



Cognitive, Affective, Behavioral and Personality Domains of EFL Learning

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Abstract

The main scope of the study is to investigate the relationships between English study habits, extrinsic and intrinsic motivation, utilitarian value of English, attitudes toward English, self-reported verbal abilities, personality traits, English skills (reading, writing, speaking, and listening), and English grades. A total of 210 Turkish students take part in this study (123 females and 87 males, the mean age of participants was $M = 20.91$). The main results can be summarized as follows. Intrinsic motivation, attitudes toward English, and verbal abilities were in positive correlations with study habits and English grades. English study habits were in a positive relationship with English grades and all the self-reported English skills. Extrinsic motivation and neuroticism were in negative correlations with participants' English skills and grades. Extraversion, agreeableness and consciousness were in positive relationships with English skills and grades while neuroticism was in negative correlations with these variables. Openness had statistically significant relationships with writing and listening skills only. There were no statistically significant gender differences in the studies variables (except in the case of the utilitarian value of English, where females' estimates were greater than those of males).

Keywords: Affective Domain, English Skills, ELT.

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1. Introduction

1.1. Introduction of the problem

The chief aim of this study was to examine the relationship of some cognitive, affective, behavioral and personality variables (labeled as "independent variables") with English

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competencies and achievements (labeled as "dependent variables"). Thus, the following research questions have been defined:

1. Are study habits, intrinsic and extrinsic motivation, utilitarian value of English, attitudes toward English and verbal abilities (i.e. independent variables) in mutual correlations?
2. Do self-reported English skills (reading, writing, speaking and listening) correlate with participants' grades on the last English exam?
3. Are independent variables in significant relationships with dependent variables (reading, writing, speaking and listening skills, as well as participants' grades on the last English exam)?
4. Are there any gender differences in independent and/or dependent variables?

1.2. Relevant scholarship

Roughly speaking, motivation can be divided into two categories – extrinsic and intrinsic orientation. Intrinsic motivation involves an internal wish to do something, e.g. to learn English (Oletić & Ilić, 2014). Extrinsic motivation includes external rewards and achievements (e.g. financial awards, public praises given by English teachers, high grades, etc.). Intrinsic motivation is usually in a positive relationship with academic achievements, whereas extrinsic motivation is not (Amrai et al., 2011; Kusurkar et al., 2013). However, there are authors who found a negative relationship between extrinsic motivation and academic performance (e. g. Lemos & Verissimo, 2014). Students usually report higher levels of intrinsic motivation in comparison with extrinsic motivation and these differences were observed in EFL learning environment as well (Moskovsky & Alrabai, 2009). Extrinsic motivation is usually in a negative correlation with intrinsic motivation (e.g. Guay et al., 2000; Khazaie & Mesbah, 2014). However, there are some authors who got a statistically non-significant correlation between these motivational orientations (Brunel, 1999). Two most-common reasons to learn English are of the utilitarian and academic kind (Al-Tamimi & Shuib, 2009). These are two motives that can be considered as some of the behavioral aspects of the EFL learning environment. More precisely, they are indicators of instrumental motivation.

There are individual differences in personality traits and students' idiosyncratic learning patterns. Some research findings support the notion that conscientiousness and openness to experience are in positive relationships with academic performance (Geramian et al., 2012; Hazrati-Viari et al., 2012). Some other researchers found that academic achievements positively correlated with agreeableness and conscientiousness (e.g. Karataş, 2015).

1.3. Hypotheses and the correspondence to research design

Various scientific disciplines regularly give contributionsto the description, explanation and improvement of the English as a foreign language (EFL) learning environment. In the first place, these fields are educational sciences, psychology and linguistics. This is why; there are lots of approaches, theories, models and factors that were confirmed to be crucial for the EFL learning. These factors or influences can be of the cognitive (e.g. abilities, knowledge and competencies), affective (the emotional component of attitudes, English speaking and writing anxiety...), behavioral (e.g. motivation and study habits) and personality (diligence, conscientiousness, extraversion...) nature.

Skills, knowledge and competencies related to English can be assessed by objective measures (e.g. school exams) and subjective, self-report measures (participants' personal opinion and an estimate of their English skills). Self-report measures of English skills and competencies (for instance, vocabulary knowledge with reading, writing and speaking skills) are mutually correlated (Aydoğan & Akbarov, 2014). Affective domain of the EFL learning environment is important because it is connected with students' positive or negative feelings during classes and learning at home. It seems that students' attitudes toward English have an impact on their achievements related to this subject/course (Gömleksiz, 2010; Rukh, 2014). On average, students have positive attitudes toward English learning (Ahmed, 2015).

2. Method

This was mainly a correlational study which can also be classified as a cross-sectional research (there were no follow-ups; hence, participants gave their opinions, estimates and answers in a particular point of time).

2.1. Identification of subsections

The first part of the survey included questions on participants' age, gender and grades on the last English exam (in points, from 0 to 100).

The second one comprised questions related to study habits ("How frequently do you learn English at home?": 1 – "never", 2 – "once a month", 3 – "twice a month", 4 – "once a week", 5 – "twice a week", 6 – "four or five times a week", and 7 – "every day"), intrinsic motivation ("How much do you like to learn English because you find it enjoyable?": 1 – "not at all" to 5 – "very much"), extrinsic motivation ("How much do you like to learn English due to getting a better grade?": 1 – "not at all" to 5 – "very much"), utilitarian value of English ("How much do you like to learn English because it is useful for various purposes?": 1 – "not at all" to 5 – "very much"), attitudes toward English ("In general, what is your attitude toward English?": 1 – "completely negative" to 5 – "very positive"),

self-reported verbal abilities ("How do you estimate your verbal abilities?": 1 – "very poor" to 5 – "excellent"), and self-reported English skills and knowledge ("How do you estimate your English skills and knowledge?": 1 – "very poor" to 5 – "excellent").

The last part of the survey was the *abbreviated (10-item) version of the Big Five Inventory (BFI-10)*, Rammstedt & John, 2007). This instrument is used for assessing the following five (basic) personality traits: extraversion, agreeableness, conscientiousness, neuroticism and openness to experience. Each personality trait is measured by a pair of items and the result of a personality trait is obtained by calculating the average value of participants' scores on the corresponding two items. This scale has very good psychometric properties; it is a simple, and a time-saving instrument (Rammstedt & John, 2007). All items were given on a five-point Likert scale (1 – "disagree strongly" to 5 – "agree strongly"). Half of the items are reversely-coded (1, 3, 4, 5, and 7).

It took participants about 15 minutes to answer the questions of the survey. Data were collected in accordance with the ethical rules and standards in educational sciences (and in social sciences, in general). Both descriptive and inferential statistical procedures were used for the purposes of this paper. Two main statistical methods were applied in order to answer research questions. Those methods were correlational analysis and t-test for independent samples.

2.2. Participant (subject) characteristics

A total of 210 Turkish students participated in this study, out of which 123 were females (58.6% of the whole sample) and 87 were males (41.4% of the sample). The mean age of participants was $M = 20.91$ ($SD = 2.10$) and their age ranged from 18 to 27.

2.3 Sampling procedures

It took participants about 15 minutes to answer the questions of the survey. Data were collected in accordance with the ethical rules and standards in educational sciences (and in social sciences, in general). Both descriptive and inferential statistical procedures were used for the purposes of this paper. Two main statistical methods were applied in order to answer research questions. Those methods were correlational analysis and t-test for independent samples.

3. Results

Firstly, we displayed descriptive statistical values (Table 1 and Table 2). Next, we showed the results of the correlational analysis (Table 3, 4, and 5). Lastly, the results of t-test for independent samples were displayed in Table 6 and 7 (in order to investigate the significance of gender differences).

Table 1: Descriptive statistical values of independent variables

Variables	N	Min	Max	M	SD
Study habits	210	1.00	7.00	3.97	1.93
Intrinsic motivation	210	1.00	6.00	3.27	1.22
Extrinsic motivation	210	1.00	5.00	3.43	1.16
Utilitarian value of English	210	1.00	5.00	3.03	1.27
Attitudes toward English	210	1.00	5.00	3.29	1.43
Verbal abilities	210	1.00	5.00	3.09	1.17
Extraversion	210	1.00	5.00	3.50	1.06
Agreeableness	210	1.50	5.00	3.31	1.02
Conscientiousness	210	1.00	5.00	3.41	1.17
Neuroticism	210	1.00	5.00	2.74	1.28
Openness to experience	210	2.00	4.50	3.16	0.57

As can be seen in Table 1, participants estimated their study habits (to be more specific, habits with regard to learning English) as moderately frequent ($M = 3.97$). Their average level of extrinsic motivation was slightly higher ($M = 3.43$) compared to the intrinsic one ($M = 3.27$). They perceived the utilitarian value of English as moderate ($M = 3.03$). However, their attitudes toward this language are somewhat above the average ($M = 3.29$). According to students' opinion, their verbal abilities were good ($M = 3.09$). As for participants' personality, they estimated themselves as extraverted ($M = 3.50$), agreeable ($M = 3.31$), conscientious ($M = 3.41$), emotionally stable (i.e. not so neurotic, $M = 2.74$), and open to (new) experience ($M = 3.16$).

Table 2: Descriptive statistical values of dependent variables

Variables	N	Min	Max	M	SD
Reading skills	210	1.00	5.00	3.11	1.25
Writing skills	210	1.00	5.00	3.19	1.19
Speaking skills	210	1.00	5.00	3.29	1.36
Listening skills	210	1.00	5.00	3.26	1.19
English grades	210	34	98	68.74	15.58

Referring to Table 2, students estimated their English language skills as above the average: $M = 3.29$ (speaking skills), $M = 3.26$ (listening skills), $M = 3.19$ (writing skills),

and $M = 3.11$ (reading skills). Their performance on the last English exam was (on average) 68.74% (while their scores were within the range of 34 to 98 points).

Table 3: Correlations among study habits, intrinsic motivation, extrinsic motivation, utilitarian value of English and verbal abilities

	Study Habits	Intrinsic motivation	Extrinsic motivation	Utilitarian value of English	Attitudes of toward English	Verbal abilities
Study Habits	1	.825	-.374	.686	.835	.718
Intrinsic Motivation		1	-.357	.663	.770	.596
Extrinsic Motivation			1	-.655	-.396	-.345
Utilitarian value of English				1	.653	.559
Attitudes toward English					1	.706
Verbal Abilities						1

Note. All coefficients were statistically significant at the level .001

As can be noticed from Table 3, all coefficients of correlation were strong, positive and statistically significant. Participants' study habits was in the strongest correlation with attitudes towards English ($r = .835$, $p < .001$). Intrinsic motivation was in the strongest relationship with study habits ($r = .825$, $p < .001$). Extrinsic motivation was in negative correlations with all the other variables (the strongest one was with the utilitarian value of English: $r = -.655$, $p < .001$). Self-reported verbal abilities had the highest correlation with study habits ($r = .718$, $p < .001$).

Table 4. Correlations of self-reported English skills with students' English grades

	Reading skills	Writing skills	Speaking skills	Listening skills	English grades
Reading skills	1	.584	.750	.681	.778
Writing skills		1	.661	.744	.808
Speaking skills			1	.654	.770
Listening skills				1	.821

English grades

1

Note. All coefficients were statistically significant at the level .001

Every English skill was in strong, positive and statistically significant correlation with each other as well as with English grades (Table 4). Among English skills, reading and speaking were in the strongest mutual relationship ($r = .750, p < .001$). English grades of participants correlated the most with their listening skills ($r = .821, p < .001$).

Table 5. Correlations of independent variables with dependent variables

	Reading skills	Writing skills	Speaking skills	Listening skills	English grades
Study habits	.690**	.739**	.737**	.731**	.842**
Intrinsic motivation	.628**	.756**	.707**	.690**	.757**
Extrinsic motivation	-.639**	-.267**	-.453**	-.361**	-.443**
Utilitarian value of English	.704**	.606**	.646**	.611**	.730**
Attitudes toward English	.592**	.636**	.668**	.714**	.768**
Verbal abilities	.601**	.628**	.644**	.580**	.737**
Extraversion	.665**	.494**	.698**	.645**	.663**
Agreeableness	.683**	.576**	.735**	.679**	.782**
Conscientiousness	.736**	.566**	.616**	.765**	.774**
Neuroticism	-.687**	-.649**	-.782**	-.715**	-.794**
Openness to experience	.106	.191*	.119	.195*	.059

Note. * $p < .01$, ** $p < .001$

As was shown in Table 5, extrinsic motivation and neuroticism negatively correlated with all the dependent variables. Other independent variables (except for openness to experience) were in strong, positive and statistically significant correlations with the dependent variables. Openness to experience was in weak, negative and statistically significant correlations with writing ($r = .191, p < .001$) and listening skills ($r = .195, p < .001$). Its other three relationships were not statistically significant.

Table 6. Gender differences in study habits, intrinsic motivation, extrinsic motivation, utilitarian value of English, and verbal abilities

Variables	Gender	N	M	SD	T	df	p
Study Habits	Males	87	3.93	2.16	-	208	.800
	Females	123	4.00	1.76	0.254		

Intrinsic Motivation	Males	87	3.28	1.34	0.044	208	.965
	Females	123	3.27	1.13			
Extrinsic Motivation	Males	87	3.59	1.25	1.669	208	.097
	Females	123	3.32	1.07			
Utilitarian value of English	Males	87	2.72	1.32	2.982	208	.003
	Females	123	3.24	1.19			
Attitudes toward English	Males	87	3.07	1.35	1.859	208	.064
	Females	123	3.44	1.47			
Verbal Abilities	Males	87	3.00	1.24	0.892	208	.373
	Females	123	3.15	1.12			

As can be noticed in Table 6, males and females differed in a statistically significant sense only in utilitarian value of English. Females, compared to males, perceived English as more useful ($M = 3.24$ vs. $M = 2.72$, $t = -2.982$, $df = 208$, $p < .01$). They also had more positive attitudes toward English ($M = 3.44$ vs. $M = 3.07$); however, this difference was not large enough to be statistically significant ($t = -1.859$, $df = 208$, $p = .064$; thus, the "p" value was slightly greater than $p = .05$).

Table 7. Gender differences in dependent variables

Variables	Gender	N	M	SD	t	df	p
Reading Skills	Males	87	3.14	1.42	0.230	208	.818
	Females	123	3.10	1.13			
Writing Skills	Males	87	3.17	1.32	0.136	208	.892
	Females	123	3.20	1.09			
Speaking Skills	Males	87	3.17	1.40	1.018	208	.310
	Females	123	3.37	1.33			
Listening Skills	Males	87	3.38	1.22	1.248	208	.213
	Females	123	3.17	1.17			
English Grades	Males	87	67.86	16.29	0.688	208	.492
	Females	123	69.37	15.10			

The figures in Table 7 showed statistically insignificant gender differences neither in self-reported reading, writing, speaking and listening skills nor in students' grades on the last English exam. Female students had somehow greater grades ($M = 69.37$) in comparison with male students ($M = 67.86$); however, the difference between their mean scores was not statistically significant ($t = -0.688$, $df = 208$, $p > .05$).

4. Discussion

The findings pointed out that our participants learn English at home about once a week. This is probably because they are at university and they do not have to learn for academic courses as they learned for subjects in high schools they attended to. Interestingly enough, students had not only a high level of intrinsic motivation but also a high level of extrinsic motivation. Hence, they were motivated to learn English in both directions. This result means that they were really interested in learning English (and they enjoy it to some extent). At the same time, it seems that they wanted better grades and public praise (which are indicators of extrinsic motivation). Our participants had positive attitudes toward English. This result is comparable to the findings obtained by Ahmed (2015).

Intrinsic motivation was in a negative and moderate correlation with extrinsic motivation, as was obtained by Guay (2000) as well as Khazaie and Mesbah (2014). Nevertheless, our results contrast with those of Brunel (1999), who did not find a statistically significant correlation between these two types of motivation.

English reading, writing, speaking and listening skills were mutually in strong and positive correlations, as were in the study conducted by Aydoğan and Akbarov (2014). These self-reported English skills positively correlated with English grades. Therefore, participants were pretty accurate and honest when estimating their English skills. In other words, the results obtained by the usage of the subjective measure were in concordance with those collected with the help of the objective measure (i.e. the last English exam taken by our participants).

The more positive attitudes toward English, the better English skills and grades. This portion of results was in accordance with the findings from the studies carried out by Gomleksiz (2010) and Rukh (2014). Intrinsic motivation was also in positive correlation with students' English grades, which was similar to the findings of Amrai et al. (2011) and Kusrkar et al. (2013). On the other hand, our study yielded a negative correlation between extrinsic motivation and students' English performance, as was obtained by Lemos and Verissimo (2014). Hence, if students are motivated to get a better grade (or another accomplishment, praise and reward), they will probably get worse grades. Additionally, study habits played an important role in estimating own English skills as good, very good or excellent as well as in getting better grades on English exams.

Self-reported verbal abilities and the utilitarian value of English were positively correlated with the all four English skills and English grades. Accordingly, if participants perceive themselves as verbally able (i.e. as having high verbal IQ) and if they think English is useful for various purposes (academic, communicative and so on), they estimate their English reading, writing, speaking and listening skills as good to excellent. In addition, these kind of students get better English grades.

Conscientiousness was in a positive correlation with English grades of Turkish students from our sample. This finding is congruent with that obtained by Geramian et al. (2012) as well as Hazrati-Viari et al. (2012). Furthermore, agreeableness was in a positive relationship with participants' grades on the English exam, as was revealed in the study conducted by Karataş (2015). On the other hand, there are some discrepancies between our research and the above-cited studies. In our study, neuroticism was in a negative and extraversion was in a positive correlation with English grades. That was not the case in these studies. Unlike the previous studies, openness to experience was not in a statistically significant correlation with students' grades on the English exam in our study. This could be due to the usage of different instruments or due to specific characteristics of our participants.

Gender differences were statistically significant only for the utilitarian value of English where females outperformed males in their estimates. In all other cases, these differences were so small that they were statistically insignificant. For that reason, it can be concluded that male and female students have similar attitudes toward English, almost identical levels of extrinsic and intrinsic motivation and similar perceptions of their verbal abilities as well as English skills. To that end, English teachers do not need to pay more attention to either male or female students. They can treat and teach them similarly. Moreover, there is no need to adjust teaching methods with regard to students' gender group.

The main limitation of this study was the imbalance of the numbers of males and females in our sample. The next shortcoming was impression management expressed as participants' tendency to give socially desirable answers. Of course, there is the generalizability issue because the present study was conducted by including a relatively small sample.

5. Conclusions

Some practical implications of this study are as follows: 1) positive attitudes toward English, good study habits (i.e. learning English frequently) and intrinsic motivation have positive influence on students' academic performance with regard to the English language; 2) conscientious, agreeable, extraverted and emotionally stable students perform better on English exams and estimate their English skills as greater compared to those who have low levels of these personality traits; and 3) EFL students are really

good in estimating their English skills (and verbal abilities) because their (objective) scores on English tests are similar to their estimates.

To conclude (having in mind that similar thing was stated before), English as a foreign language learning environment is a complex system and process that is affected by lots of relevant factors. These factors are primarily of the psychological, educational, social and cultural nature. Attitudes, self-efficacy, positive academic self-esteem, study habits, motivation and personality traits are intercorrelated. It is not easy to make a complete list of them; however, huge efforts were made (especially in the field of social sciences) to define them, describe their mutual relationships and to anticipate their impact on positive educational outcomes.

The following recommendations are provided for further research in this branch of studies: 1) examining the relationship between verbal intelligence (as measured by objective, psychometrically valid tests of intelligence) and students' grades on English exams; 2) investigating differences between elementary, high school and college/university students in study habits related to English; 3) comparing the predictive power of students' motivation to learn English, personality and attitudes toward English in explaining the variance of academic performance with regard to English subjects/courses; and 4) measuring English skills objectively while correlating them with the utilitarian value of English and the perceived difficulty of various domains of this language (e.g. grammar and vocabulary).

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