AN EXPERIMENTAL STUDY ON END-OF-PERIOD TRANSACTIONS COURSE WITH A FLIPPED LEARNING MODEL[*]

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ABSTRACT

Generation Y or the Millennial Youth, the generation most affected by communication technologies, leading to innovations in many areas, from marketing to education. In our study, the flipped education/class model is implemented in the "End-of-period Transactions" course, during the 2019-2020 fall semester. The results show that the average Quiz, Midterm and Final grades of the flipped education/class were higher than those of the control group. The interviews revealed that the most important advantage of this method was the ease of access to the materials and applications, while sparing time to prepare before the lesson was the disadvantage.

Keywords: Flipped Learning Model, End-Of-Period Transactions, Manas University

JEL Classification: A22, M40, M49

TERS-YÜZ EDİLMİŞ ÖĞRENME MODELİ İLE DÖNEM SONU İŞLEMLERİ DERSİ ÜZERİNE DENEYSEL BİR ÇALIŞMA

ÖZ

Y kuşağı veya bazı literatürde milenyum gençliği olarak adlandırılan kuşak iletişim teknolojilerinden en fazla etkilenen kuşak olma niteliğindedir. Bu durum, pazarlamadan eğitime birçok alanda yenilikleri zorunlu kılmıştır. Milenyum gençliğine yönelik birçok eğitim modeli

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uygulanmaya başlanmıştır. Çalışmamızda, 2019-2020 güz döneminde, Dönem Sonu İşlemleri dersi alan işletme bölümü öğrencilerine, ters-yüz edilmiş eğitim/sınıf modeli deneysel olarak uygulanmıştır. Çalışmanın sonucunda, ters-yüz edilmiş eğitim/sınıf modelinin uygulandığı deney grubunun kısa sınav, Vize ve Final ortalamalarının kontrol grubundaki öğrencilerden yüksek olduğu tespit edilmiştir. Yapılan mülakatlar sonucunda, öğrenciler materyallere ulaşmanın sürekli mümkün olmasını bu yöntemin en önemli avantajı dersten önce hazırlık yapmak için vakit ayırmanın ise yöntemin dezavantajı olarak değerlendirmişlerdir.

Anahtar Kelimeler: Ters-Yüz Edilmiş Öğrenme Modeli, Dönem Sonu İşlemleri, Manas Üniversitesi

JEL Sınıflandırması: A22, M40, M49

GENİŞLETİLMİŞ ÖZET

AMAÇ VE MOTİVASYON

İletişim teknolojilerinin gelişmesi ve yaygınlaşması, günümüz toplumlarında sosyal, kültürel, ekonomik ve demografik değişimlerin yaşanmasını kaçınılmaz hale getirmiştir. Y kuşağı, ya da bazı kaynaklarda milenyum gençliği olarak adlandırılan nesil, iletişim teknolojilerindeki gelişmelerden en fazla etkilenen kuşak olarak tanımlanmaktadır. Milenyum gençliğinin gelişen teknolojiler ile hızla daha fazla ilişki kurması, onların klasik tarzda yürütülen derslere olan toleransının azalmasına neden olmuştur (Roehl et al., 2013, p. 44). Geleneksel yöntemde, muhasebe dersleri belirlenmiş gün ve saatler içerisinde ve genellikle tek bir kaynak kullanılarak anlatılmaktadır. Doğal olarak teori odaklı bir yaklaşım esas alınmaktadır. Ters-yüz edilmiş öğrenme modeli teknolojik gelişmeler sonucu ortaya çıkmıştır. Modelin amacı geleneksel ve modern eğitim tekniklerinin birlikteliği ile eğitimin etkinliğinin ve etkenliğini artırmaktır. Bu bağlamda bu çalışmada, Dönem Sonu İşlemleri dersi alan öğrencilere ters-yüz edilmiş sınıf modelini uygulayarak sonuçları değerlendirmek ve bulguları bilim dünyası ile paylaşmak amaçlanmıştır.

ARAŞTIRMA STRATEJİSİ

Bu araştırma, 2019-2020 güz döneminde Kırgızistan-Türkiye Manas Üniversitesi, İktisadi ve İdari Bilimler Fakültesi, İşletme Bölümü'nde Dönem Sonu İşlemleri dersini alan öğrenciler ile yürütülmüştür. Araştırma kapsamında öncelikli olarak, 20 öğrenciden oluşan deney grubu ve 20 öğrenciden oluşan kontrol grubu oluşturulmuştur, dönem başında ders içeriğinin 16 haftalık dağılımı yapılmıştır. Deney grubunda ve kontrol grubunda yer alacak öğrencilerin seçimi yapılırken aşağıdaki iki kriter dikkate alınmıştır;

1- Türkiye Türkçesi dil yeterlilik puanlarının BA ve üstü olması,

2- Genel Muhasebe I ve Genel Muhasebe II derslerinden BB üstü not almış olması,

Belirlenen şartlara uygun öğrenciler tespit edilmiş ve gönüllülük esasına göre deney grubu oluşturulmuştur. Öğrenciler ile Whatsapp uygulaması üzerinde kurulan grup ile materyal paylaşımı gerçekleştirilmiştir. İlgili öğrencilere grupta paylaşılan bilgilerin tamamını takip etmeleri gerektiği konusunda uyarıda bulunulmuştur. Grupta yer alan, ancak ilgili videoları izlemeyen ve paylaşımlardaki diğer işlemleri aksatan dört öğrenci gruptan çıkarılmıştır. Dersin işlendiği dönem boyunca, dersin yürütücüsü dersten en az üç gün önce o haftanın konusuna ilişkin en az bir paylaşımda (konuyla ilgili bir video, doküman, vb.) bulunarak öğrencilerin konuya hazırlanmalarını sağlayarak motivasyonlarını artırmayı amaçlamıştır. Çalışmada, nicel ve nitel veri toplama yöntemlerinin birlikte kullanılması yoluyla, araştırma sonuçlarının bütünleştirilmesine imkân sağlayan karma yöntem kullanılmıştır. Nicel ve nitel verilerin eşzamanlı olarak toplandığı bu çalışmada, karma araştırma yöntemi kullanılmıştır. Araştırmanın nitel verilerini, öğrencilerle yapılan yüz yüze görüşmeler oluşturmuştur. Nicel verileri dönem içerisinde yapılan sınavlardan alınan veriler oluşturmaktadır.

BULGULAR VE TARTIŞMA

Çalışma kapsamında öğrencilerin kısa sınav, ara sınav ve final sınav sonuçları, öğrencilerin ortalamaları üzerinden yorumlanmıştır. Çalışma kapsamında, ayrıca, deney grubundaki öğrencilerle mülakat da yapılmıştır.

Kısa sınav ortalamaları incelendiğinde, deney ve kontrol grupları ortalamaları arasında anlamlı fark olduğu görülmektedir. Alt-üst edilmiş sınıf modelinin uygulandığı öğrencilerin ortalaması sınıf ortalamasının yaklaşık on puan üstünde, kontrol grubu öğrencilerinin ise yaklaşık 20 puan üstünde olduğu tespit edilmiştir. Deney grubu öğrencileri ile kontrol grubu öğrencileri arasındaki kısa sınavda aldıkları not ortalama farklılıklarının anlamlı olup olmadığının tespiti için T-testi yapılmıştır. Analiz sonucunda, hesaplanan anlamlılık değeri 0.05'den küçük olduğu için, farlılığın anlamlı olduğu tespit edilmiştir.

Öğrencilerin vize not ortalamaları incelendiğinde, ortalamalar arasında yine anlamlı bir fark olduğu görülmektedir. Alt-üst edilmiş sınıf modelinin uygulandığı öğrencilerin not ortalamasının, sınıf ortalamasının yaklaşık yedi puan üstünde olduğu, kontrol grubu öğrencilerinin ise yaklaşık on puan üstünde olduğu tespit edilmiştir. Bu sonuç kısa sınav sonucu ile benzerlik göstermektedir. Deney grubu öğrencileri ile kontrol grubu öğrencileri arasındaki not ortalama farklılıklarının anlamlı olup olmadığının tespiti için T-testi analizi yapılmıştır. Analiz sonucunda, hesaplanan anlamlılık değeri 0.05'den küçük olduğu için, farklılığın anlamlı olduğu tespit edilmiştir.

Öğrencilerin final sınavı not ortalamaları incelendiğinde, ortalamalar arasında anlamlı bir fark olmadığı görülmektedir. Alt-üst edilmiş sınıf modelinin uygulandığı öğrencilerin not ortalamasının, sınıf ortalamasının yaklaşık beş puan üstünde olduğu tespit edilmiştir. Kontrol grubundaki öğrencilerden de yaklaşık on puanlık bir fark olduğu tespit edilmiştir. Bu sonuç kısa sınav ve ara sınavda çıkan sonuçlar ile benzerlik göstermektedir; ancak, final sınavında hem sınıf ortalaması hem de deney ve kontrol grubunda olan öğrencilerin akademik başarı ortalaması düşmüştür. Deney grubu öğrencileri ile kontrol grubu öğrencileri arasındaki final sınavında aldıkları not ortalama farklılıklarının anlamlı olup olmadığının tespiti için T-testi analizi yapılmıştır. Analiz sonucunda, hesaplanan anlamlılık değeri 0.05 büyük olduğu için, farlılığın anlamlı olmadığı tespit edilmiştir. Yapılan mülakatlar sırasında final sınavında sürenin yetersiz olması ve algılanan zorluk derecesinin bu duruma neden olduğu vurgulanmıştır.

SONUÇ VE ÖNERİLER

Bu araştırma, 2019-2020 eğitim öğretim yılı güz döneminde Kırgızistan-Türkiye Manas Üniversitesi, İktisadi ve İdari Bilimler Fakültesi, İşletme Bölümü'nde verilen Dönem Sonu İşlemleri dersini alan öğrencilere yönelik olarak yürütülmüştür. Araştırma kapsamında öncelikli olarak, 20 öğrenciden oluşan deney grubu ve 20 öğrenciden oluşan kontrol grubu oluşturulmuştur, dönem başında ders içeriği 16 haftaya dağılımı yapılmış, Whatsapp uygulaması üzerinden bir grup oluşturularak deney grubunda yer alan öğrenciler gruba alınmıştır. Kalıcılığın tespit edilmesi amacı ile deney grubunda yer alan öğrencilere yönelik olarak 2020-2021 eğitim öğretim güz döneminde bir sınav yapılacak olup, sonuçların paylaşılması planlanmaktadır. Materyal hazırlanması ve benzeri nedenler dersin yürütücü açısından bir yük oluşturmaktadır. Araştırmanın nitel verisini oluşturmak amacı ile deney grubundaki on altı öğrenci ile mülakat yapılmıştır. Mülakatlar sonucunda öğrenciler,

- Derse gelmeden önce hazırlık yapmak zorunluluğunun olması,
- Sürekli derse yönelik paylaşılan materyalleri çalışmak zorunda olunması,

hususlarını bu uygulamanın olumsuz yönleri olarak değerlendirmiştir.

Öğrenciler ile yapılan mülakatlar neticesince,

- Öğrencinin motivasyonunu pozitif yönde etkilemesi,
- Öğrencilerin dili anlama kaynaklı problemlerin aşılmasında faydalı olması,
- Dersin hocasına istenildiği zaman ulaşılabilmesi,
- Öğrencilerin ders sırasında tam olarak anlamadıkları yerleri tekrar izleme olanağının olması,
- Öğrencilerin ders dışında uygulama derslerinin olması,

bu yöntemin olumlu yönleri olarak değerlendirmişlerdir.

Çalışma sonucunda, ters-yüz edilmiş sınıf modelinin diğer muhasebe derslerinde de kullanılarak sonuçların muhasebe bilim dünyası ile paylaşılmasının muhasebe eğitimine önemli katkı sunacağı düşünülmektedir.

1. INTRODUCTION

Generation Y's greater association with rapidly developing technologies has led to a decrease in their tolerance for classic course structures (Roehl et al., 2013, p. 44). McMahon and Pospisil (2005) state that the characteristics of Generation Y students include 24/7 information access, environments that support multitasking, and social learning through group interaction. Traditional accounting courses are taught by the instructor within the specified days and hours and usually by adhering to a single source of information. Naturally, this method is based on a more theory-oriented approach. Traditional education has many drawbacks. Some of them can be listed as follows (Serçemeli et al., 2015, p. 262).

- Theory and practice are not given together, thus the information is not kept in mind.
- Active periods of both the instructor and the student during the class are very short.
- Since the information is directly transferred, it reveals a student profile who does not question, research and interpret.
- Encourages rote-learning.

The flipped education/classroom model is a contemporary education model that emerged as a result of technological developments. The main purpose of this model is to increase learning effectiveness and efficiency by syncretizing traditional and contemporary education techniques. With this model, it is also aimed to free education from time and place constraints.

In the first part of the study, theoretical information about the flipped educational model was presented, and in the second part of the study, a literature review was included. In the third part of the study, the findings were discussed and presented based on the literature. The study was completed with results and suggestions.

1.1. Flipped Learning

The flipped classroom approach is a model that is increasingly used to meet the learning needs of Generation Y. In 2007, two high school chemistry teachers, Jonathan Bergmann and Aaron Sams, began using the flipped learning model at a Colorado high school. After teachers began using

presentations with vocalizations and annotations, they began recording their live lessons and sharing them with their students online (Bergmann & Aaron, 2012).

The flipped classroom model happens when students are active learners and work out course content in the form of homework in advance. The new generation uses technology more intensively and interacts more intensively with technology. The new generation prefers collaborative learning. However, there are few studies that use the technology related to the subject and use active methods that create better results in student performance (Neto et al., 2017, p. 50).

A flipped classroom or, in particular, flipped learning is still leading to changes in educational and learning activities in classrooms where traditional methods are used. After the necessary infrastructure was provided in the group accounting courses at the Technical University of Malaysia, a new pedagogical model began to be applied. This new model aims to provide an active learning environment, but in order for the model to be successful, it is necessary to receive the support of all groups within the institution in the short term. In this context, a necessity arose for preparing the necessary materials as well as designing and implementing the training platform (Jamaludin et al., 2016, p. 24).

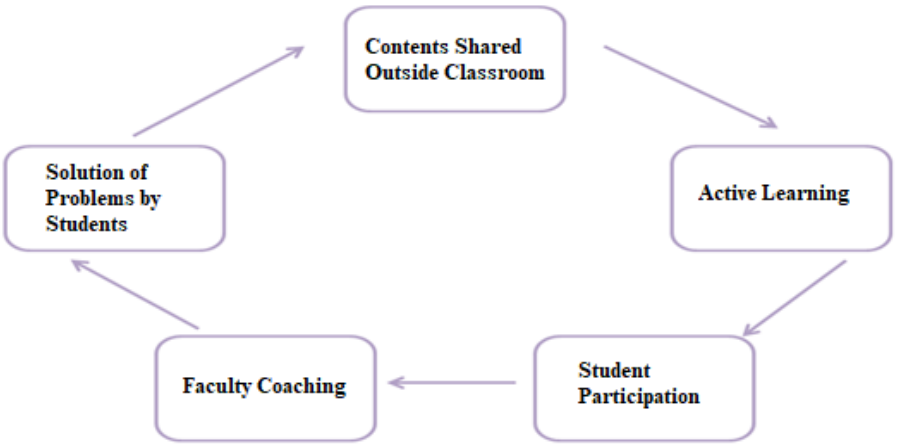

Figure 1. Application Processes of the Flipped Classroom Model

Source: Phillips and Trainor, 2014, p. 521

In Figure 1, the application processes of the flipped classroom model are schematized. Faculty coaching does not seem possible in terms of both legislation and its applicability.

1.2. Literature Scanning

Critz and Knight (2013) applied the flipped classroom model to the classes made up of nursing students in their study. In the study, students were equipped with the necessary materials in accordance with the conceptual structure of the model before the lesson and were asked to come to the lessons by making preparations with these materials. At the end of the case, a questionnaire was

applied to the participants. According to the survey, all participants stated that they were satisfied with this new model.

Kim et al. (2014) included three classes, namely computer science, social science and human science classes, in their studies conducted at the University of Southern California in the fall of 2012. Three instructors and one hundred and fifteen students were included in the study. As a result of the study involving qualitative and quantitative research methods, they proposed nine design principles for the flipped classroom model. These are

- The student must be given the chance to explore the subject before the lesson,
- Students must be encouraged to prepare for the lesson,
- A mechanism must be provided for evaluating the level of understanding of students,
- A clear link between classroom and extracurricular activities must be ensured,
- Clearly defined and prepared guidance must be provided,
- Students must be provided with sufficient time to prepare assignments,
- A learning community must be created.

Gençer et al. (2014)examined the theoretical structure of the flipped classroom model based on the literature. Callahan et al. (2016) applied the flipped classroom model for accounting students studying at doctorate level in their study. In the study, the encountered programs were explained and the practical experiences were shared. As a result of the study, it has been determined that it is not very efficient for students. Doğan Görü (2015) investigated the perspectives of participants by applying the social media-supported flipped classroom model in his study. As a result of the study, it was revealed that the most important advantage of this model for the participants was continuous and unlimited access to training materials. In their study, Brown et al. (2016) investigated whether the flipped classroom model affects students' motivation for the lesson. The data of the study was obtained by a survey conducted for students who were subjected to a flipped classroom model. As a result of the study, it was found that students' reading-understanding the questions, understanding the lesson, and overall performance and motivation were positively affected. In his study, Serçemeli (2016) examined the flipped classroom model and investigated the applicability and necessity of this model in Accounting Education based on literature. In his study, Lubbe (2016) investigated the effect of flipped classroom model on students' achievement in accounting courses. As a result of the study, it was determined that the level of understanding the accounting courses by the students subjected to a flipped classroom model was positively affected. In their study, Acar and Köse (2017) examined the opinions of undergraduate students on the flipped classroom model. Under the scope of the study, the

applicability of the flipped classroom model in Accounting Education was tried to be determined using the survey method. As a result of the study, it was found that students expressed positive views in certain areas. Aydın and Demirer (2017) analyzed the scientific studies that applied the inverted classroom model using the content analysis method and presented the findings based on the literature. Sakar and Sağır Uluçınar (2017) analyzed scientific studies conducted on the flipped classroom model used in science education using the content analysis method and presented the findings based on the literature. In their study, Neto et al. (2017) applied the flipped classroom model in accounting courses of undergraduate students. Within the scope of the study, 4 different classes were formed and the subject of the lesson was told to the students one week before and the relevant documents were given. As a result of the study, it was determined that the flipped classroom model was successful in teaching the accounting courses. Serçemeli et al. (2019) presented the findings based on the literature by applying the flipped classroom model in the computerized accounting course within the scope of their study. As a result of the study, it has been determined that the model had a positive contribution to learning the lesson and to knowledge becoming permanent. Hayirsever and Orhan (2018) examined the theoretical structure of the flipped classroom model based on the literature.

2. MATERIAL AND METHODS

2.1. Aim of the Research

This research aims to evaluate the results after applying the flipped classroom model, which is a new educational model, for students taking Inventory and Balance Sheet courses, and to share the findings with the scientific world.

2.2. Research Method

This research was conducted for students taking the ISL 225–inventory and balance sheet course in the 2019-2020 fall semester. As part of the research, an experimental group of 20 students and a control group of 20 students were created, and the content of the course was distributed into 16 weeks at the beginning of the semester and a group was created in WhatsApp and students in the experimental group were included herein (images are presented in Annex 1). The following issues were taken into account when selecting students who will participate in the experimental group and the control group:

1- Having received a BA and above grade from the Turkish language proficiency course,

2- Having received a grade above BB from General Accounting I and General Accounting II courses.

Students available for the specified conditions were determined and an experimental group was formed on a voluntary basis. The statements of the students in the experimental group were received promising that they would act more in compliance with the instructions given in the WhatsApp group. The concerned students were warned that they should follow all of the information shared on the group. 4 students who did not watch the related videos and disrupted other processes were excluded from the group. During the term, the lecturer aimed to increase the motivation of the students by sharing at least one post about the topic of the week (a video, document, etc.) at least three days before the lesson. In the study, a mixed method that enables the integration of research results by using quantitative and qualitative data collection methods together was implemented. In this study where quantitative and qualitative data were collected simultaneously, the mixed research method was used (Göğebakan Yildiz et al., 2016). The qualitative data of the study were composed of face-to-face interviews with students. On the other hand, the data obtained from the examinations made by the researchers were considered as the quantitative data.

2.3. Limitations of the Research

This research was conducted on students who took the ISL 225 – inventory and balance sheet course in the 2019-2020 fall semester. This is also a limitation of the study.

2.4. Findings of the Research

Table 1. Demographic Characteristics of Experimental Group Students Participating in the Study

Age	
18-22	%100
Gender	
Female	%75 (12 Students)
Male	%25 (4 Students)

Table 1 shows thedemographic characteristics of experimental group students participating in the study. When the demographic characteristics of the participants are examined, it is seen that 75 percent of the students in the experimental group are females and 25 percent are males. This situation is parallel to the demographic structure of all departments of Kyrgyzstan –Turkey Manas University (which will be called KTMU in the following paragraphs).

Table 2. Demographic Characteristics of Control Group Students Participating in the Study

Age	
18-22	%100
Gender	
Female	%65 (13 Students)
Male	%35 (7 Students)

Table 2 shows the demographic characteristics of control group students participating in the study.When the demographic characteristics of the participants are examined, it is seen that 65 percent of the students in the experimental group are females and 35 percent are males. This situation is parallel to the demographic structure of all departments of Kyrgyzstan –Turkey Manas University.

Table 3. Nationalities of the Experimental Group Students Participating in the Study

Nationality	Number	Proportion
Republic of Turkey	2	%12,5
Kyrgyz Republic	10	%62,5
Republic of Tajikistan	1	%0,0625
Republic of Uzbekistan	3	%0,1875

Table 3 shows the nationalities of the experimental group students. When the nationalities of the students in the control group of the study are examined, it is seen that 62.5 percent of them are citizens of the Republic of Kyrgyzstan. KTMÜ is a university preferred for education by the students from many countries and especially from Central Asia, Turkey and the Far East. Since KTMÜ is in Bishkek, students of Kyrgyz nationality are the majority.

Table 4. Language Proficiencies of Experimental Group Students Participating in the Study

Females	AA (12 Students)
Males	AA (4 Students)

Every student who starts education at Manas University is required to study language for a period of one year if they cannot speak Turkish. At the end of a year, students who cannot get a CB or a higher grade from the exams cannot continue their education. Since the course is taught in Turkish, the most important problem in the implementation of the research is that the students' language proficiency is not at the desired level. Language proficiency scores of the students in the experimental and control group to be included in the study were examined. Table 4. And Table 5. show the language proficiencies of the participant student in the study. When the language proficiency of the students in the experimental group of the study was examined, it was determined that the language proficiency of the students was AA for females and BA for males.

Table 5. Language Proficiencies of Control Group Students Participating in the Study

Females	AA (13 Students)
Males	BA (7 Students)

When the language proficiency of the students in the control group of the study was examined, it was determined that the language proficiency was AA for females and BA for males.

Table 6. Average Quiz Grades of the Students

Experimental Group Student Averages	Control Group Student Averages
81.25	61.73

Under the scope of the research, an assessment was made by taking the averages of the results of two quizzes, midterms and final exams in order to determine the impact of the flipped classroom model on the students. There's an important reason for making a quiz. All students come to the midterms and final exams after studying. Therefore, these exams may be insufficient to measure permanent knowledge, so students were subjected to quizzes without informing in advance. When the averages of the 1st quiz were examinedin the Table 6, it was found that there was a significant difference between the averages of two groups. The average of the students subjected to the flipped classroom model was about 10 points above the average of the class, 20 points above the students of the control group.

Table 7. T-test Analysis of Quizzes

One- Sample Statistics						
	N	**Mean**	**Std. Deviation**	**Std. Error Mean**		
Quiz	16	81,2500	10,20784	2,55196		
One- Sample Test						
	Test Value = 61,73					
	T	**Df**	**Sig. (2-tailed)**	**Mean Difference**	**95% Confidence Interval of the Difference**	
					Lower	Upper
Quiz	7,649	15	,000	19,52000	14,0806	24,9594

A T-test analysis was performed to determine whether the differences in the average quiz score between the students of the experimental group and control group were significant. As a result of the analysis shown in the Table 7, it was found that the difference was significant, since the calculated significance value was less than 0.05.

Table 8. Average Midterm Grades of the Students

Experimental Group Student Averages	Control Group Student Averages
87,25	77,8

As part of the research, the average midterm scores of students are shown in Table 8. When their averages were examined, it was found that there was a significant difference between them. It was determined that the midterm score averages of the students subjected to the flipped model were approximately 10 points above the class average. This result was similar to the first quiz.

Table 9. T-test Analysis of Midterm Exam

One- Sample Statistics						
	N	**Mean**	**Std. Deviation**	**Std. Error Mean**		
Mid-term	16	87,2500	16,09348	4,02337		
One- Sample Test						
	Test Value = 77.8					
	T	**Df**	**Sig. (2-tailed)**	**Mean Difference**	**95% Confidence Interval of the Difference**	
					Lower	Upper
Mid-term	2,349	15	,033	9,45000	,8744	18,0256

A T-test analysis was performed to determine whether the score differences between the students of the experimental group and control group were significant. As a result of the analysis shown in the Table 9, it was found that the difference was significant, since the calculated significance value was less than 0.05.

Table 10. Average Final Grades of the Students

Experimental Group Student Averages	**Control Group Student Averages**
65,93	58,975

As part of the research, the average final scores of the students are shown in Table 10. When the averages of the students were examined, it was found that there was a significant difference between them. It was determined that the average final scores of the students subjected the flipped classroom model were approximately 5 points above the class average. It was also found that there was a difference of approximately 10 points when compared to the students in the control group. This result is similar to the results of the quiz and midterm exams, but both the class average and the academic achievement of students in the experimental and control group decreased in the final exam.

Table 11. T-test Analysis of Final Exam

One- Sample Statistics						
	N	**Mean**	**Std. Deviation**	**Std. Error Mean**		
final	16	65,9375	19,34070	4,83517		
One- Sample Test						
	Test Value = 58.975					
	T	**Df**	**Sig. (2-tailed)**	**Mean Difference**	**95% Confidence Interval of the Difference**	
					Lower	Upper
final	1,440	15	,170	6,96250	-3,3434	17,2684

A T-test analysis was performed to determine whether the score differences between the students of the experimental group and control group were significant. As a result of the analysis shown in the Table 11, it was found that the difference was not significant, since the calculated significance value was higher than 0.05.

The findings obtained as a result of quantitative data support the studies conducted by Neto et al. (2017) and Serçemeli et al. (2019). Interviews were conducted with the 16 students in the experimental group to create the qualitative data of the study. As a result of the interviews, students identified the following topics as the negative aspects of the model;

- Having to prepare before coming to class,
- Having to study materials which are shared before the course.

Negative results obtained from the interviews made with the students support the findings of the study conducted by Callahan et al. (2016). On the other hand; the following topics have been considered as the positive aspects of the model:

- Positive influence on student's motivation,
- Being useful for students to overcome language-related problems,
- Accessing the course teacher at any time,
- Ability to re-track subjects that is not fully understood by the students during the course,
- Increased desire to continue the course,
- Having practical lessons outside the course.

Positive results obtained as a result of the interviews made with the students support the findings of the studies conducted by Critz and Knight (2013), Acar and Köse (2017) and Lubbe (2016). In addition, these findings support the study conducted by Doğan Görü (2015) and Brown et al. (2016).

3. RESULTS

The flipped classroom approach is a model that is increasingly used to meet the learning needs of Generation Y. In 2007, two high school chemistry teachers, Jonathan Bergmann and Aaron Sams, began using the flipped learning model at a Colorado high school. This research was conducted for students taking the ISL 225–inventory and balance sheet course in the 2019-2020 fall semester. As part of the research, an experimental group of 20 students and a control group of 20 students were created, and the content of the course was distributed into 16 weeks at the beginning of the semester and a group was created in WhatsApp and students in the experimental group were included herein. As part of the study, students were subjected to quizzes, midterm and final exams, and the results were interpreted based on the averages of these exams. Qualitative data of the study was obtained by interviewing the students in the experimental group.

4. DISCUSSION

Findings of the Study;

When the averages of the quizzes were examined, it was found that there was a significant difference between the averages. The average of the students subjected to the flipped classroom model was about 10 points above the average of the class, 20 points above the students of the control group. A T-test analysis was performed to determine whether the differences in the average quiz score between the students of the experimental group and control group were significant. As a result of the analysis, it was found that the difference was significant, since the calculated significance value was less than 0.05.

When the average midterm scores were examined, it was found that there was a significant difference between them. The average of the students subjected to the flipped classroom model was about 7 points above the average of the class, 10 points above the students of the control group. This result was similar to the quiz scores. A T-test analysis was performed to determine whether the score differences between the students of the experimental group and control group were significant. As a result of the analysis, it was found that the difference was significant, since the calculated significance value was less than 0.05.

When the averages of the students were examined, it was found that there was a significant difference between them. It was determined that the average final scores of the students subjected the

flipped classroom model were approximately 5 points above the class average. It was also found that there was a difference of approximately 10 points when compared to the students in the control group. This result is similar to the results of the quiz and midterm exams, but both the class average and the academic achievement of students in the experimental and control group decreased in the final exam. A T-test analysis was performed to determine whether the score differences between the students of the experimental group and control group were significant. As a result of the analysis, it was found that the difference was not significant, since the calculated significance value was less than 0.05. During the interviews, it was emphasized that the lack of time in the final exam and the perceived degree of difficulty caused this situation.

5. CONCLUSIONS

In order to determine the permanence, an exam will be held in the fall semester of 2020-2021 education for students participating in the experimental group and the results are planned to be shared. Material preparation and similar reasons constitute a burden from the point of view of the instructor of the course. Interviews were conducted with 16 students in the experimental group in order to create the qualitative data of the study. As a result of the interviews; students identified the following topics as the negative aspects of the model;

- Having to prepare before coming to class,
- Having to study materials which are shared before the course.

On the other hand; the following topics have been considered as the positive aspects of the model:

- Positive influence on student's motivation,
- Being useful for students to overcome language-related problems,
- Accessing the course teacher at any time,
- Ability to re-track subjects that is not fully understood by the students during the course,
- Increased desire to continue the course,
- Having practical lessons outside the course.

Since the Z generation did not participate in university education at the time of the study, it is thought that conducting studies on Z generation will make significant contributions to the literature.The most important disadvantage of the flipped education / classroom model for the lecturer

is sparing time to prepare materials (Video, PPT, application questions, etc.) outside of the class hour. When the finding of results of the study are examined, it is clear that results are support Callahan et al. (2016), Critz and Knight (2013) and Serçemeli et al. (2019).

It is believed that using the flipped classroom model in other accounting courses and sharing the results with Accounting Science will contribute significantly to accounting education.

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This paper complies with research and publication ethics, has no conflict of interest to declare and has received no financial support.

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