

## The Effect of Cooperative Learning Activities on Anxiety and Motivation in Multilevel Adult Classes \*

### İşbirlikli Öğrenme Etkinliklerinin Çoklu-Seviyeli Yetişkin Sınıflarında Kaygı Düzeyine ve Güdülenmeye Etkisi

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**ABSTRACT:** The purpose of present research is to investigate the effect of Cooperative Learning activities on motivation and anxiety in multilevel adult classes. Pre-test post-test design with control group was used for the research. Jigsaw and team reward techniques were applied in the experimental group including 12 students for eight weeks and the traditional method was carried out in the control group consisting of 12 students. The participants were the learners who attended the general English course at Uşak Public Education Center in 2005 and 2006. The data were collected with FLCAS (Foreign Language Classroom Anxiety Scale) and FLMQ (Foreign Language Motivation Questionnaire). Comparison of the means, Mann Whitney U test and Wilcoxon Signed Rank test were utilised in data analysis. Research results suggest that Cooperative Learning activities do not have a significant effect on motivation and anxiety in multilevel adult classes although some positive tendency has been observed in terms of these two variables.

**Keywords:** anxiety, motivation, multilevel adult classes, cooperative learning

**ÖZ:** Bu çalışmanın amacı İşbirlikli Öğrenme etkinliklerinin çoklu seviyeli yetişkin sınıflarında öğrencilerin güdü ve kaygı düzeyleri üzerinde bir etkisi olup olmadığını araştırmaktır. Araştırmada kontrol gruplu ön-test son-test deney deseni kullanılmıştır. 12 kişiden oluşan deney grubunda sekiz hafta boyunca birleştirme ve takım ödülü teknikleri ile öğretim yapılırken yine 12 kişiden oluşan kontrol grubunda geleneksel yöntemle ders işlenmiştir. Katılımcılar 2005 ve 2006'da Uşak Halk Eğitim Merkezi tarafından düzenlenen genel İngilizce kurslarına devam eden öğrencilerdir. Veriler FLCAS (Yabancı Dil Sınıfı Kaygı Ölçeği) ve FLMQ ( Yabancı Dil Güdüsü Anketi) ile toplanmıştır. Veriler ortalama karşılaştırması, Whitney U testi ve Wilcoxon Signed Rank testi kullanılarak analiz edilmiştir. Araştırma sonuçları her iki değişkenin de olumlu bir eğilim içinde olmasına rağmen İşbirlikli Öğrenme etkinliklerinin çoklu seviyeli yetişkin sınıflarında güdü ve kaygı üzerinde belirgin bir etkisi olmadığını göstermiştir.

**Anahtar sözcükler:** kaygı, güdü, çoklu-seviyeli yetişkin sınıfları, işbirlikli öğrenme

## 1. INTRODUCTION

In recent years, there has been a growing interest on the affective factors in learning environments (Ehrma et. all., 2003; Masgoret and Gardner, 2003; Gardner and MacIntyre, 1993; Sparks and Ganschow, 1991 ). This study aims to deal with two of those affective factors, “anxiety” and “motivation”, which have considerably attracted the researchers’ attention for long years. Horwitz, Horwitz and Cope (1991) define anxiety as “the subjective feeling of tension, apprehension, nervousness and worry associated with an arousal of the autonomic nervous system” (Horwitz & Young, 1991, p. 27). Anxious learners of foreign languages cannot perform successfully in classroom situations because they prefer to avoid difficult or complex tasks in order not to get embarrassed in front of the class. They find it particularly stressful to learn a foreign language and because they feel insecure and helpless they build some psychological barriers to communication (Horwitz & Young, 1991).

Similar to anxiety, motivation is also a very important affective factor in language classrooms. Learners who are motivated become interested in the task they are supposed to learn

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and enjoy doing so, which consequently enhances their success (Selçuk, 2000, p. 212). However, when learners are not motivated enough for the task, they lose their interest and start to get bored with it. Shortly, how successful a learner will become in a learning task is related to how much he or she is motivated for it as well.

This study deals with these issues in a particular context, and focuses on a multilevel adult class. This term is used “to identify any group of learners who differ from one another in one or more significant ways” such as learner expectations, learning style preference, culture, religion, etc (Shank & Terril, 1995, p. 1). Ur (1996) identifies some teaching problems in multilevel classes: interest, effective learning for all, materials, participation (Ur, 1996).

Anxiety and motivation require a special interest in multilevel classes since it is very difficult to cope with these two affective factors sufficiently in such classes. In this study, cooperative learning activities are believed to be useful in overcoming the problems of multilevel classes. Shank and Terril (1995) comments that cross-ability grouping lets strong learners help the weak ones (Shank & Terril, 1995, p. 2). Likewise, Nunan (1992) emphasizes the significance of cooperative learning in multilevel classes by comparing it with traditional teaching methods:

Cooperative learning in mixed-ability teams provides a major pedagogical structure for working toward such goals. This orientation entails a paradigmatic shift from the transmission model, seeing learners as active agents in their learning and teachers as researchers of their work (Nunan, 1992, p. 11).

### **1.1. Anxiety**

Brown (2000) states that “uneasiness, frustration and self-doubt” are related to being anxious (Brown, 2000, p. 151). Elkhafaifi (2005) argues that such negative feelings occur due to the fear of failure and he explains that anxiety may lead to lower test scores or grades and in the end may cause the learner to fail. He even claims that the severe anxiety of a learner may result in a change in academic or career plans (Elkhafaifi, 2005). Learners are likely to be reluctant to participate in the classroom activities (Littlewood, 1984). Furthermore, Elkhafaifi (2005) expresses that lower classroom performance occurs because of anxious learners’ underestimation of their own ability (Elkhafaifi, 2005, p. 208).

Dalkılıç (2004) discovered in his research that the most common consequence of anxiety was failure. Moreover, the students suffering from debilitating anxiety tried studying along with self-encouragement and positive self-talk and using relaxation techniques or getting help from others as a strategy (Dalkılıç, 2004). Similarly, Von Werde (1998) found out that anxiety could negatively effect the language learning experience in various ways and that when anxiety was reduced, language acquisition and motivation increased (Von Werde, 1998). Likewise, Gülsün’s study (1997) proved a significant moderate negative relationship between students language anxiety and their achievement in learning English as a foreign language; a significant moderate negative relationship between their language anxiety levels and their achievement in English reading comprehension; and a significant moderate negative relationship between students’ language anxiety levels and their oral English proficiency. On the other hand, the study revealed no significant difference between the anxiety levels of the students taught by native speaker teacher and those taught by non-native speaker teachers (Gülsün, 1997).

Haskin, Smith & Racine (2003) studied with five 7th grade Spanish classes in two suburban middle schools in order to describe instructional strategies to decrease anxiety and frustration in the Spanish classrooms and found that with the help of some strategies, students showed less test anxiety, communication apprehension and fear of negative evaluation in the classroom and less anxiety and frustration in the area of oral communication, which had previously hindered their full acquisition of the language (Haskin, Smith & Racine, 2003). Moreover, Gardner and others (1987) investigated the relationship between different aspects of

anxiety and second language production in a relatively non-threatening oral production task and he revealed that context-relevant anxiety played a significant role in second language learning (Gardner and others, 1987).

## 1.2. Motivation

Motivation is a concept, which has been defined with different perspectives by different psychological approaches. For instance, motivation is “the anticipation of reward” in Behaviourism. However, in Cognitive Approach it is “the choices people make” while it is a term that “must be interpreted in a social context according to Constructivism (Brown, 2000, p. 160-161). Littlewood (1984) explains the significance of motivation in learning contexts:

In second language learning, as in every other field of human learning, motivation is the crucial force which determines whether a learner embarks on a task at all, how much energy he devotes to it, and includes many components: the individual’s drive, need for achievement and success, curiosity, desire for stimulation and new experience, and so on.

Gardner finds it quite reasonable to argue that motivation is responsible for achievement. This is because “highly motivated individuals may try harder, work longer hours, process material more efficiently, and find the acquisition of the material more reinforcing than those who are less motivated” (Parry & Stanfield, 1990, p. 183). This situation can be explained with some aspects of motivation such as enjoyment and interest (Littlewood, 1984).

Direct relationships between the motivational styles and instructional styles have not been studied or proved yet; however, cooperative learning has been considered as beneficial for promoting achievement and self-esteem for all learners (Schmidt et. al., 1996). Ghenghesh (2010) has found that language learning motivation decreases with age and that there are some factors affecting learners’ motivation such as the role of the teacher and other aspects related to the learning context. Moreover, Noels et. al. (1999) have revealed a positive relationship between stronger feelings of intrinsic motivation and positive language learning outcomes like greater motivational intensity, greater self-evaluations of competence, and a reduction in anxiety. Likewise, Ushida (2005) showed that motivated students studied regularly and productively to take every opportunity to perfect their language skills. In short, motivation has been one of the important factors to be studied in second language research as it is so in this paper.

## 1.3. Multilevel Classes

What Ur (1996) names as heterogeneous classes and what Brown (2001) discusses as multiple classes are also the same concepts with multilevel classes. Ur (1996) argues that the most significant diversity in a language classroom is the proficiency levels. Therefore, when a multilevel class is discussed in terms of second language learning what is generally understood is a multiple proficiency class that includes a wide range of proficiency levels among students. Brown (2001) emphasizes a crucial fact that teachers of such classes are “faced with the problem of challenging the higher-level students and not overwhelming the lower-level students, and at the same time keeping the middle group well paced toward their goals” (Brown, 2001 p.197). There are serious problems in such classes. On one hand, in a class with a variety of proficiency levels, less proficient learners are generally dominated by the proficient ones, which results in their feeling anxious within the classroom. On the other hand, the high-level learners get bored when the lesson is designed by considering the low-level ones. Consequently, they lose their interest and their motivation decreases, which is again a situation that hinders their learning (Shank & Terril, 1995). So, it is very difficult to control these two factors sufficiently with learners of different levels in the same class. Additionally, it is a well-known fact that it is generally adults who make up a language classroom with a diversity of proficiency (Shank & Terril, 1995). This is because generally the programs designed for adults who have completed their official education have to place learners of all levels, from beginning to advanced, in a single class due to funding

constraints, learner scheduling difficulties, number of learners and program logistics (Shank & Terril, 1995). As a result of these, multilevel adult classes are the target population of this study.

#### **1.4. Cooperative Learning**

Açıkgöz (2003) defines cooperative learning as students working in small groups by helping each other in order to reach a common goal. The key point in cooperative learning is that each member of the group is responsible for the learning of other members (Altınok, 2004; Ünsal & Moğol, 2004). Nowicki & Meehan (1996) describe the cooperative classroom:

The cooperative classroom is one in which people work with instead of against one another. It reflects the world outside of school, where often problems are solved through community efforts. Also it is a place in which students are responsible for and accountable to themselves and to peers (Nowicki & Meehan, 1996, p.7)

Mejlas et. al. identify the most common source of anxiety as “learners’ fears of being laughed at by the others; of making a fool of themselves in public” (Horwitz & Young, 1991, p.105). Since cooperation requires learners to be responsible for the whole group’s achievement and other group members’ learning it creates a supportive and welcoming atmosphere in the classroom. Consequently, the fears mentioned above will decrease which results in a decline in the levels of anxiety as well.

Brewer and Klein (2005) state that research on cooperative learning shows that students working in groups are more motivated than those who work alone (Brewer & Klein, 2004, p.1). Moreover, the motivating effect of collaboration and cooperation has been proved also with various studies (Özer, 1999). These all show that learners cooperating with each other are more motivated than the ones who work individually.

There are various cooperative learning techniques; however, jigsaw and team reward techniques have been utilised in this study since these are the ones which provide interdependence most efficiently within the teams. In the jigsaw technique, each member in the group is responsible for a part of the learning task. First, the members in charge of the same part work together to learn it perfectly because they are also responsible for teaching it to the other members in their original groups. So, each member is dependent on the others to learn the task completely. In team reward technique, teams have an improvement point which is calculated with each member’s improvement score ; therefore, in order to get the reward, every team member is required to contribute to it (Kuş and Karatekin, 2009; Mattingly and VanSickle, 1991).

Titles of the sections should be capitalized. Problem needs to be clearly stated in the introduction part. The introduction should be followed by method, findings, discussion and results respectively.

All the sections after this point should be written in Times New Roman font with size 11 and single-spaced. The article should not be longer than 12 pages including references. Articles that fail to comply with the publication rules will be returned to the authors without being sent to referees. Extended English abstract is not included in this limit.

## **2. METHOD**

This study is a pre-test post-test experimental research with a control group. The hypothesis claims that cooperative learning activities have a positive effect on both anxiety and motivation in multilevel adult classes. The subjects are formed into two groups. This study has the quasi-experimental quality since the members in each of these classes were not chosen by the researcher. The treatment which is teaching a class with cooperative learning activities is implemented in the experimental group and its effect is measured in terms of anxiety and motivation by comparing it to the measurement of the subjects in the control group.

Consequently, the independent variable in this research is cooperative learning activities whereas the dependent variables are motivation and anxiety.

So, this study aims to answer this question: “Does Cooperative Learning have a significant effect on motivation and anxiety in multilevel adult classes?”. There have been many studies on anxiety, motivation and cooperative learning; however, none of them have looked into these issues in a multilevel adult context. This is supposed to be the innovation and contribution of this research to the literature and language practice.

## **2.1. Participants/subjects**

The population of the study included the learners attending the morning, afternoon and evening classes of the first stage English courses organised by Uşak Halk Eğitim Merkezi ve Akşam Sanat Okulu (U.H.E.M.A.S.O.) in the second term of the 2005-2006 education period. The number of the officially registered students was 28 for the morning course whereas it was 35 for the afternoon course and 35 for the evening course. However, due to various reasons some learners never started their course and some others gave it up after some time. Consequently, the actual number of the students attending the classes was different from the number of the registered ones. There were 18 students in the morning class, 20 students in the afternoon class and 20 students in the evening class, which means that the actual population of the study was 58 students, 20 of whom were males and 38 of whom were females. They were between 19 and 50 years old and had different jobs, but most were either unemployed or students. The sample of the study consisted of the learners attending the morning and afternoon courses owing to the fact that they were randomly determined as the experimental and control groups for the study. There were 4 males and 14 females in the morning group while there were 7 males and 13 females in the afternoon group. Therefore, the number of the students in the sample was 38. However, 24 of the implemented questionnaires were considered to be valid because the others were not done partly or completely. Moreover, some of the students attended the classes so rarely that they were excluded from the study.

## **2.2. Instruments**

### **2.2.1. The Foreign Language Motivation Questionnaire**

*The Foreign Language Motivation Questionnaire (FLMQ)* which was developed by Schmidt, Boraie & Kassabgy (1996) was adapted into Turkish by the speakers who were knowledgeable English-speaking culture but whose mother tongue was the primary language of the target culture by using the translation and back-translation method (Brislin, 1970). The adapted questionnaire consisted of 50 items 36 of which were positive and 14 of which were negative. For each item the subjects were asked to record a response on a five-point Likert scale.

In 2005, 39 students of Dokuz Eylul University (D.E.U.) Buca Education Faculty, the Department of English Language Teaching were given the original questionnaire and two weeks later they were asked to answer the Turkish version of the questionnaire in order to determine the language validity. The data collected from both of the implementations were analysed in order to find out the Pearson Correlation Coefficient for each item and the Item – Total Correlation Statistics has been carried out. It was found out that the items of 2, 6, 7, 13, 24, 25, 37 and 44 did not have language validity and these items were deleted from the questionnaire. Consequently, a questionnaire of 42 items was constructed.

When Pearson Correlation Coefficient between the total points taken from all of the items was considered, the language validity of the questionnaire was calculated as 0,84. The result of the total-item correlation carried out to determine the reliability of the questionnaire showed that the items of 1 and 40 had negative values; therefore, these two items were deleted from the questionnaire. As a consequence of all these analysis, a questionnaire of 40 items was formed and

the reliability of this questionnaire was calculated as 0,75. According to what Tavşancıl (2002) reports from Özdamar, the questionnaire is reliable.

### 2.2.2. Foreign Language Classroom Anxiety Scale

In order to measure the anxiety levels of the subjects, *the Foreign Language Classroom Anxiety Scale (FLCAS)* designed by Horwitz et al. (1986) was translated into Turkish with the translation and back-translation method (Brislin, 1970). The scale consisted 33 items which were accompanied by a 5-point Likert scale.

39 students of D.E.U. Buca Education Faculty, the Department of English Language Teaching were given the original questionnaire and two weeks later they were asked to answer the Turkish version of the questionnaire in order to determine the language validity. The data collected from both of the implementations were analysed in order to find out Pearson Correlation Coefficient for each item and the Item – Total Correlation Statistics has been carried out and it was found out that the items of 22 and 30 did not have language validity and these items were deleted from the scale. Consequently, a scale of 31 items was constructed. When Pearson Correlation Coefficient between the total points taken from all of the items was considered, the language validity of the questionnaire was calculated as 0,82.

The result of the total-item correlation carried out to determine the reliability of the scale revealed that the items of 2, 5, 8, 11, 14, 18, 24, 28 and 32 had negative values; therefore, these nine items were deleted from the scale. As a consequence of all these analysis, a scale of 22 items was formed and the reliability of this scale was calculated as 0,95. According to what Tavşancıl (2002) reports from Özdamar, the questionnaire is highly reliable.

### 2.3. The Procedure

The English course programme of U.H.E.M.A.S.O. for the 2005-2006 academic year required the learners of the morning and afternoon groups to have classes for three hours on Tuesdays and Wednesdays and for two hours on Thursdays and Fridays. In other words, each group received 10 hours of language instruction each week. Both groups were taught by the same teacher who was also one of the researchers in this study.

The cooperative learning techniques were not implemented in the morning class which was the control group. Teaching was carried out according to the suggestions of the selected course book. Each unit of the book started with an introduction page which presented and illustrated the learning objectives, main grammar points and learning to focus of the unit. Then the photo-story of Victoria Road introduced the main language items for the unit. The language work section enabled students to analyse and practise the new grammar points in detail. The reading, Listening, Interaction and Guided Writing parts developed students' reading, listening, speaking and writing skills and extended the main grammar point or introduced a new point. Finally, in the Learning Diary, students reviewed the unit. At the end of each week, students were tested on the unit they had covered.

In the afternoon class, which was also the treatment group, cooperative learning activities were implemented for the photo stories and reading sections of the course book. Thus, the students were taught through cooperative learning in 4-5 lessons in a week for eight weeks. On the first day of the experimental process, the students were given a seminar about cooperative learning. So, they were informed about the procedure, the characteristics of the cooperative learning activities, what they were expected to do and what kind of skills and strategies they needed to apply in order to manage the tasks. Then, they were guided by the teacher to apply the techniques and to work cooperatively in the classroom.

First, the students were informed about their team-mates. Then, the lesson started with the introduction and presentation of the unit on the introduction page. The teacher did some warm-up

and brainstorming with the whole class. The students were informed about their team-mates. Then the teacher wanted each group to come together and the students of the same group moved their chairs in order to form a circle. The teacher divided the dialogue into three parts and wrote them on the board and asked the group members to share these parts. The students shared the dialogue in a few minutes and then the teacher asked the students who were responsible for the first part of the dialogue, the second part of the dialogue and the last part of it to come together. This meant that there would be only three groups in the class: one which was studying on the first part of the dialogue, one which was studying on the second part of it and one which was studying the last part of it. The students worked on the vocabulary items, grammar points and pronunciation of the sentences in their part of the dialogue. When these three groups finished, the teacher asked the students to go back to their old groups consisting of three people and wanted them to teach what they had learnt to the other members. When they finished, the teacher chose some students randomly from different groups to role play the dialogue and asked comprehension questions in order to check whether they had been taught well and whether they had worked efficiently or not. At the end of the week, the students were given a test about the unit covered and each group's improvement point was calculated. In order to calculate the team points, the means of the students' previous scores and their test scores were compared and the improvement point was given to each member according to the schedule in Table 1. Moreover, the groups were changed twice accordingly throughout the experiment.

**Table 1: Improvement Points of Cooperative Groups**

Difference between two scores	Improvement point
-10	0
0	10
+10	20
+11 and over	30
No mistake (without considering the previous score)	30

## 2.4. The Data Analysis

The data were analysed with SPSS packet programme. The students' scores gathered from the pre-tests and post-tests were transferred to the SPSS programme and analysed by using the "Mann Whitney U test", "Wilcoxon Signed Rank test" and "the comparison of the means of the two groups" techniques. The results were considered at  $p < 0,05$  significance level.

## 3. FINDINGS

### 3.1. The Effects of Cooperative Learning on Motivation in Multilevel Adult Classes

The analysis done to find out the answer to the question "Does cooperation have a significant effect on motivation in multilevel adult classes?" and the results of the analysis will be presented in this part. The first analysis tries to determine whether there is a difference between the motivations of the control and experimental groups before the experimentation.

The results of the Mann Whitney U test are shown in Table 2. When the values are analysed, it is seen that there is not a significant difference between the means.

**Table 2: The results of the analysis of Mann Whitney U test carried out using the pre-test scores of the treatment and control groups' motivation questionnaires**

Group	n	Mean Rank	Sum of Ranks	U	z	p
Treatment	12	10,67	128	50	-1,253	0,203
Control	12	14,33	172			

Table 3 reveals that the value of  $t=1,088$  has been received as a result of the comparison of the means of the two groups; therefore, it cannot be considered to have the significance of  $p<0,05$  level.

**Table 3: The results of the analysis of the comparison of the means of the treatment and control groups' motivation questionnaire pre-test scores**

Group	n	X	SS	t
Experimental	12	147	7,96	1,088
Control	12	151	9,92	

This result indicates that the treatment and control groups have similar levels of motivation before the experimentation and there is not a significant difference between them. When the average values are considered ( $X_E= 147$ ,  $X_C= 151$ ), it is seen that the control group has a positive tendency in terms of their motivation levels rather than the treatment group.

The results of the Wilcoxon Signed Rank Test carried out by comparing the scores of the pre-test and post-test in order to determine whether any difference in the motivation level of the treatment group has occurred due to the cooperative learning activities are shown in Table 4. When the values are analysed, it is revealed that there is no significant difference of  $p<0,05$  level.

**Table 4: The results of the analysis of the Wilcoxon Signed Rank test carried out using the pre-test and post-test scores of the treatment group's motivation questionnaire**

Pre-test / Post-test	n	Mean Rank	Sum of Ranks	Z	P
Negative Ranks	4	6,75	27	-0,534	0,593
Positive Ranks	7	5,57	39		
Ties	1				

Table 5 shows that when the means of the two groups are compared ( $X_1= 147$ ,  $X_2= 144$ ), the value of  $t=0,480$  has been calculated and a significant result cannot be achieved. The means indicate a tendency in a negative way.



**Table 5: The results of the analysis of the comparison of the means of the pre-test and post-test scores of the treatment group's motivation questionnaires**

Treatment Group	n	X	SS	t
Pre-test	12	147	7,96	0,480
Post-test	12	144	20,02	

All these analyses reveal that CL activities do not have significant effect on the motivation of the treatment group and there is a negative tendency.

The results of the Wilcoxon Signed Rank Test carried out by comparing the scores of the pre-test and post-test in order to determine whether any difference in the motivation level of the control group has occurred due to the cooperative learning activities are shown in Table 6. When the values are analysed, it is revealed that there is no significant difference of  $p < 0,05$  level.

**Table 6: The results of the analysis of Wilcoxon Signed Rank test carried out using the pre-test and post-test scores of the control group's motivation questionnaire**

Pre-test / Post-test	n	Mean Rank	Sum of Ranks	Z	P
Negative Ranks	5	5,30	26,5	-0,579	0,562
Positive Ranks	6	6,58	39,5		
Ties	1				

Table 7 shows the analysis results of the comparison of the pre-test and post-test scores of the control group. When the means of the two groups are compared ( $X_1 = 151$ ,  $X_2 = 150$ ), the value of  $t = 0,028$  has been calculated.

**Table 7: The results of the analysis of the comparison of the means of the pre-test and post-test scores of the control group's motivation questionnaires**

Control Group	n	X	SS	t
Pre-test	12	151	9,92	0,028
Post-test	12	150	12,72	

These findings show that the motivation level does not change after the experimentation. When the average values are analysed ( $X_1 = 151$ ,  $X_2 = 150$ ), it can be realised that there is a negative tendency in the control group as well.

The results of Mann Whitney U Test carried out by comparing the scores of the pre-test and post-test in order to determine whether any difference in the motivation levels of the control and experimental groups has occurred due to the experimentation are shown in Table 8. When the values are analysed, it is revealed that there is no significant difference of  $p < 0,05$  level.

**Table 8: The results of the analysis of Mann Whitney U test carried out using the post-test scores of the treatment and control groups' motivation questionnaires**

Group	n	Mean Rank	Sum of Ranks	U	z	p
Treatment	12	11,92	143	65	-0,405	0,686
Control	12	13,08	157			

The values which have been calculated with the comparison of the means of the post-test scores of both groups can be seen in Table 9. The value of  $t=0,952$  has been calculated and no significant result at the level of  $p<0,05$  has been gained.

**Table 9: The results of the analysis of the comparison of the means of the post-test scores of the treatment and control groups' motivation questionnaires**

Group	n	X	SS	t
Treatment	12	144	20,02	0,952
Control	12	150	12,72	

The findings suggest that neither of the groups has achieved any significant value in terms of motivation as a result of the experimentation; however, it reveals that there is a negative tendency in both groups.

The results of the analysis carried out between the pre-test and post-test scores of the control and experimental groups in order to determine whether there is a relation between the negative tendencies of the two groups are presented in Table 10. As a result of the analysis, the value of  $t=0,040$  has been calculated and it has been revealed that there is no significant result at  $p<0,05$  level.

**Table 10: The results of the analysis of the comparison of the means of the pre-test and post-test scores of the treatment and control groups' motivation questionnaires**

Group	n	X	SS	t
Treatment	Pre-test	12	147	7,96
	Post-test	12	144	20,02
Control	Pre-test	12	151	9,92
	Post-test	12	150	12,72

The findings show that there is no significant difference at the level of  $p<0,05$  between the tendencies observed between the pre-test and post-test scores of the treatment and control groups.

All these analysis reveal that neither cooperative learning nor traditional teaching has a significant effect on the motivation of adults in multilevel classes.

### 3.2. The Effects of Cooperative Learning on Anxiety in Multilevel Adult Classes

The results of the analysis carried out to answer the second research question which is “Does cooperation have a significant effect on anxiety in multilevel adult classes?” will be

presented in this part. The first analysis about the problem aim to determine whether there is a difference between the anxiety levels of the experimental and control groups before the experimentation.

The findings of the Mann Whitney U test are shown in Table 11. When the values are analysed, it is seen that there is no significant difference at the level of  $p < 0,05$ .

**Table 11: The results of the analysis of Mann Whitney U test carried out using the pre-test scores of the treatment and control groups' anxiety scales**

Group	n	Mean Rank	Sum of Ranks	U	z	p
Treatment	12	11,17	134	56	-0,616	0,538
Control	11	12,91	142			

Table 12 shows the values calculated with the comparison of the means of both of the groups. When the values are considered, it is found out that there is no significant difference at the level of  $p < 0,05$  due to the level of  $t = 0,061$  as a result.

**Table 12: The results of the analysis of the comparison of the means of the pre-test scores of the treatment and control groups' anxiety scales**

Group	n	X	SS	t
Treatment	12	49	15,53	0,061
Control	11	51	15,29	

The findings suggest that there is no significant difference between the anxiety levels of the treatment and control groups before the experimentation. When the means are considered ( $X_E = 49$ ,  $X_C = 51$ ), it is seen that the treatment group has a rather negative attitude in terms of anxiety.

The results of the Wilcoxon Signed Rank Test carried out by comparing the scores of the pre-test and post-test in order to determine whether any difference in the anxiety level of the experimental group has occurred due to the cooperative learning activities are shown in Table 13. When the values are analysed, it is revealed that there is no significant difference of  $p < 0,05$  level.

**Table 13: The results of the analysis of Wilcoxon Signed Rank test carried out using the pre-test and post-test scores of the treatment group's anxiety scale**

Pre-test / Post-test	n	Mean Rank	Sum of Ranks	Z	P
Negative Ranks	5	5,80	29	-0,356	0,722
Positive Ranks	6	6,17	37		
Ties	1				

Table 14 reveals that the comparison of the means of the two groups gives the value of  $t = 0,798$  and this t value is not significant at the level of  $p < 0,05$ .

**Table 14: The results of the analysis of the comparison of the means of the pre-test and post-test scores of the treatment group's anxiety scales**

Treatment group	n	X	SS	t
Pre-test	12	49	15,53	0,798
Post-test	12	53	19,71	

According to the average values ( $X_1= 49$ ,  $X_2= 53$ ), there is not a significant difference at the level of  $p<0,05$  between the pre-test and post-test scores of the treatment group; however, it is seen that the students are in a positive tendency. The findings show that Cooperative Learning has a positive effect on anxiety even though the difference is not significant.

The results of Wilcoxon Signed Rank Test carried out by comparing the scores of the pre-test and post-test are shown in Table 15. When the values are analysed, it is revealed that there is no significant difference of  $p<0,05$  level.

**Table 15: The results of the analysis of the Wilcoxon Signed Rank test carried out using the pre-test and post-test scores of the control group's anxiety scale**

Pre-test / Post-test	n	Mean Rank	Sum of Ranks	Z	P
Negative Ranks	6	5,17	31	-0,357	0,721
Positive Ranks	4	6,00	24		
Ties	1				

Table 16 reveals that the comparison of the means of the two groups gives the value of  $t=0,449$  and this t value shows that the anxiety level of the control group has not changed significantly after the experimentation. Although the findings suggest that the anxiety level of the control group has not changed significantly after the experimentation, it is seen that the students have a positive attitude in terms of their anxiety.

**Table 16: The results of the analysis of the comparison of the means of the pre-test and post-test scores of the control group's anxiety scales**

Control group	n	X	SS	t
Pre-test	11	51	15,29	0,449
Post-test	11	54	16,75	

The results of the Mann Whitney U Test carried out by comparing the scores of the pre-test and post-test in order to determine whether any difference in the anxiety levels of the control and experimental groups has occurred due to the experimentation are shown in Table 17. When the values are analysed, it is revealed that there is no significant difference of  $p<0,05$  level.

**Table 17: The results of the analysis of the Mann Whitney U test carried out using the post-test scores of the treatment and control groups' anxiety scales**

Group	n	Mean Rank	Sum of Ranks	U	z	p
Treatment	12	11,67	140	62	-0,247	0,805
Control	11	12,36	136			

As a result of the comparison of the means of the two groups the value of  $t=0,019$  has been calculated and this is not significant at the level of  $p<0,05$ . The findings are shown in Table 18.

**Table 18: The results of the analysis of the comparison of the means of the post-test scores of the treatment and control groups' anxiety scales**

Group	n	X	SS	t
Treatment	12	53	19,71	0,019
Control	11	54	16,75	

The differences between the pre-test and post-test scores of the treatment and control groups have been analysed in order to find out whether there is a relation between the positive tendencies of the two groups and the results are shown in Table 19. The value of  $t=0,083$  has been calculated and it is understood that there is no significant result at the level of  $p<0,05$ .

**Table 19: The results of the analysis of the comparison of the means of the pre-test and post-test scores of the treatment and control groups' anxiety scales**

Group	n	X	SS	t
Treatment	Pre-test	12	49	15,53
	Post-test	12	53	19,71
Control	Pre-test	11	51	15,29
	Post-test	11	54	16,75

The findings indicate that there is no significant difference at the level of  $p<0,05$  between the pre-test and post-test scores of the treatment and control groups.

Finally, all these analyses show that neither Cooperative Learning nor the traditional learning has a significant effect on the anxiety levels of the learners in multilevel adult classes.

In research articles, findings should be given here and the above mentioned principles should be considered.

#### 4. DISCUSSION and RESULTS

The findings obtained from the FLMQ suggest these conclusions:

- There is no significant difference between the motivation levels of the control and treatment groups before the treatment.
- There is no significant difference between the motivation levels of the treatment group before and after the treatment.
- There is no significant difference between the motivation levels of the control group before and after the treatment.
- There is no significant difference between the motivation levels of the control and treatment groups after the treatment.
- There is no significant difference between the motivation levels of the control and treatment groups before and after the treatment.

The decrease in the motivation levels of both the control and treatment groups might have resulted from the tiredness of the students at the end of the course. As the students were given the post-test at the end of their course, they might have lost their motivation to some extent. Falout et. al. (2009) found in their study that that beginning, less-proficient learners in non-English majors were least likely to control their affective states to cope with demotivating experiences. Likewise, the participants of this study were also beginner learners which might have decreased their motivation. However, Trang and Baldauf Jr (2007) suggest that students' awareness of the role of English language and their determination to succeed could be helpful in overcoming loss of motivation in language classrooms.

The findings obtained from the FLCAS reveal these conclusions:

- There is no significant difference between the anxiety levels of the control and treatment groups before the treatment.
- There is no significant difference between the anxiety levels of the treatment group before and after the treatment.
- There is no significant difference between the anxiety levels of the control group before and after the treatment.
- There is no significant difference between the anxiety levels of the control and treatment groups after the treatment.
- There is no significant difference between the anxiety levels of the control and treatment groups before and after the treatment.

The increase in the anxiety levels of both the control and treatment groups might be due to the frustration and uneasiness of the students at the end of the course. As the students were given the post-test at the end of their course, this might have led them to get a bit more anxious. Moreover, the students were given the end of the course test just after the post-test, which might have increased their anxiety due to their worry about the final test. Saito and Samimy (1996) suggest in thier study that in order to reduce anxiety in language classrooms, teachers should become aware of the differences in terms of the learners' affective states and respond to them accordingly. It is also proved that some ethnic groups, eastern cultures in particular, are more anxious language learners than others (Woodrow, 2006).

Particular reasons of the decrease in motivation and increase in anxiety in multilevel adult classes may be investigated in another research. Another research may focus on the effects of other teaching methods on anxiety and motivation in multilevel adult classes. Consequently, these findings will contribute to the language instruction in foreign language classrooms.

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### Extended Summary

This study aims to deal with two affective factors, “anxiety” and “motivation”, since they are the ones that have considerably attracted the researchers’ attention for long years. For instance, Elkhafaifi states that these two factors are “among the components of Krashen’s (1982) affective filter hypothesis, which posits that learners with low levels of anxiety perform better than anxious students” (Elkhafaifi, 2005, p.207-208). Moreover, Brown (2000) emphasizes the significance of motivation as a key to every kind of learning. Consequently, it is obvious that anxiety and motivation play an important role in foreign language classrooms.

Horwitz, Horwitz and Cope defines anxiety as “the subjective feeling of tension, apprehension, nervousness and worry associated with an arousal of the autonomic nervous system” (Horwitz & Young, 1991, p. 27). Moreover, Brown (2000) adds that “uneasiness, frustration and self-doubt” are also related to being anxious (Brown, 2000, p. 151). Elkhafaifi (2005) argues that such negative feelings occur due to the fear of failure and he explains that anxiety may lead to lower test scores or grades and in the end may cause the learner to fail. He even claims that the severe anxiety of a learner may result in a change in academic or career plans (Elkhafaifi, 2005). Anxious learners of foreign languages can not perform successfully in classroom situations because they prefer to avoid difficult or complex tasks in order not to get embarrassed in front of the class. They find it particularly stressful to learn a foreign language (Horwitz & Young, 1991). This is because they feel insecure and helpless as a result of which some psychological barriers to



communication are built. Consequently, they are likely to be reluctant to participate in the classroom activities (Littlewood, 1984). Furthermore, Elkhafaifi (2005) expresses that lower classroom performance occurs because of anxious learners' underestimation of their own ability (Elkhafaifi, 2005). Although it is clear that anxiety is an affective factor that may effect language learning performance within the classroom due to the avoidance behaviour of students, the fact that there are two kinds of anxiety should also be indicated. Scovel makes a distinction between facilitating anxiety that "motivates the learner to fight the new learning task" and debilitating anxiety that "motivates the learner to free the new learning task" (Hortwitz & Young, 1991, p.22). Consequently, the kind of anxiety mentioned in this study is the second type of Scovel's definition

Similar to anxiety, motivation is also a very important affective factor in language classrooms. Motivation is a concept, which has been defined with different perspectives by different psychological approaches. For instance, motivation is "the anticipation of reward" in Behaviourism. However, in Cognitive Approach it is "the choices people make" while it is a term that "must be interpreted in a social context according to Constructivism (Brown, 2000, p.160-161). Therefore, it can be claimed that motivation; likewise anxiety, plays an important role on second language learning performance.

In this study, cooperative learning activities are believed to be useful in overcoming the problems of multilevel classes. Shank & Terril (1995) comments that cross-ability grouping lets strong learners help the weak ones (Shank & Terril, 1995). Therefore, such teamwork is the suggested solution to learning problems in these classes.

Mejlas et. al. identify the most common source of anxiety as "learners' fears of being laughed at by the others; of making a fool of themselves in public" (Horwitz & Young, 1991, p.105). Since cooperation requires learners to be responsible for the whole group's achievement and other group members' learning it creates a supportive and welcoming atmosphere in the classroom. Consequently, the fears mentioned above and the levels of anxiety will decrease. In a multilevel class, for instance, a low-level student will receive help from the high-level one rather than being laughed at. As a result, s/he will feel relatively less anxious and more motivated.

Cooperation in the classroom increases motivation, especially in the multilevel ones while it decreases anxiety. Brewer and Klein (2004) states that research on cooperative learning shows that students working in groups are more motivated than those who work alone (Brewer & Klein, 2004). Moreover, the motivating effect of collaboration and cooperation has been proved also with various studies (Özer, 1999). These all show that learners cooperating with each other are more motivated than the ones who work individually. Özer reports from Slavin that what motivates learners in cooperation is the reward their group receives (Özer, 1999). Therefore, in this study it is predicted that cooperation in multilevel classes will increase motivation as well.

The purpose of present research is to investigate the effect of Cooperative Learning activities on motivation and anxiety in multilevel adult classes.

Pre-test post-test design with control group was used for the research. Cooperative Learning activities were applied in the experimental group including 12 students and the control group consisting of 12 students was taught according to the suggestions of the selected course book. The data were collected with FLCAS (Foreign Language Classroom Anxiety Scale) and FLMQ (Foreign Language Motivation Questionnaire). Comparison of the means, Mann Whitney U test and Wilcoxon Signed Rank test were utilised in data analysis.

Research results suggest that Cooperative Learning activities do not have a significant effect on motivation and anxiety in multilevel adult classes although some positive tendency has been observed in terms of these two variables. Therefore, particular reasons of the decrease in motivation and increase in anxiety in multilevel adult classes may be investigated in another research. Future research may focus on the effects of other teaching methods on anxiety and motivation in multilevel adult classes.

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