

Article

# Academic Advising and Maintaining Major: Is There a Relation?

Maram S. Jaradat <sup>1,\*</sup> and Mohammad B. Mustafa <sup>2</sup> 

<sup>1</sup> College of Education, Humanities and Social Sciences, Al Ain University of Science and Technology, P.O. Box 64141, Al Ain, UAE

<sup>2</sup> College of Education, Jumeira University, P.O. Box 555532, Dubai, UAE; Mohammad.mustafa@ju.ac.ae

\* Correspondence: maram.jaradat@aau.ac.ae; Tel.: +971-566-390-483

Received: 14 August 2017; Accepted: 14 December 2017; Published: 17 December 2017

**Abstract:** The purpose of this study is to investigate the effect of academic advising on changing or maintaining majors in university degrees. It is also a goal of the study to determine which semester students change their majors and whether advising contributes to that change. Through this correlational study, the researchers explored students' perceptions about the academic advising they received and the relationship of its absence on students' major change. The participants were 1725 undergraduate students from all year levels. The survey used to collect the data for this study is: the *Influences on Choice of Major* survey. Based on the findings, it was found that university advisors have a very poor effect on students' decisions to select their majors as 45.6% of the 1725 participants indicated no influence of advising in their survey answers. Whereas career advancement opportunities, students' interests, and job opportunities indicate a strong effect on their majors' selections, as they score the highest means of 3.76, 3.73, and 3.64, respectively. In addition, findings show that students are most likely changing their majors in their second year, and specifically in the second semester. Second year major change scored 36.9% in the second semester and 30.9% in the first semester. More importantly, results indicate that there is a positive significant correlation between college advisors and major change in the second year ( $p = 0.000$ ). It is to researchers' understanding based on the findings that when students receive enough academic advising in the first year of study, and this advising continues steadily into the next year, the probability of students changing their majors decreases greatly.

**Keywords:** academic advising; undergraduate students; major choice; influence; major change

## 1. Introduction on the Importance of Advising

Many educators and researchers have noted the importance of the relationship between students and faculty advisors to the success of the students (NACADA 2016; Mohsen 2013; Al Khateeb 2012; Bartolj and Polanec 2012; KSAU-HS 2011; 2014; Dickson 2010; Johnson et al. 2010; Pargett 2011; Lafy 2010; Supiano 2011; Zafar 2011; Johnson et al. 2010). Looking at academic advising as an educational process, advising plays a vital function in linking college students with getting to know possibilities to foster and support their engagement, success, and retention (Pargett 2011). College major choice and later major change related to academic advising issues has been the theme of research interest for some time (Mustafa 2015; Al Khateeb 2012; Bartolj and Polanec 2012; Bayomi 2011; Beffy et al. 2012; Dickson 2010; Dietz 2010; Ismael 2012; Lafy 2010; Malgwi et al. 2005; Mohsen 2013; Scott-Clayton 2011; Simoes and Soares 2010; Simpson 1987; John 2000; Wilcoxson and Wynder 2010; Zafar 2011, 2013). Many authors agreed that the difficulty of determining and choosing a major is related to the ambiguity some students have about college majors, their abilities and interests (2014; Baker and Griffin 2010; Pringle et al. 2010; Moore and Shulock 2011; Wilcoxson and Wynder 2010; Zafar 2011, 2013). According to The National Academic Advising Association (NACADA), academic advising has

core values that influence individuals, institutions and the society. This association defines academic advising as a connection between academic advisors, counselors, directors, and students running together to elevate the academic improvement of students (NACADA 2016).

Several researchers have documented that students do not have specific criteria which help them determine the majors in universities due to many reasons. For example, they relate their selection to personal preference or individual abilities (Arcidiacono et al. 2012; Bartolj and Polanec 2012; García-Aracil et al. 2007), or according to potential job opportunities (Arcidiacono et al. 2012; Bartolj and Polanec 2012; Carnevale and Melton 2011), both of which contribute to their satisfaction, success and stability. Major choice may be one of the utmost critical decisions students could make (Bartolj and Polanec 2012; Beggs et al. 2008; Dickson 2010; Korscheg and Hageseth 1997; Lafy 2010; Mohsen 2013; Porter and Umbach 2006; Simoes and Soares 2010; John 2000). Education leaders have worried that new students in colleges and universities do not obtain adequate help when it is time to choose a college and a major (Al Khateeb 2012; KSAU-HS 2011; 2014; Dickson 2010; Johnson et al. 2010; Lafy 2010; Mohsen 2013; Supiano 2011; Zafar 2011), and the problem aggregates when students do not know how to choose their majors due to absence of information and orientation workshops (Al Any 2013; Al Khateeb 2012; KSAU-HS 2011; 2014; Bartolj and Polanec 2012; Dickson 2010; Hoxby and Turner 2013; Lafy 2010; Mohsen 2013; Moore and Shulock 2011; Zafar 2011). Some institutions suggest that students wait to declare a major in or after the second year of coursework, so they have a better sense of the breadth of options. This absence of information leads them to change majors several times throughout their college years.

Allen and Smith (2008) stated in their paper "Importance of, responsibility for, and satisfaction with academic Advising: A Faculty Perspective" that quality academic advising affects student retention. He refers to Pascarella and Terenzini (2005) who claimed that academic advising directly affect students' probability of graduating, their major change, have indirect effect on grades, and satisfaction with the student role. Johnson-Garcia (2010) conducted a study entitled "Faculty Perceptions of Academic Advising: Importance, Responsibility, and Competence" mentioned that one critical part of student satisfaction can be found in positive academic advising. He continues to state that when institutions meet students' expectations, including advising, there will be higher chances for them to retain and stay in their current majors.

McFarlane (2013) investigates the responses of 628 first-year students in their attitudes and experience with advising. Results show that student retention and major change is related to who advises them. Drake (2011) claimed that we still believe that opening doors for students are open and when they come to for advice the byzantine system and the confusing administrative system comes into play. He pointed out that the power of advising contributes to students' achievement and determination to graduate. It is about establishing relationships with students and locate places where they feel disconnected. It demonstrates a powerful effect to help students sustain their majors and build their success. Drake also stated that in the four decades of research regarding student persistence and major sustainability there are critical elements which help achieve them: the value of connecting with students in their early years through orientation and individualized learning help, first-year programming, and efficient advising, with advising as the dynamic criterion in student retention. His paper "The Role of Academic Advising in Student Retention and Persistence" in 2011 referred to conclusions from Joe Cuseo's "Academic advisement and Student Retention" to assert the notion that advising has a very powerful effect on retention through its positive connection with: student satisfaction, professional academic and career arrangement decisions, student engagement of institution services, student-faculty communication outside, and proper student guidance.

### 1.1. Factors Influence College Major Choice

The researchers' review of the literature suggests three categories of factors that lead to major selection decision: sources of information and influence (KSAU-HS 2011; Beggs et al. 2008; Dietz 2010;

García-Aracil et al. 2007; Pampaloni 2010; Scott-Clayton 2011; Simoes and Soares 2010; John 2000; Zafar 2013), job characteristics (Jaradat 2015), and fit and interest in the subject Jaradat (2015).

Sources of data consist of professionals who offer guidance and have an effect on students' important decision of maintaining majors (Beggs et al. 2008). Simoes and Soares (2010) believe that providing students with adequate academic information about college and university majors before applying to a higher education institution may greatly recruit majors in specific institutions. The literature suggested that choosing a major is also important for university administrators, recruiters, advisors and instructors to bring to their awareness of the effect that advising might have on major selection and change (Al Khateeb 2012; Bayomi 2011; Hoxby and Turner 2013).

Porter and Umbach (2006) analyzed major selection using a multinomial logit model to investigate the factors that affect major selection at freshmen and senior levels. They utilized Holland's theory of careers. They found that Holland personality scales and political views are very solid indicators of student major choice. They further argued that academic ability, academic self-concept and demographic attributes of students affect college major choice. Other researchers focused on the importance that social considerations and family conditions have on selecting majors. Moreover, they continue to say that race and gender segregate student majors. For example, representation of women and people of color in engineering and sciences remain below average. Others argued that changes in student major are a result of socialization of traditional gender roles. Women, for example, tend to select majors like education, nursing, and English because of their female leadership roles and those that have a female role orientation. Lackland (2001) suggested that gender might be a good reason to justify differences in major selection decisions. Additionally, Kanter (1993) implements the theory of proportions and extends the argument to state that color-discriminated people are not likely to choose specific majors if they are a minority because as a result attrition will occur as a result.

Hall and Sandler (1986) claimed that a "chilly climate" affects major selection, which results in micro-inequalities for women in their workplaces. These inequalities are found in areas like sciences, mathematics, and technology where they are underrepresented. Mohsen (2013) also stated that personality acts as a key role in major selection. For example, those who are rated very active are very likely to choose social sciences majors and education. Those who had artistic inclinations will choose fine arts, music, theater, journalism, and English. Several studies applied Holland's theory of careers to help us understand the issue of major selection. The theory emphasizes the importance between personality and environment effects in major selection. The theory suggests that students select educational environments well-matched with their character types and, at the same time, academic environments favor specific styles of abilities and skills.

Pringle et al. (2010) mentioned in their paper "Motivating Factors Influencing College Students' Choice of Academic Major" that a study of 385 freshmen in a five-year pharmacy program found that the most motivating factors in major choice are the objective to earn a high salary and the willingness to help others. Another study comparing 1569 health science majors, including 422 first year students and fourth year pharmacy students, concluded that the most encouraging indicators for selecting majors include, but are not limited to, job security, promotion and prestige, and improving financial needs.

Crampton et al. (2006) conducted a study to examine the reasons which affect major selection among business students. They stated that factors associated with the profession, which include preference to subject, income considerations, career opportunities, and prestige of the career, all had a deep effect on selecting a major of study. Crampton et al. (2006) mentioned in their paper that several studies investigated the factors that affect the selection of business-related major in the 1990s. Twenty-one separate studies were reviewed and identified factors like incomes, career openings, career advantages, and major features influence major choice. The studies also highlighted that some of the important factors include financial incentives, job availability, and a desire in the major. Other studies concluded that factors like high salaries, prestige, job security, and opening salary are very powerful for determining major selection, while the influence of a teacher or family members and the level of complexity with the subject matter have very low effects on major choice.

### 1.2. Reasons for Major Change

Empirical research categorized several factors that prove to affect students' later change in their initially selected majors (Jaradat 2015). They documented that students usually change majors in their second or fourth semesters. Zafar (2011) discovered over time students most likely change majors when they discover their new potential and quality of their matches. Dietz (2010), Mohsen (2013), John (2000), Malgwi et al. (2005), and Wilcoxson and Wynder (2010) stated that students change due to positive influences about their new selections which attracted them and allowed them to employ their potentials or because of significant disappointment with their previous majors.

Wilcoxson and Wynder (2010) stated that career choices have a very powerful effect on major change. The Office of Academic Assessment and Institutional Research at Ball State University (2002) contacted 75 students by telephone and asked them about the major change they made and the decisions behind it. The interviews indicated that most students changed their majors because of the attractions associated with the new major. The attractions include: career opportunities, more interesting courses, more job openings in the field, the faculty seemed interested in students, contact with faculty, it was easy to relate to other students, the advisors are more helpful and well-informed in the new major, and they had no difficulty getting into courses in the new major. In addition, the interviews also indicated that a key reason for changing majors is that they did not like the potential jobs in the field. One-fourth of students indicated that a key reason for major change is that courses were not interesting.

Similarly, Marade (2015) indicated that students and faculty shared similar views regarding changing academic majors due to a change in career goals, but dissimilar in the fact that major change is affected by recommendation by others. In his literature review, Marade stated that students might change their majors if they feel that taking courses are irrelevant to them and to their intellectual growth. Additionally, he added that students lack enough knowledge when changing majors and become more literate afterwards and, hence, make the right decision of changing their majors. One of the most interesting findings of his paper is that when students lack a sense of engagement (such as advising) with the faculty, and they lack the feeling of belonging in the program, it will be strongly affect their decisions whether to stay or change majors.

## 2. Theoretical Framework

Since advising is mainly building receptivity, relatedness, and responsiveness to the needs of students to help them understand their current situation and maintain their majors, Noddings's care theory (Noddings 2002, 2006) represents a model of caring relationships among people. Noddings (Nagy 2012; Noddings 2006) concentrates on inter relatedness between two parties (one-caring and one cared-for) aimed at preserving or producing caring relations. The core components of Noddings' theory are caring, sympathy, and recognition of the caring act.

Caring is basic in human life—that all people want to be cared for. *Sympathy* is to feel for the cared-for and be able to reflect upon it, and *recognition* on the part of the cared-for that an act of caring has occurred (Noddings 2002; Smith 2004). Thus, according to Noddings' care theory: (1) A cares for B; (2) A performs and shows B that s/he cares; and (3) B recognizes that A cares for B.

Noddings (2002, 2006) expresses her view on the importance of caring in schools. She stated: "A caring relation is, in its most basic form, a connection or encounter between two human beings" (p. 15). In this relationship, both the caring person and the recipient of care play important roles. The caring theory is important because, today, some of the educational institutions are no longer providing enough academic and personal caring for students. Noddings suggests that caring at schools should be accomplished through demonstrating a caring attitude in everything teachers do and giving attention to the needs of the students (Nagy 2012; Noddings 2006; Smith 2004).

Care theory is used to describe an approach to give students personal attention as they decide to choose a major, since academic advising is a central activity in the process of education (O'Banion 2012; Noddings 2006). Sharing knowledge about college majors and choosing

them may lead to fewer problems of choosing the wrong majors, changing majors, or leaving college forever (Al Khateeb 2012; Najmi 2014). According to Baker and Griffin (2010), an advisor is one who cares for assisting students in navigating academic rules. They are supposed to disseminate information about degree requirements (Legutko 2007) and assist them in planning their schedule in a timely manner (O'Banion 2012). Another salient role of the advisor is to ask students what majors they are interested in (Baker and Griffin 2010), encourage them to talk to parents, and assist them to select a major. O'Banion (2012) and Baker and Griffin (2010) believe good academic advising and sharing knowledge ensure that students can make good major choices to meet their life goals. Through caring and sharing information students might make different decisions which affect the rest of their adult life (Carnevale and Melton 2011; Ismael 2012; Hoxby and Turner 2013; Nagy 2012).

### 3. Purpose of the Study

The purpose of this study is to investigate the effect of academic advising on changing or maintaining majors in university degrees. It is also a goal of the study to determine which semester students change their majors and whether advising contributes to that change.

The following hypothesis was tested:

- When students receive academic advising in their first year of study the possibility of changing majors becomes very weak.

### 4. Methodology

This study deployed a quantitative design that investigates relationships between academic advising at colleges and universities, students' major choice and later major change. Data for this study was obtained in the first semester from undergraduate students from a university in the Middle East in 2014.

#### 4.1. Participants

The survey was administered in the Fall Semester of 2014/2015 year and the total population of students approached were 2050. Participants who responded were 1725 first-year students, second-year, third-year, and fourth-year students enrolled in university. The distribution of respondents was 469 first-year students, 464 second-year students, 408 third-years students, and 384 graduate students (see Table 1).

Table 1. Student demographics.

Year in School	N	Gender		Age		College				
		Male	Female	17–24	25+	Educ.	Busin.	Law	Pharm.	Eng.
Freshman	469	171	298	411	58	156	78	100	94	41
Sophomore	464	200	264	377	87	83	67	172	77	65
Junior	408	177	231	288	120	62	45	205	49	47
Senior	384	205	179	227	157	37	60	212	40	35
Totals	1725	753	972	1303	422	338	250	689	260	188

In the study, there were 1725 students divided by 972 females and 753 males. The sample constitutes 384 seniors, 408 juniors, 464 sophomores, and 469 freshmen. The mean of their ages is 22.7. The whole number is divided into colleges as follows: 188 from engineering college, 260 from pharmacy college, 689 from law college, 250 from business, and 338 were the from College of Education, Humanities, and Social Sciences.

#### 4.2. Instrument

The survey used to collect data is: Influences on Choice of Major survey by Malgwi, Howe and Byrnaby (Malgwi et al. 2005). The researchers designed a pilot study to test the reliability and accuracy



of the data. They used Perseus Survey Solutions software to collect the data and the document have been developed in three phases. They used over 500 responses to clarify the questions and instructions. Then they tested the instrument using the same software to collect the data. They used over 500 responses to refine the document, clarify the questions and instructions, and develop the final questionnaire.

For this study, the researchers requested from the author permission to use their survey in the study, to modify some of the items, and rephrase the document to suit the academic situation they are examining. The researcher received the approval with the suggested modifications. The survey includes nine items in which the first four represent the students' demographics. The remaining five items correspond to each of the factors that influence student major choice and student later major change. Items 5 (includes 12 statements) and 8 (includes nine statements) utilize a five-point Likert scale with statements ranging from 1 = no influence to 5 = major influence. Related to the findings and discussion of this article, the researchers used students' academic advising, choosing majors, and later major change from the questionnaire.

#### *4.3. Data Collection Procedure*

The data were collected from undergraduate students after obtaining the approval from the Dean of the College of Education, Humanities and Social Sciences.

##### *4.3.1. Instructors*

First, the researchers communicated with doctors and instructors in the five colleges through the land phone at the university. Researchers introduced the purpose of writing the paper and sought approval for participation. The researchers could not locate all instructors through calling them in their offices so they sent emails to the rest. They were informed about the duration of taking the survey (15–20 min).

##### *4.3.2. Students*

A constructed speech was delivered at the beginning of classes which was mainly intended to briefly summarize the whole study to participants. Surveys were distributed during classes and students were asked to return the surveys when finished to the instructors or to the researchers themselves. Students were told about the duration, which ranges from 15–20 min.

## **5. Results**

The results were analyzed to identify the relationship of student academic advising with students' choosing majors that fit them without changing them many times by using descriptive statistics and correlational analyses. Means and standard deviations are presented for all variables under correlation.

The means and the standard deviations for high school guidance, university advisor, school teacher and school advisor, in Table 2, show that students in this university received less academic advising regarding choosing majors.

**Table 2.** Means and standard deviations for the factors that influence the choice of majors by students (N = 1725).

	Interest	Aptitude	College Reputation	Parents	High School Guidance	University Advisor
	M (S.D)	M (S.D)	M (S.D)	M (S.D)	M (S.D)	M (S.D)
<b>Students</b>	3.73 (1.4)	3.47 (1.2)	3.40 (1.4)	3.02 (1.6)	2.38 (1.4)	2.30 (1.4)
	Related Subject	School Teacher	School Advisor	Job Opportunities	Career Advanced	Level of Payment
	M (S.D)	M (S.D)	M (S.D)	M (S.D)	M (S.D)	M (S.D)
<b>Students</b>	2.64 (1.46)	2.21 (1.4)	2.08 (1.4)	3.64 (1.3)	3.76 (1.3)	3.54 (1.3)

The research hypothesis assumes that *when students receive enough academic advising, in addition to influence and interest, the possibility of changing majors becomes very weak*. The data in Table 2 indicates the factor of academic advising at schools and universities and its influence on students’ major choices if present. The researchers used four items related to the academic advising issue from section two of the survey that presents the factors that influence students’ major choice in the survey (*high school guidance, university advisor, high school teacher, and high school advisor*). The questionnaire employed a five-point Likert scale to rate each of the four factors influence their major choices, with 5 representing a major influence and 1 indicating no influence.

Statistics in Table 2 indicate that high school advisors, school teachers, and university advisors have a very poor effect on their decisions to select their majors, as they score 2.08, 2.21, and 2.30, respectively. On the other hand, the highest means, which indicate a strong effect on their majors’ selections are career advancement, their interest, and job opportunities available upon graduation. These factors score 3.76, 3.73, and 3.64, respectively.

Again, in Table 3, students of *all* years shared their perspective about student academic advising and its influence on their selection of majors. This indicates that the four categories (High school guidance, university/college advisor, high school teacher, and high school advisors) have very weak effects on students’ decisions of major selections with *no influence* percentages of (40.9%, 45.6%, 48.4%, and 53.2%) respectively.

**Table 3.** Factors Influenced Major Chosen for all four years together (related to student academic advising issue N = 1725).

Factors Influenced Choice of Major	No Influence (1) (N) %	Minor Influence (2) (N) %	Somewhat Minor Influence (3) (N) %	Somewhat Major Influence (4) (N) %	Major Influence (5) (N) %
High school guidance	(705) 40.9%	(276) 16%	(320) 18.6%	(227) 13.2%	(197) 11.4%
University/college advisor	(787) 45.6%	(235) 13.6%	(282) 16.3%	(230) 13.3%	(191) 11.1%
High school teacher	(835) 48.4%	(239) 13.9%	(284) 16.5%	(185) 10.7%	(182) 10.6%
High school advisor	(917) 53.2%	(238) 13.8%	(251) 14.6%	(161) 9.3%	(158) 9.2%

To look deeper into the student academic advising issue and its influence on first year students and choosing majors, the researchers looked at these four factors regarding first year students alone (N = 469).

Table 4 shows that many students in their first year believe the four factors regarding academic advising at schools and universities had almost no influence on their major choice. The table indicates that the four categories above have very weak effects on students’ decisions of major selections with No influence percentages of (42.6%, 48.4%, 53.7%, and 58.2%) respectively.

**Table 4.** Factors Influenced Choosing Major for *first year* students (related to student academic advising issue).

Factors Influenced Choice of Major	No Influence (1) (N) %	Minor Influence (2) (N) %	Somewhat Minor Influence (3) (N) %	Somewhat Major Influence (4) (N) %	Major Influence (5) (N) %
1. High school guidance	(200) 42.6%	(80) 17.1%	(91) 19.4%	(47) 10.0%	(51) 10.9%
2. University/college advisor	(227) 48.4%	(50) 10.7%	(84) 17.9%	(56) 11.9%	(52) 11.1%
3. High school teacher	(252) 53.7%	(62) 13.2%	(65) 13.9%	(48) 10.2%	(42) 9.0%
4. High school advisor	(273) 58.2%	(63) 13.4%	(61) 13.0%	(35) 7.5%	(37) 7.9%

In addition, Table 5 is introduced to decide on the year and semester which detect major changes within all year levels in the university under investigation.

**Table 5.** Students changing majors (N = 1725).

Year in School	N	Semester		Changed Major		Educ.
		First	Second	(N)%	(N)%	
Freshman	469	386	83	(77)% 19.9	(25)% 30.1	156
Sophomore	464	391	73	(121)% 30.9	(27)% 36.9	83
Junior	408	362	46	(121)% 33.4	(12)% 26.0	62
Senior	384	312	72	(88)% 28.2	(20)% 27.7	37

The data in Table 5 shows that students are most likely changing their majors in their second year and specifically in the second semester. Second year major change scored 36.9% in the second semester and 30.9% in the first semester. On the other hand and according to the statistics in Table 5, students are least likely changing their majors in their first semester in the first year (19.9%) and in their sixth semester (26.0%). Additionally, changing majors in the fourth year is surprising as the table indicates that almost 28% of students changed their majors as if they discovered very late their preference for another major.

To gain more insight into the influence of academic advising, the researchers used two items related to the academic advising issue from section three that presents the positive factors that influence students’ major change in the survey (college advisor and instructors). A five-point Likert scale was used to rate each of the two positive factors influenced their major change, with 5 representing a major influence and 1 indicating no influence. The other factors related to this section will be presented and discussed in later in the article since the focus of this research is on student academic advising and its influence on student major choice and later major change.

Before presenting the correlational analyses, the means and standard deviations are presented for each of the two variables that were correlated in Table 6.

**Table 6.** Means, Standard Deviations, and Numbers for the college advisor positive factor, instructors’ positive factor and major change.

	N	College Advisor M (S.D.)	Instructors M (S.D.)	Change Major M (S.D.)
Students	1725	2.59 (1.4)	2.83 (1.5)	1.71 (0.451)

A correlational analysis was created to answer the research hypothesis and to meet that end, Person r correlations were used in this study because they enabled the researchers to describe the relationships between the variables used in the survey.

Table 7 presents the correlational analysis of college advisor positive factor, instructors’ positive factor and major change for all four years together. The researchers noticed that there was no significant



correlation between the two factors and major change. For that reason, correlational analysis for the fourth year was conducted separately.

**Table 7.** Correlations of college advisor positive factor, instructors' positive factor and major change.

		Correlations		
		Change Major	College Advisor	Instructors
Change Major/All years	Pearson Correlation	1	−0.042	−0.028
	Sig. (2-tailed)		0.357	0.528
	N	1725	494	494
Change Major/First Year	Pearson Correlation	1	−0.118	−0.122
	Sig. (2-tailed)		0.240	0.224
	N	496	101	101
Change Major/Second Year	Pearson Correlation	1	b	b
	Sig. (2-tailed)		0.000	0.000
	N	494	148	148
Change Major/Third Year	Pearson Correlation	1	−0.087	−0.087
	Sig. (2-tailed)		0.315	0.316
	N	408	136	136
Change Major/Fourth Year	Pearson Correlation	1	0.091	0.134
	Sig. (2-tailed)		0.344	0.165
	N	384	109	109

Note: \*\*. Correlation is significant at the 0.01 level (2-tailed).

Table 7 presents the correlational analysis of the college advisor positive factor, instructors' positive factor, and change major in the second year ( $p = 0.000$ ). There is also a positive significant correlation too with instructors and positive influence to change to the current majors in their second year ( $p = 0.000$ ). This result is supported by [Ismael \(2012\)](#) and [Dickson \(2010\)](#) findings that students usually change majors in their second semester of their first year or in their second year. When presenting the correlational relation between advising and choosing majors, the researchers shed a light on the negative correlation between the two variables since academic advising had no influence on students' major change. This means that all students chose the factor no influence of advising on their choices of changing their majors.

In sum, the researchers can state that the hypothesis is rejected because, based on the findings, first-year major change is high, as it scores a 50% possibility, and college major change possibility increases in the subsequent years, especially in the second year, which scored the highest percentage of major change with 67.8% (30.9% + 36.9%).

## 6. Discussion

The purpose of this study is to investigate the effect of academic advising on changing or maintaining majors in university degrees. It is also a goal of the study to determine which semester students change their majors and whether advising contributes to that change. The focus of the study is to shed light on the importance of academic advising in helping students choose and maintain their majors in whatever year students are enrolled. In fact, students should experience a variety of courses to decide on their majors, but this study focuses more on the important role of advisors which guide students to choose their major in addition to course experiences. Through this study, the researchers want to explore students' perceptions about the academic advising they received and the relationship of its absence on students' major change.

Research on selecting major proved that advising plays a very key role in the process. [McFarlane \(2013\)](#) investigates the responses of 628 first-year students in their attitudes and experience with advising. Results showed that student retention and major change is related to who advises them. From researchers' interactions with students who changed majors, they wanted to understand and

look deeply at this problem to find practical solutions for students, educators, and policy-makers to help students choose majors that fit their personal interests and their future goals and careers without changing their majors several times. The reviewed literature and the research results support the researchers' assumptions of student academic problems regarding choosing majors and later major changes because the academic advising is not activated much at schools and colleges. In this study, some students shared that the advising they received had no influence on their decisions to choose or change majors.

Many authors shared that choosing college majors is the greatest problem students face in the Middle East, apparently because students follow their friends and they were more restricted, and even forced, to choose according to their parent's preference who prefer to have more prestigious professions (Al Any 2013; Al Bawardi and Suliman 2013; Al Khateeb 2012; Al Masoudi 2008; Al Shalwee 2006; KSAU-HS 2011; 2014; Bayomi 2011; Ismael 2012; Lafy 2010; Mohsen 2013; Najmi 2014; Rabee 2003). Evidence indicates that students fail to select proper majors because they are unconscious about their future career opportunities (Al Khateeb 2012; Al Masoudi 2008; Hoxby and Turner 2013; Mohsen 2013). Al Any (2013) argued that our students in the Middle East miss the opportunities to attend colleges and choose "good" majors (Beggs et al. 2008) because they simply did not know how or what to choose. He added students in particular stages need an academic advising regarding attending colleges and universities and choosing majors.

Lafy (2010) claimed that the majority of students do not select majors they prefer due to incorrect information they received in the first semester of the first year during advising. He added students need sources at schools, colleges, and universities that educate them about their academic future, including personal abilities, interests, values, major choice, and future careers. Beggs et al. (2012) conducted a study to prove the advantage to selecting "proper" majors. They defined a "good" major choice as the major best capable of helping students to achieve their educational and post-educational goals (Korscheg and Hageseth 1997).

Choice is a good thing and it can never be a bad thing (Scott-Clayton 2011). Usually a choice develops for a reason: to serve a diversity of preferences (Vila et al. 2007). Vila et al. (2007) pointed out that the choice of a major is personally dependent on the student's individual preference and prospects related to the working life after graduation. It is also affected by the desires of the parents and society traditions. Vila, Aracil, and Moora also pointed out that students choose a major relying on the life objectives relating to personal standards. Thus, it is good to provide students with adequate information for major selection since it affects their adult future.

The results in this study were supported through what Mohsen (2013) shared: that most students who go on to college believe that the advice of their high school guidance advisors was inadequate and often impersonal and perfunctory. Many students in this study in all four years chose the degree (no influence) regarding academic advising in schools and colleges; 705 students (49.9%) out of 1725 chose no influence for the high school guidance factor; and 787 students (45.6%) out of 1725 shared that university advisors had no influence in their major choice. Finally, 917 students (53.2%) out of 1725 shared with us that the high school advisor factor had no influence on their major choice. These findings are consistent with those of earlier research that the reason for this problem is inactivates the role of the academic advisors at schools, colleges, and universities.

Ismael (2012) and Dickson (2010) observed that students most likely change their majors during their first semester and in the second semester of their first year or second year. They presented the importance of academic advising at schools and universities to deal with students' ambiguity about college majors and how to choose majors that fit their personal abilities and interests which lead to students' stability at university (Rabee 2003).

Carnevale and Melton (2011) believe that given such information, students might make different decisions which affect the rest of their adult lives. They claimed that graduates should be aware that the market is very competitive and that majors and jobs are not treated the same. In fact, it is important for students to estimate the importance of choosing appropriate majors as this decision will affect

the rest of their lives. Recognizing the rationale of major selection will enable policy makers to help and support students entering the appropriate major which helps students attach to it in ways that encourage completion of the major without changing it several times (Bartolj and Polanec 2012; Moore and Shulock 2011). This will also assist institutions to recognize the weaknesses or strengths of majors (Bartolj and Polanec 2012). Research indicates that strategies to develop student awareness of major choice need to focus on helping high school students and new college students choose and enter a major of study (Jaradat 2015).

According to the care theory (Noddings 2006, 2002), students need someone who cares at schools, colleges, and universities and gives attention to their needs (Nagy 2012; Noddings 2006; Smith 2004). Al Any (2013) shared that students need someone to educate them about major choice and how to choose it (Al Masoudi 2008; KSAU-HS 2011; Bayomi 2011; Lafy 2010). Al Khateeb (2012), Lafy (2010) and Legutko (2007) found that students attending workshops that are done by academic advisors regarding choosing majors usually help high school students and new students at colleges and universities learn about majors and how to choose one that best suits their personal abilities, interests, and future outcomes. They found that students attending these workshops provide students with great insights which assist them to make educated choices and elevate their confidence of deciding their majors. According to Supiano (2011), students could really benefit from personal attention as they deciding to choose a major. Sharing knowledge about college majors and how to choose them may lead into few problem of choosing wrong majors, changing majors or leaving college forever (Al Khateeb 2012; Najmi 2014).

Upon a comprehensive review of the literature, many reasons are cited in support of having academic advisors who care about students' futures at schools and universities to help them choose the appropriate major and do not change it after a while. First, academic advisors have the current or comprehensive knowledge of college opportunities and majors (Al Khateeb 2012; KSAU-HS 2011; Baker and Griffin 2010; Dickson 2010; Hoxby and Turner 2013; Ismael 2012; Lafy 2010; Najmi 2014; Noddings 2006; O'Banion 2012). Students will have more information and resources available about college and major options when talking to an academic advisor (KSAU-HS 2011; Beggs et al. 2008; Dietz 2010; García-Aracil et al. 2007; John 2000; Noddings 2006; Pampaloni 2010; Scott-Clayton 2011; Simoes and Soares 2010; Zafar 2013). Second, advising from advisors is potentially one of the earliest interventions outside of the student's family (Al Khateeb 2012; Hoxby and Turner 2013; Najmi 2014; Noddings 2006). Third, students will be less confused with the information provided by the advisors since students can meet them in person any time and ask questions to clarify the unclear ideas or information students may have (Nagy 2012; Scott-Clayton 2011; Simoes and Soares 2010; Smith 2004).

## 7. Conclusions

Based on this study's findings—which indicate that when students receive enough academic advising in the first year and continues steadily to the next year—the possibilities of students changing their majors decreases greatly, policy-makers and educators need to activate the role of academic advising at schools and universities and give more attention to students' needs of personal interaction and sharing information regarding their academic future, which might lead students to complete their majors without changing them many times. A thorough investigation of students' interests will most likely assist in understanding their selection of majors. It is a good idea to deliver faculty development workshops on the proper procedures of advising to ensure that they play key roles in assisting students to maintain their selections of majors.

The researchers suggest universities and their academic advisors offer academic workshops for high school students and freshmen before deciding or choosing a major. The university may integrate a career development into the system showing students the importance of choosing a major which will affect their future jobs. The universities can add a pass/fail course on career choices and professional development which integrates in its syllabus the importance of advising in helping students decide on their majors and future careers.

**Author Contributions:** Maram Jaradat designed, collected and performed the experiment; Mohammad Mustafa and Maram Jaradat analyzed the data; Maram Jaradat wrote the first draft of the paper and Mohammad Mustafa revised it all and developed its introduction, literature review, analysis of data, and discussion. Also, Mohammad Mustafa responded to journal editors' comments and modified the paper accordingly.

**Conflicts of Interest:** The author declares no conflict of interest.

## References

- Al Any, Tareq. 2013. Students after High School: Are They Going to choose Their Future or They Will Get Confused? Available online: [http://everything-about-jobs.blogspot.ro/2013/03/blog-post\\_6945.html](http://everything-about-jobs.blogspot.ro/2013/03/blog-post_6945.html) (accessed on 15 December 2017).
- Al Bawardi, Rida, and Ahmad Suliman. 2013. Obstacles to Choose Undergraduate Majors Lead Students to Lose One Academic Year. Available online: <http://demo.alroeya.ae/2013/12/07/108403> (accessed on 15 December 2017).
- Al Khateeb, Mervat. 2012. Choose the Appropriate College Students Dilemma. Available online: <http://www.alkhaleej.ae/alkhaleej/page/7ab1df92-fb54-45df-8dd7-2d83ff7d47cc> (accessed on 15 December 2017).
- Al Masoudi, Emad. 2008. Trouble Choosing University Specialization. Available online: <http://almsaodi.com/?p=21> (accessed on 15 December 2017).
- Al Shalwee, Fadi. 2006. Factors Associated with the Selection of Specialization among Undergraduate Students. Available online: <http://ncys.ksu.edu.sa/node/1664> (accessed on 15 December 2017).
- Allen, Janine, and Cathleen Smith. 2008. Importance of, responsibility for, and satisfaction with academic advising: A faculty perspective. *Journal of College Student Development* 49: 397–411. [CrossRef]
- Anonymous. 2014. Factors Influence the Choice of a Major. Available online: <http://www.college-help.org/page.aspx?PageID=2879> (accessed on 15 December 2017).
- Arcidiacono, Peter, Joseph Hotz, and Songman Kang. 2012. Modeling college major choices using elicited measures of expectations and counterfactuals. *Journal of Econometrics* 166: 3–16. [CrossRef]
- Baker, Vicki, and Kimberly Griffin. 2010. Beyond mentoring and advising: Toward understanding the role of faculty “developers” in student success. *About Campus* 14: 2–8. [CrossRef]
- Bartolj, Tjaša, and Sašo Polanec. 2012. College major choice and ability: Why is general ability not enough? *Economics of Education Review* 31: 996–1016. [CrossRef]
- Bayomi, Amro. 2011. Students in High Schools Have Trouble Choosing College Majors. Available online: <http://www.emaratayoum.com/local-section/hotline/2011-11-18-1.438056> (accessed on 15 December 2017).
- Beffy, Magali, Denis Fougere, and Arnaud Maurel. 2012. Choosing the field of study in postsecondary education: Do expected earnings matter? *The Review of Economics and Statistics* 94: 334–47. [CrossRef]
- Beggs, Jeri Mullins, John Bantham, and Steven Taylor. 2008. Distinguishing the factors influencing college students' choice of major. *College Student Journal* 42: 381–94.
- Carnevale, Anthony, and Michelle Melton. 2011. Major differences: Why undergraduate majors matter. *Presidency* 14: 30–33.
- Dickson, Lisa. 2010. Race and gender differences in college major choice. *The ANNALS of the American Academy of Political and Social Science* 627: 108–24. [CrossRef]
- Dietz, Janis. 2010. The myth that college and major choice decides Johnny's future. *College Student Journal* 44: 234–49.
- García-Aracil, Adela, Daniel Gabaldón, Luis E. Vila, and José-Ginés Mora. 2007. The relationship between life goals and fields of study among young European graduates. *Higher Education* 53: 843–65. [CrossRef]
- Hoxby, Caroline, and Sarah Turner. 2013. Informing Students about Their College Options: A Proposal for Broadening the Expanding College Opportunities Project. Discussion Paper No. 2013-03. Available online: [https://www.brookings.edu/wp-content/uploads/2016/06/THP\\_HoxbyTurner\\_FINAL.pdf](https://www.brookings.edu/wp-content/uploads/2016/06/THP_HoxbyTurner_FINAL.pdf) (accessed on 15 December 2017).
- Ismael, Hajar. 2012. Before Choosing Your Major, Listen to Miss Choosers. Available online: <http://shabab.ahram.org.eg/News/4423.aspx> (accessed on 15 December 2017).
- Jaradat, Maram. 2015. College Majors that Lead to Jobs. *Global Business & Economics Anthology Journal* 2: 85–91.
- Johnson-Garcia, Michelle. 2010. Faculty Perceptions of Academic Advising: Importance, Responsibility, and Competence. Ph.D. Dissertation, University of New England, Armidale, Australia. Available online:

- <https://une.idm.oclc.org/login?url=http://search.proquest.com.une.idm.oclc.org/docview/841634748?accountid=12756> (accessed on 15 December 2017).
- Johnson, Jean, Jon Rochkind, Amber Ott, and Samantha Dupont. 2010. *Can I Get a Little Advice Here: How an Overstretched High School Guidance System Is Undermining Students' College Aspirations*. New York: Public Agenda, Available online: [http://www.publicagenda.org/files/pdf/can-i-get-a-little-advice-here\\_0.pdf](http://www.publicagenda.org/files/pdf/can-i-get-a-little-advice-here_0.pdf) (accessed on 15 December 2017).
- Korscheg, Ann, and Jon Hageseth. 1997. Undecided students: How one college developed a collaborative approach to help students choose majors and careers. *Journal of Career Planning & Employment* 57: 49–51.
- KSAU-HS. 2011. Guideline for High School Students about How to Choose a Major: Think Deeply to Choose The Best. Available online: [http://www.ksau-hs.edu.sa/Arabic/media/News/Pages/2011-07-05\\_01.aspx](http://www.ksau-hs.edu.sa/Arabic/media/News/Pages/2011-07-05_01.aspx) (accessed on 15 December 2017).
- Lafy, Mohammad. 2010. Students and the Problem of Choosing the Appropriate Major. Available online: <http://www.almoslim.net/node/148672> (accessed on 15 December 2017).
- Legutko, Robert. 2007. Influence of an academic workshop on once-undeclared graduates' selection of a major. *College Student Journal* 41: 93–98.
- Malgwi, Charles, Martha Howe, and Priscilla Burnaby. 2005. Influences on students' choice of college major. *Journal of Education for Business* 80: 275–82. [CrossRef]
- McFarlane, Brette. 2013. Academic Advising Structures That Support First-Year Student Success and Retention. Ph.D. Thesis, Portland State University, Portland, OR, USA.
- Mohsen, Mohammad. 2013. Appropriate Selection of Major Is a Key to a Successful Life. Available online: <http://www.alkhaleej.ae/alkhaleej/page/096e5607--20b5--4061-a106--7834cf5e79b7> (accessed on 15 December 2017).
- Moore, Colleen, and Nancy Shulock. 2011. *Sense of Direction: The Importance of Helping Community College Students Select and Enter a Program of Study*. Los Angeles: SACRAMENTO Institute for Higher Education Leadership Policy, California State University.
- Mustafa, Mohammad B. 2015. The Impact of Campus Life on Student Retention. *International Journal of Arts and Commerce* 4: 92–107.
- NACADA. 2016. Available online: <http://www.nacada.ksu.edu/Resources/Clearinghouse.aspx> (accessed on 15 December 2017).
- Nagy, Andrea. 2012. A Review of: "Nodding, Nel (2006). *The Challenge to Care in Schools: An Alternative Approach to Education* (2nd Ed.). New York, NY: Teachers College, Columbia University. 193 pages". *Journal of Research on Christian Education* 21: 91–96. [CrossRef]
- Najmi, Reem. 2014. Steps Helping You Choose an Appropriate Major. Available online: <http://p.dw.com/p/1CD1c> (accessed on 15 December 2017).
- Noddings, Nell. 2006. *The Challenge to Care in Schools: An Alternative Approach to Education*. New York: Teachers College, Columbia University.
- Noddings, Nell. 2002. *Starting at Home: Caring and Social Policy*. Berkeley: University of California Press.
- O'Banion, Terry. 2012. Be advised. *Community College Journal* 83: 42–47.
- Pampaloni, Andrea. 2010. The influence of organizational image on college selection: What students seek in institutions of higher education. *Journal of Marketing for Higher Education* 20: 19–48. [CrossRef]
- Pargett, Kelly. 2011. *The Effect of Academic Advising on College Student Development in Higher Education*. Educational Administration: Theses, Dissertations and Student's Research; Lincoln: University of Nebraska-Lincoln.
- Porter, Stephen, and Paul Umbach. 2006. College major choice: An analysis of person-environment fit. *Research in Higher Education* 47: 429–49. [CrossRef]
- Pringle, Charles D., Philip DuBose, and Michael Yankey. 2010. Personality characteristics and choice of academic major: Are traditional stereotypes obsolete? *College Student Journal* 44: 131–42.
- Rabee, Ali. 2003. Regarding the Absence of the Academic Guidance and Advising for Choosing College Majors: High School Students Dilemma of Choosing or Changing College Majors. Available online: <http://www.alwasatnews.com/185/news/read/199284/1.html> (accessed on 15 December 2017).
- Scott-Clayton, Judith. 2011. *The Shapeless River: Does a Lack of Structure Inhibit Students' Progress at Community Colleges?* Seattle: Bill & Melinda Gates Foundation, pp. 1–27.
- Simoes, Cláudia, and Ana Maria Soares. 2010. Applying to higher education: Information sources and choice factors. *Studies in Higher Education* 35: 371–89. [CrossRef]



- Simpson, William. 1987. Tracking students through majors: Methodology and applications. *Journal of Higher Education* 58: 323–43. [CrossRef]
- Smith, Mark. 2004. Nel Noddings, the Ethics of Care and Education. *The Encyclopaedia of Informal Education*. Available online: <http://infed.org/mobi/nel-noddings-the-ethics-of-care-and-education> (accessed on 15 December 2017).
- John, Edgard. 2000. Do majors matter? *Black Issues in Higher Education* 17: 20–27.
- Supiano, Beckie. 2011. Recent grads advise high school students about college. *The Education Digest* 76: 35–38.
- Vila, Luis, Adela Garcia-Aracil, and Jose-Gines Mora. 2007. The distribution of job satisfaction among young European graduates: Does the choice of study field matter? *Journal of Higher Education* 78: 97–118. [CrossRef]
- Wilcoxson, Lesley, and Monte Wynder. 2010. The relationship between choice of major and career, experience of university and attrition. *Australian Journal of Education* 54: 175–89. [CrossRef]
- Zafar, Basit. 2011. How do college students form expectations? *Journal of Labor Economics* 29: 301–48. [CrossRef]
- Zafar, Basit. 2013. College major choice and the gender gap. *Journal of Human Resources* 48: 545–95. [CrossRef]



© 2017 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).