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Exploring Perceptual Learning Styles and Vocabulary Retention among Libyan EFL Students at Derna University

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A B S T R A C T:

The study examined the effectiveness of cognitive learning methods in facilitating learning and memorizing English vocabulary. The study was based on the experimental approach. This study was conducted on 30 Libyan students from the University of Derna in Libya. They were randomly divided into two groups: a control group and an experimental group. The tools used to collect data were: a pre-test to assess the students' level and select the study sample, a post-test, and a cognitive learning methods questionnaire. The data was analyzed, and the results showed that there was no significant difference between the control and experimental groups, which indicates that teaching methods based on different learning styles did not significantly affect vocabulary memorization. The results of the post-test also showed that students with the interactive learning style achieved higher average grades than students with the visual and reading/written styles. However, the performance of students with the three learning styles was not statistically different.

استكشاف أساليب التعلم الإدراكي والاحتفاظ بالمفردات بين طلاب اللغة الإنجليزية كلغة أجنبية للطلبة الليبيين في جامعة درنة

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المستخلص:

تناولت الدراسة فعالية أساليب التعلم الإدراكي في تسهيل تعلم وحفظ مفردات اللغة الإنجليزية، وقد اعتمدت الدراسة على المنهج التجريبي، وقد أجريت هذه الدراسة على 30 طالبًا ليبيًا من جامعة درنة في ليبيا، وتم تقسيمهم عشوائيًا إلى مجموعتين: مجموعة ضابطة ومجموعة تجريبية، وكانت الأدوات المستخدمة لجمع البيانات هي: اختبار قبلي لتقييم مستوى الطلاب واختيار عينة الدراسة، واختبار بعدي، واستبيان أساليب التعلم الإدراكية، وتم تحليل البيانات، وأظهرت النتائج أنه لا يوجد فرق كبير بين المجموعتين الضابطة والتجريبية، مما يشير إلى أن طرق التدريس المبنية على أساليب التعلم المختلفة لم تؤثر بشكل كبير على حفظ المفردات، كما أظهرت نتائج الاختبار البعدي أن الطلاب ذوي أسلوب التعلم التفاعلي حققوا متوسط درجات أعلى من الطلاب ذوي الأسلوبين المرئي والقرائي/ الكتابي، ومع ذلك فإن أداء الطلاب ذوي أنماط التعلم الثلاثة لم يكن مختلفا إحصائيا.

الكلمات المفتاحية:

حفظ المفردات، أساليب التعلم الإدراكية، متعلمو اللغة الإنجليزية كلغة أجنبية.

1. Introduction

". . . while without grammar very little can be conveyed, without vocabulary nothing can be conveyed."(Wilkins, 1972, pp.111-112). Wilkins' proposition about the importance of vocabulary in language learning and proficiency has garnered widespread acceptance from academics and specialists in the field. This consensus emphasizes the critical relevance of vocabulary development in the overall language learning process. Nation (2001), for example, highlights the importance of a robust vocabulary base in order for learners to grasp and produce meaningful language. The capacity to understand and employ a wide range of words allows learners to engage with various linguistic situations and effectively communicate their thoughts. Given the importance of vocabulary, it is important to consider the most effective ways by which it is taught and learned. language teaching and learning have shifted tremendously from an emphasis on teacher-centered instruction to learner-centered instruction. This shift has led to a growing focus on individual learner differences (such as age, anxiety, aptitude, gender, motivation and self-esteem) which answer such questions as what characteristics shared by good language learners, and why some learners progress more quickly and effortlessly than others (Rossi-Le,1989). Learning style is also another variable. Within scholarly discussions, the term learning style is characterized by a diverse range of definitions and conceptual frameworks. Generally, it refers to the individuals' preferred methods of learning. Oxford (2003) identifies four dimensions of learning styles that are particularly relevant and strongly linked to second language learning (L2 learning): sensory preferences, personality types, desired degree of generality, and biological differences. It is evident that learning styles encompass not only the cognitive domain, but also the affective and physiological domains (Cornett,1983; Keefe,1985; Oxford,2003). In addition, several models have been put forth by researchers and scholars as theoretical frameworks to facilitate comprehension and classification of learning styles. One popular modal is VARK (Visual, Auditory, Reading/Writing, and Kinesthetic) developed by Fleming (1995), which classifies learners into four main categories: Visual, Auditory, Reading/Writing, and Kinesthetic. Visual learners prefer learning through visual stimuli (e.g. diagrams, charts and images) while auditory learners prefer listening and oral explanations, such as through discussions, lectures and audio recordings. Reading/Writing learners learn best through text-based materials and Kinesthetic learners prefer hands-on experiences. Another well-known model is Dunn and Dunn's (1974) model developed by Rita Dunn and Kenneth Dunn which categorizes learners according to various dimensions. These include environmental factors (such as, sound, light, temperature and seating arrangements), as well as the learning modalities (i.e. visual, auditory and tactile). Moreover, the model considers the social preferences, that is, some students may find it easier to study alone and need few interruptions whereas others may flourish in group environments. The model also takes into account the time-of-day preferences since different individuals may have variations in their optimal time of learning. However, it is worth noting that the concept of learning style is the subject of debate, with

advocates and opponents presenting different viewpoints. On one hand, Advocates contend that recognizing and accommodating learning styles optimizes the learning experience (Dunn, 1988; Dunn et al., 1989; Ehrman, 1996). On the other hand, opponents of learning styles argue that there is little scientific evidence to support the effectiveness of tailoring instruction to match learning styles and that it is important to focus on evidence-based instructional practices (Kirschner & Merrienboer, 2013; Pashler et al., 2008; Willingham, 2018). Therefore, this paper aims to delve into the ongoing debate regarding the impact of learning styles on language learning outcomes of English as a Foreign Language (EFL) Libyan university students, with a specific focus on perceptual learning styles and vocabulary retention. This entails exploring whether or not different perceptual modalities may influence the learning and retention of vocabulary.

2. Literature Review

2.1. The Concept of Learning Style

Students employ a variety of general approaches which Oxford et al. (1990) refer to as language learning styles in order to study a new subject or take on a new challenge. Pashler et al. (2008) referred to learning styles as the idea that different people will respond differently to different types of instruction or study whereas Cornett (1983) described learning styles as patterns which can provide guidance for learning.

2.2. Conflicting Research Findings on Learning Styles

Some studies have reported positive associations between learning styles and improved learning outcomes. For example, Naimie et al. (2010) conducted a study on 310 English Major Students and four lecturers from the Foreign Languages, Faculty of Azad University, Iran. The results revealed that accommodating learners' needs and preferences resulted in higher attainment. However, other research findings bolster the arguments put forth by those skeptical of learning styles. For instance, Sabag and Trotskovsky (2014) examined the impact of matching instructional strategies with learning styles. The findings of this study did not support the notion that a strong alignment between learning styles and instructional strategies significantly impacts students' academic achievement.

2.3. Sensory/Perceptual Style Preferences

Sensory/perceptual preference refers to the preferred sensory modality a learner uses to process new information. The four basic categories of sensory preferences are visual, aural, kinesthetic and tactile. Visual learners enjoy reading and benefit greatly from visual stimulus. By contrast, auditory learners are at ease without visual stimulation and hence benefit from oral input. Students that are tactile and kinesthetic tend to move around a lot and appreciate working with tangible items (Oxford, 2003).

2.4. Sensory/Perceptual Learning Style and Academic Achievement

Research on sensory/ perceptual modalities went further to find out what impact those modalities can have on learning. Some studies around the world argued that there is no correlation between perceptual learning styles and academic achievement of learners (Al-Zayed, 2017; Brahmakasikara, 2013; Herizal, 2018). Nonetheless, other studies on

English learners claimed that perceptual learning styles play a role in learners' academic achievement (Hamed and Almabruk, 2021; Hidaya et al., 2022).

2.5. Sensory/Perceptual Learning Styles and Vocabulary Retention

The relationship between perceptual learning styles and vocabulary retention has been the focus of many studies mostly conducted in Iran and Indonesia (Dehghani, 2021; Tayebi & Marefat, 2019). In his study on 44 Iranian EFL undergraduates, Dehghani (2021) investigated the role of learning styles on vocabulary learning. It was found out that the mean score for the visual group was the greatest, followed by multimodal learners. Tayebi and Marefat (2019) investigated vocabulary retention as well. The findings showed that visual learners outperformed auditory learners when exposed to vocabulary rote learning.

3. Methodology

3.1. Research Design

The current study utilized a quantitative methodology with an experimental research design. The experimental design allowed for the manipulation of independent variable,i.e. learning style to examine its effects on the dependant variable, i.e. vocabulary learning and retention.

3.2. Participants

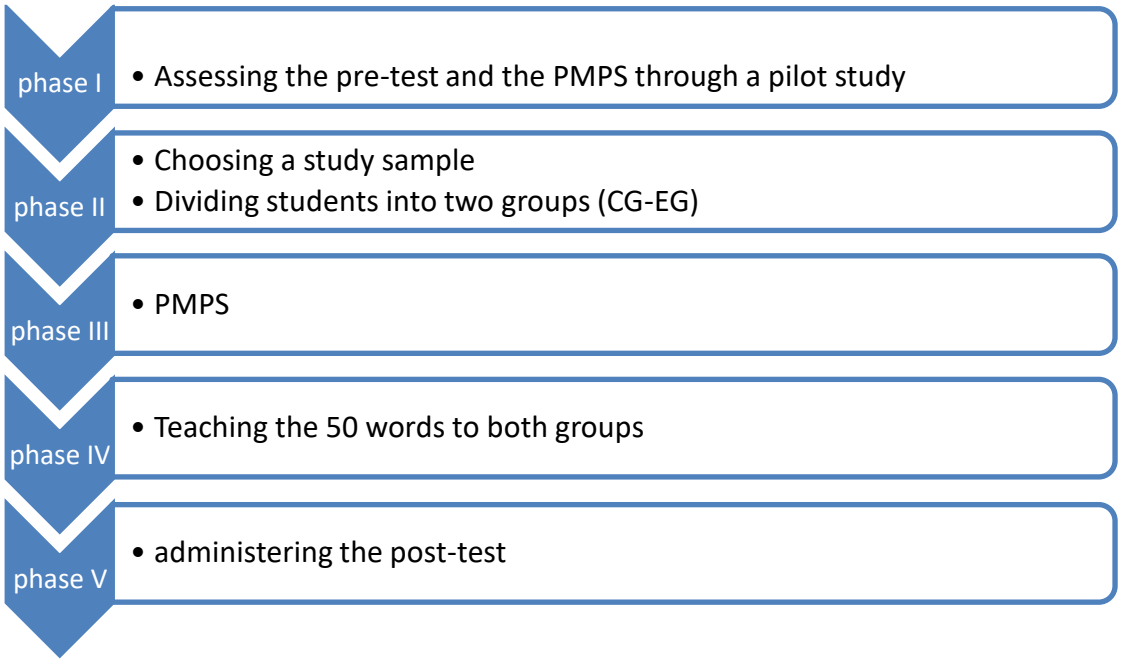
The study was conducted at Derna University. The target participants were 30 third-year English students since they make up the largest demographic compared to first, second or fourth- year students. Additionally, they are at a level where they are introduced to an advanced writing and speaking that necessitate extensive vocabulary knowledge. In order to reduce variability in the sample and increase the precision of the study, a homogeneous sampling strategy was utilized through a pre-test to ensure that all the participants are at the same level of vocabulary knowledge.

3.3. Data Collection Instruments and procedures

To investigate the research questions, three data collection tools were employed in this research study. First, a pre-test was taken from a book *Peterson's Master TOEFL Vocabulary* (Davy & Davy, 2006). The aim of this test was to ascertain the students' existing level of vocabulary proficiency prior to the initiation of the research investigation (see appendix A). The second data collection instrument utilized in this study was the Perceptual Modality Preferences Survey (PMPS) advanced by Cherry in 1981 as a part of his doctoral thesis work (Crannel, 2011). The questionnaire aimed to assess the ability to recall paired information across seven perceptual modalities: print, aural, interactive, visual, haptic, kinesthetic and olfactory (see appendix B). Subsequently, the teaching phase commenced with the presentation of 50 words to both groups taken from a book *504 Absolutely Essential Words* (Bromberg et al., 2012) (see appendix C). The instructional sessions were structured around the gradual introduction of five words per lecture. The control group received instruction from their lecturer. The lecturer presented each word accompanied by its Arabic equivalent. The experimental group was taught by the researcher. To cater to the diverse learning styles within the experimental group, specific strategies were employed. Print students were

provided with printed definitions of the words being taught. Visual students were presented with pictures on Whatsapp group. Lastly, the interactive group received instruction through interactive methods such as role plays, contextualization, and group discussions.

A post-test (see appendix D) was employed at the end of the experiment to see if there was any significant differences between the two groups (CG & EG). The data collection procedure is illustrated in figure 1 below:



4. Data Analysis

The collected data in this study was analyzed using the Statistical Package for the Social Sciences (SPSS) version 18, employing a range of statistical techniques to derive meaningful insights. Descriptive statistics were utilized to examine the results of the pre-test and the Perceptual Modality Preferences Survey (PMPS), providing a comprehensive overview of the participants' initial performance and their preferred learning styles. Furthermore, a t-test was employed to compare the test scores between the control group and the experimental group, allowing for a comparative analysis of the learning outcomes. Additionally, one-way ANOVA was utilized to compare the test scores among different subgroups within the experimental group, enabling a deeper exploration of the impact of varying learning styles on vocabulary retention.

4.1. Homogeneity of the Study Sample

Homogeneity sampling was employed in this study through the utilization of a pre-test to ensure a homogeneous sample of participants. As shown in Table 3, the results indicated that the mean score obtained was (13.46), with a standard deviation of (2.78). This demonstrates that the participants were at a similar level at the outset of the study.

Table 3
Mean Scores of the Study Sample on the Pre-test

	N	Minimum	Maximum	Mean	Std. Deviation
Scores	30	10.00	19.00	13.4667	2.78832
Valid N (list wise)	30				

4.2.Perceptual Modality Analysis

The perceptual modality preferences survey yielded mean scores that shed light on the relative preferences for different perceptual modalities. Among the participants, the highest mean score of (12.9) was observed for the interactive modality, indicating a strong preference for engaging and participatory experiences. The visual modality received a mean score of (8.4), indicating a significant preference for visually stimulating content and imagery. The print modality garnered a mean score of (7.3), indicating a notable preference for traditional and tangible forms of information consumption, such as reading books or printed materials. Table 4 shows the students' most preferred learning styles.

Table 4
Mean Scores of the PMPS for the Control and Experimental Groups

	N	Minimum	Maximum	Mean	Std. Deviation
Print	30	-17.00	31.00	7.3000	14.18875
Aural	30	-30.00	21.00	1.6333	13.61663
Interactive	30	-17.00	33.00	12.9667	12.53267
Visual	30	-4.00	22.00	8.4333	7.45415
Haptic	30	-22.00	19.00	-4.6000	11.39147
Kinesthetic	30	-18.00	19.00	1.9000	10.48595
Olfactory	30	-36.00	4.00	-19.2333	11.13764
Valid N (list wise)	30				

4.3. posttest analysis

After teaching a list of 50 words, a post-test was administered to both the control and experimental groups. To determine if there were significant differences between the two groups, a t-test was conducted to compare their mean scores. The results in table 5 revealed that the control group obtained a mean score of (26.66), while the

experimental group achieved a slightly higher mean score of (27.40).

Table 5

Mean Scores of the Experimental and Control Groups on the Post-test

	Group	N	Mean	Std. Deviation	Std. Error Mean
Score	Control	15	26.6667	9.54438	2.46435
	Experimental	15	27.4000	8.95066	2.31105

The equality of variances between the two groups, as noted in table 5, was assessed using Levene's test. Levene's test is commonly employed to determine if the variances of two or more groups significantly differ from each other. Table 6 below presents the obtained significance level for this test which was ((sig= .797 > α= 0.05). Therefore, it can be concluded that there is no significant difference in variances between the two groups.

Table 6

The Difference between Control and Experimental Groups on Post-test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Score	Equal variances assumed	.068	.797	-.217	28	.830	-.73333	3.37846	-7.65379	6.18712
	Equal variances not assumed			-.217	27.885	.830	-.73333	3.37846	-7.65507	6.18840

4.4. Learning Styles within the Experimental Group

Despite the absence of a significant difference between the control and experimental groups, it was imperative to conduct further analysis within the experimental group to explore variations in performance among subgroups of different perceptual modalities. To accomplish this analysis, one-way ANOVA was employed. As displayed in table7, the obtained significance level for this analysis was (sig= .315> α = 0.05) which indicates that there is no statistically significant difference in performance between the interactive, visual and print subgroups within the experimental group.

Table 7

One-way ANOVA Results for the Subgroups

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	196.567	2	98.283	1.275	.315
Within Groups	925.033	12	77.086		
Total	1121.600	14			

Based on the analysis of mean scores of each subgroup, the results revealed that the interactive subgroup obtained the highest mean score of (31.83), indicating superior performance. On the other hand, the visual subgroup achieved a mean score of (24.50), while the print subgroup had a slightly lower mean score of (24.40). These findings suggest that the interactive approach had a significant impact on the participants' performance, as it led to higher scores compared to the print and visual methods. The mean scores are shown in table 8 below:

Table 8

The Mean Scores of the Three Subgroups

	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
				Lower Bound	Upper Bound		
Print	24.4000	8.61974	3.85487	13.6972	35.1028	15.00	38.00
Interactive	31.8333	8.56543	3.49682	22.8445	40.8222	19.00	39.00
Visual	24.5000	9.32738	4.66369	9.6581	39.3419	15.00	33.00
Total	27.4000	8.95066	2.31105	22.4433	32.3567	15.00	39.00

4.5. Discussion

The outcomes revealed that there was no significant difference between the control group which received traditional teaching and the experimental group which was instructed based on interactive, print and visual learning styles. The similarity in scores suggests that the different learning styles employed in the experimental group did not lead to significantly better vocabulary retention compared to the traditional teaching approach used with the control group. One possible explanation for this similarity in learning outcomes is that the instructional methods (clarified previously in the data

collection procedure section) used in both groups were equally effective in facilitating vocabulary learning. It is plausible that the material or teaching practices employed in both the control and experimental groups were sufficiently engaging, comprehensive, and aligned with the learners' needs, resulting in comparable outcomes. Second, both groups may have had students who were intrinsically motivated and engaged in the learning process, regardless of the specific instructional approach. Interestingly, both the researcher who taught the experimental group and the lecturer responsible for teaching the control group expressed positive feedback regarding the students' engagement and learning during the sessions. The students demonstrated a strong interest for the instructional material and expressed satisfaction with their learning experience. Moreover, the lecturer reported that the students conveyed a desire for the sessions to be continued throughout their academic journey, indicating a perceived value and effectiveness of the teaching method employed.

The findings of the current study are in harmony with Sabag and Trotskovsky (2014) who conducted a comprehensive study to investigate the influence of matching instructional strategies with individual learning styles on students' academic achievement. The findings did not provide substantial evidence to support the widely held notion that a strong alignment between learning styles and instructional strategies significantly affects students' academic achievement.

In contrast to the aforementioned study, other studies reported conflicting results in terms of the relationship between learning styles and learning outcomes. In their study on 310 English Major students and four lecturers from the Foreign Languages Faculty of Azad University, Naimie et al. (2010) explored the impact of matching and mismatching teaching and learning styles preferences on students' achievement. According to their findings, the correspondence between teaching and learning styles substantially enhanced students' achievement. Notably, the interactive students achieved the highest mean score among the different learning style subgroups, surpassing both print and visual learners. These findings, in contrast, present a deviation from the results obtained in a study conducted by Dehghani (2021) on a sample of 44 Iranian EFL undergraduates. Dehghani aimed to investigate the impact of learning styles on vocabulary retention. Remarkably, Dehghani's study yielded different findings, as the visual group exhibited the highest mean score in terms of vocabulary retention.

All in all, it is crucial to recognize the significant impact of teachers' beliefs and practices on students' vocabulary learning experiences. In Libyan universities, the absence of a structured vocabulary teaching curriculum leads teachers to prioritize delivering the required course content. Consequently, the process of acquiring vocabulary becomes challenging and time-consuming, requiring substantial effort from students themselves. Nation (2013, as cited in Bergstrom et al., 2022) highlights the importance of adopting a deliberate and organized approach to vocabulary instruction in the classroom, with vocabulary as the central focus. The present study found that when participants received explicit vocabulary instruction, whether through traditional

teaching methods or catered to their preferred learning styles, they were adaptable and motivated towards vocabulary learning.

5. Conclusion

Derived from the data analyzed in the previous section, the following findings were reached to answer the three research questions:

1. What are the perceptual learning styles preferred by third-year EFL learners at the university of Derna?
2. To what extent does the alignment of teaching methods with perceptual learning styles impact vocabulary retention outcomes?
3. What is the most effective learning style with respect to vocabulary retention?

To address the first research question, the findings of the descriptive statistics showed that among seven perceptual learning styles, i.e. print, aural, interactive, visual, haptic, kinesthetic and olfactory, the interactive learning style was the most preferred by third-year EFL learners at Derna University followed by visual and print styles. In relation to the second research question, the findings revealed that the alignment of teaching methods with the students' perceptual learning styles did not significantly impact their vocabulary retention outcomes compared to the traditional teaching methods.

Lastly, with regards to the third research question, the study found that the participants of interactive learning style achieved a higher mean score than those of visual and print learning styles. However, the study also demonstrated that the performance between the three subgroups of learning styles was not statistically different.

5.1. Implications for Education

Vocabulary traditional teaching was equally effective as learning style-based teaching. This suggests that educators should integrate the teaching of vocabulary, and pay attention to individual differences without relying solely on planning instruction based on students' learning styles. One more implication of this study is incorporating interactive activities in vocabulary teaching, as illustrated by the higher mean score obtained by students with interactive learning style, can be useful for vocabulary retention. While the study did not demonstrate a statistically significant difference between the interactive, print and visual students, it is important for educators to be aware that students may benefit from exposure to various modalities.

5.2. Recommendations for Further Research

1. Only the impact of learning styles on vocabulary retention was investigated in this study. It is recommended that further studies examine other factors which may contribute to vocabulary retention.
2. This study was conducted on EFL students at Derna University. It would provide greater motivation to examine other contexts to see whether the same conclusions would be arrived at.
3. Further experimental studies on the impact of learning styles on vocabulary retention need to consider expanding vocabulary instruction by including a larger set of words as this may lead to more comprehensive outcomes regarding the effectiveness of learning styles.

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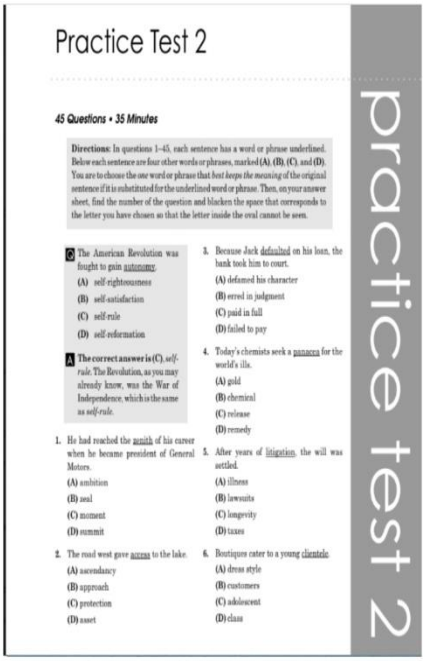
Appendices
Appendix A
A Pre-Test Adopted from Peterson's Master TOEFL Vocabulary



Practice Test 2

45 Questions • 35 Minutes

Directions: In questions 1–45, each sentence has a word or phrase underlined. Below each sentence are four other words or phrases, marked (A), (B), (C), and (D). You are to choose the one word or phrase that *best keeps the meaning* of the original sentence if it is substituted for the underlined word or phrase. Then, on your answer sheet, find the number of the question and blacken the space that corresponds to the letter you have chosen so that the letter inside the oval cannot be seen.

C The American Revolution was fought to gain autonomy.
(A) self-righteousness
(B) self-satisfaction
(C) self-rule
(D) self-reformation

A The correct answer is (C). *self-rule*. The Revolution, as you may already know, was the War of Independence, which is the same as *self-rule*.

1. He had reached the zenith of his career when he became president of General Motors.
(A) ambition
(B) zeal
(C) moment
(D) summit

2. The road west gave access to the lake.
(A) ascendancy
(B) approach
(C) protection
(D) asset

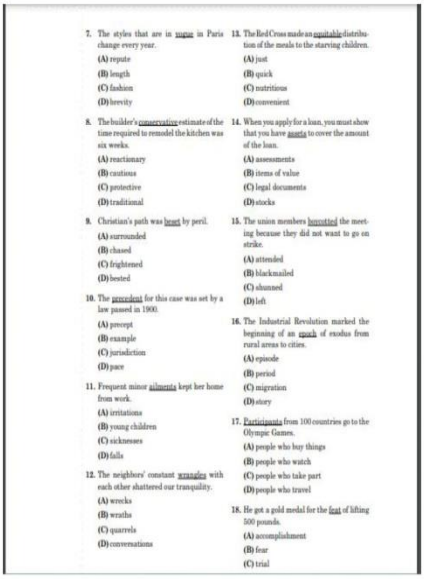
3. Because Jack defaulted on his loan, the bank took him to court.
(A) defamed his character
(B) erred in judgment
(C) paid in full
(D) failed to pay

4. Today's chemists seek a panacea for the world's ills.
(A) gold
(B) chemical
(C) release
(D) remedy

5. After years of litigation, the will was settled.
(A) illness
(B) lawsuits
(C) longevity
(D) taxes

6. Boutiques cater to a young clientele.
(A) dress style
(B) customers
(C) adolescent
(D) class

practice test 2



7. The styles that are in vogue in Paris change every year.
(A) repute
(B) length
(C) fashion
(D) brevity

8. The builder's conservative estimate of the time required to remodel the kitchen was six weeks.
(A) reactionary
(B) cautious
(C) protective
(D) traditional

9. Christian's path was beset by peril.
(A) surrounded
(B) chased
(C) frightened
(D) bested

10. The precedent for this case was set by a law passed in 1900.
(A) precept
(B) example
(C) jurisdiction
(D) pace

11. Frequent minor ailments kept her home from work.
(A) irritations
(B) young children
(C) sicknesses
(D) falls

12. The neighbors' constant wrangles with each other shattered our tranquility.
(A) wrecks
(B) wraths
(C) quarrels
(D) conversations

13. The Red Cross made an equitable distribution of the meals to the starving children.
(A) just
(B) quick
(C) nutritious
(D) convenient

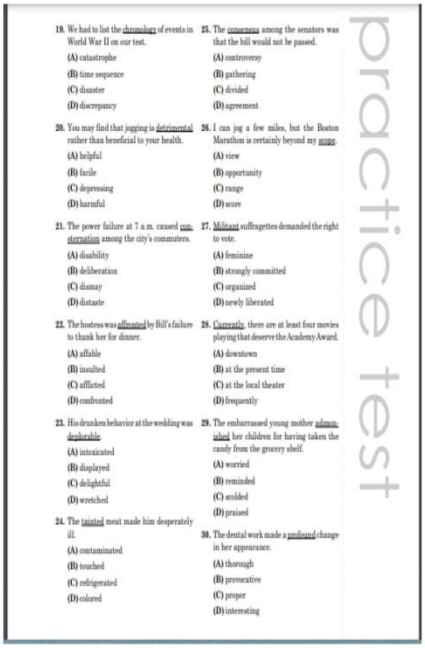
14. When you apply for a loan, you must show that you have assets to cover the amount of the loan.
(A) assessments
(B) items of value
(C) legal documents
(D) stocks

15. The union members boycotted the meeting because they did not want to go on strike.
(A) attended
(B) blackmailed
(C) shunned
(D) left

16. The Industrial Revolution marked the beginning of an epoch of exodus from rural areas to cities.
(A) episode
(B) period
(C) migration
(D) story

17. Participants from 100 countries go to the Olympic Games.
(A) people who buy things
(B) people who watch
(C) people who take part
(D) people who travel

18. He got a gold medal for the feat of lifting 500 pounds.
(A) accomplishment
(B) fear
(C) trial



practice test

19. We had to list the chronology of events in World War II on our test.
(A) catastrophe
(B) time sequence
(C) disaster
(D) discrepancy

20. You may find that jogging is detrimental rather than beneficial to your health.
(A) helpful
(B) facile
(C) depressing
(D) harmful

21. The power failure at 7 a.m. caused consternation among the city's commuters.
(A) disability
(B) deliberation
(C) dismay
(D) distaste

22. The hostess was affronted by Bill's failure to thank her for dinner.
(A) affable
(B) insulted
(C) afflicted
(D) confronted

23. His drunken behavior at the wedding was deplorable.
(A) intoxicated
(B) displayed
(C) delightful
(D) wretched

24. The tainted meat made him desperately ill.
(A) contaminated
(B) touched
(C) refrigerated
(D) colored

25. The consensus among the senators was that the bill would not be passed.
(A) controversy
(B) gathering
(C) divided
(D) agreement

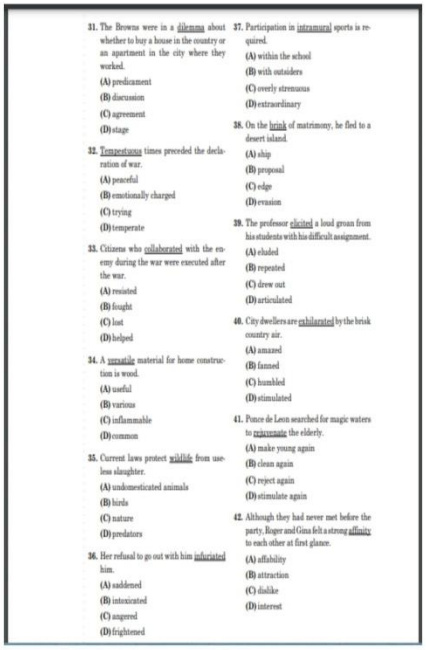
26. I can jog a few miles, but the Boston Marathon is certainly beyond my scope.
(A) view
(B) opportunity
(C) range
(D) score

27. Militant suffragettes demanded the right to vote.
(A) feminine
(B) strongly committed
(C) organized
(D) newly liberated

28. Currently, there are at least four movies playing that deserve the Academy Award.
(A) downtown
(B) at the present time
(C) at the local theater
(D) frequently

29. The embarrassed young mother admonished her children for having taken the candy from the grocery shelf.
(A) worried
(B) reminded
(C) scolded
(D) praised

30. The dental work made a profound change in her appearance.
(A) thorough
(B) provocative
(C) proper
(D) interesting



31. The Browns were in a dilemma about whether to buy a house in the country or an apartment in the city where they worked.
(A) predicament
(B) discussion
(C) agreement
(D) stage

32. Tempestuous times preceded the declaration of war.
(A) peaceful
(B) emotionally charged
(C) trying
(D) temperate

33. Citizens who collaborated with the enemy during the war were executed after the war.
(A) resisted
(B) fought
(C) lost
(D) helped

34. A versatile material for home construction is wood.
(A) useful
(B) various
(C) inflammable
(D) common

35. Current laws protect wildlife from useless slaughter.
(A) undomesticated animals
(B) birds
(C) nature
(D) predators

36. Her refusal to go out with him infuriated him.
(A) saddened
(B) intoxicated
(C) angered
(D) frightened

37. Participation in intramural sports is required.
(A) within the school
(B) with outsiders
(C) overly strenuous
(D) extraordinary

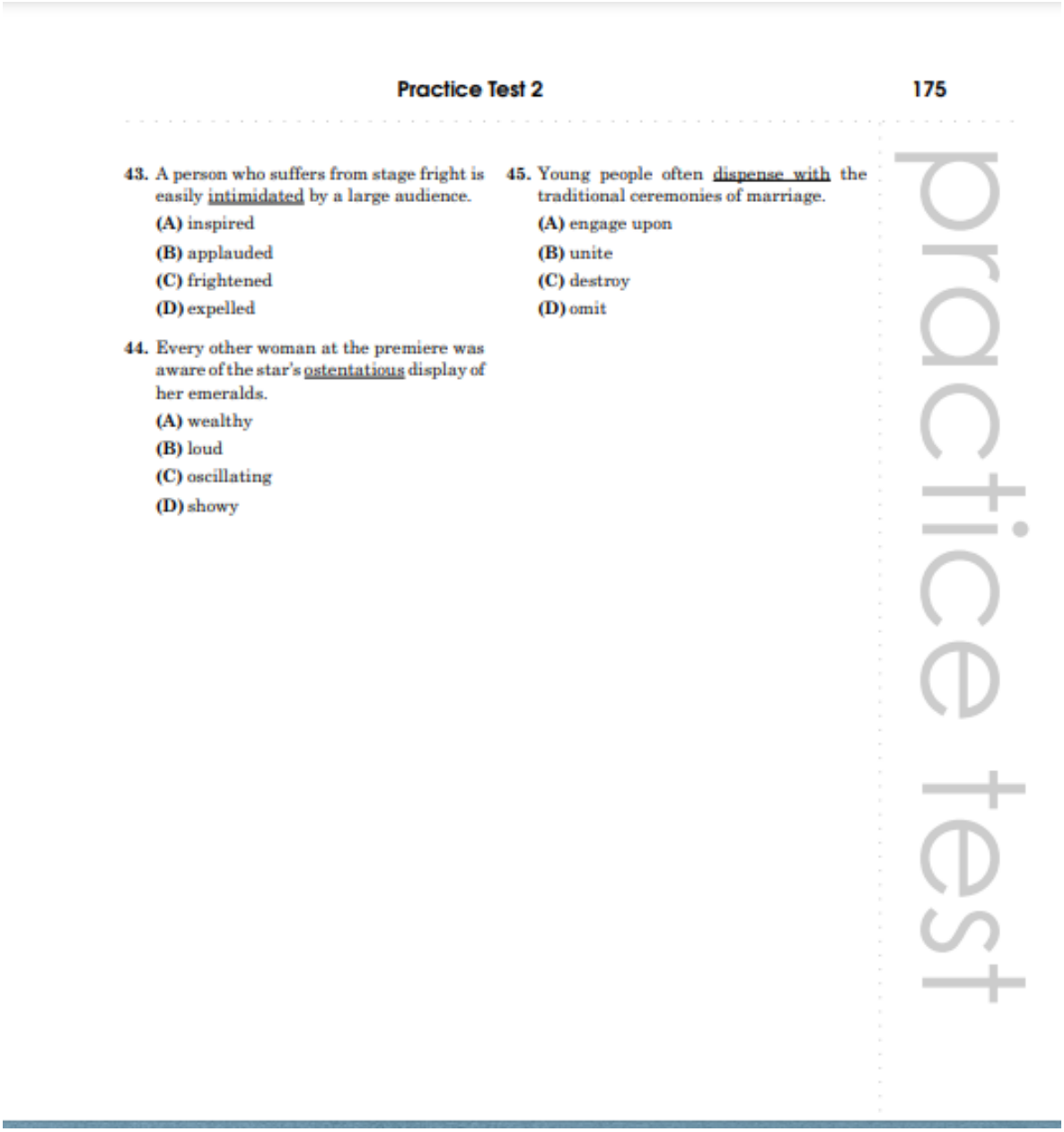
38. On the brink of matrimony, he fled to a desert island.
(A) ship
(B) proposal
(C) edge
(D) evasion

39. The professor elicited a loud groan from his students with his difficult assignment.
(A) eluded
(B) repeated
(C) drew out
(D) articulated

40. City dwellers are exhilarated by the brisk country air.
(A) amazed
(B) fanned
(C) humbled
(D) stimulated

41. Ponce de Leon searched for magic waters to rejuvenate the elderly.
(A) make young again
(B) clean again
(C) reject again
(D) stimulate again

42. Although they had never met before the party, Roger and Gina felt a strong affinity to each other at first glance.
(A) affability
(B) attraction
(C) dislike
(D) interest



Practice Test 2 175

43. A person who suffers from stage fright is easily intimidated by a large audience.
(A) inspired
(B) applauded
(C) frightened
(D) expelled

44. Every other woman at the premiere was aware of the star's ostentatious display of her emeralds.
(A) wealthy
(B) loud
(C) oscillating
(D) showy

45. Young people often dispense with the traditional ceremonies of marriage.
(A) engage upon
(B) unite
(C) destroy
(D) omit

practice test

Appendix B
Perceptual Modality Preferences Survey

Perceptual Modality Preference Survey

Identify your personal

Learning Style

by completing a simple survey

Statement	مطلقًا never	نادرًا seldom	عادة usually	دائمًا always
1. I can learn better by reading than by listening.				
2. I can learn better by listening than by talking with others.				
3. I can learn better by talking with others than by looking at things like movies and slides.				
4. I can learn better by looking at things like movies and slides than by touching or holding objects.				
5. I can learn better by touching or holding objects than by physically participating in activities such as sports or games.				
6. I can learn better by physically participating in activities such as sports or games than by smelling things.				
7. I can learn better by smelling things than by reading.				
8. I can learn better by reading than by talking with others.				
9. I can learn better by talking with others than by touching or holding objects.				
10. I can learn better by touching or holding objects than by smelling things.				
11. I can learn better by smelling things than by listening.				
12. I can learn better by listening than by looking at things like movies and slides.				

Statement	مطلقًا never	نادرًا seldom	عادة usually	دائمًا always
13. I can learn better by looking at things like movies and slides than by physically participating in activities such as sports and games.				
14. I can learn better by physically participating in activities such as sports and games than by reading.				
15. I can learn better by reading than by looking at things like movies and slides.				
16. I can learn better by looking at things like movies and slides than by smelling things.				
17. I can learn better by smelling things than by talking with others.				
18. I can learn better by talking with others than by physically participating in activities such as sports and games.				
19. I can learn better by physically participating in activities such as sports and games than by listening.				
20. I can learn better by listening than by touching or holding objects.				
21. I can learn better by touching or holding objects than by reading.				
22. I can learn better by reading than by smelling things.				
23. I can learn better by smelling things than by physically participating in activities such as sports and games.				

Statement	مطلقًا never	نادرًا seldom	عادة usually	دائمًا always
24. I can learn better by physically participating in activities such as sports and games than by touching or holding objects.				
25. I can learn better by touching or holding objects than by looking at things like movies and slides.				
26. I can learn better by looking at things like movies and slides than by talking with others.				
27. I can learn better by talking with others than by listening.				
28. I can learn better by listening than by reading.				
29. I can learn better by reading than by physically participating in activities such as sports and games.				
30. I can learn better by physically participating in activities such as sports and games than by looking at things like movies and slides.				
31. I can learn better by looking at things like movies and slides than by listening.				
32. I can learn better by listening than by smelling things.				
33. I can learn better by smelling things than by touching or holding objects.				
34. I can learn better by touching or holding objects than by talking with others.				

Statement	never	seldom	usually	always
35. I can learn better by talking with others than by reading.				
36. I can learn better by reading than by touching or holding objects.				
37. I can learn better by touching or holding objects than by listening.				
38. I can learn better by listening than by physically participating in activities such as sports and games.				
39. I can learn better by physically participating in activities such as sports and games than by talking with others.				
40. I can learn better by talking with others than by smelling things.				
41. I can learn better by smelling things than by looking at things like movies and slides.				
42. I can learn better by looking at things like movies and slides than by reading.				

Appendix C
A List of Words Used for the Study

Num	Word	Num	Word
.1	Typical	44	Reptile
.2	Talent	45	Embrace
.3	Devise	46	Confirm
.4	Descend	47	Verify
.5	Circulate	48	Acknowledge
.6	Assemble	49	Justice
.7	Explore	50	Beneficiary
.8	Employee		
.9	Neglect		
.10	Consent		
.11	Massive		
.12	Unforeseen		
.13	Exaggerate		
.14	Bulky		
.15	Reluctant		
.16	Lack		
.17	Ignore		
.18	Masculine		
.19	Menace		
.20	Frequent		
.21	Glimpse		
.22	Abolish		
.23	Urban		
.24	Audible		
.25	Journalist		
.26	Hazy		
.27	Gleam		
.28	Vicious		
.29	Whirling		
.30	Pledge		
.31	Casual		
.32	Doubt		
.33	Capacity		
.34	Addict		
.35	Wary		

.36	Opt		
.37	Tragedy		
.38	Economical		
.39	Lubricate		
.40	Quota		
.41	Threat		
.42	Defiant		
.43	Vigor		

Appendix D
A post-test adapted from *405 Absolutely Essential Words*

Choose the word that best completes the sentence.

1. The producer always had her eye out for young .....
   a. employee b. talent
   c. defiant d. journalist
2. A ..... day in Florida is full of sunshine and warm breezes.
   a. typical b. hazy
   c. wary d. massive
3. let's .....a plan for doing away with homework.
   a. assemble b. circulate
   c. explore d. devise
4. sooner or later the elevator will ..... and we 'll be able to go up.
   a. descend b. lubricate
   c. abolish d. gleam
5. copies of some magazines are so scarce, the librarian won't allow them to .....
   a. Confirm b. circulate
   c. whirl d. descend
6. the guests began to ..... for Thanksgiving dinner.
   a. assemble b. opt
   c. doubt d. exaggerate
7. I want to ..... all the cities I haven't visited.
   a. ignore b. explore
   c. embrace d. acknowledge
8. why did you ..... cleaning your room today?
   a. lack b. pledge
   c. abolish d. neglect
9. the ..... bought his boss a birthday present.
   a. employee b. addict
   c. vicious d. beneficiary
10. Will Karen ..... to having her baby picture published in the school newspaper?
    a. exaggerate b. reluctant
    c. consent d. confirm
11. owing a house created ..... difficulties.
    a. typical b. massive
    c. frequent d. unforeseen
12. it was a ..... job for just one person to unload the big truck.
    a. Unforeseen b. massive
    c. vicious d. economical
13. people often tend to ..... stories they hear.
    a. embrace b. assemble
    c. descend d. exaggerate
14. because the box was so ..... it took two men to lift it.
    a. bulky b. casual
    c. masculine d. hazy
15. even though he was not a professional, the..... photographer entered the contest.
    a. typical b. talent
    c. reluctant d. casual
16. Ernesto would consistently ..... his father's questions.
    a. explore b. ignore
    c. devise d. verify
17. Lena showed a ..... of good judgement.
    a. Menace b. quota
    c. doubt d. lack
18. the massive tree on the corner was a ..... to traffic.
    a. pledge b. menace
    c. glimpse d. tragedy
19. when Stuart started growing a moustache, it was obvious he was becoming more .....
    a. masculine b. vicious
    c. reptile d. defiant
20. no one has ever had even a ..... of the future.
    a. threat b. glimpse
    c. gleam d. justice

21.we make ..... visits to Florida in the winter.

a. frequent b. audible

c. unforeseen d. urban

22. in an ..... whisper, Maria called for my attention.

a. vicious b. abolished

c. audible d. exaggerated

23. all his life the child was used to living in ..... areas.

a. urban b. casaul

c. wary d. hazy

24. some citizens believe that we will never be able to ..... war.

a. devise b. descend

c. assemble d. abolish

25. we could tell Ira was happy by the bright ..... in his eyes.

a. gleam b. glimpse

c. vigor d. capacity

26. ..... weather kept the pilot from seeing the airfield clearly.

a. whirling b. hazy

c. bulky d. wary

27. the young ..... applied for his first job at a small newspaper.

a. employee b. beneficiary

c. masculine d. journalist

28. the ..... lion attacked the lost child in the forest.

a. vicious b. bulky

c. defiant d. audible

29. the ball was hit so hard that it went ..... down the field.

a. descending b. whirling

c. circulating d. assembling

30. when his mother died of cancer, the young doctor decided to ..... his life to finding a cure for it.

a. consent b. opt

c. acknowledge d. pledge

31.the relaxed friends spoke in a ..... manner as they talked on the streets.

a. reluctant b. vicious

c. vigor d. casual

32. I ..... that you can break Mickeal's scoring record.

a. doubt b. verify

c. threat d. embrace

33. the jar was filled to .....

a. capacity b. tragedy

c. beneficiary d. calamity

34. if I had to ..... for a new career, it would be medicine.

a. devise b. opt

c. explore d. consent

35. it is smart to be..... of foods whose content are not listed on the package.

a. economical b. wary

c. beneficiary d. doubt

36. Baxter took Pep pills regularly and became a drug ..... without realizing it.

a. tragedy b. menace

c. addict d. defiant

37. I find it more ..... to buy a monthly train ticket than to pay for each ride each day.

a. economical b. typical

c. beneficiary d. whirling

38. Bobby's job at the gas station was to ..... all the cars after they had been worked on.

a. assemble b. circulate

c. lubricate d. abolish

39. when someone you love dies, it is a .....

a. Pledge b. justice

c. menace d. tragedy

40. Dave had his ..... of cookies for the day.

a. Talent b. quota

c. vigor d. threat

41. the ..... of snow caused us to change our holiday plans.

a. Threat b. glimpse

c. gleam d. doubt

42. my parents taught me not to be ..... of authority.

a. Wary b. reluctant

c. defiant d. masculine

43. with a surprising show of ....., the old woman up and down the pool six times!

a. Vigor b. capacity

c. menace d. justice

44. can you ..... that this is your handwriting?

a. confirm b. consent

c. ignore d. abolish

45. I ..... the fact that I received the tapes.

a. assemble b. acknowledge

c. neglect d. abolish

46. ..... was served when the villain was put behind bars.

a. justice b. talent

c. menace d. vigor

47. Joseph was the ..... of large sums of money from his uncle's insurance policy.

a. employee b. addict

c. vicious d. Beneficiary

48. I ..... my daughter when she came home from camp.

a. descended b. assembled

c. embraced d. ignored

49. a turtle is a very common .....

a. Bird b. mammal

c. reptile d. insect

50. did you ..... our reservations at the hotel?

a. acknowledge b. verify

c. circulate d. abolish

All the best! ☺