

Language Learning Styles And Strategies Of Preservice Teachers Its Relationship To Their Learning Engagement During Covid-19 Pandemic

O. G. Guadalupe Zevallos¹, W. W. Sardon Quispe²,
N. Chambi Condori³, A. Sucari León⁴, K. V. Mena Farfán⁵,
U. R. Quispe-Quezada⁶, F. A. Leiva Cabrera⁷, M. Reategui-Inga⁸,
A. Cecilia De Paz Lazaro⁹, Y. Aroquipa-Durán¹⁰, J. Farías Vera¹¹

¹ Universidad Cesar Vallejo, Perú,

Email: oguadalupe@ucvvirtual.edu.pe

² Universidad Nacional Amazónica de

Madre de Dios, Madre de Dios, Perú, Email: wsardon@unamad.edu.pe

³ Universidad Nacional del Altiplano Puno, Perú, Email: nchambi@unap.edu.pe

⁴ Universidad Nacional del Altiplano Puno, Perú, Email: asucari@unap.edu.pe

⁵ Universidad Nacional de Tumbes, Perú, Email: kmenaf@untumbes.edu.pe

⁶ Universidad Nacional Autónoma de Huanta, Facultad de

Ingeniería y Gestión. Huanta, Perú, Email: uquispe@unah.edu.pe

⁷ Universidad Nacional De Trujillo, Perú, Email: fleiva@unitru.edu.pe

⁸ Universidad Nacional Intercultural de la Selva Central

Juan Santos Atahualpa, La Merced, Escuela Profesional

de Ingeniería Ambiental, Perú, Email: mreategui@uniscjsa.edu.pe

⁹ Universidad Nacional de Barranca, Lima, Perú, Email: adepaz@unab.edu.pe

¹⁰ Universidad Nacional Autónoma Altoandina de Tarma, T

arma, Perú, Email: yaroquipa@unaat.edu.pe

¹¹ Universidad Nacional Hermilio Valdizán, Huánuco, Perú,

Email: javierfv_usmp@hotmail.com

Abstract

Language teaching is a difficult task for teachers since it requires the application of proper strategies and methods to achieve efficient language learning. This study aims to evaluate how university pre-service teachers learned languages and how they engaged in language learning during the COVID-19 Pandemic. 100 University pre-service teachers for the second semester of the academic year 2020–2021 took part in this research. To comprehend the factors, the researcher performed analysis. Descriptive statistics were used to analyze the profile variables and interpret the acquired data, including frequency counts, student

data, mean, and standard deviation. The respondents' significant mean scores when categorized according to their profile were examined using sample T-test and ANOVA. Through Google Forms, significant data were gathered and recorded. With a categorical mean of 4.32 (sd=0.05) and a descriptive interpretation of Very High, the findings indicate that Teacher-Modelling Items are the preferred learning method for the majority of students. With a categorical mean of 4.09 (sd=.58) and an emotional learning style, learners' learning engagement throughout the COVID-19 Pandemic can be demonstrated. In summary, instructors' use of examples helps students learn knowledge quickly. The learning of university-trained pre-service teachers is governed by emotion. It is advised that instructional tactics match up with students' learning plans. Additionally, in order to effectively meet the needs of the students, teachers must devise a variety of activities and appropriate teaching materials.

Keywords: cognitive, COVID-19 pandemic, emotional, learning styles and strategies, learning engagement, pre-service teachers

Introduction

It may be difficult for teachers to help their students learn a new language, and effective language learning, particularly of English, involves the use of certain strategies and methods. Teachers rely on a wide range of pedagogical approaches, but it is the effective application of these approaches that has the greatest impact on student achievement. Educators make every effort to meet the needs of their students. While there is an emphasis on quality as a means to both individual and societal success, much study still goes into discovering the most effective means of imparting that knowledge. Despite the breadth of the term "instruction," which can include such diverse domains as "school curriculum," "school financial systems," and "school leadership," there seems to be general agreement that "teaching" is the most important factor in shaping the evolution of the educational system. (Selvaraj et al., 2022; Wenming & Limpapat, 2022). Considering these findings, it was discovered that one factor affecting the achievement of an excellent education is the incapacity of specific instructors and school administrators to correctly deal with and identify children's learning styles (Hwang et al., 2019).

The responsibility for creating a classroom where every kid may thrive rests squarely on the shoulders of the educators. As such, it is the duty of educators to promote student-teacher dialogue in order to ensure that this is the case. Teachers and students may learn a lot from one another. According to a group of researchers (Dyrstad et al., 2018; Era Buhari et al., 2022) In order for this strategy to be successful, educators need to take into account their students' individual learning preferences. If students know which learning approach works best for them, they will have an easier time with this method. There must be a balance between different approaches to teaching and learning if education is to flourish and succeed. The researcher has so far concentrated on determining the preferred modes of instruction among University Pre-service Teachers, with special attention paid to the New Normal.

Objectives of the Study

The purpose of this research was to analyze how university pre-service teachers learned a second language during the COVID-19 pandemic. It aimed, more specifically, to: (1) characterize the respondents; (2) identify the students' learning styles and strategies; (3) distinguish the differences between learning styles and strategies when grouped according to preferred variables; (4) identify the differences in students' levels of learning engagement when those variables were used to categorize them; and (5) identify the relationship between the respondents' learning styles and strategies and their levels of learning engagement over time.

Methods

Research Design

Results, respondents, and sample were analyzed and interpreted using a descriptive survey correlational research approach. In order to understand about students' existing profiles and how they approach learning, a descriptive research methodology is the best approach here. According to (Al-Fraihat et al., 2020; Hasanuddin et al., 2022), current information and reports may be utilized in conjunction with the findings of correlational research to gain insight into the influence and correlation between factors and to develop predictive models. In addition, the results of this study may be used to the task of identifying the relationships between students' preferred learning techniques and their level of engagement in class when the COVID-19 Pandemic is in full swing.

Respondents and Sampling Procedure

The study's intended sample size was 100, therefore it included 49 students (14 first-year, 23 second-year, and 12 third-year) and 51 students (13 first-year, 21 second-year, and 17 third-year) from the University's language programs during the second semester of the 2020-2021 academic year.

Table 1: Sampling Representation of the Study

Year Level	Total Number of Enrollees	Number of Sampled Respondents
1 st Year	36	27
2 nd Year	44	44
3 rd Year	29	27

Data Collection

Phase 1. Planning Phase

The research professor received a letter of permission before the study was conducted. Second, we contacted the Dean and Registrar's Office at the College of Teacher Education with our request. Finally, the researcher provided an orientation about the aims of the study before distributing any instruments.

Phase 2. Pre-treatment Phase

In order to get replies out of the participants, a series of 60 questions was developed. The first section of the questionnaire was a profile information page on the students. The second section is made up of 40 questions organized into 10 different learning styles and tactics, while the third section is made up of 20 statements organized into 4 different forms of learning engagement. The data obtained from students is checked for accuracy by the instructor, and if necessary, Statistical Package for the Social Sciences (SPSS) is employed to assist in more in-depth statistical analysis.

Data Analysis

The analysis helped the researcher comprehend the factors at play. Descriptive statistics were employed by the researcher to help make sense of the data, including frequency counts, student data, the mean, and the standard deviation. When respondents are divided into subgroups based on their profiles, significant mean scores are examined

using the sample T-test and the analysis of variance. Google Forms were used to collect and log a lot of information.

The following scale was used to understand and analyze the students' learning styles and techniques in connection to their learning engagement: Strongly agree (4.00-5.00), agree (3.40-4.19), agree (3.60-2.39), be undecided (between 1.00-1.79), disagree (1.80-2.59), and strongly disagree (between 1.00-1.79).

Results and Discussion

In this section of the study's findings, the demographics of the participants are discussed. The students' responses to our survey on their own demographic information are summarized in Table 3. The results reveal that out of a total of 15, 87% are female (f=13), while just 13% are male (f=2). This suggests that girls make up a significant proportion of 7th graders. Eighty percent of the students write using their right hand (f=12), whereas just twenty percent use their left (f=3). This would indicate that right-handedness is more common amongst 7th graders at National High. Twelve of the respondents (80%) speak English as their primary language in the household, and three (20%) speak English in addition to another language. This suggests that English is the most often used language among responders.

Table 2: Evaluation scale of Preservice Teachers

POINTS	DESCRIPTIVE VALUE
5	Always/ Strongly Agree
4	Often/ Agree
3	Sometimes/ Undecided
2	Rarely/ Disagree
1	Never/ Strongly Disagree

Table 3. Profile of the Respondents

Profile Variables	Categories	Frequency (n=100)	Percentage
Sex	Male	16	16

	Female	82	84
Learner's Language at Home	English	71	72
	Other Language	3	3
	Others	24	24
Father's Educational Attainment	Unschooling	1	1
	Elementary Undergraduate	12	12
	Elementary Graduate	13	13
	Highschool Undergraduate	21	21
	Highschool Graduate	29	30
	College Undergraduate	13	13
	College Graduate	9	9
Mother's Educational Attainment	Elementary Undergraduate	16	16
	Elementary Graduate	12	12
	Highschool Undergraduate	17	17
	Highschool Graduate	28	29
	College Undergraduate	12	12
	College Graduate	12	12
	MS/ MA Graduate	1	1
	White Collar Job	6	6

The respondents' demographic information is included in Table 3. The results reveal that women make up the vast majority of respondents (84%; $f=82$), while men account for just 16%; $f=16$. This suggests that women make up the majority of the University's student body. The survey found that women were significantly overrepresented in the college population. Additionally, this explains why females make up the country's largest demographic. The data indicates that the majority of respondents (72%) speak English. As a result, 3% ($f=3$) of the sample speaks a language other than English at home. As a result, 24 percent ($f=24$) of the respondents are bilingual or multilingual. In terms of respondents' fathers' occupations, the data reveal that 50% ($f=45$) are not in the labor force at all, 29% ($f=28$) are in business for themselves, 21% ($f=21$) are in blue collar jobs, 3% ($f=3$) are in white collar jobs, and 1% ($f=1$) are dead. The employment status of the mother is as follows: 65% ($f=64$) are not working, 21% ($f=21$) are self-employed, 7% ($f=7$) are in the blue-collar sector, and 6% ($f=6$) are in the professional/management sector.

Table 4.a. Visual Language Learning Styles

Statements	Mean ($n=100$)	Standard Deviation	Descriptive Interpretation
Reading what I've written on the board or in PowerPoint helps me retain the information.	4.25	.63	Very High
Reading directions helps me understand things better.	4.31	.65	Very High
I find that written notes are more helpful than vocal explanations when trying to grasp linguistic principles (such as grammar).	3.88	.88	Very High
Reading textbooks is far more effective for me than attending lectures.	3.61	.83	Very High
CATEGORY MEAN	4.01	0.13	High

Legend: 4.20-5.00: Very High/ Strongly Agree
 3.40-4.19: High/ Agree;
 2.60-3.39 Moderate/ Undecided
 1.80- 2.59: Low/ Disagree;

1.79: Very Low/ Strongly Disagree

Respondents' visual learning styles were evaluated in Table 4.a. With a mean score of 4.01 (SD=0.13), the examined visual learning style was deemed above average. This suggests that the respondents had a strong preference for using visual learning tools to improve their language skills. The statement "I read instructions, I learn them better" had the highest mean score (4.31, SD=.65) of all the statements in the table. Therefore, "I learn more by reading textbooks than by listening to lectures," with a mean of 3.61 (SD=.83), is the statement with the lowest mean. According to research (Legaki et al., 2020; Kusmawaty et al., 2022), visual learners are the most receptive to visual aids like charts, diagrams, and photographs. These students pay close attention to the methods used by their peers. This further supports the argument that visual learners benefit most from visual learning resources.

Table 4.b. Auditory Language Learning Styles

Statements	Mean (n=100)	Standard Deviation	Descriptive Interpretation
I do better when the teacher explains things to us verbally.	4.29	.72	Very High
When I'm working on assignments, I appreciate it when teachers provide examples of good work by others.	4.09	.67	Very High
I am more of an auditory learner; thus, I like to listen to lectures in class.	4.17	.72	Very High
I learn best when I can hear the material being taught to me.	4.12	.69	Very High
CATEGORY MEAN	4.17	0.02	High

Legend:

4.20-5.00: Very High/ Strongly Agree
 3.40-4.19: High/ Agree;
 2.60-3.39 Moderate/ Undecided
 1.80- 2.59: Low/ Disagree;
 1.79: Very Low/ Strongly Disagree

Respondents' ratings of their auditory learning styles are shown in Table 4.b. With a mean score of 4.17 (SD= 0.02), the examined visual learning style was found to be above average. This suggests that the respondents had a strong preference for auditory language acquisition, which bodes well for their ability to make use of audio resources to improve their language skills. The statement "I learn better in class with oral instructions" had the highest mean score (4.29, SD=.72) when all the data was averaged together. This results in a mean of 4.09 (SD=.67) for the statement, "I prefer teachers to give me models of successful work from other people when doing assignments," which is the lowest of the statements. According to research (Faisal, 2019), children whose preferred learning method is auditory tend to do better in school. This is because she ran an analysis showing a 72% chance of a connection between the two factors.

Table 4.c. Kinesthetic Language Learning Styles

Statements	Mean (n=100)	Standard Deviation	Descriptive Interpretation
For me, hands-on experience is the best teacher. (Take a class on academic writing and work on your introduction.)	4.21	.68	Very High
The more hands-on my classes are, the more I take away from them. (For instance, keeping a notebook with definitions of new words rather than relying just on teacher-provided handouts.)	4.30	.61	Very High
I learn best when I get to put what I've learned into practice. (As an example, rather of reading the citation guides provided by the instructors, students might practice citing articles in class.)	4.05	.65	Very High
I learn best via hands-on exercises (like role-playing) in the classroom.	4.37	.65	Very High
CATEGORY MEAN	4.23	0.02	Very High

Responses to the question "How do you feel about your kinesthetic learning style?" are shown in Table 4.c. According to the data, a category mean of 4.23 (SD= 0.02) for the kinesthetic learning style was considered high. This indicates that the respondents have a strong commitment to kinesthetic language learning, suggesting that they might benefit from kinesthetic learning resources while studying a foreign language. Taking a deeper look at the data, we see that the greatest mean (4.37) (SD=.65) was achieved for the statement "I grasp things better in class when I engage in active activities (e.g. role-playing). Therefore, the statement with the lowest mean is "I enjoy learning in class by doing practical work. (E.g., Practicing how to cite an article in class, instead of reading referencing manuals given by the teachers.)" with a mean of 4.05 (SD=.65). According to research by (Chetty et al., 2019), Kinesthetic learners benefit most from the listening, talking, and watching components of the Student Team Achievement Division (STAD) learning paradigm.

Table 4.d. Tactile Language Learning Styles

Statements	Mean (n=100)	Standard Deviation	Descriptive Interpretation
Working on specific assignments is how I retain the most information.	3.92	.82	Very High
When I have to create anything for a class, I end up learning a lot. (For instance, compiling and summarizing assigned readings.)	4.17	.64	Very High
I find it helpful when professors use visual aids (like idea maps or mind maps) to illustrate grammatical topics.	4.22	.67	Very High
Building something helps me retain information better. (For instance, creating my own study notes.)	4.28	.64	Very High
CATEGORY MEAN	4.15	0.08	High

Legend: 4.20-5.00: Very High/ Strongly Agree
 3.40-4.19: High/ Agree;
 2.60-3.39 Moderate/ Undecided
 1.80- 2.59: Low/ Disagree;
 1.79: Very Low/ Strongly Disagree

The results of the respondents' evaluations of their tactile learning styles are shown in Table 4.d. According to the data, participants who scored highest in the area of tactile learning style had a mean score of 4.15 (SD=0.08). This suggests that respondents place a high value on tactile language acquisition, and that they may benefit from using such materials to improve their language skills. One may see by looking at the table that the words "When I construct something, I remember what I have learned better." are written. The most common response, "(E.g., Writing my own notes for revision.)" had a mean of 4.28 (SD=.64). This results in the statement, "I learn best by working on individual tasks," having the lowest mean (mean = 3.92, standard deviation =.82).

Table 4.e. Individual Items

Statements	Mean (n=100)	Standard Deviation	Descriptive Interpretation
Working on specific assignments is how I retain the most information.	3.73	.79	Very High
For me, the most effective learning occurs when I am on my own.	3.80	.75	Very High
When given homework, I learn best when instructors provide examples of what they consider to be good work by others.	4.09	.67	Very High
In my experience, I learn best when I am able to discuss the material with my professors one-on-one.	4.27	.65	Very High
CATEGORY MEAN	3.97	0.07	High

The respondents' evaluations of each item are shown in Table 4.e. According to the numbers, the individual evaluated things with a mean category score of 4.15 (SD=0.08), which may be classified as excellent Mesiono (2022). This suggests that the respondents have a strong commitment to learning about language

in isolation. One may see by looking at the table that the words "When I construct something, I remember what I have learned better." are written. The most common response, "(E.g., Writing my own notes for revision.)" had a mean of 4.28 (SD=.64). This results in the statement, "I learn best by working on individual tasks," having the lowest mean (mean = 3.92, standard deviation = .82).

Table 4.f. Group Items

Statements	Mean (n=100)	Standard Deviation	Descriptive Interpretation
I like it when I work with other students.	4.23	.67	Very High
I learn more when I study with other students.	4.11	.81	Very High
I enjoy working on an assignment with two or three classmates.	4.02	.73	Very High
I learn better when I study with others.	3.96	.88	Very High
CATEGORY MEAN	4.08	0.09	High

Legend: 4.20-5.00: Very High/ Strongly Agree
 3.40-4.19: High/ Agree;
 2.60-3.39 Moderate/ Undecided
 1.80- 2.59: Low/ Disagree;
 1.79: Very Low/ Strongly Disagree

Responses to group items are summarized in Table 4.f. Based on the data provided, it can be concluded that the analyzed group items scored very highly, with a mean of 4.08 (SD= 0.09). This suggests that the respondents have a strong commitment to group tasks, which bodes well for their ability to acquire linguistic skills in a collaborative setting. As we can see in the chart, the statement "I like it when I work with other students" had the highest mean score (4.23, SD=.67). Therefore, "I learn better when I study with others." has the lowest mean (3.96, SD=.88). According to research by Le et al. (2018) and Masganti (2022), students who engaged in collaborative learning were more invested in the process, took more responsibility for the completion of group assignments, and maintained a more organized approach as they worked in smaller groups.

Table 4.g. Independent Items

Statements	Mean (n=100)	Standard Deviation	Descriptive Interpretation
Instead, then waiting for a teacher to explain anything, I want to figure it out on my own first.	3.43	.96	Very High
I enjoy myself more when I can use my time to learn more about something that piques my curiosity.	4.35	.63	Very High
When I'm curious about anything, I want to do my own research rather than ask my lecturers.	3.96	.86	Very High
I find it helpful to investigate a topic on my own when I have questions about it.	4.02	.73	Very High
CATEGORY MEAN	3.94	0.15	High

Legend:

4.20-5.00: Very High/ Strongly Agree
 3.40-4.19: High/ Agree;
 2.60-3.39 Moderate/ Undecided
 1.80- 2.59: Low/ Disagree;
 1.79: Very Low/ Strongly Disagree

Respondent evaluations of separate items are shown in Table 4.g. The data shows that the evaluated independent items were judged as high with a category mean of 3.94 (SD=0.15). This suggests that the respondents have a strong commitment to individualism, which in turn suggests that they acquire languages more well when left to their own devices. Examination of the data reveals that the statement "I prefer to participate in activities that allow me to explore topics which are interested in" earned the highest mean score (4.35, SD=.63). As a result, "I prefer to solve problems by myself first (rather than relying on the teacher's explanation)" has the lowest mean (3.96, SD=.86).

Table 4.h. Dependent Items

Statements	Mean (n=100)	Standard Deviation	Descriptive Interpretation

When it comes to education, I would rather have instructor's lecture.	3.99	.82	Very High
Having more handouts available helps me retain information better.	4.15	.71	Very High
When assigning homework, I appreciate it when teachers provide detailed instructions and relevant resources.	4.27	.67	Very High
When introducing new topics in class, I like it when the instructor spends the bulk of time explaining them.	4.31	.65	Very High
GRAND MEAN	4.19	0.08	High

Legend: 4.20-5.00: Very High/ Strongly Agree
 3.40-4.19: High/ Agree;
 2.60-3.39 Moderate/ Undecided
 1.80- 2.59: Low/ Disagree;
 1.79: Very Low/ Strongly Disagree

Table 4.h shows how respondents were graded on the various dependent measures. The data shows that the evaluated dependent items were judged as high with a category mean of 4.19 (SD= 0.08). This suggests that responders have a strong commitment to dependent items, which bodes well for their capacity for independent language learning. The statement "I like teachers spending most of the time on explanation when presenting new concepts in class" had the highest mean score (4.31, SD=.65) of all the statements in the table. This results in a mean of 3.99 (SD=.82) for "I prefer teachers to lecture most of the time," which is the statement with the lowest mean.

Table 4.i. Teacher Modelling

Statements	Mean (n=100)	Standard Deviation	Descriptive Interpretation
When it comes to learning language skills (such as grammar and	4.56	.58	Very High

vocabulary), I find it helpful when instructors provide several examples.			
When given homework, I learn best when instructors provide examples of what they consider to be good work by others.	4.09	.69	Very High
I retain more of what I learn when it is shown to me how to use certain linguistic notions in particular contexts.	4.35	.64	Very High
I learn better via visual representations of processes or arguments. (For instance, "demonstrating in class how to calculate the solutions")	4.25	.66	Very High
CATEGORICAL MEAN	4.31	0.05	Very High

Legend: 4.20-5.00: Very High/ Strongly Agree
 3.40-4.19: High/ Agree;
 2.60-3.39 Moderate/ Undecided
 1.80- 2.59: Low/ Disagree;
 1.79: Very Low/ Strongly Disagree

The evaluations of the respondents on the dependent items are shown in Table 4.i. The data shows that a category mean of 4.31 (SD= 0.05) was considered to be extremely high for the examined dependent items. This indicates that respondents placed a premium on elements related to teacher modeling, suggesting that students benefit from having their teachers lead by example while learning a new language. Looking more closely at the data, we see that the statement "I like teachers providing me with lots of examples to illustrate language concepts (e.g., grammar and vocabulary)" had the highest mean score (4.56, SD=.58). This results in a mean of 4.09 (SD=.69) for the statement, "I prefer teachers to give me models of successful work from other people when doing assignments," which is the lowest of the statements. Teacher modeling has been shown to improve students' learning outcomes (Cheng et al., 2019). This is because students may identify with many role models who are actively engaged in the same instructional activities.

Table 4.j. Analytic Language Learning Styles

Statements	Mean (n=100)	Standard Deviation	Descriptive Interpretation
Problem-solving exercises are my favorite kind of classroom assignment.	4.24	.70	Very High
I learn best when instructors let me pose and answer my own questions.	4.36	.65	Very High
I find that I retain more information when I am asked to provide feedback on someone else's work (such as an essay they have written for a school assignment).	3.99	.75	Very High
I learn best when instructors give me opportunities to dissect language elements (such grammar and vocabulary) by providing concrete examples.	4.23	.61	Very High
CATEGORICAL MEAN	4.20	0.06	Very High

Legend: 4.20-5.00: Very High/ Strongly Agree
 3.40-4.19: High/ Agree;
 2.60-3.39 Moderate/ Undecided
 1.80- 2.59: Low/ Disagree;
 1.79: Very Low/ Strongly Disagree

The evaluation of the respondents' analytic learning styles is shown in Table 4.j. The data shows that the analyzed analytic items have a mean of 4.20 (SD= 0.06), which may be regarded as being very high. This suggests that the respondents strongly identified with the analytic learning style, suggesting that they would benefit most from analytic learning resources. Looking at the data more closely, the statement with the highest mean score, 4.36 (SD=.65) is "I prefer teachers to give me opportunities to ask and respond to questions." With a mean of 3.99 (SD=.75), "I learn better when I can evaluate on other people's work" ranks last among the statements examined.

Table 4.k. Language Learning Engagement During COVID-19 Pandemic

Learning Engagement Domains	Mean	Standard Deviation	Descriptive Value	Rank

Behavioral	3.61	.75	High	4
Emotional	4.09	.58	High	1
Cognitive	3.88	.67	High	2
Student-Teacher	3.79	.76	High	3
Grand Mean	4.11	.43	High	

Legend: 4.20-5.00: Very High/ Strongly Agree
 3.40-4.19: High/ Agree;
 2.60-3.39 Moderate/ Undecided
 1.80- 2.59: Low/ Disagree;
 1.79: Very Low/ Strongly Disagree

The respondents' overall preferences for studying a foreign language are summarized in Table 4.k. On average, respondents rated their own behavioral learning styles as above average (3.61; sd=.75), emotional learning styles as above average (4.09; sd=.58), cognitive learning styles as above average (3.88; sd=.67), and student-teacher learning styles as above average (3.79; sd=.76). They showed very positive learning styles and attitudes across all four language learning preferences, as shown by the calculated grand mean of 4.11. A person's learning style is the way they like to take in, analyze, and remember new knowledge. (tophat.com) If you take a closer look at the table, you'll see that of the four factors, the emotional learning style has the highest mean. This suggests that university preservice teachers' emotional states govern their academic performance. It has been discovered in a number of studies, including (Panigrahi et al., 2018), that emotions have a profound effect on several aspects of the brain's cognitive processes. This provides further support for the idea that both EQ and SAT/ACT scores are significantly correlated with a student's preferred learning style and level of academic success. Consequently, behavioral learning style has the lowest mean score of the four factors. This suggests that university preservice teachers less commonly used the behavior learning method.

Table 5 Performance of the Students in Language Arts Subjects

Grade of Students	Score Range	Frequency	Percentage
Excellent	95-100	0	0
Very Good	90-94	32	33
Good	85-89	60	61

Fair	80-84	6	6
Poor	75-79	0	0
Total		98	100

Table 6 displays the results of a test of significance for several categories of student profile characteristics on their levels of learning engagement. The research identified no significant differences in the learning engagement domains of male and female students when sex was included.

Table 6.1 Sex

Variables	Sex	Mean	Interpretation	Std. Deviation	t-value	Df	P value
Behavioral	Male	3.54	High	1.10	-0.391	96	0.69ns
	Female	3.62	High	0.67			
Emotional	Male	4.32	Very High	0.48	1.759	96	0.08 ns
	Female	4.04	High	0.59			
Cognitive	Male	4.04	High	0.86	1.075	96	0.28 ns
	Female	3.84	High	0.63			
Progress	Male	4.06	High	0.68	1.292	96	0.19 ns
	Female	3.82	High	0.68			

*- significant at 0.05 level

** - significant at 0.01 level

ns= not significant

The significance test for gender differences in students' motivation to study is shown in Table 6.1. When broken down by gender, no independent variable registers below the 0.05 significance level. It follows that the "there is no significant difference in the students' learning engagement when grouped according to sex" null hypothesis is accepted. It demonstrates that variations in learner interest across sexes are unrelated. This research suggests that boys and girls of the University's

Preservice Teachers enrolling in the first semester of Academic Year 2020-2021 are equally engaged in their studies despite the COVID-19 Pandemic.

Table 6. 2. Learner's Language at Home

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
GRAND MEAN (Behavioral)	Between Groups	.050	2	.025	.043	.958 ns
	Within Groups	55.221	95	.581		
	Total	55.271	97			
GRAND MEAN (Emotional)	Between Groups	.215	2	.108	.308	.736 ns
	Within Groups	33.224	95	.350		
	Total	33.439	97			
GRAND MEAN (Cognitive)	Between Groups	.175	2	.088	.187	.830 ns
	Within Groups	44.478	95	.468		
	Total	44.654	97			
	Total	56.837	97			
GRAND MEAN (Progress)	Between Groups	.480	2	.240	.501	.607 ns
	Within Groups	45.528	95	.479		
	Total	46.008	97			

The significance test for students' level of interest in learning when divided into groups based on their native tongue is shown in Table 6.2. When people are divided into categories based on the language they

spoke at home, no variable has a significance level below the 0.05 threshold. Students' motivation to study does not vary much when they are divided into groups based on their parents' native tongue, thus we accept the null hypothesis. This data demonstrates that linguistic variations have little impact on students' motivation to study.

Table 6.3. Monthly Income

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
GRAND MEAN (Behavioral)	Between Groups	2.100	5	.420	.727	.605 ns
	Within Groups	53.171	92	.578		
	Total	55.271	97			
GRAND MEAN (Emotional)	Between Groups	.382	5	.076	.213	.956 ns
	Within Groups	33.058	92	.359		
	Total	33.439	97			
GRAND MEAN (Cognitive)	Between Groups	1.515	5	.303	.646	.665 ns
	Within Groups	43.139	92	.469		
	Total	44.654	97			
GRAND MEAN (Student-Teacher)	Between Groups	3.477	5	.695	1.199	.316 s
	Within Groups	53.360	92	.580		
	Total	56.837	97			
GRAND MEAN (Progress)	Between Groups	2.547	5	.509	1.078	.378

Within Groups	43.462	92	.472		s
Total	46.008	97			

*- significant at 0.05 level

** - significant at 0.01 level

ns= not significant

Table 6.3 displays the significance test for students' level of involvement in their studies when broken down by their families' median monthly income. When broken down by median monthly income, there is no significant difference between any of the groups. Students' interest in learning does not vary significantly between groups defined by their parents' monthly income, thus we accept the null hypothesis that there is no such difference. It demonstrates that inequalities in socioeconomic level are not correlated with linguistic ones.

Table 7. Relationship of students' learning styles and strategies to their learning engagement

Variables	Mean	R	P-value
Learning styles and strategies	4.18	0.5134	.00001*
Learning engagement during the COVID-19 Pandemic	4.65		

*= significant at 0.05 level;

ns= not significant at 0.05 level

Note: all other variables are not significant

Student participation in their studies is shown to be correlated with their preferred learning approaches and styles in Table 7. The findings showed that there is a strong association between students' learning engagement and their preferred learning styles and techniques throughout the COVID-19 Pandemic ($p = .00001$). The assumption that there is no correlation between students' preferred learning approaches and their level of interest in class is rejected as a null hypothesis. This implies that students' motivation to learn during the COVID-19 Pandemic is heavily influenced by their own learning styles and tactics. Learning styles, as discussed by (Lamb et al., 2018), contribute to the development of pedagogical procedures, inspire active learning, and improve students' perspectives and perspectives. Students' in-class performance will improve as well if they have a firm grasp of the methods and approaches

most effective for them as individuals. This will help them develop a strong work ethic and dedication to their academic pursuits.

Conclusion and Recommendations

The purpose of this research was to examine the correlation between the learning engagement of Un preservice teachers and their preferred linguistic learning styles and strategies during the COVID-19 pandemic. The study included responses from 98 students and used a descriptive correlational survey design. Two sets of standardized questionnaires were used to collect the data. The majority of students use Teacher-Modeling Items to learn, as shown by the category mean of 4.32 (sd=0.05) and the descriptive interpretation of Very High. Teachers may help students learn quickly by presenting material and illustrating it with examples. They are analytical and kinesthetic as well. In terms of students' interest in learning during the COVID-19 Pandemic, the emotional learning style placed top on all four measures. Thus, it appears that the University Preservice Teachers' Emotional Regulation of Learning is at play. Consequently, despite being the fourth most important factor, behavioral learning style has the lowest mean. This suggests that college education majors favored other learning styles more than the behavior learning style.

The results of the research showed that there is a substantial disparity in the respondents' preferred learning styles and their techniques for actively engaging in learning during the COVID-19 Pandemic. It is important for educators to tailor their methods of instruction to the unique needs of their students. It's important to cater to a variety of different learning preferences, including those that are more visual, auditory, tactile, individual, independent, group, and independent. Teachers also need to be creative in coming up with different activities and developing appropriate teaching materials to meet the requirements of their students. Publishing pamphlets or booklets with a series of lectures on learning styles would further enhance the improvement of the delivery of learning. It is also seen to be helpful to develop and use an online mobile app as a mode of remote education.

References

- Al-Fraihat, D., Joy, M., & Sinclair, J. (2020). Evaluating E-learning systems success: An empirical study. *Computers in human behavior*, 102, 67-86. <https://doi.org/10.1016/j.chb.2019.08.004>
- Cheng, L., Ritzhaupt, A. D., & Antonenko, P. (2019). Effects of the flipped classroom instructional strategy on students' learning outcomes: A

- meta-analysis. *Educational Technology Research and Development*, 67, 793-824. <https://doi.org/10.1007/s11423-018-9633-7>
- Chetty, N. D. S., Handayani, L., Sahabudin, N. A., Ali, Z., Hamzah, N., Rahman, N. S. A., & Kasim, S. (2019). Learning Styles and Teaching Styles Determine Students' Academic Performances. *International Journal of Evaluation and Research in Education*, 8(4), 610-615. <https://eric.ed.gov/?id=EJ1238274>
- Dyrstad, S. M., Kvalø, S. E., Alstveit, M., & Skage, I. (2018). Physically active academic lessons: acceptance, barriers and facilitators for implementation. *BMC public health*, 18(1), 1-11. <https://doi.org/10.1186/s12889-018-5205-3>
- Era Buhari Luneto, Abdurrahman R. Mala, MuhHasbi, Supiah (2022). The Challenge in School Education Management in Achieving Sustainability and Advantages in the Technological Digital. *Educational Administration: Theory and Practice 2022*, Volume 28, Issue 2, pp: 94-107.
- Faisal, R. A. (2019). Influence of personality and learning styles in English language achievement. *Open Journal of Social Sciences*, 7(8), 304-324. <https://doi.org/10.4236/jss.2019.78022>
- Hasanuddin, Salamiah Sari Dewi, Erlina Sari Siregar (2022). Predictor Of Multiple Intelligence in Educational Practice. *Educational Administration: Theory and Practice 2022*, Volume 27, Issue 2, pp:049-056.
- Hwang, G. J., Hsu, T. C., & Hsieh, Y. H. (2019). Impacts of different smartphone caption/subtitle mechanisms on English listening performance and perceptions of students with different learning styles. *International Journal of Human-Computer Interaction*, 35(4-5), 333-344. <https://doi.org/10.1080/10447318.2018.1543091>
- Kusmawaty Matara, Zulkarnain Suleman, Nazar Husain Hadi Pranata Wibawa (2022). Law for Handling Problematic Children in Families in the Context of Child Psychology Education *Educational Administration: Theory and Practice 2022*, Volume 28, Issue 2, pp:74-87.
- Lamb, R. L., Annetta, L., Firestone, J., & Etopio, E. (2018). A meta-analysis with examination of moderators of student cognition, affect, and learning outcomes while using serious educational games, serious games, and simulations. *Computers in Human Behavior*, 80, 158-167. <https://doi.org/10.1016/j.chb.2017.10.040>
- Le, H., Janssen, J., & Wubbels, T. (2018). Collaborative learning practices: teacher and student perceived obstacles to effective student collaboration. *Cambridge Journal of Education*, 48(1), 103-122. <https://doi.org/10.1080/0305764X.2016.1259389>
- Legaki, N. Z., Xi, N., Hamari, J., Karpouzis, K., & Assimakopoulos, V. (2020). The effect of challenge-based gamification on learning: An experiment in

the context of statistics education. *International journal of human-computer studies*, 144, 102496.

<https://doi.org/10.1016/j.ijhcs.2020.102496>

Masganti Sit (2022). Exploring The Knowledge and Experience of Childhood Education Teachers on Steam Education in Indonesia. *Educational Administration: Theory and Practice 2022*, Volume 28, Issue 2, pp:057-065.

Mesiono (2022). Model Of Education Management Using Qualitative Research Methods at A Private School in Medan. *Educational Administration: Theory and Practice 2022*, Volume 28, Issue 2, Pp: 88-93.

Panigrahi, R., Srivastava, P. R., & Sharma, D. (2018). Online learning: Adoption, continuance, and learning outcome—A review of literature. *International Journal of Information Management*, 43, 1-14.
<https://doi.org/10.1016/j.ijinfomgt.2018.05.005>

Selvaraj, A., Radhin, V., Nithin, K. A., Benson, N., & Mathew, A. J. (2021). Effect of pandemic based online education on teaching and learning system. *International Journal of Educational Development*, 85, 102444.
<https://doi.org/10.1016/j.ijedudev.2021.102444>

Wenming Wang, Pimurai Limpapat (2022). Ways to Enhance the Effectiveness of Homework for Primary and Secondary School Students. *Educational Administration: Theory and Practice 2022*, Volume 28, Issue 2, pp: 108-121