THE EFFECT OF WEB-ASSISTED INSTRUCTION IN THE PRODUCTION OF MEN'S TROUSERS ON THE SUCCESS OF THE STUDENTS*

WEB DESTEKLİ ERKEK PANTOLONU ÜRETİMİ ÖĞRETİMİNİN ÖĞRENCİLERİN BAŞARILARINA ETKİSİ

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ABSTRACT: This study was carried out in order to ascertain how the web-assisted method of teaching how to produce men's trousers, part of the Menswear Production lesson, affected the success of the students. In order to determine whether or not there was any significant difference between the marks in the preliminary and final tests ANOVA was used in the "Success Test" to analyze repeated values given for a single factor; while the t- test was used for Independent Sample Groups when determining "Product Success" points. According to the research findings, when the group averages are taken into consideration the average mark in the post-trial knowledge test for those students given web-assisted education was higher than the average mark for students taught using traditional methods. There was a significant difference seen in the marks for the production of men's trousers in web-assisted learning.

Keywords: vocational education, menswear production, attitude scale, web-assisted education.

ÖZET: Bu araştırma, Erkek Giysi Üretimi dersinde yer alan erkek pantolonu üretiminin web destekli öğretim yöntemi kullanılarak öğrencilerin başarılarına olan etkisini belirleyebilmek amacıyla yapılmıştır. "Başarı Testi" öntest-sontest puanları arasında anlamlı bir farkın olup olmadığını belirlemek amacıyla tek faktör üzerinde tekrarlanmış ölçümler için İki Faktörlü Varyans Analizi (ANOVA), "Ürün Başarı" puanlarında İlişkisiz Örneklemler için T-testi kullanılmıştır. Araştırma bulgularına göre öğrencilerin, grup ortalama puanları dikkate alındığında; web destekli eğitimin yapıldığı grupta erkek pantolonu ünitesi bilgi testi puan ortalaması deney sonrasında geleneksel yöntem ile ders işleyen gruba göre daha yüksektir. Web destekli öğrenmede erkek pantolonu ürününün puanları anlamlı bir farklılık göstermiştir. Araştırmada ortaya çıkan bulgulara dayalı olarak; web destekli öğretim yönteminin diğer üretim derslerinde de gerçekleştirilmesine ilişkin çeşitli öneriler sunulmuştur. Ayrıca bu çalışma uzaktan eğitim için bir alt yapının oluşmasını da sağlayacaktır.

Anahtar sözcükler: mesleki eğitim, erkek giysi üretimi, tutum ölçeği, web destekli eğitim.

1-INTRODUCTION

Education establishments make widespread use of technology for a variety of reasons such as increasing the quality of student learning, training technology-literate individuals, providing educational services to the broader masses and keeping education costs to a minimum (Gülbahar 2005). One of the sources affecting educational and instructional practices and that is made use of to this end is technology. In particular, advancements in computer technology have made researchers focus their attention on looking for new educational practices and finding answers to the question as to how education technologies can best be used to provide an effective education (Arıkan 2006).

The internet is important in helping students gain the skills for life-long learning. It is helpful in providing the knowledge that the students need. It provides students with more flexible means of building knowledge and developing cooperation in the classroom environment than more traditional means. It has become necessary for students and teachers alike to be able to use technology effectively as individuals living, learning and achieving in the information age. During this time the roles of the teacher and the student have changed. The internet is being used as learning method that

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supports earlier programs and as online learning program that is used more and more day by day. (Mckimm, Jollie, Cantillion 2003).

In the relevant literature, web-assisted education is known as: digital learning, online learning, e-learning and internet-based learning etc. It is defined as: "A hypermedia-based instructional activity in which web resources are applied in order to support the adoption of learning lifestyles" (Erişti, Şişman , Yıldırım 2008; Khan 1997). Another definition states that web-assisted education is an environment in which the students use the resources of the internet for active learning while the teachers act as a guide (Alkan, Tekedere, Genç 2001).

If a vocational or technical education lesson is going to be web-assisted or web-based the material to be prepared has to be far more comprehensive because seeing and hearing are far more important due to the fact that in technical education the student is going to do a lot of learning by watching (Arıcı, Yekta 2005). According to Cobun, people learn through experiences gained 83 percent looking, 11 percent listening, 3.5 percent smelling, 1.5 percent touching and 1 percent tasting (Ergin 1995; Şahin, Yıldırım 1999).When teaching technical subjects visual instruction is used more than verbal instruction. In animated demonstrations the students can only understand what they are seeing by listening as their eyes are focused on the animation (Arıcı, Yekta 2005).

The teaching of clothing in traditional instruction is carried out at all stages and for all processes through visual presentation. Verbal instruction plus walk-through, hands-on methods are employed. The teacher explains then gets the students to practice as individuals or in groups.

Students taking lessons in the production of menswear in vocational training establishments learn in workshops using traditional methods of instruction. During this lesson general information is given concerning menswear and its varieties. Furthermore, in the production of men's trousers they learn how to choose the right materials, how to cut the cloth according to a cutting plan, how to sew men's trousers, how to press and iron them, how to carry out quality control and how to prepare them for shipment.

There has been a decline in the required standard of education in Clothing Industry Education in recent years caused by many factors such as the steady increase in the number of students, the reduction of hours in menswear production lessons and the large number of units in menswear production and technical sewing studies. All this has made it imperative to look to other methods of instruction outside the traditional methods. The use of web-assisted learning methods was considered appropriate for this study because web-assisted learning practices as applied by way of supplementing traditional instruction gives the students the means to get to grips with the contents of the lesson after class is over. In addition, web-assisted learning environments introduce fresh approaches to the process of learning and teaching; it enriches this process and offers new opportunities.

2- METHOD

2.1.Research Model

This study is an experimental survey. The study group for this survey comprises 43 third-year students in branches I and V of the Clothing Sector Education Department at Gazi University's Vocational Education Faculty. In choosing the subjects for the study and in balancing out the subject groups the students' participation in computer courses was taken into account along with making sure there was no repetition of lessons in the branches. These variables resulted in two groups being formed: a control group of 21 students and a trial group of 22 students. As a result of a coin toss students from Branch I became the control group and the students of Branch V became the trial group.

2.2.Stages of the Experimental Process

2.2.1.Application

The experimental procedures of the study took place in the "Menswear Production" lesson in the third year of the Clothing Industry Education Department. With the cooperation of the relevant teaching staff a program for the teaching of this lesson using traditional methods was formulated and

the goals of the subjects in which the experimental procedure was going to be carried out as part of this program were identified by seeking expert opinion. A Specification Table and unit analysis tables were drawn up accordingly. Furthermore, the work process in men's trousers in the Prêt-a-Porter sector was observed and an attempt was made to identity the machines and equipment used. Expert opinions were sought from the teaching staff who teach menswear production by identifying the work processes for individual sewing taking into account the machines and equipment at the Faculty. A men's tailor was made to sew the product in accordance with the work process and this was filmed. An example product was thus obtained in order to be used in the experimental application.

A website was prepared. Access to the site's page on the production of men's trousers was enabled through membership of the site. The website contains video footage of the men's trousers production process, information about men's trousers and technical schematics for every stage.

The trial group was taught with web-assisted education while the control group was taught the same content using only traditional methods. The men's trousers production lessons for the trial group were given in a workshop where production could be carried out but which also had internet access at the same time. The control group's lessons were given in a traditional clothing workshop. Both groups of students worked eight hours a week for six weeks in the men's trousers unit for the Menswear Production lesson.

2.2.2. Success Test

A multiple choice success test was developed in order to measure the students' level of knowledge. This test measures the students' knowledge with respect to sewing men's trousers. The targets for the students to achieve plus the target attitudes were identified then a pool of multiple items was formed in order to be able to measure each and every attitude. During the formation of this pool expert opinion was sought in the fields of Clothing Industry Education, Training Programs and Instruction, Education Technology plus measurement and Evaluation. In order to determine validity and reliability for the test to be used for the preliminary and final tests the final exam given to the third-year students taking the Menswear Production lesson at Gazi University Vocational Education Faculty Clothing Industry Department in the second semester of the 2004-2005 academic year was applied. Once this was done an analysis was made of the items in the test then expert opinion and criticism was sought following which the necessary adjustments were made to give the test its final shape. By studying the item difficulty indices of the items in the test along with the item-total correlation, those items among the one measuring the same target attitude that were inapplicable were removed. The KR-20 internal consistency coefficients for the test were calculated. The success test for men's trousers began with 98 items but this was reduced to just 58 items following an analysis of the items.

2.2.3. Product Evaluation Scale

When determining the skill levels of the students it was not possible to measure skill in the preliminary test on a product nor was it possible for a student to demonstrate a non-existent skill on a product, and so the "Product Evaluation Scale" was developed to replace the preliminary and final tests in order to mark the men's trousers that the students worked on during the semester so as to measure their skill levels.

While drawing up this scale the following studies were made: The production stages for men's trousers were analyzed and the "Product Evaluation Scale" was prepared by allocating points ranging between 2 and 20 out of 100 according to the difficulty of each stage. When allocating points to each stage the difficulty of that stage was taken into consideration and more points were awarded to those stages requiring more complex skills. The Product Evaluation Scale was developed by the researcher using relevant sources and the expert opinion of three instructors. The finished products were evaluated by forming a commission. This commission comprised two instructors and the researcher. Arithmetic mean was calculated in the analysis of the data. The t-test was applied to independent

samples in order to test whether or not there was any significant difference in skill level between the groups.

3. RESULTS

This chapter examines the trial applied to both the web-assisted and traditional teaching methods with respect to the sub-goals of testing the students' knowledge of men's trousers and their success in producing men's trousers.

3.1. Findings Pertaining to the Levels of Knowledge Concerning the Production of Men's Trousers

3.1. 1. Sub-Goal: Sub goal was expressed as: "Based on the pre- and post-trial data was there any significant difference in the level of knowledge of the men's trousers unit between the students taking the unit with web-assisted education and those making production using traditional teaching methods?" The findings for the data obtained via the men's trousers production success test are given below:

Table 1. The t-test Results Showing the Difference Between the Trial Group and the Control Group's Preliminary Test Scores

Group	N	$\overline{X}$	S	df	t	p
Trial	22	49.45	7.4	41	.301	.765
Control	21	48.80	6.61			

Using the preliminary test given to both the trial and the control group it was determined whether or not there was any significant difference in academic achievement between both groups. As can be seen in Table 1 the average score for the trial group's students was ($\overline{X}$ = 49.45) while the average score for the control group's students was ($\overline{X}$ = 48.80). The preliminary test results showed no significant difference between the trial and control groups (t(41)=.301, p<0.05). This finding may be interpreted as both groups having equal levels of knowledge before the trial took place.

Table 2 . The Preliminary and Final Test Average Scores and Standard Deviation Values Obtained by the Students in the "Men's Trousers Production" Unit Success Test

Group	preliminary test			final test		
	N	$\overline{X}$	S	N	$\overline{X}$	S
Trial	22	49.45	7.40	22	71.45	4.97
Control	21	48.80	6.61	21	62.45	7.41

As can be seen in Table 2, the pre-trial success score in the "Men's Trousers Unit" for the trial group, which was given web-assisted instruction, was 49.45 and it raised to 71.45 after the trial. The average pre-trial success score for the control group in the same unit was 48.80 rising to 62,45 after the trial. It can be said from this that there was a rise in the success rate in the "Men's Trousers Unit" for both the web-assisted trial group and the traditionally taught control group students. However, the increase for the trial group is markedly higher than the increase for the control group.

The results of the dual-factor variance analysis made to determine whether or not there was any significant difference in the changes observed in the pre-trial and post-trial scores in the "Men's Trousers Production" unit success test for the students who had been part of two separate experimental processes can be seen in Table 3:

Table 3. "Men's Trousers Production" Unit Preliminary-Final Test Scores, Anova Results

Source of Variance	KT	df	KO	F	p	Eta-Square
Inter-group						
Group (T/C)	**463.638**	**1**	**463.638**	**7.79**	**.008**	**.160**
Error	**2439.385**	**41**	**59.497**			
Endo-group						
Score (Pre-Final)	**6888.753**	**1**	**6888.753**	**232.34**	**.000**	**.850**
Group*Score	**360.381**	**1**	**360.381**	**12.16**	**.001**	**.229**
Error	**1215.619**	**41**	**29.649**			

The data obtained in the dual-factor variance analysis carried out in Table 3 are given below:

1. There is a significant difference between the total knowledge scores for the control and the trial group in the pre-trial and post-trial preliminary and final tests [$F(1;41)=7.79$, $p<.05$]. These finding show that the knowledge of men's trousers possessed by the students in both the trial and control groups had changed without making a pre-trial and post-trial distinction.

2. There is a significant difference in the average success marks between the preliminary and final tests concerning the students' knowledge of men's trousers [$F(1;41)= 232.34, p<.05$]. These findings show that while both groups' success levels rose, the degree of increase was dependent on the program of instruction given.

3. According to the analysis results in Table 3, it was found that the combined factors of being in different instructional groups at different times had a significant impact on the students' levels of knowledge of the men's trousers unit [$F(1;41)=12.16, p<.05$]. This finding means that the change observed in the pre-trial and post-trial levels of knowledge of men's trousers for students who received web-assisted instruction is different from the changes noted in the levels of knowledge for the control group students. In short, the levels of knowledge of men's trousers possessed by the trial and control groups proved to be different when tested. These differences observed in the students' knowledge of men's trousers can be said to be the result of web-assisted instruction.

The results of the Tukey q test carried out in order to examine the source of this joint effect are presented in Table 4.

Table 4. The Tukey q Values for Differences Between the Average Scores

Factor	Level	pre-final test[a] q	trial- control b q
Group (A)	**Trial**	**18.97***	-
	Control	**11.61**	-
Score (B)	**Pre-Test**	-	**0.39***
	Final Test	-	**3.96***

[a]q table value is 2.86 when α= .05, r =2 and df= 41.
bq critical value was calculated as 2.86 when α= .05.
* p<.05

When the group average scores in Table 4 are studied it can be seen that the average score for the students given web-assisted instruction is markedly higher than the average score for the students given traditional instruction. These results suggest that web-assisted instruction is an effective way for students to obtain knowledge about men's trousers production.

Akkoyunlu (1999) states that the internet is far more effective than traditional instruction in furnishing students with information. Yenilmez (2000) stated that work carried out using the internet was an important opportunity for complementing students' education and for developing their knowledge and skills. Gurbuz, Kaptan and Buldu (2001) stated that web-assisted instruction improved the students' thinking skills, provided the means to repeat over and over again topics that were hard to understand, made individual learning more effective and increased collaborative learning. Uzunboylu (2002) stated that web-assisted instruction increased the students' success rates. It can be said that the studies noted above further support the conclusions of this study.

3.2. Findings for Product Success in Men's Trousers Production

3.2.1. Sub-Goal: Sub goal was expressed as: "Is there a significant difference between the product success marks for the students given web-assisted instruction and those given traditional instruction?" To this end, the findings concerning the data obtained from the men's trousers product evaluation scale are given below.

Comparison of the Men's Trousers Product Scores of the Trial and Control Groups
In order to determine whether or not there was any significant difference between the men's trousers product success scores for the trial and control groups the independent samples t-test was used. Data for the men's trousers product scores for both the trial and control group students are presented in Table 5.

Table 5: T-test Results for Men's Trousers Products for the Trial and Control Groups

Method	N	$\overline{X}$	S	df	t	p
Web-assisted instruction	22	89.77	3.29	41	8.74	.000
Traditional instruction	21	75.04	7.14			

A study of Table 5 shows a significant difference for the scores of the students given web-assisted instruction [t (41)= 8.74, p<.05]. The men's trousers product score for web-assisted instruction ($\overline{X}$ =89.77) is higher than the score for traditional instruction ($\overline{X}$ =75.04). According to these findings it can be said that students given web-assisted instruction create more successful products in the production of men's trousers.

4. CONCLUSION

There is a significant difference between the average scores for the preliminary and final tests of the students' knowledge in the men's trousers unit. There was also a difference seen between the levels of knowledge of the control and trial group students when products-tested. When the group average scores are taken into consideration, the group that received web-assisted instruction in the men's trousers unit produced higher scores both before and after the trial than those students given traditional instruction.

The conclusions for product success in the men's trousers unit showed a significant difference in marks for those students who received web-assisted instruction. Those students who were given web-assisted instruction produced higher product scores than those students who received traditional instruction.

Based on the findings obtained the following recommendations have been developed:

4.1. Recommendations Concerning Application
- Infrastructural deficiencies need to be addressed before web-assisted instructional environments can be made use of. In particular, work should be carried out on strengthening the internet infrastructure.

- Technical personnel should be trained before web-assisted instructional environments can be made use of. The number of problems that may be encountered should be reduced to a minimum.

- There should be internet access in all production worshops.

- Furthermore, there should be fixed projection devices and screens in production workshops.

4.2. Recommendations for Subsequent Research Projects

- Research may be carried out in order to determine the impact of web-assisted instruction in other production lessons.

- The web-assisted instruction method may be applied to the "Pattern Preparation Techniques" lesson and a study made to determine this method's impact.

- Web-assisted instruction materials prepared for production lessons using the modular system will enable the establishment of an infrastructure suitable for distance learning. Once this happens, students anywhere in Turkey will easily be able to access lesson content via the internet. This will at the same time provide equal opportunities in education and a standard with respect to lesson content. The means can be provided to enable web-assisted instructional programs prepared according to standards to be used in the on-the-job training of employees working in the pret-a-porter clothing sector.

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GENİŞLETİLMİŞ ÖZET

İnternet, öğrencilere yaşam boyu öğrenme becerilerinin kazandırılmasında önemli bir yere sahiptir. Öğrencilerin ihtiyacı olan bilgiyi sağlamada yardımcıdır. Öğrencilere, sınıf ortamında işbirliğini geliştirme ve bilgilerini yapılandırma konusunda geleneksel ortama göre daha esnek olanaklar sunmaktadır. Bilgi toplumunda yaşayan, öğrenen ve başarıyla çalışan bireyler olarak öğrenci ve öğretmenlerin, teknolojiyi etkili olarak kullanmaları zorunlu hale gelmiştir. Bu süreç içerisinde öğrencinin ve öğretmenin rolü değişmiştir.

Mesleki ve teknik eğitim alanında verilecek ders web destekli ya da web tabanlı olacak ise, hazırlanacak materyalin daha kapsamlı olması gerekmektedir. Çünkü mesleki teknik eğitimde öğrenci öğrenmenin büyük bir kısmını görerek yapacağı için görselliğin ve işitselliğin önemi fazladır (Arıcı ve Yekta 2005).   Cobun'a göre, insanlar öğrendiklerinin %83'ünü görme, %11'ini işitme, %3.5'i koklama, %1.5'i dokunma ve %1'ini tatma duyuları ile edinilen yaşantılar yoluyla öğrenir (Ergin, 1995; Şahin ve Yıldırım 1999).Teknik konuların işlenişi sırasında sözel anlatımdan daha çok görsel

anlatım kullanılmalıdır. Hareketli gösterimlerde (animasyonlarda) göz animasyona odaklanacağı için öğrenci gördüklerinin ne anlama geldiğini ancak duyarak anlayabilir. Bu da görüntü ile sesin birlikte kullanılmasını gerektirmektedir (Arıcı ve Yekta 2005).

Geleneksel öğretimde giyim eğitimi; herhangi bir işlemin süreç ya da basamaklarının görsel sunumudur. Sözlü anlatım ve gösterip yaptırma yöntemi kullanılır. Öğretmen anlattıktan sonra bireysel olarak ya da grup şeklinde öğrencilere uygulama yaptırır.

Son yıllarda Giyim Endüstrisi Eğitimi Anabilim Dalında öğrenci sayısının giderek artması, erkek giysi üretim ders saatinin azalması, erkek giysi üretiminde ünite sayısının ve teknik dikim çalışmalarının çok olması gibi nedenlerle istenilen kalitede eğitimin verilememesi geleneksel öğretim yönteminin dışında diğer öğretim yöntemleriyle dersin işlenmesini zorunlu hale getirmiştir. Yapılan bu araştırmada, web destekli öğrenme yönteminin kullanılması uygun görülmüştür. Çünkü geleneksel öğretime destek vermek amacıyla hayata geçirilecek olan web destekli öğrenme uygulamaları öğrencilerin ders süresi bittikten sonrada ders içeriğine erişebilmelerine olanak tanımaktadır. Ayrıca, web destekli öğrenme ortamları öğrenme-öğretme sürecine yeni yaklaşımlar getirmekte, zenginleştirmekte ve yeni fırsatlar sağlamaktadır.

Bu çalışma deneysel bir araştırmadır. Araştırmanın çalışma grubunu, 2005- 2006 eğitim öğretim yılı Gazi Üniversitesi Mesleki Eğitim Fakültesi Giyim Endüstrisi Eğitimi Anabilim Dalı üçüncü sınıf I. ve V. şubesinde bulunan toplam 43 öğrenci oluşmaktadır. Araştırma kapsamında yer alan deneklerin belirlenmesinde ve deney gruplarının eşleştirilmesinde branşlarında ders tekrarının bulunmaması ve bilgisayar kursu almış olmaları dikkate alınmıştır. Bu değişkenlere göre kontrol grubu 21, deney grubu 22 denekten oluşan iki grup oluşturulmuştur. Yapılan kura çekimi sonucunda 1.şube kontrol grubu, 5. şube deney grubu olarak belirlenmiştir.

Araştırmanın deneysel işlemleri, Giyim Endüstrisi Eğitimi Anabilim Dalı'nın üçüncü sınıfında yer alan "Erkek Giysi Üretimi" dersinde gerçekleştirilmiştir. İlgili öğretim elemanlarının işbirliği ile, bu dersin geleneksel öğretim yöntem ile işlenişine ilişkin bir öğretim izlencesi oluşturulmuştur ve bu izlence çerçevesinde deneysel işlemin gerçekleşeceği konuların hedefleri uzman görüşü alınarak belirlenmiştir. Bu doğrultuda, belirtke tablosu ve ünite analizi tabloları düzenlenmiştir. Ayrıca, hazır giyim sektöründe erkek pantolonunun iş akışı izlenmiş ve kullanılan makine ve teçhizatlar tespit edilmeye çalışılmıştır. Fakültedeki makine ve teçhizatlar göz önünde bulundurularak bireysel dikim için iş akışı tekrar belirlenerek erkek giysi üretimi yapan öğretim elemanlarından uzman görüşleri alınmıştır. Bu iş akışı doğrultusunda ürün erkek terzisine diktirilerek video çekimleri yapılmış ve deneysel uygulamada kullanılmak amacıyla örnek ürün elde edilmiştir.

 Bu çalışma kapsamında bir web sitesi hazırlanmıştır. Web sitesinde erkek pantolonu ünitesinin içeriğine erişim, üye girişi ile sağlanmaktadır Web sitesinde; erkek pantolonu üretim sürecinin video çekimleri, erkek pantolonu bilgi konusu, her bir aşamanın teknik çizimleri vb. yer almaktadır.

Deney grubuna web destekli olarak eğitim verilmiştir. Kontrol grubuna ise aynı içerik geleneksel öğretim yöntemi ile verilmiştir. Deney grubunda erkek giysi üretimi dersi internet ağının bulunduğu aynı zamanda üretimin de yapılabileceği bir giyim atölyesinde, kontrol grubunda ise geleneksel giyim atölyesinde yapılmıştır. Her iki gruptaki öğrenciler Erkek Giysi Üretimi dersinde, erkek pantolonu ünitesini haftada 8 saat olmak üzere 6 haftada işlemişlerdir.

Öğrencilerin bilgi düzeylerini ölçmek amacıyla çoktan seçmeli "Başarı Testi" geliştirilmiştir. Bu test, öğrencilerin erkek pantolonu dikimiyle ilgili bilgilerini ölçmektedir. Öğrencilerin beceri düzeyleri belirlenirken, becerilerin bir ürün üzerinden ön test ile ölçülmesi ya da öğrencilerin var olmayan becerilerini bir ürün üzerinde göstermeleri mümkün olmadığından öntest - sontest yerine öğrencilerin beceri düzeylerini ölçmek amacıyla dönem içinde uyguladıkları erkek pantolonunu

değerlendirmek için "Ürün Değerlendirme Ölçeği" oluşturulmuştur. Araştırma için toplanan veriler SPSS programı kullanılarak analiz edilmiştir. "Başarı Testi" öntest-sontest puanları arasında anlamlı bir farkın olup olmadığını belirlemek amacıyla tek faktör üzerinde tekrarlanmış ölçümler için İki Faktörlü Varyans Analizi (ANOVA), "Ürün Başarı" puanlarında İlişkisiz Örneklemler için T-testi kullanılmıştır.

Erkek pantolonu ünitesi bilgi düzeyine yönelik elde edilen bulgulara dayalı olarak ulaşılan sonuçlar; öğrencilerin erkek pantolonu ünitesi bilgileri ile ilgili olarak öntest-sontest ortalama puanları arasında anlamlı bir fark vardır. Bu sonuca bağlı olarak, web destekli öğretim yönteminin kullanıldığı grupta öğrenme daha etkili olmuştur denilebilir.

Erkek pantolonu ürün başarılarına yönelik sonuçlar; web destekli öğrenmede erkek pantolon ürününün puanları anlamlı bir farklılık göstermektedir. Web destekli eğitim yöntemi kullanılarak erkek pantolonu üreten öğrenci grubunun, geleneksel öğretime göre daha başarılı oldukları belirlenmiştir.

Araştırmada elde edilen bulgulara dayalı olarak çeşitli öneriler geliştirilmiştir.

Web destekli öğretim yönteminin diğer üretim derslerinde de etkisini belirlemeye yönelik araştırmalar yapılabilir. Web destekli öğretim yöntemi "Kalıp Hazırlama Teknikleri" dersinde de uygulanıp, bu yöntemin etkisi belirlenmeye çalışılabilir.

Modüler sisteme göre üretim derslerinde hazırlanan web destekli öğretim materyalleri, internet üzerinden uzaktan eğitime bir alt yapının oluşmasını sağlayacaktır. Bu durumda, Türkiye'nin her yerinden bir internet ağı ile öğrenciler ders içeriğine kolaylıkla ulaşabileceklerdir. Aynı zamanda eğitimde fırsat eşitliğini ve derslerin içerikleri açısından da bir standart oluşturulabilecektir. Standartlara dayalı olarak hazırlanacak olan web destekli öğretim programı hazır giyim sektöründe çalışan işçilerin eğitiminde de kullanılmasına olanak sağlayacaktır.