles preference, and the qualitative method was used to explain the strategies used by participants concerning their learning styles. In addition, the mixed methodology allows the use of two instruments for this study to investigate the same phenomena.

**Quantitative questionnaire**

Data was collected through a virtual questionnaire to identifying students’ learning style preferences. In agreement with Oxford (1990), “questionnaires can be objectively scored and analyzed” (p.199). The tool utilized in this study was the VARK questionnaire (version 7.8) proposed by Neil Fleming. According to Fleming (2001), “the VARK questionnaire was created to provide students with effective strategies to use on their learner preferences divided into four learning modalities: Visual, Aural, Read/Write, and Kinesthetic” (p. 49). This instrument is closed-ended and requires the participants to choose specific answers. It contains 16 multiple choice questions based on self-assessment. The questions are based on situations where there are choices and decisions about how those might happen.

**Qualitative interviews**

Interviews are an activity that involves an interviewer asking some questions to be answered by the interviewee. According to Narváez, Núñez, Estrada and Marin (2017), it is important to keep in mind that interviews are used to

- (1) access what is important to the interviewees and hear it expressed in their own words
- (2) enable you to explore and examine the worlds inhabited by the interviewees
- (3) provide you with rich data which are amenable to content analysis and so likely to reveal themes which can help explanation of problems
- (4) guarantee 100 percent response rate (p 39).

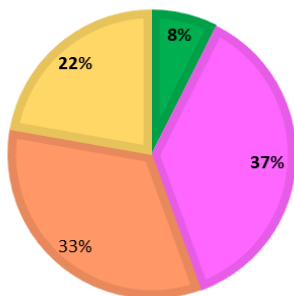
In this stage, the data collecting technique was the unstructured interview to find out what is in the mind of another person and to discover what the research cannot observe directly with a questionnaire.

**Findings**

The findings are presented based on the research questions:

**SINGLE PREFERENCE LEARNERS' TYPE**

■ Visual ■ Aural ■ Read/Write ■ Kinesthetic



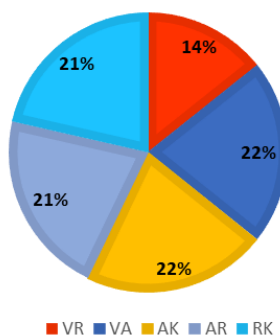
**Figure 1:** Students' Single Preference Occurrence

The quantitative findings obtained by the VARK questionnaire are divided into three categories: those students with a single preference, bi-modal preference, and tri-modal preference. Most students (78.26%) preferred a single learning style (see figure number 1), and it was found that the most predominant single mode of learning was Aural (37.03%). The following preference is Read/Write (33.33%), and Kinesthetic (22.22%), and the minor learning style used is Visual (7.40%).

The findings suggest that the reason visual learning is the least used is that these students are learning English in online classes and, according to interviews, teachers are not using visual materials to increase interest and motivation to learn, only they focus on the use of textbooks.

The study showed that 20.28% of the students have multimodal learning styles (see figure number 2), being VA, AK, AE, and RK. The most frequent types are used by students. However, VR is used only by two students in this sample.

**BI-MODAL TYPED LEARNER**



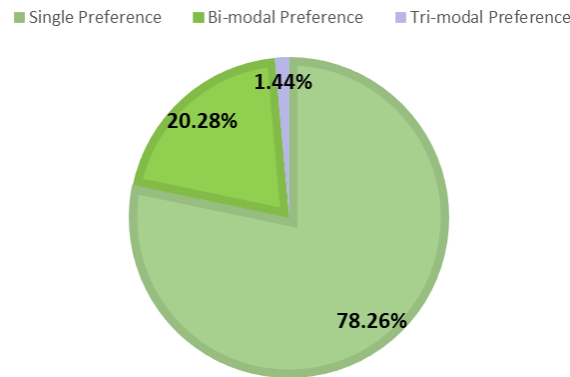
**Figure 2:** Bi-modal Preference Occurrence (20.28%)



The finding shows that inside the bimodal preferences there is a strong inclination to mix Aural and Read/Write learning styles with other learning styles with the objective that students learn better with what they are being taught.

Figure number 3 shows that only one student (1.44%) within a population of 69 participants has a tri-modal preference which corresponds to Aural, Read/Write, and Kinesthetic learning styles (ARK).

*Students' preference on the type of learning*



**Figure 3:** Students' type of learning.

It means that students can mix three different learning styles to ensure active learning even in virtual classes. With this result, the researcher considers that there is a need for the teacher to train students to develop different learning styles in the order in which they can organize, analyze, suggest, and make decisions with a comprehensive vision.

One student for each learning style (Visual, Aural, Read/written, and Kinesthetic) was interviewed to analyze the learning strategies used by students with a predominant single preference for learning a second language.

The four participants had attended face-to-face English courses before being accepted into the English language degree program. All of them expressed that they use different applications, web pages, dictionaries, videos, and music as resources for learning English. Also, they have a high inclination to learn in face-to-face classes.

a) **Visual Student (S1)**

Student	Learning Style Preference				Preference	Type of preference
	V	A	R	K		
S1	6	2	4	4	Visual	Single

**Figure 4:** Total number of responses of S1

According to the VARK questionnaire, S1 has a Visual preference (see figure number 4). Based on the interview that was done S1 tends to be predisposed to learn through visual resources and even to be fascinated by color as a code to increase his ability to remember information. The way she studies is by taking notes in the margins on the material that is presented.

Although the S1 has a strong trend in Visual learning styles, she can apply other learning styles such as Reading / Writing and Kinesthetic to store information and, the main resource for learning

English is through digital resources. The researcher discovered that S1 uses a different app to improve her English skills. However, online English classes have affected her learning process because her teachers do not use visual materials to explain the topics.

**b) Aural Student (S2)**

Student	Learning Style Preference				Preference	Type of preference
	V	A	R	K		
S2	3	9	2	2	Aural	Single

**Figure 5:** Total number of responses of S2

According to the VARK questionnaire, S2 has an Aural preference (figure 5). Based on the interview, her methods of learning English are through listening and repetitions that help her to store information. However, she can follow verbal and written instructions and express their ideas in both ways. The way she studies is by writing notes and reading aloud repeatedly. The main source for her to learn is through the English professor to clarify doubts in a speaking way.

The researcher found out in the interview that S2 also tends to use visual learning styles because she always uses colors to write the phonetic transcriptions of words or classify information. Other important aspects are that she does not like to practice her listening comprehension in an online class because she does not understand audios.

**c) Kinesthetic Student (S3)**

Student	Learning Style Preference				Preference	Type of preference
	V	A	R	K		
S3	3	1	3	9	Kinesthetic	Single

**Figure 6:** Total number of responses of S3

Based on the VARK questionnaire, S3 has a Kinesthetic preference (figure 6). In consideration of the interview, S3 tends to explore concepts through experimentation, and he can do activities and at the same time listen to music. S3 studies English through practical activities such as exercises in the class. During the interview, the researcher noticed that S3 was in constant motion.

The researcher found out that S3 has a predominantly kinesthetic learning style. Some issues were discovered in the learning process of S3. For example, when he is studying at his house and hears noises, he becomes easily confused and loses concentration. For this reason, he finds it necessary to find a quiet place without distractions. Another important aspect that the researcher noted is that S3 works and stores information faster when working under pressure.

**d) Read/Write Student (S4)**

Student	Learning Style Preference				Preference	Type of preference
	V	A	R	K		
S1	4	3	7	2	Read/Write	Single

**Figure 7:** Total number of responses of S4

According to the VARK questionnaire, S4 has a Read/Write preference (figure 7). Based on the interview, his method of studying English is through reading materials because he prefers words. Also, she can learn through books or visual media like videos with just music lyrics. Another strategy used for S4 is to write the words in vocabulary lists over and over again.

The most predominant learning style in the participant is Read/Write. S4 has developed his learning strategies to learn and store information. It was noticed that S4 watches his favorite cartoons or movies with captions which have helped to develop their reading comprehension, increase their vocabulary, and feel more comfortable in speaking exercises. He is also able to mix the Read/Write learning style with Visual learning styles to ensure learning.

### **LIMITATIONS OF THIS STUDY**

This study focuses on identifying and analyzing English learning styles based on Fleming's VARK model and an unstructured interview. Participants in this study were limited to beginning English learners, who were learning in online classes during their first semester enrolled in college.

### **Main applications and impact of this research**

The proposed research aims to identify what learning styles are used by undergraduate English students in a teacher training program university. Despite the relevance of identifying students' learning styles, no previous study on this matter could be traced at the institution with the VARK model. This study could contribute with useful information to teachers, teacher trainers, English learners, pre-service teachers, and researchers in the field of English language teaching.

### **CONCLUSION**

In this study, the main finding was that beginning English learners were able to adapt their learning styles with others to learn a second language. Considering that they were not used to learning virtually due to the COVID-19, they were in the need to study from home. The other important finding is that there is a strong inclination to use Aural and Read/Write learning styles inside multimodal and trimodal preferences in this sample with the objective that students learn better with what they are being taught.

The authors concluded that learning styles are not only how students can understand and receive information but also how they can apply the knowledge that is being taught. However, it is important to consider other factors that can modify a student's learning styles, such as motivation, environment and the length of time students are exposed to the language, which could influence the development of their learning progress.

For that reason, teachers must identify the learning styles used by their students. Knowing this information can guide them in selecting appropriate teaching methods, approaches, or materials that can maximize students' learning. Also, knowing students' learning styles can help the teacher to design lesson plans based on the needs of the students. Besides, teachers may also help them to develop other styles and to improve the style that most predominates in their learning. It will also allow the teacher to work with individuals or groups with different or the same learning styles and provide them with sustainable strategies for learning a second language.

In the same way students must know and understand the term learning styles in-depth, which covers the personality, strengths, and weaknesses of each student. Knowing what kind of learning

styles they have will help them find the best strategies for learning a second language. As a result, students will receive information from teachers more effectively.

**REFERENCES**

- Alqunayeer, H., Qassim University, Al-Qassim, Kingdom of Saudi Arabia, & Zamir, S. (2015). Identifying learning styles in EFL classroom. *International Journal of Learning and Teaching*. doi:10.18178/ijlt.1.2.82-87
- Al-Zu'be, A. (n.d.). *The difference between the learner-centred approach and the teacher-centred approach in teaching English as a foreign language*. Retrieved April 21, 2021, from Psu.eduwebsite:<https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.1083.7400&rep=rep1&type=pdf>
- Arumningtyas, P. (2017). *A Descriptive Study of Impoliteness Utterances in The Teacher-Students Interaction in English Teaching and Learning Process at The Seventh Grade of SMP Al Islam KaratsuRa in The Academic Year of 2016/ 2017*. English education department Islamic education and teacher training faculty the state Islamic institute of Surakarta.
- Bilkist, A. (2019). *A Descriptive Study of Fleming's Theory Based on VARK (Visual,Aural,Red/ Wrte ,Kinesthetic) Learning Style in English Used by The Eleventh Grade Students of SMA Negeri 1 TAGEN IN The Academic Year OF 2018/2019*. The State Islamic Institute of Sukarta.
- Brown, H. (2000). *Principles of language teaching and learning*, (4th ed.). White Plains, NY: Longman.
- Burke Johnson, R., Onwueegbuzie, A., & Turner, L. (2007). *Towards a Definition of Mixed Methods Research*. *Journal of Mixed Methods Research*, 1(2), 112-133. <http://dx.doi.org/10.1177/1558689806298224>
- Davis, B. (1993). *Tools for Teaching*. San Francisco. CA: Jossey-Bass.
- Denzin & Lincoln. (2005). *The SAGE handbook of qualitative research* (3rd ed.; N. K. Denzin & Y. S. Lincoln, Eds.). Thousand Oaks, CA: SAGE Publications.
- Espinoza-Poves, J., Miranda-Vílchez, W., & Chafloque-Céspedes, R. (2019). Los estilos de aprendizaje Vark en estudiantes universitarios de las escuelas de negocios. *Propósitos y Representaciones*, 7(2). doi:10.20511/pyr2019.v7n2.254
- Fleming, N. (2001). *Teaching and learning styles: VARK strategies*. Christchurch. New Zealand.
- Fleming, N. & Baume, D. (2006) Learning Styles Again: *VARKing up the right tree*. Educational Developments: SEDA Ltd. Issue 7.4. Nov. 2006. p4-7.
- Gilakjani, A. (2012). *Visual, Auditory,Kinaesthetic Learning Style and Their Impact on English Language Teaching*. Islam Azad University , Iran .

- Harris, J., Spina, N., Ehrich, L. C., Smeed, J., Australian Institute for Teaching and School Leadership (AITSL), & Queensland University of Technology. (2013). *Literature review : student-centred schools make the difference*. Melbourne, VIC, Australia: Australian Institute for Teaching and School Leadership.
- Jhaish, M. (2009–2010). The relationship among Learning Style, Language Learning Strategies, and the Academic Achievement among the English Majors at Al-Aqsa University. The Islamic University
- Keefe, James W. dan John M. Jenkins. (2005). *Personalize Instruction*. Bloomington: Kappa Educational Foundation.
- Kolb, D. (1993). *Learning Self Inventory: Self Scoring Inventory and Interpretation Booklet*. Boston: Mc Ber and Company
- Krashen, S. (2004) *Applying the Comprehension Hypothesis: Some Suggestions*. Presented at 13th International Symposium and Book Fair on Language Teaching (English Teachers Association of the Republic of China), Taipei, Taiwan, November 13, 2004.
- Lucía, H.-T., & Oswaldo, L.-Q. (n.d.). *Educación y Educadores*. Retrieved May 17, 2021, from Redalyc.org website: <https://www.redalyc.org/pdf/834/83412235005.pdf>
- Moleong, L. (2007) *Metodologi Penelitian Kualitatif*. PT Remaja Rosdakarya: Bandung.
- Muijs, D. (2004). *Doing quantitative research in education: With SPSS*. Thousand Oaks, CA: SAGE Publications.
- Narváez, O., Núñez, P., & Estrada, G. (2017). *Writing an EFL Research Report: a handbook for beginners*. Xalapa: Universidad Veracruzana.
- Oxford, R. (1990). *Language learning strategies: What every teacher should know*. Boston, Mass: Heinle & Heinle.
- Payaprom, S., & Payaprom, Y. (2020). Identifying learning styles of language learners: A useful step in moving towards the learner-centred approach. *The Journal of Language and Linguistic Studies*, 16(1), 59–72.
- Pritchard. Alan. (2009). *Ways of Learning*. Oxon: Routledge
- Reid, J. (Ed.). (1995). Preface. In J. Reid (Ed.). *Learning styles in the ESL/EFL classroom*. (pp. viii-xvii). New York: Heinle and Heinle Publishers.
- Reid, J. (1987). *The learning style preferences of ESL students*. TESOL Quarterly 21 (1), 87-111.
- Tashakkori, A., & Creswell, J. (2007) Editorial: *the new era of mixed methods*. J Mixed Methods Res 1: 3–7.
- Zhu, H.-R., Zeng, H., Zhang, H., Zhang, H.-Y., Wan, F.-J., Guo, H.-H., & Zhang, C.-H. (2018). The preferred learning styles utilizing VARK among nursing students with bachelor degrees and associate degrees in China. *Acta Paulista de Enfermagem*, 31(2), 162–169.