

Learning Styles as Perceived by Learners of English as a Foreign Language in the English Language Center of The Arab American University - Jenin, Palestine

أنماط تعلم اللغة الانجليزية كلغة أجنبية من وجهة نظر الطلاب في مركز اللغات في الجامعة العربية الأمريكية- جنين، فلسطين

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Abstract

Learning styles play an indispensable role in determining the teaching styles. Accordingly, this study investigated the perceptual learning styles as perceived by the students studying English as a foreign language at the English Language Center at The Arab American University in Palestine. It aimed to explore the learning styles to be the baseline for teaching English as a foreign language at AAUJ. Accordingly, the researchers attempted to answer the following questions: What are the learning styles of the EFL students at AAUJ? Are their significant differences at ($\alpha=.05$) in the learning styles due to the academic level, gender and English level? To achieve this, the researchers developed a 20- item questionnaire, which was distributed amongst 190 male and 196 female students at AAUJ. This sample represented 30% of the study population. Analyzing the data, the researchers used standard deviations, means, independent T-test and One-way Anova. The researchers concluded that: AAUJ students (females and males) mainly auditory in addition to other secondary learning styles, each academic level has his own learning styles, no differences were found among the students regarding their level in

English. The researchers recommended: auditory activities should be prioritized in English teaching at ELC at AAUJ, language Labs should be enriched to suit this most prevalent learning style, native and non-native instructors of English should evenly be trained to incorporate the various learning styles while teaching, more studies should be conducted to investigate the relationship the learners' residence (city, town, village, camp) and their learning styles.

ملخص

تلعب دراسة أنماط التعلم دوراً فاعلاً في تحديد أساليب التدريس المتبعة في تدريس اللغة الانجليزية كلغة أجنبية في الجامعات. وبناء على ما سبق، جاءت هذه الدراسة لتحديد أنماط التعلم التي يفضلها طلبة مركز اللغات في الجامعة العربية الأمريكية في جنين- فلسطين. ولتحقيق ذلك قام الباحثان بطرح مجموعة من الأسئلة: ما هي أنماط التعلم التي يستخدمها طلبة مركز اللغات في الجامعة العربية الأمريكية؟ هل توجد فروق ذات دلالة إحصائية على مستوى ٠.٠٥ في أنماط وعادات التعلم تبعاً ل: متغير الجنس، والمستوى الجامعي، ومستوى الطلاب في اللغة الانجليزية (مبتدئ، متوسط، متقدم)؟ وللإجابة على هذه الأسئلة، طور الباحثان استبانة مكونة من ٢٠ فقرة، وزعت على ١٩٠ طالب و ١٩٦ طالبة من طلبة مركز اللغات في الجامعة العربية الأمريكية. وقد مثلت العينة المختارة عشوائياً ما مقداره ٣٠% من مجتمع الدراسة. ولفحص الفرضيات، استخدم الباحثان اختبار ت، وتحليل التباين الأحادي، الانحراف المعياري والمتوسطات الحسابية. أظهرت النتائج أن طلاب مركز اللغات في الجامعة العربية الأمريكية يعطون أولوية لأسلوب التعلم السمعي، فيما اعتبرت أنماط التعلم الأخرى فرعية. وأظهرت الدراسة أيضاً عدم وجود فروق ذات دلالة إحصائية في أنماط وعادات التعلم لدى الجنسين وكذلك الحال بالنسبة إلى المستوى في اللغة الانجليزية (مبتدئ، متوسط، متقدم). وفي المقابل، وجدت فروق ذات دلالة إحصائية في أساليب التعلم لدى الطلاب تبعاً للمستوى الأكاديمي (سنة أولى، ثانية، ثالثة، رابعة). وبناء على نتائج الدراسة، يوصي الباحثان باستخدام مزيداً من الأنشطة السمعية في تدريس اللغة الانجليزية في الجامعة العربية الأمريكية، إلحاق المدرسين الأجانب والعرب بدورات تدريبية حول توظيف أنماط التعلم المختلفة في تدريس اللغة الانجليزية. كما وأوصى الباحثان بإجراء مزيد من الدراسات لتبيان أثر مكان السكن (مخيم، قرية، والمدينة) في أنماط وعادات التعلم.

Introduction and theatrical Background

If tools of success are provided, every human being is able to learn. Thus, everybody has the right to be given the chance to learn in accordance with his own preferences and needs. However, what makes

it difficult for the learner to perform properly in EFL classes is the conflict between teaching and learning styles. Maggioli (1996) stressed that the more the conflict is avoided between teaching and learning styles, the more confident and self – esteemed learners and teachers we will have. Rogers (2000) reiterated his advocacy for the matchmaking between what the teachers think as an appropriate method and how their students would respond. Kanninen (2009) confirmed that people who had a clear learning style preference will tend to learn more effectively. Mulalic (2009) indicated the need to match the teaching styles of the lecturers and the learning styles of students in order to increase competency of teaching and learning.

Accordingly, a lot of definitions of the learning styles came to the surface. Each encompassed the researchers' theoretical and /or experimental points of view. The main purpose of all of those definitions was to pave the way for the learners to learn in conformity with their needs and abilities. "Learning styles are a method of personal choice to perceive and process information" Kolb (1984). In this sense, learning styles are, on one hand, sensory and on the other hand are mental. Jensen (1998) defined the learning style as a sort of way of thinking, comprehending and processing information. Brand (2010) called a person's individual way of learning his or her learning style. Bonk and Zhang (2008) noted that the pattern or tendency of an individual's learning behaviors and attitudes are called his/her learning styles. Byrne (2002) defined learning styles as personally preferred ways of dealing with information and experiences. In other words, it is how one learns. It was also indicated that an individual's learning style indicated how he or she best retrieved and retained information. (www.ehow.com. 2009).

In light of the earlier mentioned definitions, a plethora of learning styles emerged. In their study the researchers considered VAKT model. In other words, the researchers would view and survey the learners' attitudes according to the Visual, Auditory and Kinesthetic and Tactile learning styles. The VAKT learning styles model offered a simple methodology. Therefore, researchers should bear in their minds that

those styles helped understand the learners' personality, preferences and strengths. (www.businessballs.com, 2009). Kanninen (2009) considered VAKT as the observation channel model which was a base for several learning styles models. Renou (2008) termed VAKT as perceptual learning styles which allowed us to take into account aspects of several learning-style theories by synthesizing their important characteristics into an approach which can be easily implemented in a classroom situation.

What's more, scholars and researchers had a consensus on what VAKT learning styles precisely entailed. Goris (2010), Putintseva (2006), Danchak and Polhemus (2004), Mulalic (2009) clarified that:

- Visual learners prefer to study using written notes, diagrams or pictures. Image is everything to a visual learner. They also need to see the teacher's body language and facial expression to fully understand the content of a lesson. They tend to prefer sitting at the front of the classroom to avoid visual obstructions. They often prefer to take detailed notes to absorb the information.
- Auditory learners will listen to a lecture, and then write down their thoughts afterward. They will benefit from reading study notes aloud rather than simply looking at them. They learn best through verbal lectures, discussions, and listening to what others have to say. They interpret the underlying meanings of speech through listening to tone of voice, pitch, speed. These learners often benefit from reading text aloud and using a tape recorder.
- The kinesthetic learner prefers to be physically involved in learning, using his body, his hands and his sense of touch. They learn best through a hands-on approach, actively exploring the physical world around them. They may find it hard to sit still for long periods and may become distracted.
- Tactile learners prefer hands work, for example, handling materials or taking notes. Working on an experiment in the laboratory is the best way for such students to learn new material. Writing notes or

instruction can help such learners to remember information easily and physical involvement in the class plays major role in their retention of the information.

Since very little attention has been paid to how learners learn and how teachers teach in many institutions, the main problem of this research attempts to explore the importance of determining the learning styles and the differences in learning styles of the students regarding their gender and level. It is an attempt to contribute to the improvement of the performance of AAUJ students through introducing and adapting the various teaching styles that suit the learners' learning preferences and experiences.

Statement of the problem

Despite the fact that the ELC at the AAUJ offers multifaceted facilities to the EFL students in the various levels, there is still a nagging problem of the fluctuating performance, response, achievement and motivation of the students at various levels.

Exploring the underlying reasons of this problem, the researchers surveyed the respective theoretical and experimental studies and papers. As a result, they came up with the urgent necessity to detect the students' learning styles, and whether they conform to the teaching styles and the facilities provided by the ELC.

The researchers are wholeheartedly willing to put the corner stone in solving this problem and introducing alternative teaching styles accordingly.

Purpose of the study

The specific objectives of this study are:

1. Exploring the learning styles of the EFL students at AAUJ.
2. Familiarizing the EFL instructors at AAUJ with the students' learning preferences.

3. Introducing alternative teaching styles to suit the students' learning preferences.

Questions of the study

1. What are the learning styles of the EFL students at AAUJ?
2. Do EFL male and female students at AAUJ at different levels have similar learning styles?
3. Are there significant differences in the learning styles due to the academic level among EFL students at AAUJ?
4. Are there significant differences in the learning styles due to the English level among EFL students at AAUJ?

The hypotheses of the study

1. There are no significant differences at ($\alpha = .05$) in the EFL students' preferences of learning styles at AAUJ.
2. There are no significant differences at ($\alpha = .05$) between EFL male and female students at different levels concerning the learning styles at AAUJ.
3. There are no significant differences at ($\alpha = .05$) in the styles of learning used by AAUJ EFL students due to academic level.
4. There are no significant differences at ($\alpha = .05$) in the styles of learning used by AAUJ EFL students due to English level.

Significance of the study

The findings of the study would help adapt the current teaching styles to meet the learners needs, and thus relieving the instructors of their incessant sweating and fruitless efforts in the classroom.

It is expected that this study would open a new horizon for the instructors to relinquish the traditional teacher centered teaching and adopt the student centered one.

Furthermore, it is an endeavor to exploit more effectively the facilities in use in addition to introducing new and up to date students' favored ones.

Definition of terms

The following terms will have the following meanings, wherever they come in this study:

- **AAUJ:** The Arab American University –Jenin – Palestine. It was established in 2000. The web page is: www.aauj.edu.
- **ELC:** English Language Center at the Arab American University in Jenin. This center is in charge of making placement tests, according which the levels of students are determined.
- **EFL:** English as a Foreign Language. It is a term used in teaching English for non-native speakers.
- **VAKT:** Visual, Auditory, Kinesthetic, Tactile. These are common learning styles.
- **Levels:** The AAUJ holds a placement test for all fresh the students, according which the students are classified into three Levels: beginning, intermediate, advanced.

Limitation of the study

This study has the following limitations:

- This study is limited to the students of the AAUJ.
- The scholastic year is 2010-2011.
- The investigated learning styles are visual, auditory, kinesthetic and tactile.

Review of related literature

Students learn in a variety of ways, and their ability to attain this information also varies. A student's capacity to learn is impacted by the

teacher's style of conveying information. Markova (1992) assumes that the students' failure in school is attributed to the presumption that the students' minds operate in the same way as their teachers do. Consequently, little attention is given to how students think. Educators have, for many years, noticed that some students prefer certain methods of learning more than others. These dispositions, referred to as *learning styles*, form a student's unique learning preference and aid teachers in the planning of small-group and individualized instruction (Kemp, Morrison & Ross, 1998).

Aqel and Mahmoud (2006) studied the effect of learning styles on An –Najah University students. The sample of the study consisted of 120 female and male students. Conducting their study, the researchers came up with the following results and recommendations:

- More studies should be conducted by the other Palestinian universities to identify the learning styles of their students.
- There are significant differences in learning styles due to the use of computers.
- A plethora of learning styles should be adopted in the classroom to suit the students' preferences.
- There are no significant differences in the learning styles used by An – Najah University students due to gender.

By emphasizing learning styles, we focus on the learner and by doing so we are getting the learner to reflect on how he or she learns. Hall and Moseley (2005) purported that this shift of focus can have positive effects on student motivation. Kanninen (2009) studied the importance of learning styles. In ramification of surveying the various learning styles, he concluded that:

- By including multiple learning objects that serve all kinds of learning styles, learning environment can be developed to be adaptive for learners' needs.

- It is important to focus on students' awareness of their learning style.
- The planning has to be done in a way that different styles are offered to different learning methods.

In "Creating a Learner-centered Teacher Education Program", Trombly and Alta (2001) stated that success meant slowly implementing teachers new techniques and thereby adapting students so they would understand lesson goals and objectives, value communicative tasks and activities, generate topics and choose materials, work cooperatively, and identify their own learning strategies and styles.

In his paper "The application of learning style theory in higher education teaching", Robotham (1999) argued that in order for learning to be effective in achieving desired outcomes, educators need to have an awareness and understanding of individuals' learning styles. If one was able to diagnose the learning style of an individual, then it would seem logical to assume that matching the characteristics of instruction to that style would make the instruction more effective. Students tend to enter a learning situation with a style of learning already developed. If they meet a learning environment at variance with that style, then it is likely the student will reject the learning environment.

Zhenhui (2000) found out that in all academic classrooms, no matter what the subject matter, there will be students with multiple learning styles and students with a variety of major, minor and negative learning styles. An effective means of accommodating these learning styles is for teachers to change their own styles and strategies and provide a variety of activities to meet the needs of different learning styles. Then all students will have at least some activities that appeal to them based on their learning styles, and they are more likely to be successful in these activities. It is always helpful for the teacher to divide the students into groups by learning styles and give them activities based on their learning styles. This should appeal to them because they will enjoy them and be successful.

Rao (2002) viewed 30 Chinese university students on the appropriateness and effectiveness of communicative and non-communicative activities in learning English as a Foreign - Language (EFL) courses in China. Most of the subjects reported that their traditional learning styles and habits had prohibited them from being actively involved in communicative activities. As students have already been in school for at least 12 years by the time they enter university, they have become accustomed to the traditional language teaching style, which is dominated by a teacher-centered, book-centered approach and an emphasis on rote memory. Some subjects suggested that language teachers in China should change their teaching approaches from kindergarten.

Kara (2009) interviewed 100 second year learners studying in ELT Department in Anadolu University, Turkey and their 12 teachers. The main purpose of the study was to investigate the potential outcomes of the mismatch between the learners' learning styles and the teaching style of teaching. The researcher concluded that:

- Both teachers and learners favored the visual and the auditory learning styles.
- Teachers did not accommodate their teaching styles to meet the students' needs.
- Learners said that they feel unhappy and frustrated when their teachers did not teach in their favored style.

Juris, (2009) investigated 254 learners and 9 teachers' attitudes towards learning styles. That paper which was conducted in public and private institutions in Cordoba, Sucre, Atlantico and Bolivar, Colombia came up with:

- The kinesthetic style was the most prevalent followed by the tactile and then the auditory style.

There was no match between students' and teachers' learning styles.

- Teachers should identify their own teaching and learning styles to obtain better results in the classroom.
- Teachers should encourage tasks variation and creativity to enable learners to challenge the beliefs in the way they learn and acquire knowledge.
- Teachers should be involved in this type of research to assure the results found in this research study.

Mulalic (2009) explored a number of problems and challenges relating to the perceptual learning styles of students in English as Second Language in Malaysia. To achieve this objective, he developed a questionnaire which assessed the students' learning styles: visual, auditory, kinesthetic and tactile. The results were as follows:

- Lecturers are not aware of their learning styles, and thus students' learning styles were ignored and were considered as an insignificant component in the learning process.
- The dominant learning style was kinesthetic.
- There was a significant difference in learning styles between male and female students regarding auditory and kinesthetic learning styles. Male students favored kinesthetic and auditory learning when compared with the females.
- Significant differences were found in all learning styles among students from different ethnic background. That is, Indian students were visual; Kinesthetic learning style was reported as a major learning style for Chinese and Malay students.
- When the learning styles are determined, instructor should take into consideration the differences among the students when designing the course material.

Garland and Martin (2005) investigated the differences between the learning styles of 168 university students in face to face courses and online taught courses. They concluded that there are significant

differences regarding gender. In other words, female students showed a growing number in online learning in comparison to males. This implies that gender should be considered when designing online courses.

Ramayah (2009) conducted a study concerning the learning styles of both male and female students in Malaysia. 207 males and 199 females were involved. The result was the influenced learning styles were the aural and the visual., but has no influence on read and write and kinesthetic ones. The females preferred the visual and aural learning styles more than the males did.

In a longitudinal study, Fleming (2010) reported that the main findings of the study, which targeted first and final year nursing students at an Irish university, concluded that the most common dominant learning style in the first year was dual learning category while a large proportion of the students in their final year had no dominant learning style. This shows that the academic level could affect the learning style.

Gune (2004) conducted a study at Gazi University, Turkey, to determine the learning styles of preparatory school students from Gazi University and examine the relationship between students' learning style preferences (LSP) and the faculty students will study in, gender, proficiency level of English and achievement scores on listening, reading, grammar, and writing in the English Course. The instrument, Index of Learning Style, was administered to 367 randomly selected students. The results of this study indicated that there wasn't any difference between faculty preparatory school students will study in, gender, and proficiency level of English and their LSPs.

Reid (1987) reviewed the literature on learning styles and cognitive styles for both native speakers and nonnative speakers of English to identify their perceptual learning style preferences. Statistical analyses of the questionnaires indicated that nonnative speakers learning style preferences often differ significantly from those of native speakers. That is, ESL students from different language backgrounds sometimes

differ from one another in their learning style preferences. Other variables such as sex, length of time in the United States, length of time studying English in the U. S., field of study, level of education, TOEFL score, and age are related to differences in learning styles.

Population of the study

The population of this study consisted of 1300 students from the different majors of AAUJ. Sorted out as beginners, intermediate or advanced by a regular placement test, these students are studying English as a foreign language at the English Language Center at AAUJ.

The sample of the study, randomly selected, consisted of 386 students of the total population. Of these, 196 were females and 190 were males. The sample was distributed in accordance with independent variables: gender (Table1), English Level (table 2), Academic level (Table 3)

Table (1): Distribution of the sample due to gender.

Gender	Frequency	Percent (%)
Female	196	50.8
Male	190	49.2
Total	386	100

Table (2): Distribution of the sample due to English level.

English level	Frequency	Percent (%)
Beginning	134	34.7
Intermediate	141	36.5
Advanced	111	28.8
Total	386	100

Table (3): Distribution of the sample due to academic level.

Academic level	Frequency	Percent (%)
1 st year	134	34.7
2 nd year	68	17.6
3 rd year	73	18.9
4 th year	111	28.8
Total	386	100

Note: The percentage of the gender, the English level and the academic level was determined by the actual number of the students in the sample of the study.

Instrument of the study

Surveying the related literature, the researchers developed a 20 item questionnaire on the four common learning styles: visual, auditory, tactile and kinesthetic.

The questionnaire was judged by three experts in the field of education, methodology and statistics. Consequently, it was judged as being a suitable instrument of the study.

The five- point scale was adopted: strongly agree, agree, strongly disagree, disagree, neutral.

Each learning style was tested by five items. That is, items 1, 2, 3, 4, 5 tested the visual learning style; items 6, 7, 8, 9, 10 measured the tactile; items 11, 12, 13, 14, 15 tested the auditory; items 16, 17, 18, 19, 20 checked the kinesthetic.

Reliability of the instrument

The reliability of the study was calculated by using the Cronbach Alpha formula. Accordingly, the reliability coefficient was .9779 which was acceptable for the purpose of the study.

Statistical analysis

The data, collected by the researchers, were analyzed by using different techniques to answer the questions of the study. These techniques included means, standard deviations, percentages, Independent T-Test and One-way ANOVA. Cronbach Alpha formula was used to determine the reliability coefficient of the questionnaire. To analyze the findings, the researchers used the following ranks for analysis: strongly agree: 5, agree: 4, disagree: 3, strongly disagree: 2, neutral:1.

Results

To answer the first question: "What are the learning styles of the EFL students at AAUJ ?"

The researchers examined the first null hypothesis: "There are no significant differences at ($\alpha=.05$) in the EFL students' preferences of learning styles at AAUJ."

To examine this hypothesis, the researchers analyzed the data using means and standard deviations.

Table (4): Students' Learning Style Preferences.

Learning style	N	Mean
Visual	386	3.8057
Tactile	386	3.8368
Auditory	386	3.8642
Kinesthetic	386	3.8150

According to the mean score for each learning style, students in this study favored the **Auditory** learning style (3.8642). Their minor learning style preferences were towards **Tactile** (3.8368), **Kinesthetic** (3.8150), **Visual** (3.8057)

In order to demonstrate each learning style individually and how students responded to each statement in the questionnaire the following tables have been provided.

Table (5): Students' Visual Learning Style Preference.

Question item	N	Mean	S.D
1. I learn better by reading what the teacher writes on the chalkboard.	386	3.8964	1.0834
6. When I read instructions, I remember them better.	386	3.8938	1.1449
9. I understand better when I read instructions.	386	3.9974	.9948
4. I learn better by reading than by listening to someone.	386	3.7591	1.0175
13. I learn more by reading textbooks than by listening to lectures.	386	3.4819	1.2446
Total	386	3.8057	1.0167

The mean scores in Table (5) demonstrate that the visual learning style is preferred by (3.8057). Specifically, item no. 9 received the highest rating. The mean of responses was (3.9974). This implies that students with visual learning preference learn better when they read instructions. Whereas, the lowest rating was for item no. 13 which reads "I learn better by reading than by listening to someone". This would, in turn, imply that even the visual learner has certain preferences in the same learning style which should be considered. To sum up, according to the mean score, overall for visual learning, students expressed minor learning style preference.

Table (6): Students' Tactile Learning Style Preference.

Question item	N	Mean	S.D
11. I learn more when I can make a model of something.	386	3.8394	1.1419
7. I learn more when I make something for a class project.	386	3.7254	1.0331
2. I learn better when I make drawings as I study.	386	3.9352	1.1366
5. When I build something, I remember what I have learned better.	386	3.7539	1.1138
18. I enjoy making something for a class project.	386	3.9301	.9685
Total	386	3.8368	1.0005

From table (6), we can see that tactile learning style received the second highest rating. The mean scores show it is preferred by (3.8368). The mean scores of items 2 and 18 were (3.9352) and (3.9301) respectively. In other words, these two items were predominant in the tactile style. Therefore, tactile learners learn more when they make drawings and when they contribute to a class project.

Table (7): Students' Auditory Learning Style Preference.

Question item	N	Mean	S.D
17. When the teacher tells me the instructions I understand better.	386	4.1710	.9352
12. When someone tells me how to do something in class, I learn it better.	386	3.4819	1.0198
8. I remember things I have heard in class better than things I have read.	386	4.0311	.9281
16. I learn better in class when the teacher gives a lecture.	386	3.8472	1.0344
15. I learn better in class when I listen to someone.	386	3.7902	.9935
Total	386	3.8642	.8975

Table (7) indicates that the majority of the students mostly prefer the auditory learning style. The mean scores show that it is preferred by (3.8642). The highest rating in the auditory style was for items 17 (4.1710), 8 (4.0311) respectively although the other items were preferred for most of the students. This result implies that students in the auditory learning prefer listening to instructions and learn more when they hear things more than reading them. However, if we compare item 17 (auditory) "When the teacher tells me the instructions I understand better" with item 9 (visual) "I understand better when I read instructions", we find that item 17 received the higher mean score.

Table (8): Students' Kinesthetic Learning Style Preference.

Question item	N	Mean	S.D
19. I prefer to learn by doing something in class.	386	3.6865	1.2619
17. When I do things in class, I learn better.	386	3.9301	1.0680
18. I enjoy learning in class by doing experiments.	386	3.9404	1.0903
3.. I understand things better in class when I participate in role-playing.	386	3.9611	1.0350
4.. I learn best in class when I can participate in related activities.	386	3.5570	1.2413
Total	386	3.8150	.9692

Table (8) shows that kinesthetic is a minor learning style. The overall mean score was (3.8150). The results show that the kinesthetic students learn best when they participate in role - playing (3.9611), do experiments (3.9404), and do things in class (3.9301) respectively.

In conclusion, the answer of the first study question "What are the learning styles of the EFL students at AAUJ?" is: the auditory learning style is the predominant learning style among the Arab American University students studying English as a foreign language at ELC. Whereas, the other learning styles (tactile, visual, kinesthetic) are considered to be minor ones.

To answer the second question of the study: "Do EFL male and female students at AAUJ at different levels have similar learning styles? The researchers examined the second hypothesis:

"There are no significant differences at ($\alpha=.05$) between EFL male and female students at different levels concerning the learning styles at AAUJ".

To examine this hypothesis, the researchers analyzed the data using means and standard deviations and independent t –test.

Table (9): Gender statistics

Gender	N	Mean	S.D	T
Male	190	3.7918	1.0098	- 815
Female	196	3.8679	07929	

Table (9) shows that the computed t – test was -815. This means that there were no significant differences at ($\alpha = .05$) in the learning styles of the Arab American University students studying English as a foreign language at ELC due to gender.

To answer the third question: "Are there significant differences in the learning styles due to the academic level among EFL students at AAUJ?" The researchers examined the third hypothesis: "There are no significant differences at ($\alpha = .05$) in the styles of learning used by AAUJ EFL students due to academic level".

To examine this hypothesis, the researchers used means, standard deviations and One- Way Anova.

Table (10): One – way ANOVA Test results on differences in the styles of learning used by The Arab American University EFL students due to academic level.

Groups	Sum of squares	DF	Means square	F	Sig.
Between groups	5.803	3	5.268	6.706	.000
Within groups	0.065	382	.786		
Total	5.868	385			

Table (10) clarifies that there are significant differences at ($\alpha = .05$) level in the styles of learning used by AAUJ EFL students due to academic level.

Table (11): Academic level and the learning Style.

Learning style	Academic level	N	Mean	S.D
Visual	1 st year	134	3.9134	.8297
	2 nd year	68	4.1353	.8683
	3 rd year	73	3.5288	1.2039
	4 th year	111	3.6559	1.1057
	Total	386	3.8057	1.0167
Tactile	1 st year	134	3.8388	.9295
	2 nd year	68	4.1647	.7467
	3 rd year	73	3.6301	1.1463
	4 th year	111	3.8368	1.0768
	Total	386	3.8368	1.0005
Auditory	1 st year	134	3.9925	.7420
	2 nd year	68	4.1765	.7228
	3 rd year	73	3.6795	1.0820
	4 th year	111	3.6396	.9564
	Total	386	3.8642	.8975
Kinesthetic	1 st year	134	3.9403	.8567
	2 nd year	68	4.1912	.5807
	3 rd year	73	3.5507	1.2355
	4 th year	111	3.6072	.9996
	Total	386	3.8150	.9692
Total	1 st year	134	3.9213	.7731
	2 nd year	68	4.1669	.6350
	3 rd year	73	3.5973	1.1372
	4 th year	111	3.6680	.9546
	Total	386	3.8304	.9053

The mean scores in table (11) demonstrates clearly the learning styles in comparison to the academic level. The following results are listed in a descending order: the first year students learning styles are auditory, kinesthetic, visual, and tactile. However, the second year students are kinesthetic, auditory, tactile, and visual. Whereas, the third

year students are tactile, visual, auditory kinesthetic. The fourth year students are auditory, tactile, kinesthetic, and visual.

To answer the fourth question, "Are there significant differences in the learning styles due to the English level among EFL students at AAUJ ?" the researchers examined the fourth hypothesis, "There are no significant differences at ($\alpha = .05$) in the styles of learning used by AAUJ EFL students due to English level".

To examine this hypothesis, the researchers used means, standard deviations and One- Way Anova.

Table (12): One – way Anova Test results on differences in the styles of learning used by The Arab American University EFL students due to English level.

Groups	Sum of squares	DF	Means square	F	Sig.
Between groups	4.290	2	2.145	2.637	.073
Within groups	1.578	383	.814		
Total	5.868	385			

Table (12) shows that there are no significant differences at ($\alpha = .05$) level in the styles of learning used by AAUJ EFL students due to English level.

To describe the results more specifically, the researchers used the following table:

Table (13): Results description regarding English Level.

English Level	N	Mean	Standard deviation
Beginning	134	3.9213	.7731
Intermediate	141	3.8730	.9705
Advanced	111	3.6680	.9546
Total	386	3.8308	.9058

The results regarding each English level were respectively beginning (3.9213), intermediate (3.8730), advanced (3.6680).

However, the overall result regarding the English levels was insignificant since the computed F- value was (2.637).

Discussion

The dominant learning style as perceived by the Arab American University EFL students was Auditory. They expressed minor preferences for tactile, kinesthetic and visual learning styles. This agrees with a study conducted by Kara (2009) which concluded that auditory and visual learning styles were the most prominent ones among Anadolu University, Turkey, students. However, it doesn't agree with Mulalic (2009) whose studies accentuated the prevalence of Kinesthetic among their samples of university students in Cordoba ,Spain, and Malaysia. On the other hand, Aqel and Mahmoud (2006) came up with a variety of learning styles dominated by the students of An- Najah university, another Palestinian University. This incongruity between these two Palestinian universities arises since the majority of students at AAUJ is from the Green Line (Palestine in 1948); whereas, the students at An- Najah University are mostly from the West Bank. That is , they both relate to different educational systems and different methods of English learning and teaching.

In order to accommodate different learning styles in the classroom, lecturers need to take into consideration for example that auditory students prefer more listening to the lectures and seminars, and participating in discussions. These students like to listen to the tape recordings of material and have a chance to ask questions about what they have learned or do not understand. Tactile oriented learners prefer to learn with hands-on experience. These students have to be involved physically in the class activities. Kinesthetic learners prefer to create and develop what they learn. They learn best from the trial and error experiences. Visual learners may prefer reading, observing, and more data for their interpretation or more visual aids, such as movies, diagrams, pictures, graphs. (Hall and Mosely, 2009), Goris(2010), Putintseva (2006), Polhemus (2004).

The second result of this study was there were no significant differences in the learning styles regarding gender. That is to say, both EFL males and females at AAUJ do not have different learning styles. This, in turn, implies that there is no need to consider any specific learning styles concerning gender. This result seems to be a Palestinian peculiarity since it is consistent with another Palestinian study conducted by Aqel and Mahmoud (2006). However, it is inconsistent with some other studies.

Ramayah (2009) and Garland and Martin (2005) supported the different learning styles for both males and females.

The third result was that there were significant differences in the learning styles due to academic level. This implies that each academic level has its own properties and learning preferences which the lecturer should consider while teaching. This result agrees with Aqel and Mahmoud (2006), Fleming (2010) and Markova (1992).

The fourth result was that there were no significant differences in the styles of learning used by AAUJ EFL students due to English level. That is, while teaching English, the instructor should adapt his teaching strategy to suit the learners learning styles with respect to the academic level no matter whether the learner is female, male, beginning, intermediate, or advanced. This result is consistent with Aqel and Mahmoud (2006) and Gune (2004), but it contradicts the study conducted by Reid (1987).

Recommendations

After surveying and discussing the results of the study, the researchers recommend the following:

- Auditory activities should be on the top of the priorities in English teaching at ELC at AAUJ. That is, textbooks and language Labs should be enriched to suit this most prevalent learning style.

- Since we have a number of minor learning styles, a combination of activities should be involved in the classroom to help the learners compromise and work together.
- These newly explored learning styles should be a catalyst for lecturers to expand and vary their teaching styles.
- Native and non-native instructors of English as a foreign language should evenly be trained to incorporate the various learning styles while teaching.
- New instruments should be tried to investigate the effectiveness of the various learning styles using experimental and controlled groups.
- New studies should be conducted to investigate the impact of the place of residence (Camp, village , town , city) and standard of living on learning styles.

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