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Relationship between Sport Science Students' Career Decisions and Academic Motivation

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Abstract

This study aimed to analyze the relationship and predictive effect between the career decision of sports science students and their academic motivation. It also assessed whether career decision and academic motivation varied based on gender and department variables, jointly discussing them in the communication processes used in the instructor-student relationship. The study included 252 students, whose 85 were female and 167 were male, studying in faculty of sports sciences. It also used the 'Career Decision Scale', the 'Academic Motivation Scale', and the "Personal Information Form" to collect the study data. Statistical analysis processes consisted of correlation, multiple linear regression, 2x2 MANOVA, and 2x3 MANOVA analyses. The study findings revealed low and moderate relationships between career decisions, academic motivation, and the sub-dimensions of both main scales. In addition, academic motivation was a significant predictor of career decisions, corresponding to a 19% rate. Considering the gender variable, male students were more undecided in making career decisions than female students. Comparisons between departments also indicated that students in the sports management department displayed more indecisiveness about choosing their careers than in other departments. The ability of the students to have extracurricular communication with instructors influenced their career decisions positively, whereas it negatively influenced students' department-switching propensity. However, there were significant differences among the students' academic motivations based on gender, department, communication processes with the instructor, and department-switching propensity. In conclusion, academic motivation is important for students to choose a successful career. Nonetheless, the student-instructor communication mechanisms are equally effective in career decisions.
Keywords: Career decision, Academic motivation, Sports sciences, University student

Spor Bilimleri Öğrencilerinin Kariyer Kararları ile Akademik Güdülenmeleri Arasındaki İlişki

Öz

Bu çalışmanın amacı, spor bilimleri öğrencilerinin kariyer kararı ile akademik güdülenmeleri arasındaki ilişkiyi ve yordayıcı etkiyi incelemektir. Ayrıca kariyer kararı ve akademik güdülenmenin cinsiyet ve bölüm faktörlerine göre farklılaşıp farklılaşmadığı da belirlenmiş, her iki değişkende öğretim elemanı-öğrenci ilişkisindeki iletişim süreçleriyle birlikte de ele alınmıştır. Çalışma spor bilimlerin fakültesinde öğrenim gören 85'i kadın 167'si erkek olmak üzere toplam 252 öğrenci üzerinde gerçekleştirilmiştir. Araştırmadaki veriler "Kariyer Kararı Ölçeği", "Akademik Güdülenme Ölçeği" ve "Kişisel Bilgi Formu" yoluyla toplanmıştır. İstatistiki analizlerde korelasyon, çoklu doğrusal regresyon, 2x2 MANOVA, 2x3 MANOVA analiz teknikleri kullanılmıştır. Araştırma bulgularına göre kariyer kararı ve alt boyutları ile akademik güdülenme ve alt boyutları arasında düşük ve orta düzeyde ilişkilerin olduğu tespit edilmiştir. Ayrıca akademik güdülenmenin kariyer kararını %19 oranında açıklayan anlamlı bir yordayıcısı olduğu görülmüştür. Cinsiyetlere göre erkek öğrenciler kadın öğrencilerden kariyerlerinde daha kararsızdır. Bölümler arası karşılaştırmalarda spor yöneticiliği öğrencileri kariyer ile ilgili olarak diğer bölümlere göre daha fazla kararsızlık yaşamaktadır. Öğretim elemanları ile ders dışında iletişim kurabilmek kariyer kararında olumlu, öğrencilerin öğrenim gördüğü bölümü değiştirme eğilimi olumsuz etkiye neden olmuştur. Araştırma kapsamında öğrencilerin akademik güdülenmeleri ise cinsiyet, bölüm, öğretim elemanıyla iletişim süreçleri ve bölümünü değiştirme isteğine göre anlamlı farklılıklar göstermiştir. Sonuç olarak; akademik güdülenme öğrencilerin kariyerlerindeki kararlılık durumunda etkili bir faktördür. Ancak öğrenci-öğretim elemanı arasındaki iletişim süreçleri de kariyer kararında etkili olmaktadır.
Anahtar kelimeler: Kariyer kararı, Akademik güdülenme, Spor bilimleri, Üniversite öğrencisi

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INTRODUCTION

The concept of motivation originates from the Latin term "movere," which means "to move." It is an intrinsic state that drives and leads to the revealing of behaviors. Moreover, motivation is a significant element in achieving success (Ertem, 2006). It is also a critical component in attaining the learning process in education and training. Consequently, academic motivation is another domain within motivation and is potentially considered a concept related to various subjects. It is conceivable to express the concept of academic motivation as 'the generation of energy necessary for academic affairs (studies)' (Bozanoğlu, 2004). It is also considered a driving force behind the eagerness of students to learn (Gupta and Mili, 2016). Several studies emphasized motivation as a variable associated with educational attainments, such as regular and active class attendance and satisfaction with educational activities (Vecchione et al., 2014; Zhang et al., 2015). Hence, it is a common belief that motivated and unmotivated students behave differently.

The academically unmotivated students have difficulty concentrating on the lesson and behave more distracted. They also display a focusing problem on the class, leading to the failure to participate satisfactorily. This condition could result in falling behind in lessons, being unable to maintain the consistency required for school attendance, and displaying behavioral alienation from school (Dilekmen and Ada, 2005) since unmotivated students experience feelings of inadequacy and lack of control (Guay et al., 2010). Yet, academically motivated students seem capable of defining their goals and objectives to succeed in school and their courses. Such students attend classes more prepared and eager to participate in the lesson, and they are individuals who are willing to ask questions, display no attention deficit, and concentrate on class materials. They are also subject-focused, self-disciplined, determined, unyielding, and able to cope with difficulties; hence, they make their utmost effort to gain knowledge (Dilekmen and Ada, 2005). Therefore, highly motivated individuals are more successful in accomplishing the necessary tasks during their academic careers (Akbay and Gizir, 2010). Also, this condition has a favorable impact on academic success and attainment (Dilekmen and Ada, 2005; Guay et al., 2010). Considering the motivation within the context of education, motivated students have reasons and goals to fulfill their duties, are confident in achieving their objectives, and cultivate positive perspectives towards their duties (Hassanzadeh and Amuee, 2001; cited in Amrai et al., 2011). The literature review on the subject revealed that academic motivation and the variables such as academic achievement, problem-solving skills, and school burnout (Aydın and Çekim, 2017; Amrai et al., 2011; Demir and Arı, 2013; Fortier et al., 1995; Seçer, 2015; Yiğitcan-Nayir and Tekmen, 2017) were all studied jointly. Studies also focused on the relationship between self-concept and self-esteem (Bong and Clark, 1999; Ryan et al., 1994). Certain studies also analyzed the relationship between academic self-efficacy and postponement (Aktaş, 2017; Bong, 2004; Cerino, 2014; Malkoç and Kesen-Mutlu, 2018; Schunk, 1991; Terzi et al., 2017; Ünal, 2013). The current study, however, discussed career decision, another variable closely related to students' academic life.

As translated from French into Turkish, the term 'carriére' refers to a 'career' word in Turkish and signifies the meaning of 'expertise and success in a profession,' according to the Turkish Language Association (2019). When conceptualized, however, it corresponds to a process

spanning a substantial amount of time, affecting many areas, from the values of the individuals to the place in which they live, and enclosing responses to questions such as expectations of individuals from life, aspirations, and level of risk tolerance (Akkoç, 2012). According to the theory of Ginzberg et al. (1951), choosing a career is a developmental process that extends from childhood to adulthood rather than an event specific to a moment that occurs merely once in a lifetime. This theory analyzed the professional development process in three periods. Initially, it involves a 'dreaming period (7-12 years)' when children explicitly and distinctly express their career preferences at a young age. Yet, the pleasure principle is crucial in specifying career choices at this age, and children directly indicate their job preferences as they find enjoyable. The second period, however, is the 'trial period (11-18 years),' in which individuals begin to recognize their self-interests, aptitudes, and moral convictions. Finally, the 'realistic period (18-22 years)' stands out as the last period, explicitly differing from others since it is the final one in which individuals should hold their actual choices. Since the level of education required by each profession and the way individuals experience business life differ extensively, this period further comprises three sub-stages in itself. The first sub-stage, the searching step,' begins with admission to a university and ends with a narrowing process of personal objectives. The second sub-stage, the 'efflorescing step,' involves individuals' primary selections directly related to choosing their majors, and their choices become more and more definitive. The final sub-stage, the 'decision step,' includes the process where individuals further support their choices about majors by specifying a unique occupation (Kuzgun, 2000). The sample group in this study, which consists of university students, corresponds to the realistic period, which is the final phase in the theory of Ginzberg et al. (1951). Individuals in this age range primarily focus on confining their options and making their final career decisions. Therefore, the concept of 'career decision' has been investigated in this study.

'Career decision' refers to the career choice for an educational or occupational life (Sampson et al., 1999). It also involves self-consciousness, combining professional knowledge, and making choices for the future (Kuzgun, 2003; Brawn et al., 2002; cited in Yusupu, 2015). Individuals must have attained substantial professional maturity to make the best decisions while making a choice (Super, 1957; cited in Kılıç, 2019). However, making a career decision is a complex process, and most people may seek professional assistance, albeit some consider it easy (Gati et al., 1996). The transition from high school to university requires individuals to make critical and stressful decisions during their university years. Hence, it is reasonable to argue that students who enroll in departments that match their interests, preferences, and skills will be more eager to learn, consequently, more successful during this period. Therefore, higher education has a significant role in shaping the future lives of young people.

Throughout their educational careers, individuals may frequently remain undecided and confused while making their career choice. Yet, the condition of compatibility with the individuals' personalities and the requirements of the determined profession makes the decision-making process more complex and challenging (Öztemel, 2012). In this sense, it is essential to reach a level of readiness to choose a profession. Making a career decision without being ready may yield adverse effects in a future life (Çakır, 2004; Yusupu, 2015). For instance, individuals choosing their profession wrongly and unsatisfied with their job typically display poor work efficiency and experience additional issues such as quitting their jobs. As a result, pursuing careers that match their skills and interests is crucial to minimize such adverse impacts

(Yılmaz, 2011). When people choose a profession unfit for them, it reflects poorly on their sense of self. As a result, they may not be content or successful in their career unfitting for their self-concept (Vurucu, 2010). In other words, people are far more likely to be happy at work and succeed in their professions when they choose careers appropriate for their skills and interests. Studies reported that individuals who have positive experiences in the business world are happier in both their work and lives (Özgüven, 1998; cited in Kaya, 2017). The literature review also indicated that university students mostly display indecisiveness about their careers (Mansor and Rashid, 2013). Those students who struggle with career indecision also experience various academic and psychological issues (Liao and Ji, 2015). As considered a variable potentially impacting the overall quality of life, Career decision has also been associated with decision-making difficulties among university students (Bacanlı et al., 2013). Therefore, it is necessary to guide students in their career choice based on their self-characteristics and skills (Çakır, 2004; Yusupu, 2015). A thorough review of national and international literature also revealed that studies on career-oriented subjects mainly focused on difficulties in decision-making (Gati and Saka, 2011; Gati et al., 1996; Kırdök and Harman, 2018; Zhou and Santos, 2007), self-concern (Nalbantoğlu-Yılmaz and Çetin-Gündüz, 2018), self-competence (Ulaş, 2016), potentness (Ulaş-Kılıç, 2018), and self-efficacy (Vela et al., 2018) concepts on the career decisions. There are also analyses associating the concept of 'making conscious career decisions' with various other career parameters, including 'career decision' itself (Dostanic et al., 2021; Lam and Santos, 2018; Thompson et al., 2019). When the studies conducted in the field of sports sciences in recent years are examined, it is seen that career stress (Bozyiğit and Gökbaraz, 2020) and career awareness (Çalı and Doğar, 2021) of sports sciences students and career anxiety (Yaşar and Sunay, 2019) of sports high school students are examined.

The current study assessed 'career decision' jointly with 'academic motivation' from a different angle unlike the literature tried to be summarized above, studying the sports science students by referring to future teachers, trainers, recreation leaders, and sports manager candidates. These professional groups in the field of sports sciences serve and interact closely with individuals of different age ranges. As a building block for healthy generations, raising individual, in essence, and generally social sports awareness is closely related to the professional and personal traits of those working in the sports domains. Considering the justifications above, making a wise career decision and feeling confident about involving in the right profession seem essential for content and successful business life. However, certain occupational groups demand more entrepreneurship than others, and choosing a university to receive a vocational education does not guarantee a successful entrepreneurial life. The same also holds for students who pursue their careers in the field of sports sciences, which is a multidisciplinary field. In this sense, the motivating surroundings students might encounter in their education life will potentially affect their academic success, professional and personal aspirations, sentiments, and ultimately, their career plans. Therefore, this study aimed to evaluate the relationship and predictive effect between the career decision of sports science students and their academic motivation. It also assessed whether career decision and academic motivation differed based on gender and departmental factors, concurrently discussing these variables with the communication patterns in the instructor-student relationship.

METHOD

Research Model

This study utilized a quantitative design in its model. It also attempted to demonstrate the predictive effect by analyzing the relationships between the variables without any interference.

Population and Sample

The study population consisted of 718 students enrolled in a Pamukkale University Sports Sciences Faculty in the 2018–2019 academic year in Türkiye. While creating the study sample, however, 252 students ($\bar{X}_{age}$=21.32±2.62), 85 females, and 167 males were randomly selected as the study sample. When the distribution of the participants according to the classes was examined, there are 89 students in the first grade, 59 students in the second grade, 66 students in the third grade and 38 students in the fourth grade. The distribution according to departments was 49 students from coaching education, 52 students from physical education and sports teaching department, 55 students from recreation department and 96 students from sports management department. The sample size was calculated based on Sekaran (1992) using the permissible sample size chart for a universe selection (cited in Altunışık et al., 2007).

Data Collection Tools

The study used the 'Career Decision Scale (CDS)' developed by Yusupu (2015), the 'Academic Motivation Scale (AMS)' created by Bozanoğlu (2004), and the 'Personal Information Form (PIF)' designed by the researchers to collect the data.

Career Decision Scale (CDS): This scale was developed by Yusupu in 2015 and consisted of 30 items. The response options were based on a 1 to 5 scale. Participants marked the options that were suitable for them on the answer items. (1=completely not suitable for me, 5=completely suitable for me). The highest and lowest scores on the scale were 150 and 30 points, respectively. A high score referred to indecisiveness, whereas a low score denoted decisiveness. The three sub-dimensions of this scale —self-consciousness in career decisions, self-unconsciousness in career decisions, and environmental factors— also included reverse items. For the internal consistency coefficient of the first, second, and third dimensions, the reliability scores calculated for the scale were 0.89 (13 items), 0.85 (11 items), and 0.76 (6 items), respectively. The internal consistency coefficient calculated for the entire scale was 0.91.

Academic Motivation Scale (AMS): As developed by Bozanoğlu (2004), this tool retains 20 items on a scale of 1 to 5 (1=completely not suitable, 5=completely suitable). The scale scores ranged from 20 to 100 points. A high score on the scale denoted a strong level of academic motivation. This scale included a reverse-scored item. It also consisted of three sub-dimensions: self-transcendence, use of knowledge, and exploration. The test-retest analysis on the scale's reliability calculated the correlation between the two measurements as 0.87. Considering the internal consistency coefficient, the Cronbach Alpha values calculated at different times in the same group varied between 0.77 and 0.85, whereas the values calculated in separate groups ranged between 0.77 and 0.86 (Bozanoğlu, 2004).

Personal Information Form (PIF): It comprises queries created by researchers. The query form included ten questions about the age, gender, department, class, academic average, students' departmental preference (satisfaction), department-switching propensity, and years at the university.

Ethical Approval

This research was approved by Pamukkale University Non-Interventional Clinical Research Ethics Committee (Permission no: E-60116787-020-119804) and followed the regulations outlined in the Declaration of Helsinki.

Data Collection

Pamukkale University Faculty of Sport Sciences granted all necessary official permissions before beginning the study. Scheduling a meeting with the faculty members in the Faculty of Sport Sciences made it easier for both parties to choose a suitable time to study. The participant students were explicitly informed with the appropriate explanations prior to the study. Measurement tools, such as scales and forms, were distributed manually, and after the 2-week application period, they were re-collected to gather data from the participants.

Data Analysis

Analysis methods used to evaluate the research data included frequency, arithmetic mean, correlation, multiple linear regression, 2x2 MANOVA, and 2x3 MANOVA. The study also employed skewness and kurtosis (the state of data's normal distribution) values, Mahalanobis distance, and Levene (equality of variances) test outcomes to evaluate whether the data meets the provisions for parametric tests, concluding that the data was normally distributed. It was seen that the skewness and kurtosis values vary between -.878 and .440. Table 1 displays the kurtosis and skewness values of the measurement tools. When performing regression and correlation analysis, the scatter diagram was employed to check whether the relationships between the variables were linear. The study also utilized Box's Test and thus tested the assumption that the covariance matrices of the dependent variables in the MANOVA analysis were identical across the groups. Wilk's Lambda test was used to identify variations in the means of the dependent variables. Within the scope of this study, the Cronbach alpha coefficient was calculated as internal consistency, setting the significance level as 0.05.

Tablo 1. Kurtosis, skewness, and mean values for total scores and sub-dimensions of career decision scale and academic motivation scale

	N	$\overline{X}$	Skewness	Kurtosis
Total Career Decision	252	2.25	-.152	-.878
Conscious Career Decision	252	1.97	.440	-.406
Unconscious Career Decision	252	2.57	-.125	-.684
Environmental Factors	252	2.28	.265	-.699
Total Academic Motivation	252	3.71	-.441	.093
Self-Transcendence	252	3.62	-.284	-.159
Use of Information	252	4.06	-.732	.355
Exploration	252	3.50	-.412	.382

RESULTS

Tablo 2. Correlation analysis for the relationship between academic motivation and career decision

n=252	Conscious Career Decision	Unconscious Career Decision	Environmental Factors	Total Career Decision
Self-Transcendence	-.397**	-.097	-.060	-.242**
Use of Information	-.558**	-.238**	-.293**	-.444**
Exploration	-.342**	-.157*	-.135*	-.266**
Total Academic Motivation	-.482**	-.179**	-.173**	-.350**

***p<.05, **<.01**

The total score and sub-dimensions of both academic motivation and career decision displayed low and moderate, albeit negative, relationships, according to an analysis of Table 2. Hence, these findings imply that as academic motivation increases, indecisiveness in career decreases. Assessment of the relationship levels also indicated that while the most significant relationship was between the 'use of knowledge' and 'conscious career decision' in the sub-dimensions of academic motivation, the relationship between the 'exploration' sub-dimension of academic motivation and 'environmental factors' sub-dimension of career decision scales was the most insignificant. However, there was no substantial relationship between the 'self-transcendence' sub-dimension of the academic motivation scale and the 'unconscious career decision' and 'environmental factors' sub-dimensions of the career decision scale.

Tablo 3. Results of multiple linear regression analysis for predicting career decision based on the sub-dimensions of academic motivation

Variable	B	Standard Error$_B$	β	t	p
Fixed	3.808	.215		17.674	.000
Self-Transcendence	.085	.068	.105	1.248	.213
Use of Information	-.459	.073	-.516	-6.249	.000
Exploration	.001	.72	.001	.010	.992
$R=.451$; $R^2=.203$; Adjusted $R^2=.194$ $F(3, 248)=21.109$; $p=.000$					

Regression analysis results revealed that only the 'use of information' sub-dimension of academic motivation was a significant predictor of the career decision scale ($R=0.451$; $R^2_{adjusted}=0.194$; $F_{(3, 248)}=21.109$; $p=0.000$). The specified variable also explained 20% of the total variance in the career decision scale.

Tablo 4. Results from a 3x2 MANOVA to analyze the differences in students' career decisions and academic motivation based on department, class, and gender factors

Source of Variance	Dependent Variable	SS	df	MS	F	p	ηp^2
1.Department	Career Decision	2.427	3	.809	2.580	.054	.034
	Academic Motivation	1.521	3	.507	1.396	.245	.018
2. Class	Career Decision	.632	3	.211	.672	.570	.009
	Academic Motivation	2.001	3	.667	1.837	.141	.024
3. Gender	Career Decision	1.916	1	1.916	6.108	**.014**	.027
	Academic Motivation	.857	1	.857	2.359	.126	.010
1X2	Career Decision	4.186	9	.465	1.483	.155	.056
	Academic Motivation	2.705	9	.301	.828	.591	.032
1X3	Career Decision	.375	3	.125	.399	.754	.005
	Academic Motivation	.244	3	.081	.224	.880	.003
2X3	Career Decision	1.105	3	.368	1.175	.320	.016
	Academic Motivation	1.354	3	.451	1.243	.295	.016
Error	Career Decision	69.931	223	.314			
	Academic Motivation	80.986	223	.363			
Total	Career Decision	1368.251	252				
	Academic Motivation	3564.708	252				

The findings of MANOVA analysis indicated a significant difference for least one dependent variable compared to the independent variables. Analyzing the ANOVA table to identify which sub-dimension this difference incurs disclosed that it was the gender factor difference influencing the career decisions of sports science students (Wilks' Lambda= 0.971; F=3.328; p=0.038). Accordingly, 'male students ($\bar{x}$ = 2.31) were explicitly more career-undecided than female students ($\bar{x}$ = 2.06).' Furthermore, interdepartmental comparison proved that students in the sports management department displayed the highest level of indecisiveness than other departments for the career decision scale (Wilks' Lambda= 0.938; F=2.396; p=0.027) ($\bar{x}_{\text{sports management}}$=2.33; $\bar{x}_{\text{physical education teaching}}$=2.01; $\bar{x}_{\text{coaching}}$=2.16; $\bar{x}_{\text{recreation}}$=2.25). However, the academic motivation scale displayed no significant difference in department, class, and gender variables.

Tablo 5. Results from a 2x2 MANOVA to analyze the variations in academic motivation and career decisions based on students' departmental preference (satisfaction) and department-switching propensity

Source of Variance	Dependent Variable	SS	df	MS	F	p	Ηp²
1.Departmental Preference	Career Decision	1.750	2	.875	2.884	.058	.023
	Academic Motivation	.834	2	.417	1.207	.301	.010
2. Department-Switching Propensity	Career Decision	3.447	2	1.723	5.678	.004	.044
	Academic Motivation	1.953	2	.977	2.826	.061	.023
1X2	Career Decision	1.549	2	.775	2.552	.080	.020
	Academic Motivation	1.480	2	.740	2.141	.120	.017
Error	Career Decision	74.360	245	.304			
	Academic Motivation	84.690	245	.346			
Total	Career Decision	1368.251	252				
	Academic Motivation	3564.708	252				

The MANOVA test results revealed statistically significant differences among the variables. Students with department-switching propensity were more undecided in their careers, according to the analysis of the ANOVA table to specify the sub-dimensions from which this difference stemmed (Wilks' Lambda=0.939; F=3.907; p=0.004), ($\bar{x}_{\text{yes}}$=2.55; $\bar{x}$ undecided=2.60; $\bar{x}_{\text{no}}$=2.06). Considering the independent variables in this table, however, there was no statistically significant difference in the academic motivation scale.

Tablo 6. 2x2 MANOVA results to assess the differences in career decision and academic motivation based on the student's ability to have extracurricular and active in-class communication

Source of Variance	Dependent Variable	SS	df	MS	F	p	Ηp²
1. Extracurricular Communication	Career Decision	2.026	2	1.013	3.169	**.044**	.025
	Academic Motivation	.852	2	.426	1.239	.292	.010
2. Active In-Class Communication	Career Decision	1.694	2	.847	2.650	.073	.021
	Academic Motivation	1.324	2	.662	1.924	.148	.016
1X2	Career Decision	.833	3	.278	.868	.458	.011
	Academic Motivation	.870	3	.290	.843	.472	.010
Error	Career Decision	77.989	244	.320			
	Academic Motivation	83.940	244	.344			
Total	Career Decision	1368.251	252				
	Academic Motivation	3564.708	252				

As presented in Table 6, the MANOVA analysis results yielded no significant differences between the variables. However, the ANOVA table for multiple comparisons with the

Bonferroni correction potentially inferred that students having extracurricular communication with their instructors were more determined in their careers ($\bar{x}_{always}$=2.17; $\bar{x}_{sometimes}$=2.26; $\bar{x}_{never}$=2.68). The change in academic motivation was also statistically insignificant considering the extracurricular and in-class communication mechanisms established by the student with the instructor.

DISCUSSION AND CONCLUSION

This study analyzed the relationship between academic motivation and career decisions among university students to reveal what extent it predicted academic success. The correlation analysis on the relationship between academic motivation and career decision identified low and moderate, albeit negative, relationships between the total scores and sub-dimensions of both scales (a high score refers to higher indecisiveness). It was explicit that the 'use of information,' one of the sub-dimensions of academic motivation, was a significant predictor for career decisions. Yusupu (2015) reported a positive and substantial relationship between academic success and career decisiveness among university students. Yet, the current study found that the 'exploration,' one of the sub-dimensions of academic motivation, was also a significant predictor for career decisions. In a study performed on primary school 8th-grade students, Yayla and Bacanlı (2011) discovered that educational standings and career development levels among students increased simultaneously. Correspondingly, Means et al., (2018) reported that motivation is associated with academic achievement among undergraduate students. In addition to following a purpose in their future life, students' awareness of their self-interests, wishes, and abilities might positively impact their career decisions. Academic motivation also leads to self-assurance and success, and academically motivated students are more inclined to succeed (Çakır, 2004). Choi and Kim (2013) also reported that learning motivation influences academic success favorably and affects students' self-efficacy about making career decisions. Therefore, as motivation rises, indecisiveness in career decisions may lessen. It is also possible to argue that students motivated academically advance in their careers more decisively and progressively.

Analysis of variations in department, class, and gender factors in career decisions and academic motivation scales revealed that gender variables resulted in differences in career decisions among sports science students. Accordingly, female students were more decisive in choosing their careers than male students. Koyuncuoğlu (2021), in his study on university students, found no substantial evidence between gender differences and career decisions according to the mean scores. However, the author further stated that female students displayed higher academic motivation than male students. Bacanlı et al. (2013) also reported similar findings, indicating that female students studying at high school experienced significantly less difficulty in making career decisions than male students. Kusnierz et al., (2020) also reported that women displayed greater motivation for academic success than males. This outcome could mainly result from female students being more aware of their interests, desires, and abilities. In addition, when the statistical information presented about the participation of women and men in business life in the Turkish society in the study of Gürol (2007) is examined, it is also possible to argue that Turkish society has different expectations for male and female university graduates. In this sense, society has lower expectations of women, whereas it puts higher

standards on men in terms of a successful career in business life. As a result, such a societal fact might lead to career indecisiveness among male individuals. Contrary to Kusnierz et al., (2020)'s findings, some literature also indicated that career decisions do not vary based on gender differences (Edwards and Quinter, 2011; Kelly & Colangelo, 1990; Öztemel, 2012; Ulaş, 2016). As Zhou and Santos (2007) stated, there were also contrary findings in the literature, indicating that male students had less difficulty in making career decisions than female students. Joseph et al., (2019) also specified that male students' academic motivation had a higher average value than female students. Considering the interdepartmental comparisons, there was no statistically significant difference in academic motivation among students, whereas their career decisions greatly varied based on the departments enrolled. Students in the sports management department displayed the most career indecisiveness, followed by recreation, coaching, and physical education teaching departments, respectively. The institutions where the graduates from the physical education teaching and coaching departments will employ may be more specific due to their fixed job descriptions. However, the recreation department requires entrepreneurship, and thus it has very different job opportunities in public and private organizations in the sports, tourism, therapy, and community recreation sectors. Therefore, it may be easier for these departments to plan their careers. Yet, the administration of sports clubs, youth and sports directorates, and the private and governmental sectors are the places where sports management departments are employed. Hence, it may give the impression of a limited job market to students studying in this major. It is also necessary to consider the potential that the departments fail to provide sufficient details on their sectoral employment opportunities. Therefore, such reasons might lead students in the sports management department to experience more indecisiveness in their careers. Finally, the classes students attended had no significant difference in both career decisions and academic motivation.

The factors of departmental preference and department-switching propensity resulted in no difference in students' academic motivation; however, the students inclined to change their departments were explicitly more indecisive about their careers. Accordingly, providing more detailed information to students about the departments before their enrolment may positively affect their choices. Demirci (2017) emphasized that when students received support and preferred their university and department based on their attributes, they were satisfied more with the departments in which they enrolled. Therefore, it might be beneficial to administer students by steering them to departments compatible with their unique traits, skills, and preferences (Çakır, 2004; Yusupu, 2015).

The data analysis based on the student's ability to have extracurricular and active in-class communication with their instructors resulted in significant variations between the variables. Accordingly, students who had extracurricular interactions with their teachers tended to be more decisive in their choices. There are numerous in-class and non-class communication mechanisms between students and instructors. For instructors, developing good non-class relationships make their students more focused on in-class studies and teachings. Additionally, taking suggestions, views, guidance, and support from their instructors would positively affect students' career decisions while deciding which major they should pursue based on their attributes during vocational education. The extracurricular interaction and quality of communication with the instructors are critical in this context. Jagadambal and Perumal (2015)

stated that students who have close, supportive, and positive interaction with their teachers potentially achieve more success than students who are unable to communicate adequately and are in confusion. Khan et al., (2017) also expressed that teachers' communication skills play a critical role on students' academic success.

As a result of this study, academic motivation is an important factor affecting the career decisiveness of students. In addition, although student-instructor communication practices are also effective in the career decision, it is reasonable to remark that students who tend to shift their educational department still remain indecisive in choosing their careers. Since each student is motivated by different factors in the learning process, such personal preferences should not be regarded while generating a classroom environment that is encouraging and motivating. Accordingly;

It is recommended that this study be repeated at the high school level to potentially address the factors that negatively affect academic motivation. It is also possible to raise awareness among students and their families about their professions by organizing additional meetings and seminars. Moreover, intensifying advisory practices for student development may also be beneficial. It may be practical to assess the emotional issues that students have experienced throughout their lives to scrutinize what compels them to be indecisive while making their career choices. Further scientific studies can be conducted by addressing different variables affecting students' career decisions. Students who graduated particularly from the sports management department should be informed more and in detail about the employment opportunities in institutions and organizations.

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REFERENCES

Akbay, S., and Gizir, C. (2011). Academic procrastination behavior in university students by gender: The role of academic motivation, academic self-efficacy and academic attribution styles. *Journal of Mersin University Faculty of Education, 6*(1), 60-78.

Akkoç, F. (2012). The relationship between the vocational indecision and career beliefs of high school students. *Dokuz Eylül University Buca Faculty of Education Journal,* (32), 49-70.

Aktaş, H. (2017). The relationship between academic motivation and academic self-efficacy: An empirical research on the students of the faculty of theology. *Journal of Human and Social Sciences Research, 6*(3), 1376-1398.

Altunışık, R., Coşkun, R., Bayraktaroğlu, S., and Yıldırım, E. (2007). *Research methods in social sciences with SPSS application (5th Edition).* Sakarya Publishing.

Amrai, K., Motlagh, S. E., Zalani, H. A., and Parhon, H. (2011). The relationship between academic motivation and academic achievement students. *Procedia Social and Behavioral Sciences, 15,* 399-402. https://doi.org/10.1016/j.sbspro.2011.03.111

Aydın, S., and Çekim, Z. (2017). Examining the relationship between middle school students' academic achievement and achievement perceptions with their motivation to learn science. *Mustafa Kemal University Journal of Institute of Social Sciences, 14*(39), 458-470.

Bacanlı, F., Eşici, H., and Özünlü, M. B. (2013). Investigation of career decision-making difficulties according to various variables. *Turkish Psychological Counseling and Guidance Journal, 4*(40), 198-211.

Bong, M. (2004). Academic motivation in self-efficacy, task value, achievement goal orientations and attributional beliefs. *The Journal of Educational Research, 97*(6), 287-298. https://doi.org/10.3200/JOER.97.6.287-298

Bong, M., and Clark, R. E. (1999). Comparison between self-concept and self-efficacy in academic motivation research. *Educational Psychologist, 34*(3), 139-153. https://doi.org/10.1207/s15326985ep3403_1

Bozanoğlu, İ. (2004). Academic motivation scale: Development, reliability, validity. *Ankara University Journal of Faculty of Educational Sciences (JFES), 37*(2), 83-98. https://doi.org/10.1501/Egifak_0000000094

Bozyiğit, E., and Gökbaraz, N. (2020). Career stress determinants of the students in faculty of sports sciences. *Journal of Computer and Education Research, 8*(15), 181-200. https://doi.org/10.18009/jcer.679874

Çakır, M. A. (2004). Development of vocational decision inventory. *Ankara University, Journal of Faculty of Educational Sciences, 37*(2), 1-14. https://doi.org/10.1501/Egifak_0000000098

Çalı, O., and Doğar, Y. (2021). Examınatıon of career concerns of sports high school students. *Journal of Physical Education and Sport Sciences, 15*(1), 81-93.

Cengiz, R., Serdar, E., and Donuk, B. (2016). Analyzing the level of mindfulness and entrepreneurship of the university students. *International Journal of Social Sciences and Education Research, 2*(4), 1320-1328. https://doi.org/10.24289/ijsser.279006

Cerino, E. S. (2014). Relationships between academic motivation, self-efficacy, and academic procrastination. *Psi Chi Journal of Psychological Research, 19*(4), 156-163. https://doi.org/10.24839/2164-8204.JN19.4.156

Choi, H., and Kim, D.Y. (2013). A Cross cultural study of antecedents on career preparation behavior: Learning motivation, academic achievement, and career decision self-efficacy. *Journal of Hospitality, Leisure, Sport Tourism Education, 13,* 19-32. https://doi.org/10.1016 / j.jhlste.2013.04.001

Demir, M. K., and Arı, E. (2013). Investigation of pre-service teachers' academic motivation levels in terms of various variables. *Theory and Practice in Education, 9*(3), 265-279.

Demirci, M. (2017). The Examination which university students' section choice and choice results with statistical analysis. *BEU Journal of Academic Projection, 2*(1), 23-40.

Dilekmen, M., and Ada, Ş. (2005). Motivation in learning. *Journal of Atatürk University Kazım Karabekir Faculty of Education,* (11), 113-123.

Dostanic, J., Suvajdzic, K., and Krpovic-Bojanic, Z. (2021). Decision-making styles, career decision self-efficacy, and career adaptability among high school students. *The Career Development Quarterly, 69,* 63-77. https://doi.org/10.1002/cdq.12249

Edwards, K., and Quinter, M. (2011). Factors ınfluencing students career choices among secondary school students in Kisumu municipality, Kenya. *Journal Of Emerging Trends in Educational Research and Policy Studies (JETERAPS), 2*(2), 81-87.

Ertem, H. (2006). *Investigation of secondary school students' motivation types (intrinsic and extrinsic) and levels towards chemistry courses in terms of some variables.* Unpublished Master's Thesis, Balıkesir University, Institute of Science, Department of Chemistry Education, Balıkesir.

Fortier, M. S., Vallerand, R. J., and Guay, F. (1995). Academic motivation and school performance: Toward a structural model. *Contemporary Educational Psychology*, *20*(3), 257-274. https://doi.org/10.1006/ceps.1995.1017

Gati, I., and Saka, N. (2011). High school students career-related decision-making difficulties. *Journal Of Counseling Development, 79*(3), 331-340. https://doi.org/10.1002/j.1556-6676.2001.tb01978.x

Gati, I., Krausz, M., and Osipow, S. H. (1996). A taxonomy of difficulties in career decision making. *Journal of Counseling Psychology, 43*(4), 510-526. https://doi.org/10.1037/0022-0167.43.4.510

Guay, F., Ratelle, C. F., Roy, A., and Litalien, D. (2010). Academic self-concept, autonomous academic motivation, and academic achievement: Mediating and additive effects. *Learning and Individual Differences, 20*(6), 644-653. https://doi.org/10.1016/j.lindif.2010.08.001

Gupta, P. K., and Mili, R. (2016). Impact of academic motivation on academic achievement: A study on high schools students. *European Journal of Education Studies, 2*(10), 43-51. http://dx.doi.org/10.5281/zenodo.321414

Gürol, M. A. (2007). The Dilemma of the urban woman in business life in Turkey: Career-family. *Karamanoğlu Mehmetbey University Journal of Social and Economic Research*, (3), 144-150.

Jagadambal, C., and Perumal, D. K. (2015). Student-teacher relationship. *International Journal of Advancements in Research & Technology, 4*(5), 48-52.

Joseph, C. H., Anikelechi, I. G., & Marumo, P. (2019). Academic motivation of school going adolescents: Gender and age difference. *Gender and Behaviour*, *17*(1),12306-12315.

Kaya, N. (2017). *An adaptation study of Jackson vocational interest inventory on university students*. Doctoral Thesis, Ankara University, Institute of Educational Sciences, Department of Measurement and Evaluation in Education, Ankara.

Kelly, K. R., and Colangelo, N. (1990). Effects of academic ability and gender on career development. *Journal For the Education of The Gifted, 13*(2), 168-175. https://doi.org/10.1177/016235329001300205

Kepir-Savoly, D. D., and Korkut-Owen, F. (2015). Irrational career beliefs among university applicants. *International Journal of Human Sciences, 12*(2), 820-836.

Khan, A., Khan, S., Zia-Ul-Islam, S., and Khan, M. (2017). Communication skills of a teacher and its role in the development of the students' academic success. *Journal of Education and Practice*, *8*(1), 18-21.

Kılıç, E. (2019). *A research on the effect of family on career choice*. Unpublished Master's Thesis, Maltepe University, Institute of Social Sciences, Department of Psychology, Istanbul.

Kırdök, O., and Harman, E. (2018). High school students' career decision-making difficulties according to locus of control. *Universal Journal of Educational Research, 6*(2), 242-248. https://doi.org/10,13189 / ujer.2018.060205

Koyuncuoğlu, Ö. (2021). An investigation of academic motivation and career decidedness among university students. *International Journal of Research in Education and Science*, *7*(1), 125-143. https://doi.org/10.46328/ijres.1694

Kusnierz, C., Rogowska, A. M., and Pavlova, I. (2020). Examining gender differences, personality traits, academic performance, and motivation in Ukrainian and Polish students of physical education: A cross-cultural study. *International Journal of Environmental Research and Public Health*, *17*(16), 5729. https://doi.org/10.3390 / ijerph17165729

Kuzgun, Y. (2000). *Vocational counseling: Theories and practices.* Nobel.

Lam, M., and Santos, A. (2018). The impact of a college career intervention program on career decision self-efficacy, career indecision, and decision-making difficulties. *Journal of Career Assessment*, *26*(3), 425-444. https://doi.org/10.1177 / 1069072717714539

Liao, C. N., and Ji, C. H. (2015). The origin of major choice, academic commitment, and career decision readiness among Taiwanese college students. *The Career Development Quarterly*, *63*(2), 156-170. https://doi.org/10.1002/cdq.12011

Malkoç, A., and Kesen-Mutlu, A. (2018). Academic self-efficacy and academic procrastination: exploring the mediating role of academic motivation in Turkish University students. *Universal Journal of Educational*, *6*(10), 2087-2093. https://doi.org/10.13189 / ujer.2018.061005

Mansor, M., and Rashid, A. M. (2013). Career indecision: A cross-sectional survey among students of national youth skills training institutes. *Middle East Journal of Scientific Research*, *17*(8), 1073-1079. https://doi.org/10.5829 / idosi.mejsr.2013.17.08.12297

Meens, E. E. M., Bakx, A.W. E. A., Klimstra, T. A., and Denissen, J. J. A. (2018). The association of identity and motivation with students' academic achievement in higher education. *Learning and Individual Differences*, *64*, 54-70. https://doi.org/10.1016/j.lindif.2018.04.006

Nalbantoğlu-Yılmaz, F., and Çetin-Gündüz, H. (2018). Investigation of high school students' career anxiety according to various variables. *Abant Izzet Baysal University Journal of Faculty of Education*, *18*(3), 1585-1602. https://doi.org/10.17240/aibuefd.2018.18.39790-471164

Öztemel, K. (2012). Relationships between career indecision career decision making self-efficacy and locus of control. *Gazi University Gazi Faculty of Education Journal*, *32*(2), 459-477.

Öztemel, K. (2012). Testing the validity of the emotional and personality-related career decision-making difficulties questionnaire in Turkish Culture. *Journal of Career Development, 40*(5), 390-407. https://doi.org/10.1177/0894845312468060

Ryan, R. M., Stiller, J. D., and Lynch, J. H. (1994). Representations of relationships to teachers, parents, and friends as predictors of academic motivation and self-esteem. *The Journal of Early Adolescence*, *14*(2), 226-249. https://doi.org/10.1177/027243169401400207

Sampson, J. P., Jr., Peterson, G. W., Lenz, J. G., Reardon, R. C., and Saunders, D. E. (1999). *The use and development of the career thoughts inventory.* ERIC Document Reproduction Service No. ED 447 362.

Schunk, D. H. (1991). Self-efficacy and academic motivation. *Educational Psychologist, 26*(3-4), 207-231. https://doi.org/10.1080/00461520.1991.9653133

Seçer, İ. (2015). Examining the relationship between school burnout and academic motivation with structural equation modeling. *Journal of Education and Instructional Research*, *4*(1), 424-433.

Terzi, A. R., Uyangör, N., and Dülker A. P. (2017). Academic motivation and academic procrastination: A research on formation teacher candidates. *Route Educational and Social Science Journal*, *4*(7), 52-62.

Thompson, M. N., Her, P., Fetter, A. K., and Perez-Chavez, J. (2019). College student psychological distress: relationship to self-esteem and career decision self-efficacy beliefs. *The Career Development Quarterly*, *67*(4), 282-297. https://doi.org/10.1002/cdq.12199

Turkish Language Society, (2019, 6 January). From which language did the word career enter our language? https://www.hurriyet.com.tr/gundem/kariyer-kelimesi-bizim-dilimize-hangi-dilden-gecmistir-41074654

Ulaş, Ö. (2016). *Career decision-making self-efficacy: A model test.* Doctoral Thesis. Hacettepe University, Institute of Education Sciences. Ankara.

Ulaş-Kılıç, Ö. (2018). The variables that effect university senior students's career decision-making self-efficacy levels. *OPUS International Journal of Society Researches, 9*(16), 248-275. https://doi.org/10.26466/opus.462704

Ünal, M. (2013*). Prediction of high school students' academic motivation levels in terms of some variables*. Master's Thesis, Dokuz Eylül University, Institute of Educational Sciences, Department of Educational Sciences, İzmir.

Vecchione, M., Alessandri, G., and Marsicano, G. (2014). Academic motivation predicts educational attainment: does gender make a difference. *Learning and Individual Differences, 32*, 124-131. https://doi.org/10.1016/j.lindif.2014.01.003

Vela, J. C., Sparrow, G. S., Whittenberg, J. F., and Rodriguez, B. (2018). The role of character strengths and importance of family on Mexican American college students' career decision self-efficacy. *Journal of Employment Counseling, 55*, 16-26. https://doi.org/10.1002/joec.12070

Vurucu, F. (2010). *Vocational high school students' competence in career choice and factors affecting career choice.* Master's Thesis, Yeditepe University, Institute of Social Sciences, Istanbul.

Yaşar, O. M., and Sunay, H. (2019). Development of career awareness scale (CAS) for sport sciences students. *Çanakkale Onsekiz Mart University Journal of Sport Sciences, 2*(1), 7-22.

Yayla, A., and Bacanlı, F. (2011). An examination of the relationships between career development and decision making styles of 8th grade students. *Elementary Education Online, 10*(3), 1148-1159.

Yiğitcan-Nayir, Ö., and Tekmen, B. (2017). Examining the contribution of learning environments to academic motivation and problem solving skills from the perspective of prospective teachers. *Başkent University Journal of Education, 4*(2), 122-135.

Yılmaz, O. (2011). *Development of vocational interest inventory.* Master's Thesis, Hacettepe University, Institute of Social Sciences, Ankara.

Yusupu, R. (2015). *The relationship between career decisions and perfectionism, learning motivation and academic achievement in university students*. Master's Thesis, Dokuz Eylül University, Institute of Educational Sciences, İzmir.

Zhang, Z. J., Zhang, C. L., Zhang, X. G., Liu, X. M., Zhang, H., Wang, J., and Liu, S. (2015). Relationship between self- efficacy beliefs and achievement motivation in student nurses. *Chinese Nursing Research, 2*(2-3), 67-70. https://doi.org/10.1016/j.cnre.2015.06.001

Zhou, D., and Santos, A. (2007). Career decision-making difficulties of British and Chinese international university students. *British Journal of Guidance Counselling, 35*(2), 219-235. https://doi.org/10.1080/03069880701256684