



Language Learning Styles as Predictors for Communicative Competence and Communication Apprehension on Iranian ESP Learners

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ABSTRACT

The main aim of this study was to see if and to what extent language learning styles predicted Iranian ESP learners' communicative competence and communication apprehension. To this effect, 218 ESP learners from four reputable institutes conducting ESP classes were selected through convenience sampling to participate in this study. In this descriptive correlational research, the Personal Report of Communication Apprehension (PRCA-24), Self- Perceived Communication Competence scale (SPCC) and the Grasha-Reichmann Student Learning Style Scale (GRSLSS) were used for data collection. In order to justify the testing of language learning styles' predictive role, a significant relationship between learning styles, communicative competence and communication apprehension of Iranian ESP learners should be established. Thus, the relationships of the variables were first analyzed using Pearson Product-Moment correlation analyses. Based on the statistical findings, all six learning styles significantly correlated with communication apprehension while four styles, namely independent, avoidant, collaborative and participant had significant correlations with ESP learners' perceived communication competence. Furthermore, similar to findings in past EFL studies, a significant and negative correlation between communicative competence and communication apprehension was found to be prevalent among ESP learners too. To see if significant predictors of ESL learners' language learning styles could be identified, both single and multiple linear regression analyses were run. Subsequent results showed that all language learning styles are significant predictors of communicative competence. Also, independent learning style made the strongest statistically significant unique contribution to communicative competence while collaborative, avoidant and participant learning styles were the next ones in the queue. However, avoidant, dependent, and competitive learning styles failed to significantly predict communication apprehension while participant learning style was seen as the best predictor of communication apprehension followed by collaborative and independent styles.

Keywords: language learning styles, communicative competence, communication apprehension

Introduction

With the advent of globalization and the widespread use of English in the realm of international trade, employers have been seeking potential employees who can communicate effectively in English to augment their performance in the workplace and expand their businesses to other countries [1].

Also, the emergence of international journals as well as an increase in the number of international submissions and publications have augmented the importance and relevance of English for Specific Purpose (ESP) [2]. As a result, ESP courses have been designed to teach or train learners to communicate in

English effectively in their academic arena and/or at their workplace. In general, English for Specific Purpose (ESP) is defined as "an approach to language learning which is based on learner need" [3].

The integral function of ESP classrooms is to encourage student engagement in the target language to foster successful potential participation in the academic and/or vocational community [4]. Success in these courses are measured by the learners' effectiveness in using the language in their prospective profession, academic field or even in everyday situation wherein English communicative skills are needed [5].



Thus, achieving communicative competence in English is the main aim of ESP programs as much of the success in this competitive world depends upon the communicative competence. However, studies have reported that ESP courses do not fulfill the needs of the learners [6] as communicative development of ESP learners is still a problematic area [7]. Researchers believe that though ESP aims to prepare graduates in various fields to be competent in communication skills [8,9], they still lacked the abilities to speak or write well in English after graduation and thus are unable to seek suitable employment because of their lack of oral and written skills in English [9].

One main reason for this setback, studies have revealed, was because most ESP teachers mainly focused on teaching reading skills and not the productive skills of speaking and writing which are necessary for aiding learners to achieve communicative competence [10,11]. Moreover, the scarcity of qualified teachers, highlighting the need for an increased number of instructors with the necessary expertise to teach ESP courses effectively was also stressed [12].

In Iran too, researchers have found that ESP classes are fraught with problems that are deemed ineffective for developing learners' communicative competence [13]. These researchers pointed out that unmotivated, passive ESP learners were the other major problems in these classes and that most participants in their study were dissatisfied with the teaching method.

In this context, one of the personal characteristics that can influence learners' ability to acquire information, interact with peers and teachers, and participate in learning activities is learning style [14]. Research has revealed that learning style is one of the contributing factors in language learning success and a determining variable in describing learners' characteristics and individual differences.

Learning styles are said to be general approaches, with no dichotomy in between which lie along a continuum, with four main dimensions related to L2 learning; sensory preferences, personality types, desired degree of generality, and biological differences [15]. They are individual difference factors that represent enduring and stable approaches to processing information. Individuals have particular approaches to learning by which they feel most pleased. In other words, they learn much readily when they process information in their own ways. Styles are that give general direction to learning behavior [16]. In contrast to language learning strategies which are consciously chosen by the learners, learning styles are inherent preferences that learners use in acquiring a new language. Learning styles, quite unique in each person, are developed as a result of life experience and the environmental factors, enabling people to emphasize

on some learning abilities over others [17]. The inherent nature of learning styles turns them to a favored habitual mental activity in processing new information [18]. Thus, it is seen as an important variable in successful language learning. Another important yardstick to measure success in language learning is communicative competence. The term 'Communicative Competence' (CC) was first introduced by Dell Hymes in 1972 which he defined as "the tacit knowledge" of the language and "the ability to use it for the communication".

Studies in English as a Foreign Language (EFL) have shown that EFL learners' communicative competence correlates negatively with their levels of communication comprehension. In 1977, James McCrosky proposed the idea that communication apprehension (CA) hinders effective communication. He defined communication apprehension as, "individual's level of fear or anxiety associated with either real or anticipated communication with another person or persons".

However, researchers such as Dörnyei [19] have found that even those with high levels of communicative competence might avoid participating in communication situations. In the field of research in ESP, besides inadequate teacher qualification, language pedagogy was seen as one of the challenges to teaching and learning ESP [20]. Furthermore, some researchers [21-23] have proposed that a mismatch between teacher instructional styles and students' language learning styles (LLS) may lead to negative impacts on students' language learning. Similarly, many ESP studies [24-27] have suggested that teaching styles influence students' learning styles and language learning outcomes. The review on related studies have revealed a probable link between Communicative Competence (CC), Communication Apprehension (CA) but not much empirical evidence is found to support their relationships with Language Learning Styles (LLS) especially within ESP research. Thus, the study first explored the relationship/if any, between learning styles, communicative competence and communication apprehension of Iranian ESP learners. Then, it aimed to find out if and to what extent language learning styles predicted Iranian ESP learners' communicative competence and communication apprehension. The role of learners' language learning style in this context can add to existing literature on this context. That is, if different types of LLSs are found to correlate with ESP learners' anxiety and their abilities in communicating in English with others. Strategies could be implemented to cater to their various learning styles that might improve learning and achieve learning needs. This is because language learning strategies are directly related to language achievement [28].

Method

Participants

The sample chosen as the subset of the population involved in the study consisted of Iranian ESP learners who are graduates from various fields of education and intended to pass some specific course related to their interest and needs (mostly pertaining to their career objectives). The setting for the study was at four renowned ESP institutes all in Bojnourd, a city in Khorasan Shomali which had about 850 EFL learners overall and 230 of whom are currently registered in ESP classes.

These were Bazargani Training Center, Yasin Tourism and Management Center for tourism and hotel management and Kish institute, in which English courses for marketing were held. The last venue chosen for data collection was the Sana institute in which speaking courses for Petrochemical Company employees were held to prepare them for interacting with foreign engineers coming to the company. Participants were from both genders with ages ranging from 22 to 38. They came from different educational backgrounds and the level of their language proficiency wasn't important to the institutions and also to their affiliations. A total number of 218 ESP learners from intact classes accepted to participate in the study.

The final sample tested included 182 (minus invalid questionnaires and exclusion of extreme cases after test of Normality of the Distributions). To seek the validity for using this sample size in this study, the researcher followed Tabachnick and Fidell's criterion [29], a formula that takes into account the number of independent/predictor variables. Accordingly, the required sample size should be above $50 + 8m$ (m = the number of variables). In this analysis, there were 7 predictor variables, the six learning styles and the communicative competence, calling for a sample including more than 98 participants. Thus, including 182 cases as the sample pool seemed to be large enough to meet this assumption.

Instrumentations

The data collection instruments utilized in the present study are as follows:

Self-Perceived Communication Competence scale (SPCC): Since the concern of this study was with the way students view their own competence (as opposed to the way an external observer might judge it), the Self-Perceived Communication Competence scale was employed (SPCC) [30].

The Self-Perceived Communication Competence scale is a 12-item scale measuring an individual's perceptions of their own communicative competence among acquaintances, friends and strangers [30]. The scale items range from (0) not at all competent to (100) completely competent. While there are three

types of receivers, and four contexts for competence (public, meeting, group, and dyad), often the combined score is only reported. Although this is a much newer instrument than the PRCA, it has been found to be reliable when used with college student populations (alpha reliability = .92) and has strong face validity and recently reliabilities have ranged from .81 to .93. It is composed of 12 items asking the respondent to estimate on a 0-100 scale how competent she or he is in a variety of communication settings.

Personal Report of Communication Apprehension

(PRCA-24): Communication apprehension was measured by the use of the Personal Report of Communication Apprehension [31]. The PRCA-24 is a 24-item, Likert-type questionnaire that yields scores ranging from 24 to 120. This 24-item scale measures trait-like communication apprehension in four contexts: dyadic, meeting, small group and public.

It uses a 5-point Likert scale ranging from (1) strongly agree to (5) strongly disagree. The PRCA-24 was selected because it is the most widely used to measure of communication apprehension and because its reliability and validity are well established and recently with alpha reliabilities ranging from .80 to .95 [31].

Grasha-Reichmann Student Learning Style Scales

(GRSLSS): Grasha has defined learning styles as, "personal qualities that influence a student's ability to acquire information, to interact with peers and the teacher, and otherwise participate in learning experiences". Grasha and Riechmann developed this scale of 60 items with six subscales (independent (10 items), dependent (10 items), avoidant (10 items), participative (10 items), competitive (10 items), and collaborative (10 items)) to identify the learning styles of the students.

The answers were on a 5-degree Likert scale from strongly agree to strongly disagree. The GRSLSS [32] was chosen as the tool for determining student learning styles in the present study because Grasha and Riechmann considered students' interaction and participation instead of cognition and personality when designing the GRSLSS.

They believe that it helps teachers and professors to recognize teaching which is appropriate for specific learning styles.

A brief discussion of each learning style is included below.

1. Independent students prefer independent study, self-paced instruction, and would prefer to work alone on course projects than with other students.
2. Dependent learners look to the teacher and to peers as a source of structure and guidance and prefer an authority figure to tell them what to do.

3. Competitive students learn in order to perform better than their peers do and to receive recognition for their academic accomplishments.
4. Collaborative learners acquire information by sharing and by cooperating with teacher and peers. They prefer lectures with small group discussions and group projects.
5. Avoidant learners are not enthused about attending class or acquiring class content.

6. Participant learners are interested in class activities and discussion, and are eager to do as much class work as possible. They are keenly aware of, and have a desire to meet, teacher expectations.

The results of the reliability of these instruments in the specific context of the present study are shown in the Table 1.

Table 1: The Internal Consistency of the Instruments

	Part	Cronbach's Alpha	Alpha Based on Standardized Items	N of Items
G-R Learning Style Scale	Independent	.635	.641	10
	Avoidant	.663	.699	10
	Collaborative	.825	.838	10
	Dependent	.693	.697	10
	Competitive	.645	.693	10
	Participant	.685	.702	10
	Total	.870	.872	60
SPCC	Total	.962	.963	12
PRCA24	Total	.781	.800	24

Reliability indices above 0.6 are acceptable. As demonstrated above, the results indicated that all of the instruments had acceptable degrees of reliability as computed by Cronbach's alpha coefficient.

Data Collection Procedure

Data collection lasted for three months. Before distributing the questionnaires, participants were informed about the intention and purpose of the study and that their responses would be kept anonymous. Participants were then given the questionnaires and asked to answer them thoroughly and within the class time inside the classroom.

This stage usually took about 8-10 minutes in all the classes. Since the number of items of the learning style scale was more than the other two, it was distributed among learners after a 10 minutes' break. Responding to the SPCC questionnaire lasted about 15-20 minutes while completing the PRCA-24 took almost 20-30 minutes and the third took about 30-35 minutes. So, a full session was devoted to data collection in each class.

After the collection of all the completed questionnaires, the researcher individually inspected the questionnaires to make sure that the ones with error(s)/ uncompleted ones were excluded from the study.

Results

H01: There is not any significant relationship between language learning styles and self-perceived communicative competence of Iranian ESP learners. After the initial inspection of the data approved the normality of distributions, parametric tests of Pearson Product-Moment correlations were run to test the first null hypothesis. As the results in Table 1 indicate, four out of six learning styles, namely independent ($r = .281$, $p < .01$), avoidant ($r = -.209$, $p < .01$), collaborative ($r = .295$, $p < .01$) and participant ($r = .350$, $p < .01$) had significant correlations with communication competence. Among these four, avoidant learning style had negative correlation with communicative competence while the other three shows positive correlations.

Table 2: Pearson's Correlations between Learning Styles and Communicative Competence

		Learning Styles					
		Independent	Avoidant	Collaborative	Dependent	Competitive	Participant
Communicative	Pearson Correlation	.281**	-.209**	.295**	.125	.097	.350**
	Sig. (2-tailed)	.000	.005	.000	.094	.192	.000
	N	182	182	182	182	182	182

The two other styles, i.e., dependent ($r = .125, p = .094 > .05$) and competitive ($r = .097, p = .192 > .05$) failed to show any significant correlation with communicative competence. Overall, as the

correlation was significant for the majority of variables, the first null hypothesis was rejected.

H02: There is not any significant relationship between language learning styles and communication apprehension of Iranian ESP Learners.

Table 3: Pearson's Correlations between Learning Styles and Communication Apprehension

	Learning Styles					
	Independent	Avoidant	Collaborative	Dependent	Competitive	Participant
Pearson Correlation	-.250**	.164*	-.614**	-.329**	-.408**	-.680**
Sig. (2-tailed)	.001	.027	.000	.000	.000	.000
N	182	182	182	182	182	182

As the normality of distributions was already acknowledged, parametric Pearson Product-Moment correlations were also used to test the second null hypothesis. As it is evident from Table 2, all learning styles have significant correlations with communication apprehension. Among the styles, avoidant ($r = .164, p < .05$) had a positive correlation, while all other styles, namely independent ($r = -.25, p$

$< .01$), collaborative ($r = -.614, p < .01$), dependent ($r = -.329, p < .01$), competitive ($r = -.408, p < .01$), and participant ($r = -.68, p < .01$), had negative correlations with communication apprehension. Therefore, the second null hypothesis was also rejected.

H03: There is not any significant relationship between self-perceived communicative competence and communication apprehension of Iranian ESP learners

Table4: Pearson's Correlations between Communicative Competence and Communication Apprehension

Communication Apprehension	Communicative Competence	
	Pearson Correlation	-.495**
	Sig. (2-tailed)	.000
	N	182

Pearson Product-Moment correlations were also being run to test the third hypothesis. The results in Table 3 show that there is a significant and negative correlation ($r = -.495, p < .01$) between communicative competence and communication apprehension.

Therefore, the third null hypothesis was also rejected. Since the correlations among learning styles, communicative competence and communication apprehension were found to be significant, research hypotheses four and five were tested using regression analyses. Before running the regression analyses, a number of assumptions, namely sample size, multicollinearity, regression normality, and lack of outliers were checked.

First, to check multicollinearity, which exists when the independent variables are highly correlated and endanger the results of regression analysis, Tolerance value and VIF value were inspected.

Table 5: Tolerance and VIF Values

	Tolerance	VIF
Independent	.875	1.143
Avoidant	.743	1.346
Collaborative	.427	2.342
Dependent	.552	1.810
Competitive	.481	2.081
Participant	.530	1.888

According to Tabachnick and Fidell [29], Tolerance value of less than .10 and VIF value of above 10 suggest a high possibility of multicollinearity. Table 4 reports all Tolerance values were higher than 0.1 while the VIF values were lower than 10 showing that multicollinearity did not exist in this sample.

Next, the regression normality was checked by inspecting the Normal Probability Plot (P-P) and Scatterplots. Figure 1-3 presents the results of the Normal P-P Plots and Figures 4-6 shows the results of scatterplot of the compared variables.

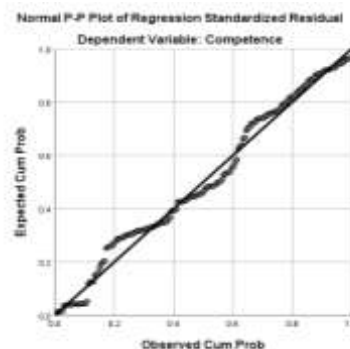


Figure 1: The normal P-P plot of regression standardized residual; Predictor: learning styles, Predicted: communicative competence

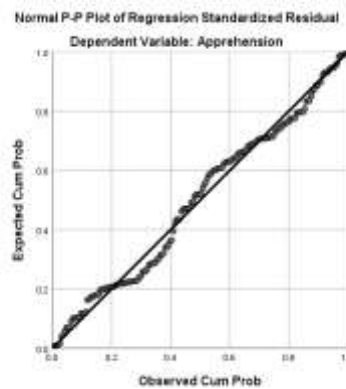


Figure2: The normal P-P plot of regression standardized residual; Predictor: learning styles, Predicted: communication apprehension

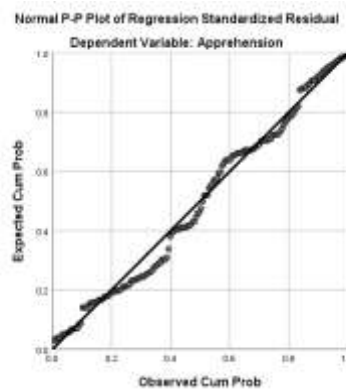


Figure 3: The normal P-P plot of regression standardized residual; Predictor: communicative competence, Predicted: communication apprehension

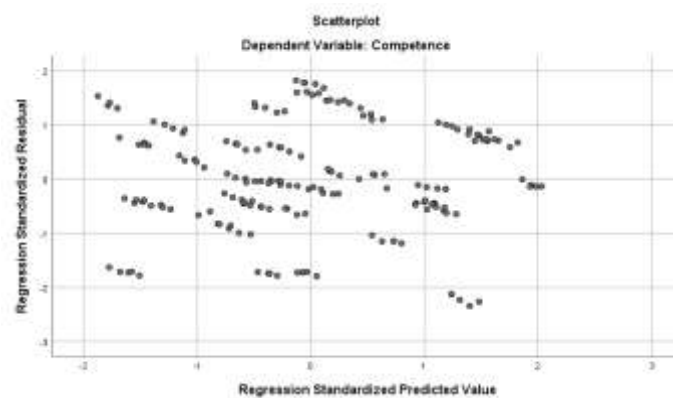


Figure 4: The scatterplot of the standardized residuals; Predictor: learning styles, Predicted: communicative competence

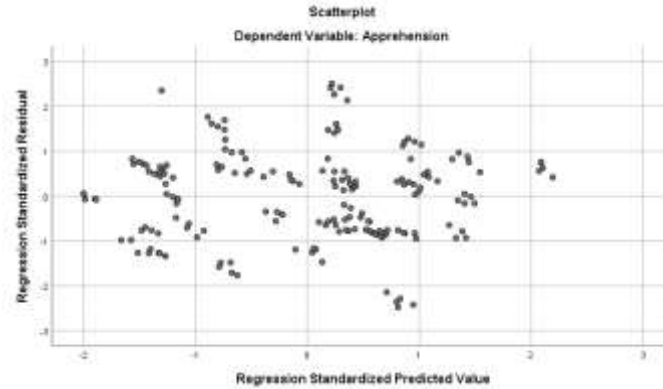


Figure 5: The scatterplot of the standardized residuals; Predictor: Predictor: learning styles, Predicted: communication apprehension

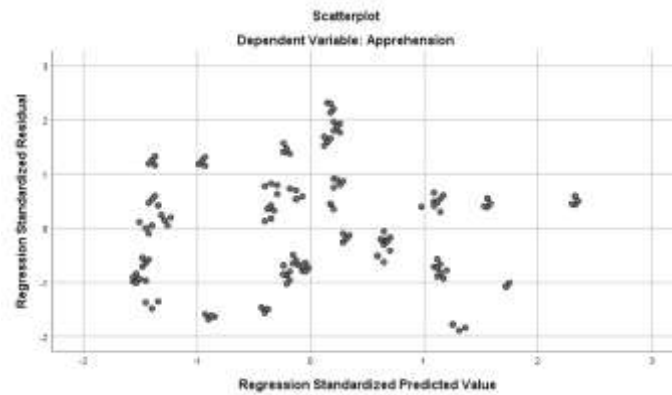


Figure 6: The scatterplot of the standardized residuals; Predictor: Predictor: communicative competence, Predicted: communication apprehension

As observed in Figures 1-3, there was no clear or systematic pattern to the residuals. Accordingly, the assumption of normality was met. Finally, the presence of some outliers can be detected from the scatter plot of standardized residuals (Figures 4-6). According to Tabachnick and Fidell [29], outliers are cases that have a standardized residual of more than 3.3 or less than -3.3.

No such cases were visible in the figures. In addition to the method stated above, the researcher inspected the Mahalanobis distance values in order to notice and inspect the existence of outliers (Table 5). According to Tabachnick and Fidell [29], when there are 6 independent variables (six learning styles) in the model, the critical value for the Mahalanobis value is 22.46.

Table 6: Residuals Statistics

Models		Minimum	Maximum	Mean	SD	N
Model 1	Mahal. Distance	.804	14.99	5.96	3.16	182
	Cook's Distance	.000	.021	.005	.006	182
Model 2	Mahal. Distance	.804	14.96	5.96	3.16	182
	Cook's Distance	.000	.084	.006	.011	182
Model 3	Mahal. Distance	.000	5.53	.995	1.16	182
	Cook's Distance	.000	.027	.005	.006	182

Model 1: Predictor: Learning styles; Predicted: Communicative competence.

Model 2: Predictor: Learning styles; Predicted: Communication apprehension.

Model 3: Predictor: Communicative competence; Predicted: Communication apprehension.

This means that if the Mahalanobis value for a variable is larger than 22.46, outlier cases are detected. Table 5 reported that the highest Mahalanobis value for Model 1 and Model 2, that has the learning styles as their predictor variables are 14.969, which is safely below this value. In Model 3, there is only one predicting variable, which does not allow for running Mahal chi-square test (the minimum value for running this test is 2). Therefore, the researcher relied on Cook's distance. Basically, the values above 1 are considered influential while it is suggested to inspect values above 0.5. As it is evident in the table, the maximum value for the Cook's distance in model 3 was .027, which is safely below the cut-off values mentioned above. The

values of Cook's distance for models 1 and 2 also indicated lack of highly influential cases. Based on the results of the analyses reported above, it was, then, legitimate to run both single and multiple linear regression analyses in order to test hypotheses four and five. H04: ESP learners' learning styles do not significantly predict their self-perceived communicative competence. As reported earlier, out of the six learning styles, four had significant correlations with communicative competence. These four styles were entered to a multiple regression model to see the extent to which they can predict communicative competence. Table 6 presents the regression model summary including the R and R^2 .

Table 7: Regression Summary for the First Model – R and R Square

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.486 ^a	.236	.219	13.34767	2.052

a. Predictors: (Constant), Participant, Independent, Avoidant, Collaborative

b. Dependent Variable: Competence

As reported in Table 6, R came out to be 0.486 and R^2 came out to be 0.236. This means that the model explains 23.6 percent of the variance in communicative competence. Moreover, the Durbin-Watson (DW) index of 2.052 indicated that the assumption of independence errors was met. As noted

by Filed (2013) DW indices between 1 and 3 are acceptable. Table 7 reports the results of ANOVA ($F_{(4, 181)} = 13.70, p = 0.000 < .01$), the results of which were considered significant. This means that the model can significantly predict ESP learners' communicative competence.

Table 8: Regression Output for the First Model: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9762.911	4	2440.728	13.700	.000 ^b
	Residual	31534.378	177	178.160		
	Total	41297.288	181			

a. Dependent Variable: Competence

b. Predictors: (Constant), Participant, Independent, Avoidant, Collaborative

Table 7 demonstrates the Standardized Beta Coefficients which signify the degree to which each predictor variable contributes to the prediction of the predicted variable.

The inspection of the Sig. values showed that all learning styles are significant predictors of communicative competence. Thus, the fourth hypothesis was rejected. The comparison of β values revealed that independent learning style had the

highest β coefficient ($\beta = .282, t = 4.186, p = 0.000 < .01$). This means that independent learning style makes the strongest statistically significant unique contribution to communicative competence. The second in rank was collaborative learning style ($\beta = .204, t = 2.044, p = 0.016 < .05$), while avoidant ($\beta = -.185, t = -2.773, p = 0.006 < .01$) and participant ($\beta = .166, t = 2.003, p = 0.042 < .05$) learning styles were the next ones in the queue.

Table 9: Regression Output of the First Model: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Part Correlation
		B	Std. Error				Lower Bound	Upper Bound	
1	(Constant)	-11.533	15.736		-.733	.465	-42.588	19.522	
	Independent	1.208	.289	.282	4.186	.000	.639	1.778	.275
	Avoidant	-.736	.265	-.185	-2.773	.006	-1.260	-.212	-.182
	Collaborative	.624	.256	.204	2.441	.016	.120	1.129	.160
	Participant	.693	.345	.166	2.003	.042	.007	1.392	.138

Finally, the inspection of Part correlation (semi-partial correlation coefficient) also revealed that independent learning style is the best predictor of communicative competence, followed by avoidant, collaborative, and participant styles.

H05: ESP learners' learning styles do not significantly predict their communication apprehension.

Testing the fifth hypothesis also required running a multiple regression analysis.

As reported earlier all learning styles showed significant correlations with communication apprehension. Therefore, we found, all six styles were entered to the model. The model summary is presented in Table 9.

Table 10: Regression Summary for the Second Model – R and R Square

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
2	.765 ^a	.585	.571	9.31953	1.813

a. Predictors: (Constant), Participant, Independent, Avoidant, Dependent, Competitive, Collaborative

b. Dependent Variable: Apprehension

As reported in Table 9, R and R^2 came out to be .765 and .585, respectively. This means that the model explains 58.5 percent of the variance in communicative apprehension. Moreover, the Durbin-Watson (DW) index of 1.813 indicated that the assumption of independence errors was met. As noted

by Filed (2013) DW indices between 1 and 3 are acceptable Table 10 reports the results of ANOVA ($F_{(4, 181)} = 41.16, p = 0.000 < .01$), the results of which were considered significant. This means that the model can significantly predict ESP learners' communication apprehension.

Table 11: Regression Output for the Second Model: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21449.484	6	3574.914	41.160	.000 ^b
	Residual	15199.379	175	86.854		
	Total	36648.863	181			

a. Dependent Variable: Apprehension

b. Predictors: (Constant), Participant, Independent, Avoidant, Dependent, Competitive, Collaborative

Table 11 demonstrates the Standardized Beta Coefficients which signify the degree to which each predictor variable contributes to the prediction of the predicted variable. The inspection of the Sig. values showed that three learning styles, namely avoidant,

dependent, and competitive, failed to significantly predict communication apprehension. The other three styles could significantly and negatively predict communication apprehension.

Table 12: Regression Output for the Second Model: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Part Correlation
		B	Std. Error				Lower Bound	Upper Bound	
1	(Constant)	187.514	11.445		16.384	.000	164.926	187.514	
	Independent	-.968	.210	-.240	-4.615	.000	-1.382	-.968	-.225
	Avoidant	.354	.212	.094	1.666	.098	-.065	.354	.081
	Collaborative	-1.077	.214	-.374	-5.022	.000	-1.500	-1.077	-.245
	Dependent	-.167	.220	-.050	-.756	.451	-.602	-.167	-.037
	Competitive	.131	.232	.040	.563	.574	-.328	.131	.027
	Participant	-1.620	.263	-.412	-6.159	.000	-2.138	-1.620	-.300

By noticing on Table 12, we found that the inspection of β values revealed that participant style had the highest absolute β coefficient ($\beta = -.412, t = -6.159, p = 0.004 < .01$), followed by collaborative style ($\beta = -.374, t = -5.022, p = 0.004 < .01$). Independent style ranked the third ($\beta = -.240, t = -4.615, p = 0.004 < .01$). The negative values of beta indicate that high levels in

above-mentioned learning styles are associated with low levels of communication apprehension. Finally, the inspection of Part correlation (semi-partial correlation coefficient) acknowledged that participant learning style is the best predictor of communication apprehension. Collaborative and independent styles ranked the second and third.

Discussion

The purpose of this study was to see if Language Learning Styles were predictors of ESP learners' Communicative Competence and Communication Apprehension. To do so, at first a statistically significant correlation among these variables should be established. Thus, the relationships of the variables were first analyzed using Pearson Product-Moment correlation analyses after the results of the normalcy of distributions demanded so. Based on the statistical findings, all six learning styles significantly correlated with communication apprehension while four styles, namely independent, avoidant, collaborative and participant had significant correlations with ESP learners' perceived communication competence. Furthermore, similar to findings in past EFL studies, a significant and negative correlation between communicative competence and communication apprehension was found to be prevalent among ESP learners too. To see if significant predictors of ESL learners' language learning styles could be identified, both single and multiple linear regression analyses were run. Subsequent results showed that all language learning styles are significant predictors of communicative competence.

Also, independent learning style made the strongest statistically significant unique contribution to communicative competence while collaborative, avoidant and participant learning styles were the next ones in the queue. However, avoidant, dependent, and competitive learning styles failed to significantly predict communication apprehension while participant learning style was seen as the best predictor of communication apprehension followed by collaborative and independent styles. The overall statistical findings indicated some significant contributions of this study. One, among the language learning styles, avoidant learning style had the highest positive correlation with communication apprehension but a negative correlation with communicative competence compared to the other learning styles. Thus, in layman's terms it means that the learner-participants who had avoidant learning styles were seen not only to feel anxious in ESP classes but also not so competent in communicating in English.

This feeling is probably attributed to firstly, their being not enthusiastic about learning, feeling inadequate about his/her knowledge and a fear of failure. This is based on the suggestion that negative self-concepts inhibit the perceptual processes by introducing a psychological barrier which tends to impair the language learning process [33] and so avoid temporary or permanent contact with the source of perceived failure. Secondly, the positive correlation between avoidant learning style and communication apprehension could also be explained due to

mismatches between learning style and teaching method which is said to probably negatively affect learning, motivation, attitude and/or achievement [22]. This assumption can be substantiated by reference to related studies that have revealed that unmotivated, passive ESP learners were the other major problems in ESP classes giving the reason as being dissatisfied with the teaching method [13].

Thus, this result adds to the findings of studies that have reported that ESP courses do not fulfill the needs of the learners [6] by suggesting that learners with avoidant learning style are highly likely to feel this way. Studies have stressed that ineffective educational methods in terms of learning styles can increase stress in learners. It is believed that learners who feel stressful before learning cannot concentrate well while after learning stress hinders remembering what is learned. To achieve the desired objectives in learning, it is suggested that controlling stress levels and individual learning styles should be considered [34].

The next finding was negative correlation between avoidant learning style and communicative competence. This finding resonates numerous studies which have reported an inverse relationship between anxiety levels perceived during oral productions and their achievement in English [33,35-38]. This may point to the idea that a mismatch between learning style and teaching method could affect perception of communicative competence of ESP learners with avoidant learning style.

This assumption can be explained by reference to related studies that have revealed that most ESP teachers mainly focused on teaching reading skills and not the productive skills of speaking and writing which are necessary for aiding learners to achieve communicative competence [10-11]. The integral function of ESP classrooms is to encourage student engagement in the target language [4] but the findings of this study show that ESP 'Avoidant Learners' in Iran still feel, as Grasha mentioned, 'overwhelmed by class activities. The study also indicated that independent learning style was seen to not only have a significant positive correlation with communication competence but also made the strongest statistically significant unique contribution to communicative competence. According to Grasha those with independent learning styles prefer student-centered rather than a teacher-centered course designs.

Thus, this result suggests that ESP learners who do not rely much on their teachers for learning feel they are more competent speakers of English than the other types of learners. The findings also showed that participant learning style was the best predictor of communication apprehension. Participant learners are interested in class activities and discussion, and are eager to do as much class work as possible.

They are keenly aware of, and have a desire to meet, teacher expectations. Thus, it can be assumed that the more participation in class activities, the lower the feeling of apprehension. In this respect, we refer to Dunn and Dunn who say that when learners at all levels are taught with the help of methods that complement their learning characteristics, they become motivated. It is proposed that teachers balance their instructional methods, which means accommodate all learner styles [22].

This reiterates the assumption that if a student's specific style for learning is ignored, problems in the grasping of the concept of something they are being taught or trying to learn would be encountered [39]. Finally, the first important theoretical implication of this study is, the more the adherence to the learning style of the learners, the higher the self-perceived communicative competence. This can be supported by the theory of motivation which states that students taught in preferred learning styles were more motivated to learning [40].

Second, the less the adherence to the learning style of the learners, the higher the self-perceived communication apprehension. This assumption can also be supported by the theory that explains that learning styles and teaching styles are closely related and that "learners whose style preference is conspicuously different from the teacher's may be plagued by anxiety and respond negatively to the teacher, the classroom, and the subject matter [37].

Overall, it is suggested that ESP course developers and designers must consider learning style as an important learners' need and try to design around them [41]. This is because if the students' learning characteristics are unknown, it would be difficult to design effective instruction. Also, the design of ESP learning activities should strive to accommodate multiple learning styles which might reduce communication apprehension and thereby help improve communicative competence.

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