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SOCIODEMOGRAPHIC VARIABLES VERSUS INTRINSIC AND EXTRINSIC MOTIVATION  
FOR ENGLISH LEARNING

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ABSTRACT

Intrinsic and extrinsic motivation are the two crucial factors for learning and using English language. In this study, we tried to examine associations between motivation for learning English and some sociodemographic variables. For that purpose, we conducted our research with 300 adolescents (192 females and 108 males). Their age ranged from 15 to 23 years. Our sample comprised both Turkish and Bosnian students, as well as high school and university students. We applied sociodemographic questionnaire as well as Intrinsic and extrinsic motivation for English learning scale (IEM-ELS). Our study yielded the following results: the distribution of participants' scores on intrinsic and extrinsic motivation subscales were left-skewed (the former distribution was more skewed than the latter one); the correlation between intrinsic and extrinsic motivation was small, positive, and significant; we did not find gender nor differences by nationality; age correlated positively with intrinsic but negatively with extrinsic motivation levels; and university students scored higher on Intrinsic motivation subscale and lower on Extrinsic motivation subscale, compared to high school students. The obtained results were discussed in the light of the previous studies in this branch of educational science.

Key words: extrinsic motivation, intrinsic motivation, nationality, ESL/EFL

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INTRODUCTION

Motivation is one of the most studied topics and variables in educational science. There are lots of definitions of this theoretical construct. We will cite some of them and present some main paradigms. According to Abraham Maslow (1943, 1954), people behave in a certain way in order to meet their needs: physiological, security, belongingness (social needs), recognition (self-esteem), and self-actualization needs. This is a humanistic view on motivation. Behaviorists believe that our motivation is strongly influenced by rewards, punishments as well as positive and negative reinforcement (e.g. Skinner, 1953, 1974). By these mechanisms, it is possible to shape one's behavior in a desirable direction.

Motivation can also be defined as the collection of drives, incentives, tendencies, and needs that encourages us to participate in different activities, maintain our behavior and achieve our goals. This type of definition is related to so-called the *Self-determination theory (SDT)*. Within the frame of this theoretical

approach, human behavior is considered self-determined, self-motivated, and self-regulated (e.g. Deci, 1980; Ryan, Connell, & Deci, 1985; Ryan & Deci, 2000a). This paradigm shift includes the assumption of three inherited needs: competence, autonomy, and relatedness (Ryan, 1993; Deci & Flaste, 1996; Ryan & Deci, 2002). Everyone wants to be competent in at least one of the life domains (e.g. working environment, social domain, physical domain, educational domain, etc.). We also need freedom and autonomy as well as to be in relationships and to maintain interactions with other people.

In school or academic environment, we can point out the importance of two types of motivation. These are intrinsic and extrinsic orientation (or motivation). Ryan and Deci (2000) Intrinsic motivation can be defined as follows: participating in an activity because it is inherently enjoyable and interesting (Deci, 1975; Ryan & Deci, 2000b). Extrinsic motivation is defined as doing something in order to gain some separable outcome, in other words, a particular activity has instrumental value (Ryan & Deci, 2000b; Deci, Koestner, & Ryan, 2001). Extrinsic orientation/motivation is a sort of dependence on reward-focused incentive systems, whereas intrinsic orientation/motivation includes authentic enjoyment and interest in a particular activity (such as studying or attending school classes).

Covington and Mueller (2001) underscored the possibility that intrinsic and extrinsic motives can coexist under certain conditions. That is, students can have almost equal levels of extrinsic and intrinsic orientation. Nevertheless, these orientations are opposed to each other, and lots of students show high levels of extrinsic and low levels of intrinsic motivation, and vice versa. Hence, they are in a some way antagonistic processes that manage our behavior (Deci, 1971). However, if we frequently use system of rewards in order to give accomplishment to those who are intrinsically motivated for doing school or working tasks, their intrinsic motivation can change into extrinsic orientation. This is so-called *overjustification effect* (Lepper, Greene, & Nisbett, 1973; Rosenfeld, Folger, & Adelman, 1980).

We will give a short overview of some relevant studies. Lepper, Corpus, and Iyengar (2005) examined relationships between intrinsic motivation, extrinsic motivation, age, and academic outcomes. They found a weak negative correlation between intrinsic and extrinsic motivation. There was also a negative correlation between grade level and intrinsic motivation of students; however, this relationship was positive between grade level and students' extrinsic motivation. In addition, extrinsic motivation was negatively correlated with academic outcomes, while intrinsic motivation was in a positive correlation with students' standardized test scores. This research was conducted with elementary school students.

Gillet, Vallerand, and Lafreniere (2012) found that there is a systematic decrease in intrinsic and self-determined extrinsic motivation from age nine to 12; however, starting from the age of 15, levels of motivation increase. Next, non self-determined extrinsic motivation decreases up to 12 years old. After this point, it starts to stabilize. The level of amotivation is pretty stable in the period from nine to 17 years. Hence, older students have lower levels of intrinsic and self-determined extrinsic motivation. According to these researchers, autonomy support is the mediator between age and motivational levels (Gillet et al., 2012).

One of the researchers in this field (Habibian, 2012) conducted a study with university students and got a moderate positive and significant correlation between extrinsic and intrinsic motivation. In contrast, Chang (2005) got a weak negative, but significant correlation between these two variables.

Lima, Winsler, and Kitsantas (2014) examined ethnic and gender differences in extrinsic and intrinsic motivation among college students. The first finding was that levels of extrinsic motivation of African Americans, Asian Americans, and Caucasians were similar to each other. The second one was about higher levels of extrinsic motivation among females. In addition, intrinsic and extrinsic motivation were positively correlated with academic performance (Lima et al., 2014). On the other side, Mubeen, Saeed, and Arif (2013) did not find significant gender differences in intrinsic motivation of intermediate science students.

Brown (2000) highlighted the importance and applicability of both intrinsic and extrinsic orientations in a second language learning classroom. This and many other reasons motivated us to examine these two variables and their relationships with some sociodemographic factors. Furthermore, intrinsic and extrinsic motivation in English language learning and teaching are barely investigated before.

**RESEARCH QUESTIONS**

The main aim of our research is determining the differences in extrinsic and extrinsic motivation for learning English as a foreign language, due to the impact of sociodemographic variables.

This aim can be specified considering the following research questions:

- 1) What is the shape of distribution of participants' scores on Intrinsic motivation subscale and Extrinsic motivation subscale?
- 2) Are intrinsic and extrinsic motivation mutually correlated?
- 3) Does age correlate with intrinsic and extrinsic motivation?
- 4) Are there gender differences on Intrinsic motivation subscale and Extrinsic motivation subscale?
- 5) Do different nationality groups from our sample differ in the level of their intrinsic and extrinsic motivation?
- 6) Who is more intrinsically and extrinsically motivated in learning English – high school students or university students?

**RESEARCH HYPOTHESES**

Regarding to the general aim of the study and the research questions listed above, we defined five null-hypotheses:

- 1) Respondents' scores on Intrinsic motivation subscale and Extrinsic motivation subscale are normally distributed (i.e. the differences between their distribution and normal curve are not statistically significant).
- 2) Correlation between extrinsic and intrinsic motivation is statistically significant.
- 3) Age is not in a statistically significant correlation with intrinsic and extrinsic motivation.
- 4) There are no statistically significant gender differences in intrinsic and extrinsic motivation.
- 5) Differences in intrinsic and extrinsic motivation between groups of students of different nationalities are not statistically significant.
- 6) There are no statistically significant differences in intrinsic and extrinsic motivation between high school students and university students.

**METHODOLOGY****Participants**

This study was conducted among 300 adolescents who learn English as a foreign language. We collected the following sociodemographic data: age, gender, nationality and information about educational institution they attend. Descriptive data for age and gender are displayed in Table 1. Note that the labels mean: N – size of the sample; min – minimal age, max – maximal age, M – arithmetic mean, and SD – standard deviation

**Table 1:** Descriptive statistical values of age for males and females

Gender	N	Min	Max	M	SD
Male	108	15	23	17.82	1.74
Female	192	15	23	18.24	1.93
Total	300	15	23	18.10	1.87

As we can see in Table 1, 192 females (64% of the total sample) and 108 males (36% of all respondents) participated in our study. Minimal age in the subsample of males was 15 years, and maximal was 23 years. That is the same case as in the subsample of females. The mean age of males was  $M = 17.82$  and  $SD = 1.74$ . The mean age of females was 18.24, and standard deviation was  $SD = 1.93$ . Analyzing all participants, minimal age was 15 and maximal 23. The mean age was 18.10, with the standard deviation of  $SD = 1.87$ .

We also considered the distribution of our sample by gender and nationality. The results are shown below, in Figure 1.

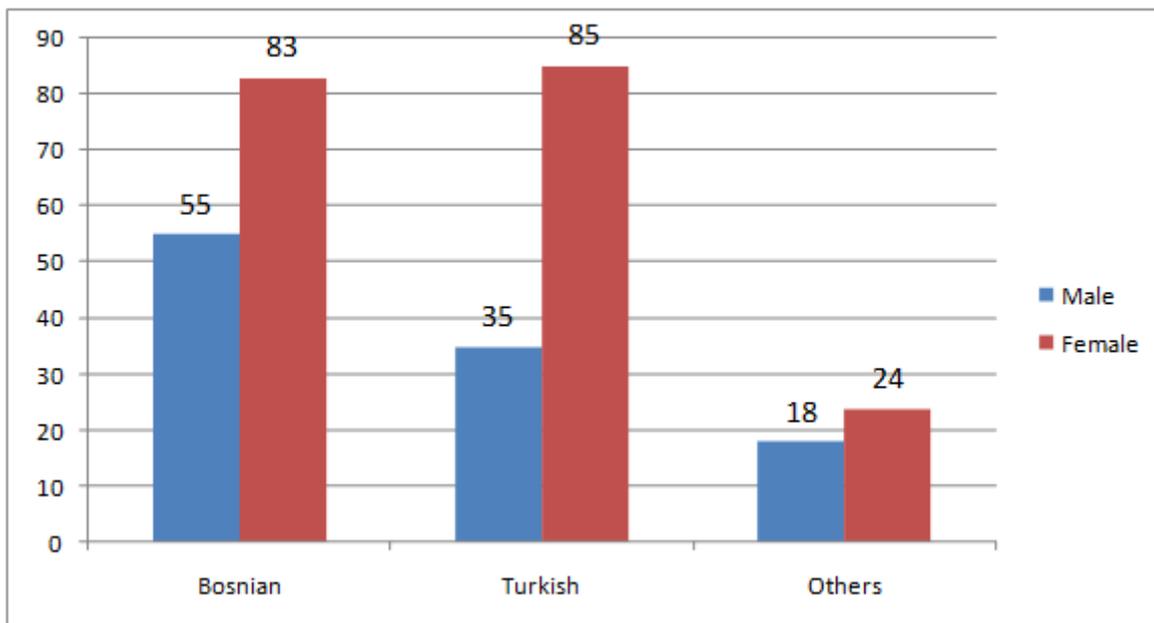


Figure 1. Gender and nationality of the participants

Figure 1 shows that there are more females than males in all subsamples (nationality groups of students). Out of 138 Bosnians, 55 participants were males (39.9% of the subsample) and 83 were females (or 60.1% of this subsample). Out of 120 Turks, 35 were males (29.2%) and there were 85 females (i.e. 70.8% of this subsample). 42 respondents were of different nationalities (Palestinian, Vietnamese, Serbian, Macedonian, Montenegrin, Croatian, Albanian, and Indian). 18 of them were males (or 42.9% of this subsample) and 24 were females (57.1%).

In total, 46% subjects were Bosnians, 40% were Turks, and 14% were others.

Next figure (Figure 2) is made for representing the distribution of participants by their nationality in high schools and at university.

As we can notice from Figure 2, most of high school students are Bosnian (n = 86, or 53.8% of high-school students). 45 of them are Turks (28.1% of this subsample) and 29 participants belonged to other nationalities (18.1%).

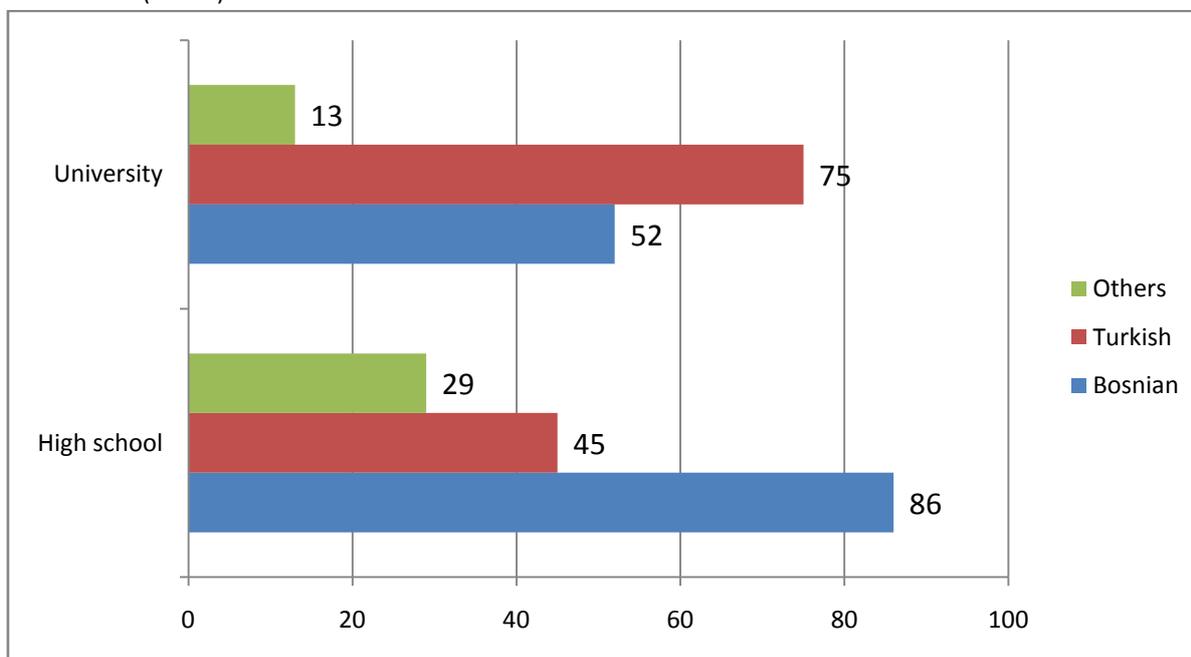


Figure 2. Distribution of the sample by nationality and educational institution/level

At the university level, most participants were Turks ( $n = 75$ , or 53.6% of sampled university students). 52 participants from this subsample were Bosnian (37.1%) and 13 respondents belonged to other nationalities (9.3% of university students).

Generally looking, 160 respondents attended high school (which is 53.3% of total sample) and 140 participants were at university (46.7% of the sample).

### Instruments

We applied two instruments: one to examine sociodemographic characteristics of our participants and another to assess their intrinsic and extrinsic motivation.

- 1) *Sociodemographic characteristics questionnaire* was composed of the items which give information about: age, gender (male/female), nationality (participants had to enter which nationality they are) and educational institution/level (some high school or university).
- 2) *Intrinsic and extrinsic motivation for English learning scale* (IEM – ELS, Aydoğan & Repišti, 2014) is consisted of 14 items. Ten of them measure intrinsic motivation (this is Intrinsic motivation subscale) and other four measure extrinsic motivation (this is Extrinsic motivation subscale). This scale has appropriate factor validity and its subscales showed very good reliability (internal consistency). The typical item for assessing intrinsic motivation is: "I dedicate lots of time to learn English because I am interested in it." On the other side, the typical item for measuring extrinsic motivation is: "I learn English to gain prestige." Total scores for participants are calculated as the sum of scores on all items for each subscale. Therefore, we have two total scores for each participant: one of intrinsic motivation and another of extrinsic motivation.

### Procedure

First we made electronic forms of our instruments (questionnaires) and we shared them among students, by one of Internet softwares for survey management and research purposes. When participants completed our questionnaire forms, the data were registered automatically. After the transference of participants' answers into MS Excel, they were copied into SPSS 17.0 for Win, where we conducted specific statistical analyses.

### RESULTS

First we calculated descriptive statistical values for Intrinsic motivation subscale and Extrinsic motivation subscale (Table 1). In order to test our first hypothesis (the normality of distributions), we conducted Kolmogorov-Smirnov test and we displayed these data in Table 1, too.

**Table 2:** Descriptive statistical values for intrinsic and extrinsic motivation

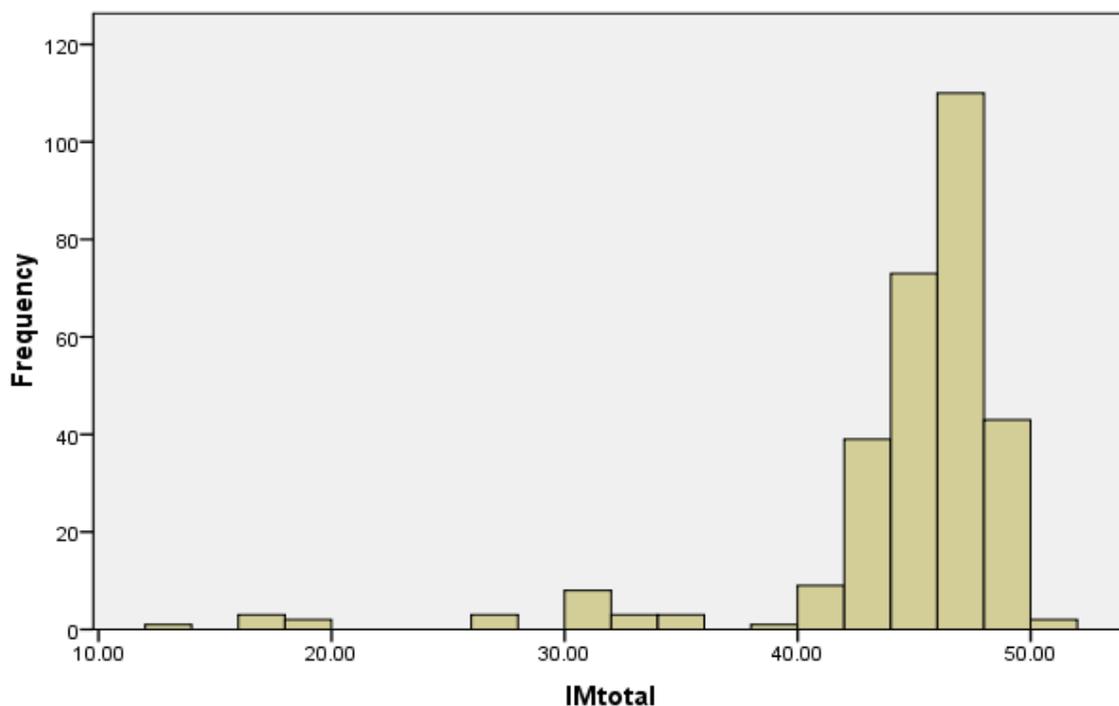
Subscale	N	M	SD	C	IQR	K-S Z	p
Intrinsic motivation	300	44.10	5.65	46	3.00	4.664	.000
Extrinsic motivation	300	14.67	3.50	15.50	5.75	2.561	.000

From Table 2, we can see that the arithmetic mean of respondents' scores is  $M = 44.10$  (standard deviation is  $SD = 5.65$ ). Kolmogorov-Smirnov test showed that the difference between distribution of intrinsic motivation scores and normal curve is statistically significant ( $K-S Z = 4.664$ ,  $p < .001$ ). Because of that, we provided non-parametric descriptive measures of centrality (median,  $C = 46$ ) and variability (interquartile range,  $IQR = 3$ ).

Arithmetic mean of subjects' results on Extrinsic motivation subscale is  $M = 14.67$  ( $SD = 3.50$ ). Its distribution differs from the normal distribution and this finding is statistically significant ( $K-S Z = 2.561$ ,  $p < .001$ ). The median of these results was  $C = 15.50$  and interquartile range, as a measure of variability, was  $IQR = 5.75$ .

The distribution for the two mentioned subscales are displayed in Figures 3 & 4.

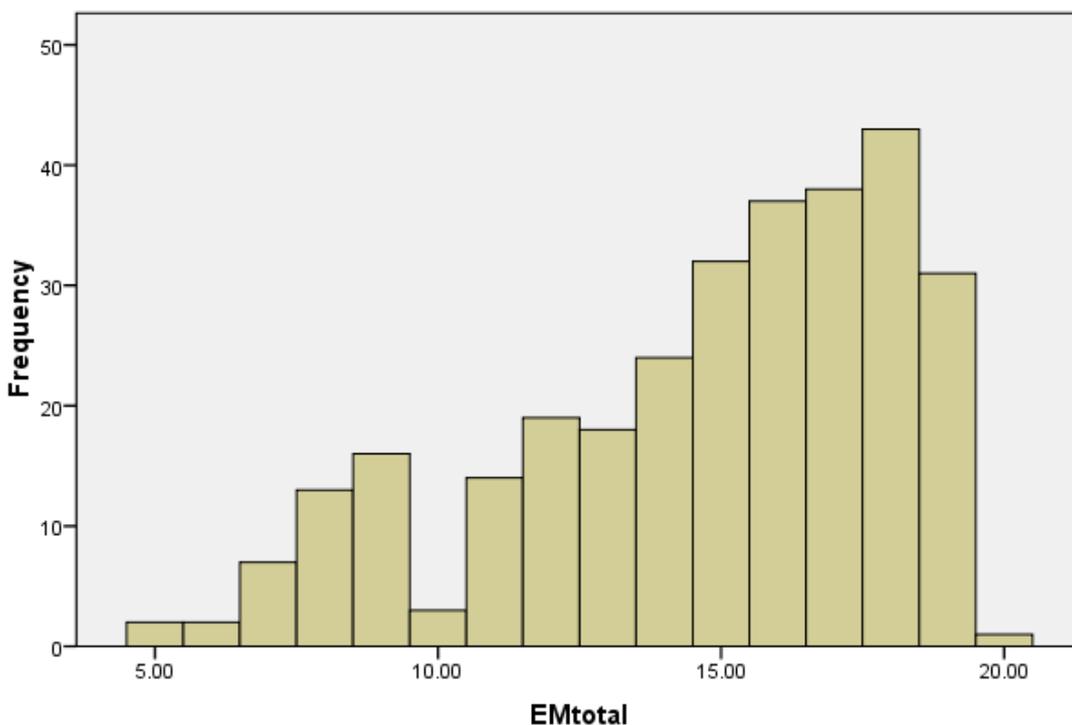
**Histogram**



**Figure 3.**The distribution of intrinsic motivation scores

We can notice (Figure 3) that distribution of ntrinsic motivation scores is negatively asymmetrical and multimodal. Regarding to this, we will use non-parametric statistical procedures for proving or rejecting our hypotheses.

**Histogram**



**Figure 4.**The distribution of extrinsic motivation scores

Figure 4 shows that the distribution of extrinsic motivation scores is negatively-asymmetrical and, as for the previous case, we will apply non-parametric tests and correlation coefficients to analyse the data for testing our hypotheses.

Therefore, we reject our first hypothesis (i.e. that distributions of motivation variables do not differ from normal curve).

In order to test the second and the third hypothesis, we calculated Spearman's coefficient of rank correlation ( $r_s$ ). The data are displayed in Table 3.

**Table 3:** Matrix of correlation between age, intrinsic and extrinsic motivation

	Age	Intrinsic motivation	Extrinsic motivation
Age	1	.223**	-.202**
Intrinsic motivation	.223**	1	.133*
Extrinsic motivation	-.202**	.133*	1

\* correlation coefficient is significant at level .05

\*\* correlation coefficient is significant at level .01

From Table 3, we can see that intrinsic motivation is in a small, but statistically significant correlation with extrinsic motivation ( $r_s = .133$ ,  $p < .05$ ). This correlation coefficient is positive, which means that someone who has high intrinsic motivation also has high extrinsic motivation (and vice versa). Therefore, students can be equally extrinsically and intrinsically motivated. But, this correlation is small and we cannot suppose that every student who is very extrinsically motivated is also intrinsically motivated in the same extent. Our results indicate that we confirmed the second hypothesis.

Age is in a statistically significant correlation with intrinsic motivation ( $r_s = .223$ ,  $p < .001$ ) and with extrinsic motivation ( $r_s = -.202$ ,  $p < .001$ ). Students who are older are much intrinsically and less extrinsically motivated. This finding is probably because older students are at university and mostly study their field of interest, whereas high school students must learn about different disciplines (lots of these issues are not interesting for them). Hence, we reject our third (defined as null) hypothesis and accept the alternative hypothesis.

To test the fourth, fifth and sixth hypothesis, we conducted Mann-Whitney U tests (that is, non-parametric procedure for independent samples). The data are displayed in the following three tables.

**Table 4:** Results of Mann-Whitney U test for gender differences

Subscale	Gender	Mean Rank	Mann-Whitney U	Z	P
Intrinsic motivation	Male	143.50	9612.000	-1.059	.290
	Female	154.44			
Extrinsic motivation	Male	160.44	9295.000	-1.496	.135
	Female	144.91			

There are no statistically significant gender differences in intrinsic motivation ( $U = 9612.000$ ,  $Z = -1.059$ ,  $p > .05$ ), nor in extrinsic motivation ( $U = 9295.000$ ,  $Z = -1.496$ ,  $p > .05$ ), see Table 4 above. This finding suggests that we can accept the fourth hypothesis.

Before we tested differences in motivation between students of different nationalities, we had chosen to examine two groups of participants – Bosnians and Turks (the number of other nationalities was too small, so we had excluded it from this analysis).

**Table 5:** Results of Mann-Whitney U test for nationality differences

Subscale	Nationality	Mean Rank	Mann-Whitney U	Z	P
Intrinsic motivation	Bosnian	127.22	7966.000	-0.531	.596
	Turkish	132.12			
Extrinsic motivation	Bosnian	136.38	7330.000	-1.597	.110
	Turkish	121.59			

There are no statistically significant differences between Bosnians and Turks (Table 5) in intrinsic motivation ( $U = 7966.000$ ,  $Z = -0.531$ ,  $p > .05$ ) nor in extrinsic motivation ( $U = 7330.000$ ,  $Z = -1.597$ ,  $p > .05$ ). Hence, we accept our fifth hypothesis, defined as null hypothesis.

**Table 6:** Results of Mann-Whitney U test for testing differences between high school students and university students

Subscale	Institution	Mean Rank	Mann-Whitney U	Z	P
Intrinsic motivation	High school	135.68	8829.000	-3.192	.001
	University	167.44			
Extrinsic motivation	High school	162.65	9256.000	-2.607	.009
	University	136.61			

In Table 6, we can see that university students have higher intrinsic motivation than high school students (mean rank for university students = 167.44 vs. mean rank for high school students = 135.68) and this result is statistically significant ( $U = 8829.000$ ,  $Z = -3.192$ ,  $p < .01$ ). The difference in extrinsic motivation between high school and university students is statistically significant ( $U = 9256.000$ ,  $Z = -2.607$ ,  $p < .01$ ). High school students are more extrinsically motivated (mean rank = 162.65) than university students (mean rank = 136.61). Therefore, we reject our last hypothesis.

## DISCUSSION

As we have already said, our research was conducted with 300 Turkish and Bosnian students. Hence, our sample was heterogenous, not only because of nationality, but due to the educational level, as well. This is one of the possible reasons why some of our findings are different from the results of other studies in this branch.

Our participants reported high levels of both extrinsic and intrinsic motivation. Moreover, the distribution of intrinsic motivation was more left-skewed than was the distribution of extrinsic motivation. We suppose that this result is a consequence of a tendency to give socially desirable answers. In other words, participants tried to meet researcher's expectations as well as to present themselves in a much positive manner than they really are.

Correlation between intrinsic and extrinsic motivation was weak, but significant. Thus, we have stated that we confirmed our second hypothesis. However, there should be done a thorough analysis of this finding. Our result was in accordance with Habibian's (2012) findings from the study conducted in the context on higher education. In contrast, our result is different from findings obtained by Chang (2005) and Lepper et al. (2005). We can justify our results by looking at the considerations provided by Covington & Mueller (2001). These theorists claimed that similar levels of extrinsic and intrinsic motivation can coexist within people. This is because high levels of these two types of motivation can indicate high levels of students' general motivation as well as low levels of their general amotivation, and vice versa. However, Deci (1971), who is one of the most prominent motivational theorists, highlighted the fact that extrinsic and intrinsic motivation are two antagonistic forms of motivation. We advise other researchers in this field to examine this relations between extrinsic and intrinsic motivation in a detail, because different studies yield different findings on the direction of their relationship.

We found positive and significant correlation between age and intrinsic motivation, probably because the educational level (high school and university) moderates this effect. When adolescents become older, they enrol in a higher educational institution, where they can study subjects and courses they like. High school provides more general knowledge to students and lots of school subjects are not interesting for them. On the other hand, they select university courses which are interesting and enjoyable for them. This part of discussion is in line with our further findings: higher levels of intrinsic motivation and lower levels of extrinsic motivation in university students, compared to the high school students.

We did not obtain either significant differences by nationality or by gender. The first finding is in accordance with the results of study conducted by Lima and her colleagues (2014) whereas the second was in line with the results obtained by Mubeen et al. (2013). Hence, there were no differences in extrinsic and intrinsic motivational levels between Turkish and Bosnian students. Gender differences were not significant,

probably because adolescents are open to the opposite gender and they think similarly. They do not like school so much, but they want to convince a researcher that they, in fact, do.

At this point, we have to remind ourselves that our scale measures extrinsic and intrinsic motivation for English language learning. Because of that, we can explain our findings in the following way: as time passes, adolescents/students are more aware of the necessity and usefulness of English as an international language. This is why their intrinsic motivation increases, and extrinsic motivation decreases.

### CONCLUSIONS

To answer to our hypothesis, we defined six conclusions:

- 1) Distributions of Intrinsic motivation subscale and Extrinsic motivation subscale are negatively-asymmetrical i.e. more participants got higher scores, rather than lower scores.
- 2) Intrinsic and extrinsic motivation are in a small positive correlation with each other.
- 3) Age is positively correlated with intrinsic motivation and negatively correlated with extrinsic motivation.
- 4) There were no gender differences in intrinsic and extrinsic motivation.
- 5) There were no differences between Bosnian and Turkish students in intrinsic and extrinsic motivation.
- 6) University students have higher intrinsic motivation and lower extrinsic motivation than high school students.

Our conclusions can lead to the new hypothesis for next empirical studies of motivation, especially in the context of learning and teaching English as a foreign/second language. Our study confirms the importance of intrinsic and extrinsic motivation to learning English language, stated by Brown (2000). Deci (1980) also highlighted the investigation of motivational topics in educational context, by using postulates of the Self-determination theory.

Finally, motivation is a complex psychological phenomenon and it has to be explored and studied together with over justification effect, as was done by Lepper et al. (1973) and Rosenfeld et al. (1980).

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