



## The Impact of Satisfaction with Major on Academic Achievement: A Case Study of Al-Quds University Students Factors leading to the crime

أثر الرضا عن التخصص على التحصيل الدراسي لدى طلبة جامعة القدس

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### Abstract:

The current study aimed at identifying the impact of satisfaction with major on academic achievement among Al-Quds University students. Satisfaction with major index of a 44-item was administrated to three hundred forty-three senior students using the stratified random sampling method.

Findings demonstrate that Al-Quds University senior students experienced a moderate level of major satisfaction. Findings revealed that satisfaction with major emerged as a significant predictor of academic achievement; students' with higher satisfaction with major were performing better academically.

**Keywords:** Satisfaction with major, academic achievement, higher education, Al-Quds University

### الملخص:

تناولت الدراسة أثر الرضا عن التخصص على التحصيل الدراسي لدى طلبة جامعة القدس، وتحقيقاً لهذا الهدف استخدمت الاستبانة أداة لجمع البيانات في (44) فقرة، من خلال عينة طبقية تكونت من (343) طالباً وطالبة.

بينت النتائج أن طلبة جامعة القدس راضون بدرجة متوسطة عن تخصصاتهم الدراسية، وأشارت إلى أن الرضا عن التخصص مؤشر جيد للتحصيل الدراسي لطلبة جامعة القدس، فالطلبة الأكثر رضا عن تخصصاتهم كان تحصيلهم الدراسي أعلى.

**الكلمات المفتاحية:** الرضا عن التخصص، التحصيل الدراسي، التعليم العالي، جامعة القدس.

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## **1. Introduction**

For decades, student satisfaction with major is well researched topic across the literature of organizational behavior, human resource management, social sciences, and higher education (Hoppock, 1935; Weiss, 2002, p173, Chee et al., 2005, p604).

Firjani (1998: 3) points out that the benefits, of the essential role played by higher education in the development of backward societies, are much higher than the anticipated economic calculations; taken into consideration that higher education plays a substantial role in the formation of a higher level of human capital in the society; and higher education institutions lay the groundwork for the cognitive revolution of knowledge and sophisticated abilities namely, higher levels of human capital which are the main backbone for progress in this century.

Worldwide higher education is a key driver that continues to grow in scale and importance, fueled by the interplay of economic growth, employer and consumer demand, and globalization (Garrett, 2014). According to the UNESCO (2014), today higher education enrollment globally likely exceeds 200 millions.

Historically, since the first evaluation conducted at Harvard University in the early 1920s (Remmers et al., 1926, p52) and those conducted at other American universities (Marsh, 1987), the opinions of students attending university courses have represented the core of the evaluation of the quality of teaching. In the second half of last century, the United Kingdom implemented systems to monitor the quality of university education by having students fill out anonymous questionnaires aimed at identifying various aspects of teaching activities (McKeackie, 1996; Solinas et al., 2012, p37).

Recently, university administrations worldwide are keen to know that their students are satisfied with their academic life in the university, including colleges, faculty, facilities, and academic major.

Maintaining and improving students' satisfaction has been considered an important goal of education and universities, with the assumption that student satisfaction has individual, institutional and social implications (Orpen, 1990, p34; McIlveen et al., 2013).

## 2. Background and Literature Review

Student satisfaction is a global construct in social sciences, refers to the attraction, pride, or positive feeling that the students develop toward the program or institution (Danielson, 1998; Hatcher, et al., 1992, 1273).

According to the online Oxford Dictionary (2015), satisfaction is the fulfillment of one's wishes, expectations, or needs, or the pleasure derived from this. Meanwhile, scholars have defined satisfaction in a number of ways. Hunt (1977) defined satisfaction as a consumer's post purchase evaluation of the overall service experience (process and outcome). While Zeithaml et al. (1990) defined satisfaction as an overall judgment, perception or attitude on the superiority of service. The judgment is based on the discrepancy between expectations and actual experiences of customer.

Educationally, Kaldenberg et al. (1998) discussed the term of student satisfaction briefly and found that in the college, student satisfaction was driven by evaluating the quality of coursework and other curriculum activities and other factors related to the university. By the same token, Grossman (1999) argued that student could be treated like a customer or a client within the college and in that case, the college serves the students on a better priority to fulfill their expectations and needs. While, Elliot & Healy (2001) proposed student satisfaction is a short-term attitude, derived from the evaluation of the received education service.

The concept of student satisfaction is derived from the concept of customer satisfaction as students are considered to be the customers of the educational institutions (Faruky et al., 2012, p138). Based on consumer satisfaction theory, satisfaction as a function of the extent to which students' expectations about university are met with positive confirmations of expectations leading to higher levels of satisfaction; and university students' satisfaction is important to institutional success in that effective institutions have satisfied 'customers' because this satisfaction supports the enrolment of additional students or 'customers' (Churchill & Suprenant, 1982, p491).

Another theoretical approach the investment model explains the relationship between student satisfaction, attrition and academic performance. According to this theory, satisfaction increases when the rewards of study (performance) increase (Hatcher et al., 1992, p1373-1296).

The current study addressed satisfaction with major which refers to an individual's evaluation of their current major, as compared to a set of

criteria for a career or job (Kim, 2015, p405). Satisfaction with major has been defined as an indicator of the institution's responsiveness to students' needs and a measure of institutional effectiveness, success, and vitality by several researchers (Hallenbeck, 1978, p19; Low, 2000; Faruky et al., 2012, p138).

The Input- Environment-Output (I-E-O) introduced by Astin (1962) was used as a conceptual framework for studying student development and satisfaction. According to this model, college outcomes are functions of three sets of elements: inputs, environment, and outcomes. Astin (1993) states that inputs refer to characteristics of the student at the time of initial entry to the institution; environment refers to the various programs, policies, faculty, peers, and educational experiences to which the student is exposed; and outcomes refers to the students' characteristics after exposure to the environment.

A variety of factors contribute to student satisfaction that are, staff, curriculum, the students themselves and the university environment. In this context Greiner (2000) indicated that the quality of service and quality of teaching are related to the students' satisfaction that function as the customers of the institution. Elliott & Healy (2001) identified eleven dimensions of a student's educational experience; they ultimately determined that the quality of classroom interactions, the rigor of the curriculum, positive feelings about their classroom and social interactions, connections to faculty, and a sense of fitting in with the campus culture contributed to a feeling of belonging.

Furthermore, Suarman & Ruhizan (2013) stated that there are five items of overall students' satisfaction comprising the quality of the facilities, quality of the learning process, quality of the service, quality of the curriculum, and quality of the instructional implementation. However, students are of the main customers of an institution of higher education who need to be prioritized, considering their individual needs which have to be fulfilled.

Student satisfaction with major is a response of educational outcomes and organizational success that affect students' persistence (Aitken, 1982, p32; Tinto, 1993), and related to their academic performance (Bean and Bradley, 1986, p393; Pike, 1991, p15). Additionally, satisfaction with major represents an important construct in its own right, as it is associated with academic performance and of career plans (Nauta, 2007, p446). In this context, Astin (1965) argued that major satisfaction also has potential as a

proxy for later job satisfaction, since many degree programs share characteristics with their respective occupational environments.

Globally, satisfaction with major has infrequently been assessed, since it is typically measured with a single item (Nauta, 2007, p446). Valentine (2003) developed a satisfaction index combining six satisfaction related questions in order to investigate the effects of the index on student retention and academic performance.

Recently, Nauta (2007) constructed the Academic Major Satisfaction Scale (AMSS) as a six-item measure specific to academic major per se; recently, AMSS was developed to a 20-items based on other satisfaction measures, including measures of life satisfaction and job satisfaction.

A number of research studies have been conducted to examine satisfaction with major. In a recent study, Jamshidi et al. (2017) indicated that creating motivation among students and increasing their levels of satisfaction could provide the grounds for academic achievement among them as much as possible. Dhaqane & Afrah (2016) found that satisfaction promotes both academic achievement and student retention. However, Kim (2015) concluded that students who select their department based on their aptitude or interests have a higher satisfaction in major; and students with high academic achievement have higher major satisfaction. The study of Martirosyan et al. (2014) revealed significant differences for student satisfaction and academic performance; students who had higher satisfaction were performing better academically.

Moreover, the findings of Hakim (2013) indicated that (83.3%) of the students had little satisfaction concerning their field of study. While the study of Suarman & Ruhizan (2013) showed that students' satisfaction was at the moderate level; and there was a difference in students' satisfaction based on gender, study period, and the field of study. Meanwhile, the study of McIlveen, et al. (2013) found a significant role of optimism in academic major satisfaction.

Additionally, the study of Tessema et al. (2012) found that gender has a significant effect on student's satisfaction, ACT scores, and GPA. The findings of Faruky et al. (2012) study revealed that only 47% of the participants were satisfied with their universities; and the most influential factor affecting the students' satisfaction under the study is the faculty credentials. While, Solinas et al. (2012) concluded that 75.8% of the

students reported that they were satisfied with the choice of faculty; and the students' satisfaction is significant different by gender.

To conclude, choosing a satisfying major is one of the key developmental challenges (Super, 1953, p185). Student satisfaction or dissatisfaction is important for the educational institutions as it leads to intentions to stay or quit which in turn leads to student retention or attrition (Kara & DeShields, 2004).

The findings of the National Student Survey 2014 showed that students are most (86%) satisfied with teaching, least happy with assessment and feedback. What would be the situation of academic major satisfaction of Al-Quds University students under the on-going Israeli occupation and the high rates of unemployment?

### **3. Purpose and Scope**

The purpose of the current study is to investigate the impact of satisfaction with major on academic achievement among Al-Quds University students, with the aim of identifying the sub-factors of satisfaction with major; its indicators; and determine to what extent students' satisfaction with major affect their academic achievement. According to Tranberg et al. (1993) when satisfaction with major has been assessed in relation to interest congruence, the findings have been inconclusive.

The present study considered the first of its kind, to the author knowledge, and one of the leading studies that shed the light on this particular issue in higher education in the Palestinian occupied society where unemployment is considered a risk factor, taken into consideration that students' opinion is considered as a necessary factor to evaluate quality of education and the universities as well.

### **4. Definition of Terms**

**4.1 Student satisfaction:** is a short-term attitude, derived from the evaluation of the received education service (Elliot & Healy, 2001, p1).

**4.2 Satisfaction with major:** is satisfaction with the subject of academic study chosen as a field of specialization (Merriam-Webster Dictionary, 2015).

**4.3 Academic achievement:** is success; outcome of education; traditionally, the grade point average (GPA) (Astin, 1993, p224). Participants were asked to self-report GPA during 2017/2018 second semester.

## 5. Hypotheses

The study proposed the following hypotheses:

5.1 There are no statistical significant differences at  $\alpha \leq 0.05$  in satisfaction with major of Al-Quds University students according to gender, college, place of residency, way of major selection, and major changing.

5.2 There are no statistical significant correlation at  $\alpha \leq 0.05$  between satisfaction with major and academic achievement of Al-Quds University students.

## 6. Methodology

### 6.1 Approach

The study is a descriptive research study used a mixed approach of quantitative and qualitative designs, and a questionnaire, which is appropriate to the exploratory nature of the research, and will provide more meaningful in-depth data.

### 6.2 Population and Sampling

The target population consists of Al-Quds university senior students in the main campus-Abu Dies during 2017/2018, which includes three thousand one hundred ninety-five students (1403 males to 1792 females), as indicated in table no. 1 (Al-Quds University, 2017).

The overall sample composed of three hundred and forty-three students (151 males and 192 females) full-time senior undergraduate students who passed 90 credits hours and above at Al-Quds University using the stratified random sampling method based on gender. The sample size was calculated using the sampling web. of <http://www.surveysystem.com/sscalc.htm>, sample size calculator, with a margin error of 0.05, as indicated in table no. 1.

### 6.3 Instrumentation

University students' satisfaction with major was evaluated using an index of a 44-item scale, developed by the researcher, based on Academic Major Satisfaction Scale (AMSS) introduced by (Nauta, 2007, p446), and took into consideration the cultural appropriateness in the Palestinian society. A 5-point Likert scale (strongly agree to strongly disagree) was used to measure responses. Participants were asked to complete the questionnaire in Al-Quds University main campus-Abu Dies. The sampling



survey instrument sought background information about participants' that are academic achievement, gender, college, place of residency, way of major selection, and major changing.

### **6.3.1 Instrument Validity**

Validation of the instrument proceeded in three distinct phases. The initial phase involved a group of referees and expert arbitrators, who provided some comments on the tool. The second phase involved a small focus group session (N=20); while the third phase involved the implementation of a pilot study (N=40) to validate the survey using exploratory factor analysis. Factor loading for all items exceeded 0.55 (0.58 to 0.76), which means that those items are suitable in measuring every item of satisfaction with major among Al-Quds University students, as indicated in table no. 8.

### **6.3.2 Instrument Reliability**

The reliability was tested using Cronbach's Alpha and Guttman Split-Half Coefficients to ascertain reliability and consistency of the survey. Cronbach's Alpha and Guttman Split-Half for the survey instrument was 0.90 and 0.85, respectively, indicating excellent reliability and consistency, as indicated in table no. 9.

## **6.4 Sample Socio-demographic Characteristics**

The demographic breakdown of the participants were as follows, academic achievement, gender, place of residency, college, way of major selection, and major changing. In total, three hundred forty-three students and four focus groups were conducted. Respondents' GPA was between 60 and 93 points of score (M 74.92, SD 8.80). Females represented 56% of the participants, while the remaining 44% were males; they were drawn from fourteen faculties, arts represented 55.4% of the sample and the rest 44.6% from sciences. Half (50.4%) of the participants were rural, 38.5% urban, while the remaining 11.1% from refugee camps. Only (23.3% of the students have changed their major field of study; and the vast majority (74.9%) had selected their major based on their aptitude or interests, as indicated in tables' no. 2-7.

## **6.5 Data Analysis**

The questionnaire items were rated on a 1–5 Likert scale (1=strongly disagree to 5=strongly agree), the highest score indicates a high level of satisfaction with major. Descriptive statistics gauged level of satisfaction



with among the sampled population. Additionally, the following statistical techniques were measured Regression, T.test, One way analysis of variance, Tukey test, Cronbach's Alpha, Guttman Split-Half Coefficient and Factor Analysis using SPSS.

## **7. Findings**

The mean score of satisfaction with major scale as reported by the sample of three hundred forty-three participants was moderate (M 3.47, SD 0.48). The study observed that almost (69.4%) of Al-Quds University students experienced a moderate level of major satisfaction with their field of study, as indicated in table no. 10.

Furthermore, findings revealed the indicators of satisfaction with major of Al-Quds University students ranked in a descending order as follows, my major study added new knowledge for me (M 4.25, SD 0.85); it's agrees with my ambition and interest (M 4.21, SD 0.83); and will permit me the chance to help others (M 4.06, SD 0.99). The participants indicated that they feel proud of their major of study (M 4.00, SD 0.88); it contributes in changing their perspectives toward the future job (M 3.96, SD 1.21); and will provide them with the chance to continue their higher studies (M 3.87, SD 1.08). Additionally, the participants argued that they discovered themselves in their field of study (M 3.85, SD 1.04); which will give them a social status (M 3.82, SD 1.12); provide them with the opportunity to practice leadership and supervising in the future career (M 3.81, SD 0.91); and help them to be innovative as well (M 3.80, SD 1.07), as indicated in table no. 11.

Furthermore, the study explored demography breakdown over satisfaction with major of Al-Quds University students with the aim of identifying any differences. Findings showed that place of residency does not indicate any significant difference, as indicated in tables' no. 14-15. However, it was found that gender, college, the way of major selection, and major changing are significant variables, as indicated in tables' no. 12-13, 16-20. In relation to gender, the differences were in favor of females (M 3.56, SD 0.47) compared to (M 3.36, SD 0.46) for males: T.test value was (-3.959,  $P=0.000$ ), as indicated in table no. 12. As for college, the differences favored science major students (M 3.60, SD 0.47) compared to (M 3.37, SD 0.45) for arts participants: T.test value was (-4.506,  $P=0.000$ ), as indicated in table no. 13.

Furthermore, differences were found in the way of major selection in favor of students who selected their major based on their aptitude or interests (M 3.53, SD 0.45) compared to (M 3.22, SD 0.39) for students who selected their major based on their family influences: F-value was (3.898,  $P=0.004$ ), as indicated in tables' no. 16-18. In terms of major changing, the differences were in favor of students who did not change their field of study (M 3.53, SD 0.45) compared to (M 3.30, SD 0.51) for those who had changed their major: T.test value was (-3.825,  $P=0.000$ ), as indicated in table no. 19.

Finally, findings indicated that there are statistical significant positive correlation between the average score of satisfaction with major of Al-Quds University students and their academic achievement, Beta-value was (0.297,  $P=0.000$ ), as indicated in table no. 20.

## **8. Discussion**

Findings of the study showed that Al-Quds University students indicated a moderate level of satisfaction with their field of study. In fact, a variety of factors contribute to student major satisfaction that are, staff, curriculum, the students themselves and the university environment.

In a recent report introduced by The Palestinian Central Bureau of Statistics (2015) in terms of the difficult socio-economic conditions in the Palestinian society, reflects the highest percentage of poverty a result of the high unemployment rate under the on-going Israeli occupation that exceeded 52.5% of the new graduates, and have made the employment chances of university student a social problem in the Palestinian occupied society.

Since its establishment in 1984 Al-Quds University is and still considered one of the leading educational institutions in the Palestinian society that offers a vibrant learning environment by encouraging an exchange of ideas and freedom of expression, as well as leading innovative research, however, Al-Quds University experience under Israeli occupation was and still is the most tragic one in terms of the victims and violence it has left behind, as a result of acts of daily attack, closure, arresting of the students, building of the apartheid wall that devoured hundreds of dunums of Al-Quds University main campus in Abu Dies, along with the unpredictable time students spend negotiating Israeli checkpoints around the campus, are the real drama of Palestinian life in general and that of Al-Quds University students in particular that little reported (Banat & Rimawi,

2017). It follows that these conditions have contributed to affect negatively the satisfaction with major of Al-Quds University students.

Findings revealed that female students had a higher satisfaction with their field of study than male students. Although patriarchal ideology is deeply rooted in the Palestinian society, where the notions of father and brother are prevalent, however, the unavailability of male students on campus; the fewer number of curriculum activities females have than males; the more positively lenient in nature than male; the low participation for women in the labor force due to the patriarchal ideology; along with their adhering to the rules, directions of the university instructions; and the fact that females take more responsibility for their academic success throughout an academic semester increased their satisfaction with major (Astin, 1993; Adena et al., 2013; Banat & Rimawi, 2017). In fact, education is highly valued among Palestinian women; and it plays an important role in communication skills, social integration and life aspirations. It also fulfills social interaction that contributes to the development of women's personality, reinforces their abilities in learning and thinking, making decisions and holding responsibility (Banat, 2019). In this regards, one of female students of Al-Quds University said: "I consider education as important mechanism to develop my potentials, strengthening my initiatives and capacities, so I feel that my field of study will save me relaxation in my life". While another said: "My major study will give me the opportunity to find a job which will increased the rate of women participation in the labor force in the Palestinian patriarchal society, and will give me a better social status".

Furthermore, science major students tended to have the highest average overall satisfaction with their field of study. This result confirms the personality differences and self-efficacy which plays a critical role in university student major choice (Astin, 1993). Undoubtedly, science students had better averages in the secondary school as a minority; take more responsibility for their academic success and future career, along with their department selection based on their aptitude or interests, and the market needs which affect positively their major satisfaction. In this context, one of the science students said: "I study actively my special field, since my major added new knowledge and experiences for me", in the same time, one of the arts students said: "I find difficulty to cope with my major, I feel worried thinking of it, and I doubt the value of graduation certificate in this field of study".

Furthermore, results indicated that students who selected their major based on their aptitude or interests and did not change their field of study had a higher satisfaction with major. In this regards, Kim (2015) indicated that a good match between major and career choice and a university with a good reputation, and social awareness have a positive impact on satisfaction with major. In this context, one of the students who select their major based on their aptitude or interests said: “I discover myself in studying my major, since its curriculum is completely suite my ability and interest”, in the contrary one of the students who has changed his field of study said: “Forcing me to study this major is unwise, and I prefer working in a different area completely of my major study”, while another said: “Til now, I don't know the goal of my major of study”.

The study results also revealed that place of residency does not indicate any significant differences over satisfaction with major of Al-Quds University students. This indicated that satisfaction with the field of study are not very much influenced by this variable and is more likely to be affected by other factors other than place of residency.

Finally, findings showed that satisfaction with major is related to academic achievement, and students who had higher satisfaction with major were performing better academically. This reflects the importance of the affective domain in addition to the cognitive domain in academic achievement. According to Kwak (2006) included positive self-concept, interest in subjects, maintaining good friendships with schoolmates, and motivation for learning as factors that affect an individual's performance, and subsequently impact what he/she generally does and feels. In this context, one of the highly academic achievement students said: “I feel proud of my major study, studying this major makes me use all my mental abilities, so I prefer to read constantly books from outside my major of study”.

Furthermore, Al-Quds University performs its role as a social institution on top of the educational system in the fields of knowledge and thought. It is also involved in the preparation of elite students by offering them different fields of knowledge, and specialized careers. It also develops the student's personality, assists them to adapt to study and to overcome all problems they face in choosing a major, time management, effective study and social adjustment (Banat & Rimawi, 2014, p12; 2017, p60). All this would increase students' satisfaction with major and increase their academic achievement. In this regards, one of the participants said: “Major

administrators seem friendly and goodness toward me and the professors treat me according to my ability”, by the same token another student said: “I feel satisfied over the subjects I study in my major”.

## **9. Conclusion and Recommendations**

University students' satisfaction with major is an important component of quality assurance in the educational system; it's a response of educational outcomes that has individual, institutional and social implications. According to Tessema et al. (2012) the most important product of educational institutions is qualified graduates.

The present study shed the light on satisfaction with major of Al-Quds University students taken into consideration that major selection of great need in the Palestinian society which brings a lot of positive impact towards the individuals and the society itself. The findings of this study can help the Palestinian Universities in general and Al-Quds University in particular to serve students more effectively, and develop their quality of service which will affect positively their satisfaction with major and academic achievement.

Additionally, the results of this study can be used to assist in re-planning the educational system and human resources in the undergraduate programs in light of the high unemployment rate in the Palestinian society as a result of the difficult socio-economic conditions under the on-going Israeli occupation. Based on the findings and conclusion of this study, the following recommendations are made:

1. The importance of providing the high school students with adequate information to raise their awareness of the study options available in Al-Quds University will be helpful in their career decision.
2. A bridging course of university learning environment and networks for the freshman students is recommended.
3. Further studies should be conducted including other variables that may affect student's major satisfaction especially the personality components, taken into consideration that satisfaction with major affect the beliefs and attitudes for employment after graduation.

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## Appendixes

**Table no. (1). Distribution of the study population and sample by gender**

Gender	Population	Sample
Males	1403	151
Females	1792	192
Total	3195	343

**Table no. (2). Sample distribution by gender**

Gender	N	Percent %
Male	151	44.0
Female	192	56.0
Total	343	100

**Table no. (3). Sample distribution by college**

College	N	Percent %
Arts	190	55.4
Science	153	44.6
Total	343	100

**Table no. (4). Sample distribution by place of residency**

Place of residency	N	Percent %
City	132	38.5
Village	173	50.4
Camp	38	11.1
Total	343	100

**Table no. (5). Sample distribution by the way of major selection**

Way of major selection	N	Percent %
Personal aptitude	257	74.9

Family aptitude	20	5.8
Friends encouragement	18	5.2
Work force	24	7.0
Other	24	7.0
<b>Total</b>	<b>343</b>	<b>100</b>

**Table no. (6). Sample distribution by major changing**

<b>Major changing</b>	<b>N</b>	<b>Percent %</b>
Yes	80	23.3
No	263	76.7
<b>Total</b>	<b>343</b>	<b>100</b>

**Table no. (7). Sample distribution by GPA**

<b>Variable</b>	<b>N</b>	<b>Min.</b>	<b>Max.</b>	<b>Mean</b>	<b>Std. Deviation</b>
GPA	343	60	93	74.92	8.80

**Table no. (8). Factor analysis of satisfaction with major scale**

<b>No.</b>	<b>Items</b>	<b>Extraction</b>
1.	My major agrees with my ambition and interest	0.69
2.	I study actively my special field	0.58
3.	I discover myself in studying my major choice	0.66
4.	My major study added new knowledge for me	0.71
5.	My major study added new experiences for me	0.70
6.	I find difficulty to cope with my major	0.64
7.	I doubt the value of graduation certificate for my major	0.66
8.	I like my major study more than my colleagues	0.59
9.	I feel worried thinking of my major	0.63
10.	Till now, I don't know the goal of my major study	0.68

11.	Major administrators seem friendly and goodness toward me	0.63
12.	I feel desperate after enrolling in my major	0.66
13.	My department is not effective in the students' needs in their major study	0.74
14.	Instructors in my major use effective evaluation method of my outcomes	0.62
15.	My major instructors treat me according to my ability	0.63
16.	I feel proud of my major study	0.66
17.	My major contributes in changing my perspectives toward the future job	0.65
18.	I feel studying my major is waste of time	0.66
19.	What worried me in my major is the instructors who taught it	0.69
20.	The major instructors are theoretical more than normal	0.58
21.	I feel the long distance between me and my instructors	0.61
22.	My major is much better than other majors	0.65
23.	Major study methods do not encourage innovation and invention	0.60
24.	I feel satisfied over the subjects I study in my major	0.74
25.	Studying a major makes me use all my mental abilities	0.65
26.	Some courses in my Major seem disorganized	0.69
27.	Subjects in the major study are not connected well with each other	0.71
28.	There is a gap between the major study and practical life	0.64

29.	The major curriculum is completely suite my ability and interest	0.58
30.	There is a repetition of topics in the Major curriculum	0.67
31.	Methods of instruction and material assistance are lacking in teaching the major	0.64
32.	I read constantly books from outside my major	0.61
33.	I prefer working in a different area completely of my major study	0.62
34.	I feel my major study save me relaxation in my life	0.66
35.	I regret to enroll in this study as a major	0.60
36.	My major study helps me to be innovative	0.68
37.	My major study permits me the chance to help others	0.70
38.	My major study will give me the opportunity to find a job	0.76
39.	My major study will give me the opportunity to have a high income	0.63
40.	My major study will give me the opportunity to practice leadership and supervising in the future career	0.68
41.	My major study will give me a social status	0.64
42.	Forcing me to study this major is unwise	0.61
43.	If time came back I will not enroll in this major	0.71
44.	I wish my major permits me to have the chance to continue higher studies in the same major	0.64

**Table no. (9). Reliability of satisfaction with major scale**

Model	No. of items	Alpha
Cronbach's Alpha	44	0.90



Guttman Split-Half	44	0.85
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**Table no. (10). Number, mean, standard deviation, and percentage of satisfaction with major total score of Al-Quds University students**

Variable	N	Mean*	Std. Deviation	Percent %
Satisfaction with major total score	343	3.47	0.48	69.4

\*Mean out of 5 points.

**Table no. (11). Mean scores, standard deviation, and percentage for the indicators of satisfaction with major of Al-Quds University students ranked in a descending order**

Satisfaction with major indicators	Mean*	Std. Deviation	Percent %
My major study added new knowledge for me	4.25	0.85	85.0
My major agrees with my ambition and interest	4.21	0.83	84.2
My major study permits me the chance to help others	4.06	0.99	81.2
I feel proud of my major study	4.00	0.88	80.0
My major contributes in changing my perspectives toward the future job	3.96	1.21	79.2
I wish my major permits me to have the chance to continue higher studies in the same major	3.87	1.08	77.4
I discover myself in studying my major choice	3.85	1.04	77.0
My major study will give me a social status	3.82	1.12	76.4

My major study will give me the opportunity to practice leadership and supervising in the future career	3.81	0.91	76.2
My major study helps me to be innovative	3.80	1.07	76.0
My major study added new experiences for me	3.79	1.15	75.8
I feel studying my major is waste of time	3.77	0.93	75.4
My major study will give me the opportunity to find a job	3.75	0.94	75.0
Till now, I don't know the goal of my major study	3.74	0.93	74.8
I regret to enroll in this study as a major	3.70	0.97	74.0
I study actively my special field	3.66	1.02	73.2
My major is much better than other majors	3.65	1.09	73.0
I feel desperate after enrolling in my major	3.62	1.12	72.4
I feel my major study save me relaxation in my life	3.61	0.95	72.2
Forcing me to study this major is unwise	3.59	1.22	71.8
I find difficulty to cope with my major	3.57	1.05	71.4
Studying a major makes me use all my mental abilities	3.56	0.97	71.2
Instructors in my major use effective evaluation method of my outcomes	3.53	0.92	70.6
I feel satisfied over the subjects I	3.52	0.93	70.4

study in my major			
The major curriculum is completely suite my ability and interest	3.51	0.89	70.2
I prefer working in a different area completely of my major study	3.49	1.21	69.8
If time came back I will not enroll in this major	3.46	1.37	69.2
Major administrators seem friendly and goodness toward me	3.45	1.12	69.0
I doubt the value of graduation certificate for my major	3.44	1.16	68.8
My major instructors treat me according to my ability	3.41	1.05	68.2
My major study will give me the opportunity to have a high income	3.40	1.02	68.0
I feel the long distance between me and my instructors	3.25	1.07	65.0
Subjects in the major study are not connected well with each other	3.23	1.09	64.6
What worried me in my major is the instructors who taught it	3.04	1.24	60.8
My department is not effective in the students' needs in their major study	3.03	1.08	60.6
I read constantly books from outside my major	2.97	1.09	59.4
There is a gap between the major study and practical life	2.97	1.13	59.4
Some courses in my Major seem disorganized	2.96	2.54	59.2
Major study methods do not encourage innovation and invention	2.94	1.04	58.8
I like my major study more than my	2.94	1.10	58.8

colleagues			
I feel worried thinking of my major	2.94	1.05	58.8
The major instructors are theoretical more than normal	2.78	1.00	55.6
Methods of instruction and material assistance are lacking in teaching the major	2.63	0.98	52.6
There is a repetition of topics in the Major curriculum	2.52	0.95	50.4
Total	3.47	0.48	69.4

**\*Mean out of 5 points.**

**Table no. (12). T-test for the differences in satisfaction with major scores of Al-Quds University students according to gender**

Gender	N	Mean*	Std. Deviation	Df	T-value	Sig.
Male	151	3.36	0.46	341	-3.959	0.000
Female	192	3.56	0.47			
Total	343	3.47	0.48			

**\*Mean out of 5 points.**

**Table no. (13). T-test for the differences in satisfaction with major scores of Al-Quds University students according to college**

College	N	Mean*	Std. Deviation	Df	T-value	Sig.
Arts	190	3.37	0.45	341	-4.506	0.000
Science	153	3.60	0.47			
Total	343	3.47	0.48			

**\*Mean out of 5 points.**

**Table no. (14). One way analysis of variance for the differences in satisfaction with major scores of Al-Quds University students according to place of residency**

Source	Df	Sum of squares	Mean square	F-value	Sig.
Between groups	2	0.343	0.171	0.742	0.477
Within groups	340	78.534	0.231		
Total	342	78.877	-----		

**Table no. (15). Mean scores and standard deviation for the differences in satisfaction with major scores of Al-Quds University students according to place of residency**

Place of residency	N	Mean*	Std. Deviation
City	132	3.44	0.49
Village	173	3.50	0.47
Camp	38	3.45	0.43
Total	343	3.47	0.48

\*Mean out of 5 points.

**Table no. (16). One way analysis of variance for the differences in satisfaction with major scores of Al-Quds University students according to the way of major selection**

Source	Df	Sum of squares	Mean square	F-value	Sig.
Between groups	4	3.478	0.870	3.898	0.004
Within groups	338	75.398	0.223		
Total	342	78.877	-----		

**Table no. (17). Tukey test for the source of differences in satisfaction with major scores of Al-Quds University students according to the way of major selection**

Way of major selection	Personal aptitude	Family aptitude	Friends encouragement	Work force	Other
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Personal aptitude		0.30394*	0.28879	0.19031	0.09561
Family aptitude			-0.01515	-0.11364	-0.20833
Friends encouragement				-0.09848	-0.19318
Work force					-0.09470
Other					

**Table no. (18). Mean scores and standard deviation for the differences in satisfaction with major scores of Al-Quds University students according to the way of major selection**

Way of major selection	N	Mean*	Std. Deviation
Personal aptitude	257	3.53	0.48
Family aptitude	20	3.22	0.39
Friends encouragement	18	3.24	0.46
Work force	24	3.34	0.38
Other	24	3.43	0.50
Total	343	3.47	0.48

\*Mean out of 5 points.

**Table no. (19). T-test for the differences in satisfaction with major scores of Al-Quds University students according to major changing**

Major changing	N	Mean*	Std. Deviation	Df	T-value	Sig.
Yes	80	3.30	0.51	341	-3.825	0.000
No	263	3.53	0.45			
Total	343	3.47	0.48			

\*Mean out of 5 points.

**Table no. (20). Regression coefficients between satisfaction with major scores and academic achievement of Al-Quds University students**

Variables	N	Beta	Sig.
Satisfaction with major*academic achievement	343	0.297	0.000