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Academic Achievement of Turkish and American Students

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Abstract: This study aims to provide a comparative look at Turkish and American high school graduates' academic achievement at college by using High School grade point average (HSGPA), Scholastic Aptitude Test (SAT), American College Testing Assessment (ACT), and Student Selection Examination (OSS). The questions addressed were: 1-Are high school GPA or standardized test scores such as SAT and ACT better predictor of academic achievement of American students at college? 2-Is high school GPA or standardized test scores such as OSS better predictor of academic achievement of Turkish students at college? To answer this question, the author conducted interviews with four Turkish and four American college students. In addition, he employed secondary data from previous research on the issue.

INTRODUCTION

In many countries, students have to meet certain criteria in order to apply for a university and receive an admission. These criteria may include standardized tests and high school grade point average. For instance, British universities require "O" and "A" level test results, while Japanese universities require two standardized tests; one is nationwide, the other one is special for the university that each student applies. As in these examples, Turkish and American universities also require standardized tests such as SAT, ACT, OSS as well as high school grade point averages.

According to Astin (1993), academic achievement at college is one of the most frequently researched topics. Nowadays, attending colleges and graduating with a high grade point average is crucial since the unemployment rate continually increases and it becomes more difficult to find a job in the market. As The Bureau of Labor Statistics estimates, the number of college level jobs increased less than the number of jobs for people with less than college level education between the years 1998 and 2008 (U.S. Department of Education, 2000). The employers will admit college graduates by reviewing not only their diplomas; they will also attach importance to their college grade point average (CGPA) which is the

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indicator of academic achievement at college. Astin stated that "GPA, despite its limitations, appears to reflect the student's actual learning and growth during the undergraduate years" (p. 242). Thus, in this study I used GPA as an indicator of academic achievement.

Many researchers from a variety of countries (Parmentier, 1994; Gallagher, 1996; Chidolue, 1996; Furnham et al., 1999; Minnaert and Janssen, 1999; Cohn et al., 2004; Boxus, 1993) have studied ways of explaining academic performance and predicting achievement of failure at college. According to the results of these studies, the success at college is related to students' background. In particular, to explore the academic performance of Turkish and American students, many separate studies have been conducted so far, and two significant indicators have stood out, one is standardized tests such as SAT, ACT, OSS, and the other one is high school GPA. Then, what is the more effective determinant of the Turkish and American college students' academic achievement at college?

TURKISH RESEARCHERS

A Turkish scholar, Koc (1981), claims that the academic performance of a student in their last degree is the strongest predictor of academic achievement of the following degree. In his study, he also finds that self-concept, socio-economic status, family relations, motivations, expectations from their education, and the education level of their fathers are also important in predicting success; however, they are no more than high school GPA. Likewise, another Turkish researcher, Dilek (1993) obtains the same result from her study. In her study, she finds that "the grade point average in high school" is one of the most valid indicators of academic achievement at college. She continues asserting that her findings have been supported by other previous

research.

Tavsancil and Karakaya (2008) examined the relationship between high school GPA, OSS scores and academic achievement at college. In their study, the researchers particularly regarded the OSS scores that students received in 2003. A total of 2105 students from a variety of majors such as engineering, law, social science, and Turkish language and literature participated in the study and they found that high school GPA is a better predictor of academic success at college than HSGPA.

In the study conducted by Akhun (1975) called "Male Technical high Teacher School" and in another study by Ozguven (1974) on students at Hacettepe University, they found that high school grade point averages and students' rank during high school graduation are among the strongest predictors when considering different variables.

Standardized tests have received criticism: They last three hours and a quarter. Students only have a chance to take it once year. As a bad consequence of this examination system, students lose a year if they cannot pass the exam and only 200,000 students among 1,786,883 students can go to four year colleges, 200,000 of them can attend vocational and technical schools, and 250,000 of them prefer attending distance education. Therefore, this test system with standardized test OSS is supposed to not gauge or predict students' further academic performance at college. With regard to standardized tests, Ozguven (1974) claims that the OSS will not be a strong predictor of academic achievement at college. Thus, he endeavors not only to improve the quality of OSS, but also he suggests that HSGPA and OSS be applied together in order to predict better academic achievement of college students.

In his study, Toker, Uckunkaya and Gulcu (1969) focused on students who graduated as first, second, and third from high school and he compared these

students' academic achievements with the rest of the students. He concluded that students who rank among first, second, and third are comparably more successful than other students while there is not a significant difference among these three ones.

AMERICAN RESEARCHERS

American colleges also prefer admitting students based on their high school grade point average and scores on standardized tests, SAT, and ACT. Which one is more influential in predicting academic achievement of American college students?

Studies that focus on this and related topic include the following: Scores on the standardized tests such as SAT or the ACT and high school grade point average strongly predict the academic performance of college students of all races (Wolfe & Johnson, 1995; Zheng et al., 2002; Tross et al., 2000; Waugh, Micceri & Takalkar, 1994). Some studies suggest that high school grades are more accurate predictors than any other ones (Fleming, 2002; Fleming & Garcia, 1998; Munro, 1981; Tross et al., 2000; Zheng et al., 2002; Hoffman, 2002). According to some researchers (Munro, 1981; Zheng et al., 2002; Hoffman, 2002), high school grades more strongly predict achievement than standardized tests.

In another study, Bontekoe (1992) found a stronger correlation between high school grades and college GPAs than between ACT scores and the college GPA, asserting that high school GPA is a better predictor than ACT scores. In addition, Ott (1998) found that academic performance at college is strongly related to high school GPA. Furthermore, some comparative studies (Amando, 1991; Comor, 1992) suggest that high school grades are the best single predictor of academic achievement in college.

Some other studies focused on high

school rank and its productivity on success. In such a study, Jacobs (1985) compared the predictability of SAT scores and high school rank of first year students in Indiana University and he concluded that high school rank was the best single predictor of college performance for both men and women. Moreover, Thornell and Jones (1986) compared the predictability of high school success and ACT scores and found that the relationship between high school success and college GPA is either equal or more significant than ACT scores. In addition, some researchers (Astin, 1993; 1975; Connor, 1992; Tracey & Sedlacek, 1984) assert that high school grades and high school ranks are not race or gender biased indicating that they are useful in predicting academic achievement for both African Americans and majority students.

In contrast to aforementioned utility of high school grades as a strong predictor of college success, some researchers seem to have doubt about the validity of high school grades and its relationship with college GPA. A few studies (Camara, Kimmel, Scheuneman, and Sawtell, 2003) found that recently, more and more students graduate from high school with GPAs near 4.0, thus losing its importance in predicting students' performance at college. Thus, they think that high school GPA is not a reliable criterion in predicting success and admitting students to colleges.

With respect to the use of standardized tests, many researchers have focused on their predictability of academic achievement at college and validity during the admission process. In the present era, standardized tests not only were employed for admitting students to the colleges, but also used in order to predict academic performance of students. For this, they have received criticism. For instance, some researchers strongly criticize the use of standardized tests in the admission process. Sowa, Thomson, & Bennett (1989) asserted that these tests are gender and race

biased, and do not gauge the ability of certain student groups. In addition, some authors claimed that standardized tests do not predict achievement across gender and ethnic student groups (Bridgeman & Wendler, 1991; Moffatt, 1993).

Despite the general opposition to the predictability of standardized test, Lenning (1975) found that SAT and ACT yielded good predictive results for the first year students' GPAs. In addition, Noble and Sawyer (1987) developed models about utility and predictability of ACT and high school grades. They indicate that models that employ either ACT or high school grades alone do not predict academic success at college better than models that include both. Ferrari and Parker find that SAT scores predicts college class rank and that high school grades did not significantly predict the academic achievement of college students.

This study will fill a void in the literature by comparing the predictors of Turkish and American college students' academic achievement at college. No study I am aware of has made a comparative study on this issue before.

My research questions are:

1. Are high school GPA or standardized test scores such as SAT and ACT better predictor of academic achievement of American students at college?
2. Is high school GPA or standardized test scores such as OSS better predictor of academic achievement of Turkish students at college?

My operational definitions are as follows:

Academic achievement: The grades that students receive from their classes.

OSS: Student selection examination that Turkish students have to take in order to apply for colleges.

ACT and SAT: Student selection examination that American students have to take in order to apply for colleges.

METHODS

Participants

Four Turkish and four American students participated in this study. Two of the Americans were European-American and two of them were African American. All American participants are undergraduate students at University of Cincinnati. Three of Turkish participants attend Istanbul University, while one of them attends Cukurova University. Their ages are between twenty one and twenty four. Their majors are history, economy, medicine, environment engineer, mechanical engineering, computer science, computer engineering, and anthropology. The participants are all males.

There are some preexisting data (Geiser & Veronika, 2007; Tavsancil & Karakaya, 2008) that examines the predictability of high school GPA and SAT, ACT, and OSS on academic achievement of Turkish and American college students in separate studies. I will combine qualitative and quantitative research approaches. For qualitative approach, I conducted interviews and for quantitative approach, I employed secondary data from previous research.

Data Collection Protocols

High School & College Preparation Demographic Sheet (HSCPDS)

A written HSCPDS was administered to each participant before the interviews. The questionnaire was designed to provide the researcher with demographic information about the participants. The questionnaire included questions such as the name of the interviewee, the name of the university that the participant attended, contact information, gender, age, ethnicity, average income and educational background of parents.

Individual Interviews

The students were randomly selected and later were contacted via e-mail or phone and asked if they would like to have a short interview that would roughly last twenty minutes. The interview topic for this study was their high school and college experiences as well as standardized tests, high school GPA and their relationship with the college GPA. In exchange for agreeing to be interviewed, they would receive free meals. Most interviews took place in a study room in the UC library or in a tea garden, but students were also free to choose the location in which they would like to be interviewed. At the time of the interview, students were reminded that the entire interview was voluntary and their information would be kept secret, and students were free to withdraw from the interview at any time they liked.

Other topic areas were included in the interview in order to gain a better understanding of the relationship between standardized test, high school GPA and academic achievement of these students at college. The questions were in two categories: first one was about high school and the second one about college experience. They were:

Category I:

Tell me about your high school experience:

- a) How important were friendships?
- b) How important was the relationship between you and your instructors?
- c) Did you have a favorite subject or subjects?
- d) Tell me about your amount of learning.
- e) What did your grades look like?
- f) What was your SAT, ACT, or OSS score?
- g) Did you participate in extra-curricular activities? If so, what were they?

ular activities? If so, what were they?

How did your high school education influence your academic achievement in college?

Category II:

1. Tell me about your college experience:
2. How important is friendship while in college?
3. How important is the relationship between you and your instructors?
4. What is your major?
5. Do you feel that your high school prepared you for college studies? Please explain.
6. What are your grades like?
7. Do you participate in extra-curricular activities? If so, what are they?
8. Where do you see yourself in comparison to your college classmates?
9. Do you plan to pursue graduate study?

The length of time for each interview was between 10 minutes to 15 minutes. While interviews were conducted, they were recorded and transcribed verbatim; in addition, notes were taken by hand onto a small notebook. When all interviews were completed, they were reviewed and ideas that might shed light on the influence of high school GPA and standardized tests on academic achievement of American and Turkish college students were examined.

Quantitative Data

To further the study and determine the relationship between high school GPA, standardized tests (SAT, ACT, OSS) and academic achievement at college, data from the following articles were used:

1-For American students: "Validity of High School Grades in Predicting Student

Success Beyond the Freshman Year: High School Record vs. Standardized Tests as Indicators of For-Year College Outcomes” by Saul Geiser and Maria Veronica (2007);

2-For Turkish students: “An Examination of the Relationship between Students’ Scores of Student Selection Examination (OSS) with High School Grade Point Average and Their Grade Point Average in University” by Karakaya and Tavsancil (2008).

FINDINGS

Findings are from both qualitative data collected and quantitative data analysis.

Qualitative Data Findings

1-The Relationship Between Favorite Subjects at High School and Majors at College:

The results of this study indicate that both Turkish and American students who are interested in qualitative subjects at high school pursue a qualitative major and those who are good at quantitative subjects pursue a quantitative major at college. A Turkish student called Sabahattin stated that “In particular, I was interested in qualitative subjects such as history, geography, psychology, and the literature and I am now a history students at Istanbul University.” Another Turkish student called Hasan talks about the influence of a teacher on the class: “I am interested in math, arts, and history because of the influence of my high school teacher. He was really friendly, like a father, you know.”

To talk about American students, they do not much differ from their Turkish peers. An American student called Charles stated that: “I liked math and science, especially physics. I did not like the biology and now I am a mechanical engineering student at UC (University of Cincinnati).” John, like his Turkish peer, mentions the importance of teachers or friends on the classes. “I

enjoyed world history, world religions, and Latin. I have to come to realize that some of my favorite classes were because of my friends or teachers that I shared them with. But those three were probably my favorite based on the subjects... and now I am doing Anthropology.”

2-The Relationship Between High School GPA, OSS, SAT, ACT and academic Achievement at College

The standardized tests, in particular OSS, are like a nightmare for Turkish students. They attend school for a total of twelve years and at the end of this long run, they take OSS. This test is administered once a year. That is to say, if a student cannot pass the test, they have to wait for the next year. A Turkish student called Serkan stated that,

To talk about OSS, what an unfair exam this is, you study for a year, and if you fail, you lose a year, you have to wait for the next year. I received 170/220 from OSS. Oh my Gosh, eventually I passed it and I am a successful student at college, but, you should listen to my story, I waited for four years in order to pass the test, those days, you know, I do not want to remember that much. I am lucky that I did not commit suicide... My high school GPA was around 4/5 and now it is 3/4 which means I am one of the best students in my class.

The feelings of Serkan indicate that this period is a really stressful period for Turkish students. Another student called Hasan stated that

I liked all the classes but physics. All my grades, even physics, were perfect. Although I did not study much, it was enough for me to lis-

ten to the teachers. They were really great. Well, my grades were perfect and I passed OSS, but did not do very well in OSS and had to attend a college that I did not desire. My GPA is roughly 3/4 and I am among the best students.

To stress the high GPA for Turkish students, we conclude that if their GPA is around 3 or over three they see it as high because it is really hard for them to take grades over 3/4.

To talk about American students, it is interesting to talk about the American student called Gabe who is was not a bright student at high school and continues receiving low grades; even officially he did not attend the school last quarter. He states that:

Well, never studied, but at least got A or B, it was kind of weird, but because of my laziness, I did not do my homework assignments, then I got C's or D's maybe, but, I passed never failed.My GPA was 2/4. I took ACT and made 21. ... To talk about my grades in college, well, it depends on quarter. First quarter, good, last quarter I was relaxed, low. It is really low now, like two, and now I am not attending classes, but I will go on to college.

Another American student called John Knauer stated that,

I made second honors nearly every quarter, and on few occasions I made first honors. My GPA was 3.6 when I graduated I took ACT and made 23.... My grades ... Once I was able to get the hang of college my grades picked up. I started out getting B's and C's with a GPA around 2.7. Now that I have focused more on my school work I

have been on the dean's list for three quarters straight and my GPA is now around 3.2.

To compare Turkish and American students with regard to their high school GPA, OSS, SAT, ACT scores and their relationship with academic achievement at college, we conclude that high school GPA is a more accurate predictor in determining the relationship between these variables and academic achievement of Turkish and American students at college. As we see in the case of Turkish students, Serkan and Hasan, despite the fact that they were hard-working students and their GPAs were high, they were not that successful in OSS; however, they performed well and receive satisfactory grades at college. For American students, it is interesting to read the Gabe's story. He received an average score from ACT; however, he was not an academically successful student at high school and performed poorly at college while John who performed well at high school did the same in the college. These results show that high school GPA is a better predictor of academic achievement of both Turkish and American students at college.

3- High School Education's Influence on Academic Achievement at College

High school period is an important part for students in terms of receiving a high quality education and to be able to meet the requirements by colleges and be prepared for standardized tests. Turkish students tend to see their high school as influential on their way to college while some of them think that their high school did not influence them greatly. A student named Sabahattin stated, "I really liked my teachers, they were high quality teachers. I think it was beneficial for me." In addition, Harun addresses the importance of high school:

It influenced me greatly. Teachers taught us to become idealist and study hard in order to reach our final destination, college.” In contrast, another student called Serkan totally disagrees with other students; he mentions the importance of the private education centers where they offer OSS course; he stated that, “Well, actually, my high school was one of the best high school in Istanbul; however, I was not interested in classes. So, it does not have a great influence on

me. Private education centers contributed to my education a lot.”

Private education centers have an important place in Turkish education. Most students have to attend these places. Otherwise, it will be difficult for them to pass the exam. Thus, it causes inequality between the students. Table 1 indicates the number of the private education centers and the number of students who have attended during 1997-2006.

Table 1: Number of Private Education Centers and Number of Students Who Attended These Centers Between the Years 1997-2006

Years	Number of Private Education Centers	Number of Students
2005-2006	3650	925299
2004-2005	2984	784 565
2003-2004	2568	668673
2002-2003	1122	606522
2001-2002	2002	566537
2000-2001	1864	566537
1999-2000	1730	488284
1998-1999	1759	441348
1997-1998	1479	310432

Source: Turk Egitim Dergisi, Ankara 2006 (Turkish Educational Journal)

From 1997-1998 to 2005-2006 education years, the number of the private education centers and students has significantly increased.

To talk about American students, they see that their high school has prepared them well. John stated that,

I think my high school education has helped me greatly in college. The majority of my first year basic requirements were review[s of high school material]. I was in the college prep classes throughout my entire class and I feel like the name

was fitting because I found myself doing pretty well educationally. Unlike John, Aaron complained about not having AP classes, he stated that “not having AP courses affected me in areas like calculus and physics.

However, he goes on to mention the impact of his high school on his future education life “..... But, I think they did a good job of preparing me for college.”

As can be seen from the expressions of both Turkish and American students, high school has a great influence on academic achievement at college.

It is also noteworthy to mention that unlike Turkish students, American students prepare SAT or ACT by taking practice tests and buying a book and studying individually instead of attending private education centers. Charles stated that,

I took a class through my high school that was offered to top students in my high school. After that, I stayed fresh by regularly doing practice tests independently from practice books.” Similarly, Aaron also stated that “I did not really prepare at all for the ACT to be honest, besides the required practice tests that we took throughout high school. But, I did take the ACT three times.

4- Relationship Between Participating Extracurricular Activities at High School and at College

It is noteworthy to mention the relationship between participating extracurricular activities at high school and at college. Students who are sociable at high school may refrain from participating these activities at college and vice versa. For Turkish students, we observe a relationship

between participating in extracurricular activities at high school and at college. Hasan stated that: “When I was at high school, I played in school volleyball and basketball teams. We went to theatre once a month and movie once in a three week. We also went to recreation centers.” It seems that although the type of extracurricular activities might change, he goes on doing it. “At college, I do some sports just to have fun. I participate in sightseeing tours. We go to conferences. We go to movie once a week, and theatre once a month.” Sabahattin another college student also goes on participating in these kinds of activities as he did during high school. He stated that,

At high school, I played amateur soccer and I received basketball training. I went to theatre; however, I did not act in play. We had school basketball and soccer teams, and theatre clubs. I just went to watch them At college, I participate in different activities. I am a member of some clubs such as “Forever Turkish Language Club.” The members of this clubs study Turkish history and language. By the way, I regularly play soccer and basketball.

Although some sociable American students continue participating in the extracurricular activities as they did in high school, some do not. For instance, Charles stated that,

At high school, I participated in several robotics clubs, I was on the rugby team, I was in choral, and did a couple other things that I cannot remember right now... at college, I participate in Peace Village, I am president of Rugby Club, and I have participated in Campus Anti-War network as well as the Student Advisory Council on the

University Budget.

However, John who was sociable at high school stayed away from extracurricular activities. He stated that,

At high school, I played football for four years, captain my senior year. I played baseball for two years, also captain my senior year. I was also in the ski club; a student ambassador, Kairos leader, and the Latin play..., but, in college, I was briefly involved in some organizations my freshmen year but quickly realized that the groups were not for me and I have not been involved in anything since then. I have participated in UC's relay for Life the past years.

Unlike John, Bruce who did not tend to participate in these activities at high school started doing extracurricular activities at college. He stated that,

In high school, I wish I had, but, I just went to school and home... at college I definitely participate a lot more here. I am part of national... strike Black Engineers, mechanical engineers, the student development counsel which is part of keeping relations at UC. So, a lot of things that are not from my classes, I do those extracurricular things a lot more now in college because I know how they are important. I still would like to play basketball, but, I got injured, but I still feel like to.

In comparison, we found that Turkish students who participated in extracurricular activities at high school continue participating in the extracurricular activities; however, it should be noted that the type of extracurricular activities may change.

Different from Turkish students, while some American students continue participating in extracurricular activities as they did at high school, some who did not participate in these activities at high school start doing these activities at college, whereas some who participate in these activities seemed to stay away from these activities.

Quantitative Data Findings

For the first study, a total of 591 students participated in this study. With regard to ethnicity of the participants, 39.8 percent is White/Caucasian students, 20.5 percent is black/African, 8.8 percent is Asian/Pacific Islander, 19.6 percent is Hispanic or Mexican, 0.7 percent is Native American, and 10.7 is percent mixed/other. Students in these programs are averagely 18.45 years old. The youngest student was 16 years old, and the oldest one was 22.

Table 2 indicates that relationship between high school GPA and first year GPA at college is positive and it is 0.34. However, the correlation between SAT 1 Verbal score and first year GPA at college is 0.07, the correlation between SAT 1 Math score and first year GPA at college is negative and it is -0.02, the relationship between SAT 2 Writing score and first year GPA at college is 0.18, the correlation between SAT 3rd test and first year GPA at college is 0.09, and lastly, the correlation between SAT II Math and first year GPA at college is negative and it is -0.02.

In order to create the table 3, I accumulated SAT 1 verbal, SAT 1 Math, SAT 2 Writing, SAT 2 3rd test, SAT 2 Math scores and divided them by five because there were five different subareas of SAT and as can be seen from the following table, the relationship between high school GPA and college GPA is significantly higher than the relationship between SAT score and college GPA.

For the second study, a total of 2105

Table 2: The Relationship Between High school GPA, SAT (Regarding of the Subareas) and First Year Academic Achievement of American Students at College

High school GPA	SAT I Verbal	SAT I Math	SAT 2 Writing	SAT II 3 rd Test	SAT II Math
0.34	0.07	-0.02	0.18	0.09	-0.02

Source: Saul Geiser and Maria Veronica, "Validity of High School Grades in Predicting Student Success Beyond the Freshman Year: High School Record vs. Standardized Tests as Indicators of For- Year College Outcomes"

Table 3: The Relationship Between High school GPA, SAT (Regardless of the Subareas) and the Academic Achievement of American Students at College

High School GPA	SAT
0.34	0.06

students participated in the study. We could not determine variations due to the ethnicity differences because of the unavailability of information about the diversity of the Turkish participants.

By employing the table above as a secondary data, I created separate tables from it. Table 4 indicates the relationship between OSS score and first year GPA regarding the majors. In order to obtain the weighted average of correlation values, I am dividing the weighted sum of correlation values by sum of students. As can be seen from the Table 4, the relationship between OSS score and first year GPA is

0.1572 when we disregard the majors.

Table 5 shows the relationship between HSGPA and first year GPA; I did the same mathematical operation as I did in the previous tables. As can be seen from the table 5, the relationship between HSGPA and first year GPA is 0.406 when we disregard the majors.

I created the Tables 4 and 5 in order to eliminate the influence of majors. Thus, Table 6 indicates the relationship between HSGPA, SAT and first year GPA of Turkish students at college regardless of major. As can be seen from this table, the relationship between high school GPA, and first year GPA is positive and it is around 0.406, and the correlation between OSS score and first year GPA is positive and it is around 0.157.

In comparison, we found that: 1- While the correlation between SAT (standardized test) and the academic achievement of American college students is negative, the relationship between standardized test score and academic achievement of Turkish students at college is positive. However, this does not negate the fact that high school GPA is a better predictor of academic achievement of both American and Turkish college students; and 2. The relationship between high school GPA and first year GPA of American students at

Table 4: The Relationship Between OSS, High School GPA and First Year GPA of Turkish Students at College Regarding the Majors.

Majors	Independent Variable	Dependent Variables	
		First Year GPA	Number of Students
Social Science	OSS	0.08	205
	HS GPA	0.27	
Turkish Language and Literature	OSS	-0.22	182
	HS GPA	0.44	
Agricultural	OSS	0.14	481
	HS GPA	0.37	
Civil Engineering	OSS	0.56	137
	HS GPA	0.5	
Business	OSS	0.44	133
	HS GPA	0.61	

Source: "An Examination of the Relationship Between Students' Scores of Student Selection Examination (OSS) with High School Grade Point Average and Their Grade Point Average in University" by Karakaya and Tavsancil (2008)

Table 5 : The Relationship Between OSS and First Year GPA

Conversion of Correlation (OSS First Year GPA)			
Majors	Number of Students	Correlation	
Social Science	205	0.08	16.4
Turkish Language and Literature	182	-0.22	-40.04
Agricultural Engineering	481	0.14	67.34
Civil Engineering	137	0.56	76.72
Business	133	0.44	58.52
sum	1138		178.94
			0.157240773

Table 6: The Relationship Between HSGPA and First Year GPA

C o n v e r s i o n o f C o r r e l a t i o n (H S G P A F i r s t y e a r G P A)			
Majors	Number of Students	Correlation	
Social Science	205	0.27	55.35
Turkish Language and Literature	182	0.44	80.08
Agricultural Engineering	481	0.37	177.97
Civil Engineering	137	0.5	68.5
Business	133	0.61	81.13
sum	1138		463.03
			0.406880492

college is higher than the relationship between high school GPA and first year

GPA of Turkish students at college.

Table 7: The Relationship Between High school GPA, SAT and First Year GPA of Turkish Students at College Regardless of Major

	First Year GPA
HS GPA	0.406880492
OSS Score	0.157240773

DISCUSSION

In this study, I explored the relationship between high school grade point average, standardized test scores such as OSS, SAT, ACT and academic achievement of Turkish and American students at college. The results indicate that high school GPA is a more accurate predictor of academic achievement of both Turkish and American students at college. This study makes the distinctive contribution to the literature because it utilized qualitative research approach as well as quantitative approach to examine the relationship between aforementioned variables. As a result, we could

learn what students think about standardized tests, high school grades, what challenges they encounter on their way to college, their high school background, and their college experience in detail. The statistical tables that I employed from previous research added significant contribution to my study; in particular, their sample size was large and it helped me make a more accurate comparison between these two education systems of Turkey and America. All in all, my qualitative findings are consistent with my quantitative findings. In addition, the findings of this study are supported by the previous research. For instance, some previous studies also found

that (Munro, 1981; Zheng et al., 2002; Hoffman, 2002, Tavsançil and Karakaya, 2008) high school grades more strongly predicts achievement than standardized tests.

Despite these strengths, some limitations stand out. I employed quantitative approach in my study, and for the qualitative section, I interviewed with a total of nine students. Therefore, due to the limitation qualitative research, findings from data collected in interviews cannot be generalized. As I was the only interviewer of this study, researcher bias might be seen. Furthermore, the researcher had to ignore the race/ethnic differences in the U.S. because he had to compare all Americans with all Turks. In addition, since I focused on the influence of high school GPA and standardized scores on academic achievement of Turkish and American students, I had to ignore the effects of other variables such as socio-economic status, educational level of parents, and self-concept. Moreover, the findings of qualitative approach are valid for male students because, I only conducted with male students, while quantitative data is valid for both genders. Lastly, I did not have an opportunity to reach the original data, and there might be minor mistake in the calculation of the correlation between OSS score, high school GPA and college GPAs of Turkish students.

RECOMMENDATIONS

School counselors should tell the importance of high school GPA to students because high school grades are not only the best predictor of academic achievement at college, but they are also key factors during admission process. Some Turkish students are not aware of the importance of high school GPA. They become familiar with it when they come to their final year in high school. Thus, counselors should offer extra advice on this issue at the early years of students' high school life even beginning

from their middle school because middle school grades are also important for attending a high quality high school. In addition, counselors should encourage students to receive high grades since high school and/or college GPA also might determine if students can receive scholarship from private or governmental institutions.

Standardized tests have always been the locus of criticism. In Turkish education system, students only can take OSS once a year and if they fail, they will have to wait for the upcoming year. Furthermore, most students feel that unless they attend the private education centers, they will fail the test. Regarding the socioeconomic status of students, it is obvious that many students are deprived of attending a college because they cannot pay the fee of these education centers. As a result, those who do not attend these centers are most likely to fail. Similarly, standardized tests are supposed to be race and gender biased in America and as can be concluded from the interviews and the tables, it is obvious that these tests are not as accurate predictors of academic achievement as high school GPA. Thus, in both education systems, new adjustments should be made in standardized tests.

Further studies should regard the influence of both gender and race since it is obvious that differences are observed among students of different genders, colors, and ethnicities.

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