Learning Styles and Recruitment Exam Performance among Iranian Teaching Candidates

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ABSTRACT

Voluminous research conducted by educational psychologists and teachers has indicated that learning processes vary from every individual to another due to the existence of diverse psychological and biological factors. Once teachers become aware of the fact that learners are dissimilar in learning, they feel inclined to determine students' learning styles and accommodate their needs accordingly. This study aimed to investigate the existence of any possible correlation between learning styles and degree of success of applicants who attended a teacher recruitment test in Iran Language Institute. Participants of the study were classified into either failed-group or succeeded-group. To achieve the objective of the study, Ehrman and Leaver's Questionnaire (2003) was administered to the participants. Then each participant was included in one of the two groups of ectenic or synoptic learners. Pearson Product Moment Correlation Coefficient was calculated to find any significant relationship between participants' scores in the teacher recruitment test and their scores as an ectenic L2 learner or a synoptic L2 learner. The obtained value of R was 0.77, which is statistically significant, and indicated that synoptic teaching candidates were significantly more successful than ectenic candidates in the teacher recruitment test. While synoptic scores were positively correlated with participants' scores in teacher recruitment test, ectenic scores were negatively correlated with participants' scores in the test. It is concluded that there is a significant correlation between learning styles and degree of success in the teacher recruitment test. And successful teaching candidates in Iran can be grouped synoptically.

1. Introduction

In the realm of language pedagogy, scholars are intrigued with seeking correlations between learning styles and learners' success in various aspects. Typically teachers teach as they have been prepared to teach. This teaching preparation could be conducted in different ways and based on many factors, such as teachers' and learners' educational background, aptitude, syllabus design available, teaching styles and strategies or learning styles and strategies. Understanding students' learning styles and the correlation with their recruitment results may be vital for teachers. In some contexts these students tend to become teachers and set goals for recruitment examinations. If it is found that the students learning styles may immensely correlate with their success in teacher recruitment tests, this may influence the career choices they might make in the future.

Learning styles are introduced as the features, preferences and power in the way how every individual processes and receives information (Felder & Silverman, 1988; Allinson & Hayes, 1996; Felder & Brent, 2005; Hsieh et al., 2011), personalized set of strategies at the moment of learning (Schmeck, 1988; ChanLin, 2009; Ford & Chen, 2000; Weinstein, 1996), a consistency at perceiving, organizing, conceptualizing and recalling information (Ellis, 1985), individuals' habitual or typical way of perceiving , remembering, thinking, and problem solving (Allport, as cited in Askari, Khoshsima, Khatin-Zadeh, & Banaruee, 2017), the extension of cognitive styles, psychological constructs that constitute human features, individual differences

employed variously in learning the cycle based on their preferences (Kolb et al., 2001), every individuals unique learning based on strengths and preferences (Dunn & Dunn, 2010), natural predispositions toward some perceptions which push individuals upon their environment (Gregorc & Butler, 1984), brain dominance processings (McCarthy, 1972; McCarthy & McCarthy, 2006), intelligence types which are potential faculties whose existence brings into play the intellectual types appropriate to the specific situation (Gardner, 1991), personality traits which are psychologically involved in the process of perceiving information deciding and concluding about the information (Myers, 1962), a cognitive composite, affective, and psychological factors which perform as the indicator of individuals in interaction and response to environment and learning (Duff, 2000), general approaches similar to overall patterns that learners use in acquisition of new items (Cornett, 1983), set of biological and developmental characteristics imposed on learners (Dunn & Griggs, 1988).

Being aware of the fact that learning styles and the roles they lead in recruitment performances might be of a prominent significance for teachers, researchers, curriculum designers and even psychologists. Since the learning styles play a crucial role in the learning process, it is of paramount importance that the educators do not neglect them. Pask (as cited in Askari et al., 2017) pointed out more than a half of a person's learning style is established through biological factors. Reiff (1992) also has asserted that all learners have individual attributes related to their learning processes. Therefore, as it has been expressed, it is crucial that students become of their learning styles in order to make the learning process more meaningful and effective. Teachers may also cater their teaching styles to the needs of the students so that the optimum result from the teaching could be achieved. Besides that, to make sure that the curriculum fits the learners' needs, the teachers need to know how their students get access to, process and express information and what their learning and thinking styles are (Henderson & Milstein, 2003).

It seems important for learners in advanced levels and job seekers to know how learning styles influence their success on recruitment examinations, and from there to design possible means of intervention for developing effective learning and academic achievement. Learning styles are among the concepts that are presupposed by scholars to show the presence of diversity among learners and their varied needs. As a result, the present study aimed to examine the relationship between learning styles and recruitment test performance of the applicants in Iran.

2. Literature Review

The related literature in research has indicated that by becoming more aware of how you learn, you can become a more efficient and effective learner. It seems that scarcely have scholars shown any interest in finding correlations between learning styles and teacher recruitment test results. Hence, this study is hoped to contribute to the enrichment of the existing literature. Kolb and Kolb (2005) asserted that learning styles describe the differences in the way learners prefer being involved in the process of learning. They also argued that in selecting a particular way of learning, we are normally affected by features such as life experiences and demands of the present environment. Therefore, teachers should establish their students' learning styles and provide teaching interventions that are attuned with the learners' learning styles in order to achieve a desired learning environment. In this respect students with certain learning styles may not succeed because they are less proficient due to the fact that they haven't been taught using teaching strategies that might match their learning styles or they have only limited themselves to using learning strategies that match their learning styles.

Scholars rigorously have found benefits of employing learning styles studies in classroom settings (Zare-Behtash, Khatin-Zadeh & Banaruee, 2017; Dornyei & Skehan, 2005; Oxford, 1993; Banaruee, Mohammadian & Zare-Behtash, 2017; Weinstein & Mayer, 1986; Dunn, 1990; Banaruee,, Khoshsima & Askari, 2017; Yusoff, 2007; Ehrman & Leaver, 2001, 2002, 2003; Zare-Behtash et al., 2017). Previous studies have shown that students choose certain strategies more or less according to their own learning styles (Askari et al., 2017; Ehrman, Leaver & Oxford, 2003; Ehrman & Oxford, 1990; Rossi-Le, 1989). For instance, in Ehrman and Oxford's study (1995), individuals' learning styles and strategy use were explored in the strategy training based instruction and the results showed that learners' learning styles had a moderate

correlation with their learning strategies. So far, many researchers have proved the connections between learning preferences and learning strategies. Lie and Qin's (2006) study strongly suggested that learning styles have a significant influence on learners' learning strategy choices. In their study, the comparison between high and low achievers showed that high achievers are more capable of practicing strategies that are not typically associated with their preferred learning styles. However, low achievers used a limited range of strategies. The results revealed that language proficiency levels and learning strategy use were significantly different. Learners' proficiency levels and the use of learning strategies were positively correlated. The higher the proficiency was the more learning strategies were used. Khoshsima and Banaruee (2017) found that the effect of learning styles was also present on the type of errors (interference or developmental) Iranian EFL learners made in their writings.

However, the results of some research do not support this point of view. For instance, Kiliç and Karadeniz (2004) investigated the effect of navigation strategies, gender and learning styles of the learners on their success. The results of their study indicated that students' success did not change with gender, learning style and navigation strategies. Also, it had been indicated that navigation strategies did not differ significantly according to learning style and gender. Moreover, in a study conducted by Myers and Dyer (2004) identifying the influence of student learning styles on critical thinking skills. The results showed that no differences in critical thinking ability existed among students with different learning styles. They attributed the results to teachers' instructional methods and techniques that would enhance the critical thinking skills of the learners. Nonetheless, several studies asserted that suitable learning strategies may also enable individuals to manage and process information best suited to their own learning styles. Moreover, Banaruee, Khoshsima, and Khatin-Zadeh (2017) studied asserted that it can be highly effective to place learners with different preferences and EQs in one class.

Rochford's (2003) study showed that when students are taught using learning-style responsive materials, they score higher on the ACT test. Students need to participate in activities that foster autonomy and control over learning

situations and be instructed in individually effective methods for learning (Rochford, 2003). Banaruee and Askari (2016) claimed that taking learners' preferences into account and providing them feedbacks accordingly, is significantly practicable in EFL classes. If learners are aware of their learning strengths and able to apply effective learning strategies, the negative emotion from learning frustration could be diminished (Rubin, 1975). Additionally, Dunn (1983) found that in cases which learning styles had been taken into account the students improved dramatically. This was an indicator of the fact that the way things were taught had a greater impact than the content covered during the course of study. According to Felder (2010, p. 11) "if the balance between the learning styles of the students and teaching styles of the teacher is achieved, all students will be taught partly in a manner they prefer, which leads to an increased comfort level and willingness to learn." Such teaching practices will motivate students' individual learning styles. If teaching practices are not aligned to student's needs, students may become bored, lose focus, perform minimally in tests and examinations or show disinterest in the courses, curriculum and in themselves.

In some cases, students may shift to other educational settings or drop out of school when there are mismatches between learning styles of students and the teaching style of the professor in a class (Felder, 2010). In his study, Felder (2010) also found that many students have benefitted from learning about how they learn and how their learning patterns differed from those of their classmates. In literature there exist numerous learning styles and learning style models. The differences among definitions and models are the consequence of the fact that learning is achieved at different dimensions, and that theorists define learning styles by taking different aspects into consideration. In the current study, the relationship between learning styles of the candidate and their success on L2 teacher recruitment test was investigated and discussed.

3. Methodology

This study is a quantitative research with a one shot case design. Thirty teacher candidates for Iran Language Institute in, Bandar Abbas, Iran participated in this study. Fifteen participants were currently employed, and had already taken the recruitment examination at different times. Fifteen participants were selected non-

randomly from the failures, who had failed at the teacher recruitment examination administered by the institute in the summer of 2016. All the participants took a TOEFL PBT test as the recruitment exam. The aim was to investigate a possible correlation between learning styles of participants and their recruitment exam performance. The focus of this research was on providing a better understanding of how utilizing learning styles could be beneficial in achieving academic goals like succeeding in teacher recruitment examinations. This study aimed at investigating the relationship between teaching candidates learning styles and their success in teacher recruitment examination and the most relevant types of learning styles to the rate of success in recruitment examinations for Iranian teaching candidates.

3.1. Participants

The participants of this study were thirty Iranian EFL teaching candidates, chosen according to convenience sampling. Fifteen of the participants had passed the recruitment exam and were teaching at Iran Language institute in Bandar Abbas and the rest had failed to pass the recruitment exam in the summer of 2016. All of the participants took the same TOEFL PBT test as their recruitment test.

3.2. Instruments

The Instruments used in this study were TOEFL PBT test utilized by ILI as a recruitment test and E&L questionnaire to investigate the participants' learning styles. The recruitment test consisted of five segments, including; listening, vocabulary, grammar, cloze test and reading. Each section was assigned 100 scores. And the candidates who scored 250 out of 500 were accepted to be recruited as teachers.

The questionnaire selected for this study was Ehrman and Leaver Questionnaire (2003) which considers what is traditionally known as cognitive learner preferences as opposite poles of subscales or scale variables. Ten pairs of opposite processing styles are presented under two so-called synoptic and ectenic poles comprising super-ordinate constructs in this questionnaire. Ehrman and Leaver (2003) postulated that a learner's cognitive preference can be at one of the two opposing poles or somewhere in between. The questionnaire includes thirty pairs of preferences/opposites; three pairs for each of the ten variables. The computed score will then favor one of the two opposite poles unless it happens to be placed in the middle of the two. The ten pairs of opposites are; field independent vs. field dependent, field sensitive vs. field insensitive, random vs. sequential, global vs. particular, inductive vs. deductive, synthetic vs. analytic, analogue vs. digital, concrete vs. abstract, leveling vs. sharpening, and impulsive vs. reflective. (Ehrman & Leaver 2003)

3.3. Data Collection Procedures of the study

At first E&L questionnaires were given to the present teachers at ILI. Since they had already taken the recruitment test, they were considered a homogeneous group and their scores achieved on the recruitment tests were available at the administrative office. Then after the results of the recruitment examination were made available by the administrative office at ILI. The fifteen randomly selected candidates who had failed the exam received the E&L questionnaires. Based on the information gathered through the questionnaire the participants were grouped into synoptic and ectenic learners.

3.4. Data Analysis

In order to answer the questions posed by this study, the recruitment examinations' results were analyzed by counting and classifying the scores into five categories of listening, vocabulary, grammar, cloze test and reading scores. Then the sum of the scores was taken as the indicator of the success or failure of the candidates. The candidates who scored above 250 were recruited as teachers for the institute. In order to make the results from the questionnaire quantitative, the ecteno-synoptic continuum was prepared and scored out of 10. For instance, if a candidate enjoyed three synoptic styles, he/she would receive three scores which mean the scores they received represented their synoptic styles numbers. At the final stage of the study, in order to find possible correlations between the ecteno-synoptic range and the scores achieved on the recruitment examination, a test of Pearson Correlation Coefficient was performed.

4. Results

The results in table (1) below shows that Ectenic learners performed poorly and failed at the exam, only two of the failed candidates were synoptic learners who achieved, by the way, higher scores than the other ectenic learners. And only one of the failed candidates was an ecteno-synptic learner.

Table 1: Teaching Candidates Failed at Entering at Iran Language Institute

Number	Learning Styles																				Ectenic or Synoptic Degree	Ectenic or Synoptic	Scores
	Field dependent	Field independent	Field insensitive	Field sensitive	Leveler	Sharpener	Particular	Reflective	Global	Impulsive	Analytic	Synthetic	Digital	Analogue	Abstract	Concrete	Sequential	Random	Deductive	Inductive			
1	0			0	0	0			0	0		0		0		0		0	0		6	S	217
2		0	0		0	0				0	0	0		0	0		0		0	0	4	E	160
3		0	0		0	0	0				0		0		0	0		0	0		3	E	161
4		0	0		0	0	0	0			0		0		0		0		0	0	2	E	136
5		0	0		0	0				0	0		0		0		0		0	0	4	E	150
6		0	0	0		0			0	0	0		0		0		0	0	0	0	3	E	170
7		0	0		0	0				0	0		0		0		0	0	0		4	E	160
8	0		0		0	0	0				0	0		0		0	0	0	0		4	E	168
9		0	0	0		0		0	0	0		0		0		0		0	0		3	E	170
10		0	0		0	0				0	0		0		0	0		0	0		3	E	180
11	0			0	0	0	0				0	0		0		0	0	0	0		5	ES	170
12		0	0		0	0				0	0		0		0		0	0	0		4	E	150
13	0		0		0	0	0			0	0		0		0		0		0	0	6	S	180
14		0	0		0	0				0	0		0		0		0	0	0		4	E	160
15		0	0		0	0		0	0		0		0		0		0	0	0		4	E	170

The findings revealed that most of the ectenic learners in this study were field independent, field insensitive, sharpener, particular, analytic, abstract, sequential and deductive.

Table (2) below indicates that the majority of accepted candidates at ILI recruitment test were synoptic learners.

Table 2: Teaching Candidates Accepted at Iran Language Institute

Number	Learning Styles																				Ectenic-Synoptic	Ectenic or Synoptic	Scores
	Field	Field	Field	Field sensitive	Leveler	Sharpener	Particular	Reflective	Global	Impulsive	Analytic	Synthetic	Digital	Analogue	Abstract	Concrete	Sequential	Random	Deductive	Inductive			
1	0			0		0		0	0		0		0	0		0		0	0		6	S	314
2		0		0		0		0	0			0		0		0		0	0	0	7	S	358
3		0		0		0		0	0		0			0		0	0	0		5	E	303
4	0			0		0		0	0		0			0		0	0	0		6	S	305
5	0			0		0		0	0		0		0		0		0	0		7	S	343
6	0			0		0		0	0			0		0		0	0	0	0	8	S	365
7	0			0		0		0	0		0			0		0	0	0		5	S	305
8	0			0		0		0	0			0		0		0	0	0	0	6	S	316
9	0			0		0		0	0		0			0		0	0	0		7	S	324
10	0		0			0			0	0	0			0	0		0		4	S	324
11		0	0		0		0	0		0			0		0		0	0	5	S	305
12	0			0		0	0	0			0	0		0			0	7	S	358
13	0	0		0		0		0		0		0	0	5	E	280
14	0		0		0	0		0		0	0		6	S	257
15	0			0		0	0		0		0	0		0	8	S	365

The findings showed that only two of the accepted candidates were ectenic learners and three of them were ecteno-synoptic. The findings revealed that most of the accepted candidates were field dependent, field sensitive, sharpener, reflective, global, analogue, concrete, random and inductive. The most common learning style among accepted and failed candidates was the sharpener style. In order to find correlations between the ecteno-synoptic range and the scores achieved on the recruitment examination, a test of Pearson Correlation Coefficient was performed and the results presented below were achieved.

Table 3: Correlation of failed candidates' ecteno-synoptic range and recruitment scores

		Final Scores	Ecteno-Synoptic Scores
Failed Candidates Final Scores	Pearson Correlation	1	.637*
Failed Candidates Ecteno-Synoptic Scores	Pearson Correlation	.637*	1
	Sig. (2-tailed)	.011	
	N	15	15

The value of R is 0.637. This is a moderate positive correlation, which means candidates with high ecteno-synoptic scores tended to have higher scores on recruitment test and those with low ecento-synoptic scores tended to have lower scores on the recruitment test. The value of R2, the coefficient of determination, is 0.4062. Most of low score achievers on recruitment test were ectenic learners who had ecteno-synoptic scores lower than five.

Table 4: Correlation of accepted candidates' ecteno-synoptic range and recruitment scores

		Final Scores	Ecteno-Synoptic Scores
Accepted Candidates Final Scores	Pearson Correlation	1	.705**
Accepted Candidates Ecteno-Synoptic Scores	Pearson Correlation	.705**	1
	Sig. (2-tailed)	.003	
	N	15	15

The value of R is 0.705. This is a moderate positive correlation, which means candidates with high ecteno-synoptic scores ended to have higher recruitment scores and those with low ecento-synoptic scores tended to have lower scores on the recruitment test .The value of R2, the coefficient of determination, is 0.4966. Most of high score achievers on recruitment test were synoptic learners who had ecteno-synoptic scores higher than 5.

Diagram 1: Scatter plot of total candidates' ecteno-synoptic range and recruitment scores

Scatter plot of total candidates' ecteno-synoptic range and recruitment scores
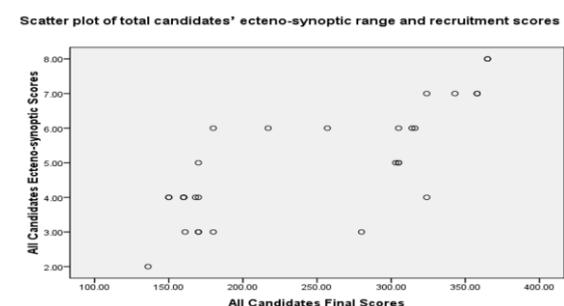
The value of R is 0.7728. This is a strong positive correlation, which means candidates with high ecteno-synoptic scores tended to have higher recruitment scores and those with low ecteno-synoptic scores tended to have lower scores on the recruitment test as well. The value of R2, the coefficient of determination, is 0.5972. The results assert the existence of high correlation between specific learning styles and the achievement on teaching recruitment examination.

5. Conclusions and Discussions

The results obtained in this study indicated that there was a high positive correlation between candidates' learning styles and their scores on the teacher recruitment examination. These results suggested that synoptic learners were more successful on Iran Language Institute's recruitment examination. It is concluded from the results that some learning styles were conspicuously apparent among

unsuccessful candidates; they were field independent, field insensitive, sharpener, particular, analytic, abstract, sequential and deductive learners. And the most highlighted learning styles attributed to the successful candidates included being field dependent, field sensitive, sharpener, reflective, global, analogue, concrete, random and inductive. Specific learning styles might be grouped together and be the exemplar of successful learners and candidates on teacher recruitment examinations in Iran.

It is inferred from the findings that teaching in accordance with the learners' typical learning styles would help them in developing their language skills and support them through their academic achievements. Felder (2010) indicated that if the balance between the learning styles of the students and teaching styles of the teacher is achieved, all learners will be led to an increased comfort level and willingness to learn. If teaching practices are not in line with student's needs, students may experience boredom, focus loss and poor performance in examinations. This conclusion is confirmed by the findings from several other studies as well (Lie & Qin, 2006; Henderson & Milstein, 2003; Dunn, 1983; Hsu & Chen 2016; Zare-Behtash & Banaruee, 2017).

Kilic and Karadeniz's (2004), however, indicated that students' success did not change with gender, learning style and navigation strategies. The findings of this study are also in contradiction with Myers and Dyer's (2004) study that showed no difference in critical thinking ability existed among students with different learning styles. The findings from the present study also indicated that it might be essential to make students aware of their learning style differences and the impact it might have on their academic life. Teachers may also be encouraged to modify their teaching styles to best fit the needs of their students according to their learning styles. The results also confirmed the findings from Dunn's study (1983) that found dramatic improvement in students' achievement in cases where learning styles had been taken into account.

Based on the findings of this study, it is concluded that taking learners' learning styles into consideration would make learning more meaningful and adjusted to the needs of the learners and would pave their ways towards higher academic achievements. This is in accordance with Hsu and Chen (2016) who indicated in the real EFL learning situation or EFL classroom teaching, it is better to take all of the students' learning preferences into account and it is better for teachers to constantly try to remember how each learner learns best. It should be taken into account that learning style is just one of the many factors which influence the learning process and the learning results (Castro & Peck, 2005). The aim of this study in investigating the correlation between learning style and the teacher recruitment performance was not to determine the superiority of one learning style to another. Yet, the information was invaluable in providing teachers, learners and curriculum designers with new insight into how to verify their teaching approaches and how to help learners to be aware of their own capabilities in learning through achievement.

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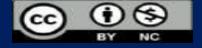
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Appendix: E & L Learning Style Questionnaire v. 2.0 [Adopted from Ehrman & Leaver (2002)]

Name: _____

INSTRUCTIONS: Date: _____

Mark in the space for each pair of items what you think you are like. For example, if you like bicycling <u>much</u> more than swimming, you might mark in space 2 (or even 1), like this:

I like riding a bicycle.   I like swimming.

0. Most like this ___ x ___ ___ ___ ___ ___ ___ ___ most like this
                    1   2   3   4   5   6   7   8   9

If you sort of like swimming better, you might mark in space 6.

I like riding a bicycle.   I like swimming.

0. Most like this ___ ___ ___ ___ x ___ ___ ___ ___ most like this
                    1   2   3   4   5   6   7   8   9

If you think you are in the middle or really do both equally, use space 5. Try to avoid using space 5 if you can.

I like riding a bicycle.   I like swimming.

0. Most like this ___ ___ ___ x ___ ___ ___ ___ ___ most like this
                    1   2   3   4   5   6   7   8   9

<u>There are no right or wrong answers on this questionnaire.</u>

****

Here are the questions:

1. When I work with new language in context, in stories or articles or at sentences; I often pick up new words, ideas, etc., that way, without planning in advance. | I don't usually get much from the context unless I pay close attention to what I'm doing. (1a)

1. Most like this ___ ___ ___ ___ ___ ___ ___ ___ ___ most like this
                  1   2   3   4   5   6   7   8   9

2. When working with new material with additional subject matter around it, I comfortably find and use what is most most important. | When there is a lot of information that comes with what I need to learn, it's hard to tell what's most important. It all seems to fall together sometimes, and its hard work to sort things out. (2a)

2. Most like this ___ ___ ___ ___ ___ ___ ___ ___ ___ most like this
                  1   2   3   4   5   6   7   8   9

3. I like to reduce differences and look for similarities. | I like to explore differences and disparities among things. (3a)

3. Most like this ___ ___ ___ ___ ___ ___ ___ ___ ___ most like this
                  1   2   3   4   5   6   7   8   9

4. I tend to be most aware of the 'big picture;' | I notice specifics and details quickly. (4a)

4. Most like this ___ ___ ___ ___ ___ ___ ___ ___ ___ most like this
                  1   2   3   4   5   6   7   8   9

5. I react quickly. | I take my time to react. (5a)

5. Most like this ___ ___ ___ ___ ___ ___ ___ ___ ___ most like this
                  1   2   3   4   5   6   7   8   9

6. I understand best by assembling what I'm learning into a whole. | I understand best by disassembly of what I'm learning into its component parts. (6a)

6. Most like this ___ ___ ___ ___ ___ ___ ___ ___ ___ most like this
                  1   2   3   4   5   6   7   8   9

7. I tend to learn things through metaphors. | I like it when people say what they mean directly. (7a)

7. Most like this ___ ___ ___ ___ ___ ___ ___ ___ ___ most like this
                  1   2   3   4   5   6   7   8   9

8. To learn, I like to interact with the world. | I like to learn through concepts and ideas. (8a)

8. Most like this ___ ___ ___ ___ ___ ___ ___ ___ ___ most like this
                  1   2   3   4   5   6   7   8   9

9. I learn best when I can work out for myself the best sequence to use, even if its different from the one in the book or lesson. | I learn best when there is a sequence of steps provided, so I can do things in order. (9a)

9. Most like this ___ ___ ___ ___ ___ ___ ___ ___ ___ most like this
                  1   2   3   4   5   6   7   8   9

10. When I learn, I mostly start with examples or my experience and make generalizations or rules. | When I learn, I mostly start with rules and generalizations and apply them to my experience to learn. (10a)

Most like this ___ ___ ___ ___ ___ ___ ___ ___ ___ most like this
               1   2   3   4   5   6   7   8   9

11. I often find that I have picked up new words, phrases, and so on without realizing it. | I usually have to undertake focused study before I learn new words or phrases. I wouldn't describe myself as someone who learns by 'osmosis.' (1b)

11. Most like this ___ ___ ___ ___ ___ ___ ___ ___ ___ most like this
                   1   2   3   4   5   6   7   8   9

12. I like out-of-context material like grammar rules. | Grammar rules and pieces of language that are out of context are hard for me to work with. (2b)

12. Most like this ___ ___ ___ ___ ___ ___ ___ ___ ___ most like this
                   1   2   3   4   5   6   7   8   9

13. I notice mostly how things are similar. | I quickly notice differences, even fairly fine distinctions. (3b)

Most like this ___ ___ ___ ___ ___ ___ ___ ___ ___ most like this
               1   2   3   4   5   6   7   8   9

14. I notice the 'forest' before the 'trees.' | I tend to be aware of the 'trees' before the 'forest.' (4b)

14. Most like this ___ ___ ___ ___ ___ ___ ___ ___ ___ most like this
                   1   2   3   4   5   6   7   8   9

15. I don't have to spend much time preparing for something; instead, I start off working immediately. | Before starting anything, I want time to orient myself to it. (5b)

15. Most like this ___ ___ ___ ___ ___ ___ ___ ___ ___ most like this
                   1   2   3   4   5   6   7   8   9

16. I often make up new words or sentences using language I already know. | I seek to understand the system that is behind words and sentences by pulling them apart in my mind. (6b)

16. Most like this ___ ___ ___ ___ ___ ___ ___ ___ ___ most like this
                   1   2   3   4   5   6   7   8   9

17. I prefer to learn by using lots of associations. | I prefer to use rehearsal and repetition. (7b)

17. Most like this ___ ___ ___ ___ ___ ___ ___ ___ ___ most like this
                   1   2   3   4   5   6   7   8   9

18. I like to learn through applying knowledge and theory. | I like to learn through descriptions and grammars that formally represent knowledge. (8b)

18. Most like this ___ ___ ___ ___ ___ ___ ___ ___ ___ most like this
                   1   2   3   4   5   6   7   8   9

19. Too much emphasis on a curriculum or textbook can get in the way of my learning. | Organized textbooks and lesson plans really help me. (9b)

19. Most like this ___ ___ ___ ___ ___ ___ ___ ___ ___ most like this
                   1   2   3   4   5   6   7   8   9

20. I like to figure out grammar rules for myself. | I prefer to get the grammar rules from the teacher or a book. (10b)

20. Most like this ___ ___ ___ ___ ___ ___ ___ ___ ___ most like this
                   1   2   3   4   5   6   7   8   9

21. I learn best from language that is in meaningful context like stories and conversations. | I don't like to have to learn from just conversations, informal language use, or readings for native speakers that I haven't been prepared for. (1c)

21. Most like this ___ ___ ___ ___ ___ ___ ___ ___ ___ most like this
                   1   2   3   4   5   6   7   8   9

22. When faced with new language, I reconceptualize it so that it makes sense in my own terms. | I accept what is presented to me and take it pretty much as presented. (2c)

22. Most like this ___ ___ ___ ___ ___ ___ ___ ___ ___ most like this
                   1   2   3   4   5   6   7   8   9

23. I tend not to remember small distinctions, such as those between similar-seeming words or symbols. | I have a good memory for fine distinctions such as those between similar-seeming words or symbols. (3c)

23. Most like this ___ ___ ___ ___ ___ ___ ___ ___ ___ most like this
                   1   2   3   4   5   6   7   8   9

24. I start with the main points and work down to the details. | I begin with the details to work up to the main points. (4c)

24. Most like this ___ ___ ___ ___ ___ ___ ___ ___ ___ most like this
                   1   2   3   4   5   6   7   8   9

25. I often act or speak without thinking about it. | I tend to think about things before I do or say them. (5c)

25. Most like this ___ ___ ___ ___ ___ ___ ___ ___ ___ most like this
                   1   2   3   4   5   6   7   8   9

26. I sometimes make up new ways to say things. | I prefer figuring out how words and sentences are put together. (6c)

26. Most like this ___ ___ ___ ___ ___ ___ ___ ___ ___ most like this
                   1   2   3   4   5   6   7   8   9

27. It helps to understand the meanings behind the actual words. | It's usually okay to take what I'm learning at face value. (7c)

27. Most like this ___ ___ ___ ___ ___ ___ ___ ___ ___ most like this
                   1   2   3   4   5   6   7   8   9

28. I like learning when I can touch, see, or hear. | I prefer to learn abstractly through theories. (8c)

28. Most like this ___ ___ ___ ___ ___ ___ ___ ___ ___ most like this
                   1   2   3   4   5   6   7   8   9

29. It doesn't matter if the material I'm learning isn't very organized; I can find a way to use it. | It's important to go step-by-step as I learn. (9c)

29. Most like this ___ ___ ___ ___ ___ ___ ___ ___ ___ most like this
                   1   2   3   4   5   6   7   8   9

30. When learning, I make guesses and then seek evidence to confirm or modify my ideas. | When learning, I would rather learn what I need to know directly, without fumbling around. (10c)

30. Most like this ___ ___ ___ ___ ___ ___ ___ ___ ___ most like this
                   1   2   3   4   5   6   7   8   9