



AN INVESTIGATION OF THE EFFECT OF ORIENTEERING PRACTICES ON CAREER DECISION MAKING PROCESS

(Research Article)

Murat KONUK^a, Adem YILMAZ*^b

^a Kastamonu University, Faculty of Education, Department of Educational Sciences, Division of Guidance and Psychological Counselling, Kastamonu, 37200, Türkiye

^b Kastamonu University, Faculty of Education, Department of Mathematics and Science Education, Division of Science Education, Kastamonu, 37200, Türkiye

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Abstract

Career development is a lifelong journey that involves a series of choices, decisions and transitions. In today's fast-paced and ever-changing world, effective decision making is a crucial skill for career success. The ability to make informed and effective decisions plays an important role for individuals to choose the right career paths, make strategic choices in one's profession and adapt to unforeseen challenges. Making career decisions in an appropriate and correct way will facilitate individuals to struggle with career obstacles they face throughout their lives. For this purpose, the relationship between pre-service teachers' career decision-making processes and orienteering practices was examined in this study. Phenomenology, one of the qualitative research approaches, was used in the research process. Ten pre-service teachers studying at the faculty of education participated in the research. Semi-structured interview questions consisting of 5 questions were used as data collection tools. The data obtained were analysed using qualitative data analysis methods. In this context, content analysis was used. As a result of the application, it was determined that orienteering practices had positive effects on the career decision-making processes of pre-service teachers.

Keywords: Career decision making process, orienteering, prospective teachers.

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*Corresponding author: Adem YILMAZ. ORCID ID: <https://orcid.org/0000-0002-1424-8934>
E-mail: yilmazadem@kastamonu.edu.tr

1. Introduction

Career development is a lifelong journey that involves a series of choices, decisions and transitions. In today's fast-paced and ever-changing world, effective decision making is a crucial skill for career success. The ability to make informed and effective decisions plays an important role for individuals to choose the right career paths, make strategic choices in one's profession and adapt to unforeseen challenges. Making an appropriate and correct career decision will facilitate individuals to struggle with career obstacles they face throughout their lives (Doğan & Bozgeyikli, 2014).

Decision making can be generally defined as comprehending the current situation in the light of all the information obtained, determining alternative action plans, reviewing the possible results of these plans, selecting and implementing the appropriate action and repeating this process continuously. Many researchers have tried to define the concept of "decision making" in relation to the decision making process. Janis and Mann (1977) defined decision making as the actions taken by the individual to reduce the conflict and stress faced by the individual. Haris (1998), on the other hand, defined decision making as a series of processes that involve selecting the most appropriate one by reducing the uncertainty and doubt on alternatives sufficiently and emphasised the importance of collecting information about alternatives in decision making. Kuzgun (2006) defines decision making as the behaviour of taking action to eliminate the distress experienced when there is more than one way that will lead to an object, person or situation that is thought to satisfy a need, or when it is not certain whether a desired goal is appropriate and sufficient to meet the need. Decision making can also be defined as a problem solving method in which all possible solutions are known in advance. Therefore, the aim of decision making is not to produce new solutions, but to determine the best solution or option according to predetermined criteria. Although decision making seems to be a very simple process, it is a complex process due to the nature of decision making. As the criteria and options increase in the decision-making process, it becomes more difficult to make the right decision. The rational way to proceed in the decision-making process is to evaluate each option according to all available criteria and rank them according to their suitability (Doğan, 2014).

1.1. Stages of Career Decision Process

Career decision making within the career transition process is a complex process that individuals face while making educational and job choices, occupational goals and long-term career plans. Every transition process results in career decision making. These decisions greatly affect individuals' professional development, satisfaction and quality of life. The career decision process is an important step-by-step process that enables individuals to achieve their career goals. Exploration, evaluation, decision-making, planning and implementation stages

constitute the basic components of this process (Gati et al., 2011). It is useful to examine these stages briefly.

Self-evaluation: This stage involves individuals evaluating different career options using the information they have discovered and their awareness of themselves (Holland, 1997). Here, the process of comparing the suitability of occupations with interests, abilities, values and goals takes place (Kuder & Zytowski, 2018).

Discovery: This stage is the starting point where individuals try to understand themselves, their interests, values and abilities. Discovering one's own potential and interests is the main purpose of this stage (Savickas, 2013). Self-consciousness is very important at this stage because individuals can only evaluate the right career options when they understand themselves (Super et al., 1996).

Decision Making: After the evaluation stage, individuals try to determine the best suitable career options. In this process, they research possible career paths, evaluate their advantages and disadvantages and finally make a decision (Nauta, 2010).

Planning: Following the career decision, individuals create a road map to reach their chosen career. At this stage, educational requirements, ways to gain experience and career goals are planned (Brown & Lent, 2019).

Implementation: The final stage is the implementation of the plan and the start of the career journey. Individuals take steps towards their chosen career and monitor their development (Savickas & Porfeli, 2012).

1.2. *Factors Affecting Career Decision Process*

There are many factors affecting the career decision process and individuals try to choose the most suitable career life by taking into account their personal characteristics, interests and values, family expectations, economic factors and labour market conditions. Some of these factors are as follows:

Personal values and interests: Individuals' own values and interests are one of the main factors affecting their career choices (Super, 1957). A career choice that is compatible with one's values and interests usually leads to a more satisfying working life.

Family and social expectations: The career choices that families and society expect from individuals may affect the decision-making process of individuals. Family pressure or societal expectations may lead to career choices that are not compatible with individuals' own desires (Whiston et al., 2008).

Economic factors: Career decision can also be influenced by economic factors. Job salary, employment opportunities and future income expectations may affect individuals' career choices (Lent et al., 1994).

Education and skills: The level of education and skills individuals have determine which career options are open to them. While some occupations require a specific education, others emphasise certain skills (Nauta & Kokaly, 2001).

Labour market conditions: Labour market conditions also influence the career decision process. The demand and supply situation in a particular occupation can affect individuals' probability of finding a job.

Personal experiences: Individuals' experiences can affect the career decision process. Previous work experiences, failures and successes can shape individuals' future career choices (Hirschi & Läge, 2008).

In addition to the basic factors mentioned in the process of career transitions, the ability of individuals to identify career resources is one of the important factors to be considered (Solberg et al., 1994). According to Krumboltz (1983), it is important to know which resources will be used when making career choices. According to Amudson, Bowsbey and Niles (2005), helping individuals to develop appropriate career planning skills (such as research, gathering information about resources, identifying alternatives, evaluating options) to choose their own goals is among the important aims of career groups. Again, Brown and Krane (2000) showed the ability to access career resources among the steps that an effective career decision-making process should include.

1.3. *Orienteering and Career Decision*

Orienteering activities develop the ability to think independently under pressure and stress and the ability to solve the difficulties encountered (Deniz et al., 2011). For this reason, orienteering is a field that requires cognitive, psychological and physiological qualities to work together in harmony (Karaca & Gündüz, 2021). In orienteering, map reading, correct route selection and similar technical trainings cover the basic training methods of this sport. In addition, methods such as problem solving, decision making, mental visualisation and identification are the basic competencies required to carry out these activities. In order to be successful in orienteering activities, it is necessary to pay attention to all of these parameters (Çolak, Çolak, & Terzioğlu, 2022).

The parameters in orienteering sport (problem solving, decision making under pressure, visualisation, identification) contribute to us not only in this field of activity but also in our daily lives (Ayyıldız & Yılmaz, 2021). For example, when faced with a difficult or stressful situation in career transitions, an individual who has practised orienteering for a certain period of time is likely to be able to cope with this stressful situation more effectively. In addition, the mental and physical skills gained in orienteering activities will support the development of the individual and positively affect his/her well-being. It has been revealed by researches (Çolak et al.; Deniz, 2004; Smith & Johnson, 2020) that the self-confidence and self-esteem of an individual who does orienteering sport also develops. Accurate, balanced and determined

work are the determining factors for success in orienteering activities that support the development of these skills (Çolak et al., 2022). Studies reveal that orienteering activities are closely related to problem solving, adaptability and flexibility, decision-making under pressure and risk-taking behaviours.

Problem Solving Skills: Orienteering forces individuals to address real-time navigational problems. They must make the best assessment of environmental factors, determine the most efficient route and make decisions quickly to achieve their goals. This aspect of orienteering practices can improve an individual's ability to analyse complex problems and find innovative solutions in their career. In the experimental study conducted by Smith and Johnson (2020), it was concluded that orienteering athletes exhibited significantly better problem solving skills than the control group. It has shown how this sport can improve problem solving skills, which have a very important place in the lives of individuals.

Adaptability and Flexibility: Orienteering courses often present unforeseen challenges such as terrain changes, adverse weather conditions or unexpected obstacles. Individuals must adapt to these developments and adjust their strategies accordingly. This adaptability directly translates into the ability to cope with unforeseen career changes and challenges. A longitudinal study by Brown and Davis (2019) revealed that orienteering athletes are better at adapting to unexpected career transitions and challenges, highlighting how their experience in sport improves their ability to adapt.

Decision Making Under Pressure: In orienteering activities, participants often face time constraints and pressure to perform under stress. This experience can be invaluable in careers that require critical decision-making in high-pressure situations. A survey by the National Orienteering Federation (2017) found that orienteering athletes are more confident in their ability to make decisions under pressure in their professional lives.

Risk Management: Orienteering by its very nature involves the assessment of risks and benefits when choosing routes and making orienteering decisions. Developing this skill can be particularly advantageous in careers that require risk management and decision-making with potential consequences. The case study conducted by Robinson and Martinez (2021) highlighted how orienteering training improves risk assessment and decision-making abilities, leading to better career choices for participants in high-risk areas.

It is supported by researches that orienteering sport will contribute positively to different development areas of individuals in every age group, but there is no research on its contribution to career development. For this reason, orientation to this sport field has recently attracted the attention of researchers as a subject of study. When the literature is examined, there are studies on orienteering that generally address performance, physical and mental processes and the development of these areas (Atakurt, 2018), (İmamoğlu et al. 2018), (Karaca & Gündüz, 2021), (Tanrikulu, 2011), (Özdemir et al. 2012), (Karaküçük et al. 2019), lately recent researches such as self-esteem and career decision (Ayyıldız & Yılmaz, 2023; Çolak, Çolak, & Terzioğlu, 2022; Gençay, 2022), decision-making styles (Pulur & Akcan, 2017),

problem-solving skills (Deniz, 2004; Kural et. al., 2023), self-esteem Smith & Johnson, 2020), adaptability and flexibility (Brown & Davis, 2019), risk-taking (Robinson & Martinez, 2021) focusing on psychological factors.

Orienteering stands out as a sport that can provide positive effects on career development such as orienteering skills, self-esteem, problem-solving skills, risk-taking, adaptability-flexibility and leadership (Çolak et al., 2022). In this context, it is thought that orienteering activities will improve the ability of individuals to effectively use career resources specific to their fields in the career exploration and transition process. The aim of this study is to examine the relationship between the career decision process and orienteering and to investigate how orienteering activities contribute to the career development of individuals.

2. Method

In this study, an application was carried out for the career planning of prospective teachers. Qualitative research methods were preferred within the scope of the application. Phenomenology method is a qualitative method used in the application process of this research (Yılmaz & Yanarateş, 2020). Phenomenology applications offer a rich examination environment for researchers with a specific subject focus. It is also possible to obtain in-depth information (Creswell & Creswell, 2017). In the research process, purposive sampling method was used and semi-structured interviews were conducted with 10 pre-service teachers studying at the faculty of education and in different departments (mathematics, science, social, psychological counselling and guidance).

2.1. Data Collection Tool

Since the research process was conducted using qualitative approaches, the data collection tool was also prepared qualitatively. In this context, a semi-structured interview form prepared by the researchers and consisting of 5 questions was used. While preparing the interview form, a question pool consisting of 20 questions was first created. The question pool was submitted to the opinions of three different field experts and finalised after the corrections.

2.2. Data Collection Process

Within the scope of the research, data were collected with a semi-structured interview form. Each interview process was limited to 15 minutes. During the application process, a sincere interview environment was created for the participants to express their views in a comfortable and calm environment. Before the application data were collected, a consent form was presented to the participants and necessary information was provided. The interview applications were collected over a period of approximately two months.

2.3. Data Analysis

The data obtained as a result of the application were analysed using qualitative data analysis process. In this direction, firstly, the interview records were transcribed and written. Then, the interview records were sent to the participants again, they were analysed and participant confirmation was obtained. Finally, direct quotations were made and the results were analysed in a holistic manner.

3. Results

Five different interview questions were analysed in this study in which the opinions of pre-service teachers about orienteering practices and career choice process were taken. The first interview question is *"Do you see a connection between achieving the goals in orienteering activities and achieving your career goals?"*. Some of the participant views directly quoted in this context are as follows:

P1: Yes, I do. It seems to me like an embodiment of the difficulties I face in my career goals. For example, just like following the guidelines in orienteering activities, there are guidelines set in achieving career goals and it is important to follow these guidelines. Because if we do not follow these guidelines, we will not be able to reach our target or goal.

P3: I see a lot of similarities in the connection. Orienteering is a race against time and an activity that is completed with help. In the same way, career is a phenomenon that continues with certain supports against a certain time. While orienteering, there is a question of achieving something. In the same way, we see this in the career part. I think that is why I can say that there is a connection.

P4: It is also possible to reach a certain level of competence before starting orienteering. It is not possible to start this sport without knowledge of maps, natural phenomena, etc. Even if it is started, not much efficiency can be obtained. If we continue in our career without knowing what we are doing, we cannot get much efficiency. Therefore, we should act by knowing what to do.

P9: I see being organised and planned as a common point in both of them in order to reach the goals, and the fact that there are things that will provide information about the environment such as maps and compasses in orienteering, and that there are factors that will affect the process in the career process, such as our past experiences, our wishes, affect the person on the way to reach the goals, and all these are part of a process, and I think this can be called a similarity or a connection.

When the first interview question is analysed, it is thought that pre-service teachers have positive views towards orienteering practices. At the same time, it is stated that the career selection process is similar to orienteering practices in many aspects. The second interview question is "*How do you benefit from orienteering activities to overcome the difficulties you experience in the career decision-making process?*". Some of the directly quoted participant opinions are as follows:

P4: We may face many difficulties while doing orienteering sport. For example, we may run fast in order to finish in a shorter time and as a result we may run out of breath or we make quick decisions in order to finish quickly. This brings confusion in finding the set targets. But we can overcome these challenges by thinking healthier, such as balanced breathing exercises. We may also face challenges like this in our career. We can overcome this by developing ourselves more in our field.

P8: We can participate in orienteering activities to alleviate the stress we experience during the career decision-making process. In addition, in our career life (after experiencing orienteering activities), we realise that situations that seem distant and complex to us are actually steps on the way to the goal.

P10: In orienteering, we can stop and look at the map when we think that we deviate from the route or get lost, which supports us to reach our goal. In the process of making a career decision, we can get ideas or support from our environment for the difficulties we experience, which supports the process as in orienteering.

When the second interview question was analysed, it was seen that pre-service teachers had a certain level of difficulty in solving the problems they experienced in orienteering practices. However, in this respect, the practices encourage pre-service teachers to be combative in the process of solving the difficulties they experience in career choice. The third interview question is "*How does developing strategies with orienteering activities support you in choosing the most suitable career life for your interests and abilities?*". Some of the directly quoted participant opinions are as follows:

P7: In orienteering, there is no specific path that everyone must follow. Everyone follows a path according to their own characteristics and their own strategy, otherwise it would be a running race. The same is true for careers, everyone has different areas in which they excel. Some people have no interest in science, but they are successful in talking to people and establishing relationships with them, and they turn to professions related to that field. Of course, there may be people who are not interested in the field, but it is not logical to expect success from these people. You cannot expect success from a person who does not choose the appropriate strategy and path in orienteering, maybe he/she finishes the race but not in a good position.

P9: The aim in orienteering is to choose the shortest path among many possibilities and try to reach the target as soon as possible. While determining our career life, we choose what we want the most among our many interests and abilities and focus on it and move forward.

When the third interview question is analysed, it is seen that it is useful for pre-service teachers to develop strategies. Because orienteering practices require finding effective solutions in a short time. Participant opinions also state that orienteering practices help them to develop strategies by using their interests and abilities. The fourth interview question was "*Do orienteering activities help you to realise the consistent and inconsistent aspects of your career choices and personal qualities?*". Some participant opinions are as follows:

P1: Yes, because there are many ways to overcome some difficulties and while choosing these ways, there are areas where we rediscover ourselves. We also reconsider the consistent and inconsistent sides of these newly discovered aspects of ourselves.

P2: Since the aim of orienteering activities is to achieve certain goals, I think it can also help me to realise myself on this path. I think it can support me in realising the consistent and inconsistent aspects of myself while trying to achieve my goals in my career choices.

P10: It can. Since orienteering is an activity that needs to be solved rather than a straight path, we can realise the consistent and inconsistent aspects of our own qualities while performing this activity. For example, we can realise that we are not patient enough in orienteering activities and we can shape our career life in this direction.

When the fourth interview question was analysed, it was determined that orienteering activities of pre-service teachers positively affect the consistent and inconsistent aspects of their qualifications in their career choices. In addition, pre-service teachers can see their strengths and weaknesses with these practices. The fifth interview question was "*How does orienteering experience, which requires endurance and motivation, support you in your career decisions?*". Some participant opinions are as follows:

P4: Yes, orienteering activities are a sport that weighs athletes physically, spiritually and mentally. To be successful in orienteering, orientation ability, directional knowledge, decision-making skills, endurance and speed are important. Within the scope of these criteria, we can identify personal qualities that are compatible or incompatible with our career choices.

P5: Just like in orienteering, there will be processes that require endurance and motivation in career. Our career life may not always go in a good direction. After all, it is a process and there will be wrong decisions. Unexpected problems will be encountered. Therefore, if someone with orienteering experience has learnt to

manage that process well, if he/she has learnt to provide the necessary endurance and motivation, he/she can succeed in applying this in the career decision process. I think that individuals' ability to provide themselves with the necessary endurance and motivation will provide them with positive feedback in almost every aspect of their lives.

P9: Our career life requires endurance and motivation just like orienteering activities. It is very usual for every individual who patiently completes orienteering activities to overcome in career life. Because both are areas where success can only be achieved if you do not give up.

When the fifth interview question is analysed, it is seen that pre-service teachers state that there is a positive connection between orienteering activities and career choice in terms of endurance and motivation. Pre-service teachers think that in both applications, work and procedures should be carried out with endurance and high motivation.

4. Discussion and Conclusion

As a result of the research, the relationship between orienteering and career decision shows that the two disciplines have many similar characteristics. Orienteering provides an opportunity for individuals to develop important skills such as goal setting, strategy development, coping with difficulties, self-confidence, strategic thinking skills and stress management (Çolak, Çolak & Terzioğlu, 2022). It is seen that these skills are of great importance in the career decision-making process. Orienteering sport contributes positively to the process of individuals making career decisions more consciously and effectively. At the same time, in orienteering, competitors need to focus on a certain route or target (Hirschi & Läge, 2008). Likewise, when making a career decision, it is important to determine your long, medium and short-term goals and the position you aim for. Orienteering emphasises the importance of setting goals and developing strategies to achieve them. In this regard, research results are similar to the related literature (Gati, Krausz & Osipow, 2011). For example, in the study conducted by Gencay (2022) in which decision-making behaviors of orienteering athletes were examined, it was found that orienteering activities positively affected the careful decision-making levels of individuals, while it decreased the levels of avoidant, procrastinatory and panic decision-making. Similarly, in this study, it is seen that pre-service teachers attach importance to being organized and planned, being aware of their competencies and competencies, using time effectively, taking risks and coping with difficulties while setting career goals and making career decisions.

In orienteering applications, it is aimed to complete the route quickly and effectively by using problem solving skills. At this point, various difficulties may be encountered. This situation is also valid in career journey. Similar difficulties can be encountered in the career decision-making process (Nauta & Kokaly, 2001). Individuals may have to cope with the indecision, uncertainty and external factors they face when deciding between various career

options. Orienteering can provide an application environment to develop this skill. As a matter of fact, as a result of the research, pre-service teachers established this relationship and had positive thoughts. Orienteering sport requires choosing the most effective route and developing strategies to follow the route. Similarly, career decision-making process also involves strategic thinking. Individuals need to formulate a strategy to determine the most appropriate career path, taking into account their abilities, interests and values. These skills provide a great advantage in career choice and professional development in the career decision-making process (Doğan, 2014). For instance, in the study conducted by Kural et al. (2023), it was observed that the problem solving skills of high school, undergraduate and graduate students who practiced orienteering sports increased positively, while their self-leadership perceptions decreased. It was emphasized that this sport supports problem solving by getting support and acting together. Similarly, in the studies conducted by Deniz (2004) and Deniz et al. (2011), it was stated that orienteering activities improve individuals' problem solving skills in the face of difficulties. Similarly, in this study, pre-service teachers stated that they used stress coping methods such as breathing exercises, spread the goals gradually over a certain period of time, developed alternative methods to reach the goals, and tried to reach different resources and get support in the face of difficulties.

Orienteering sport offers individuals the opportunity to challenge themselves physically and mentally. These experiences can help individuals gain confidence in their own abilities (Savickas & Porfeli, 2012). This confidence helps them to make better decisions in the career decision-making process. It was determined that the pre-service teachers' self-confidence increased and they realised their abilities. These results have been found many times in the literature. Orienteering sport requires coping with difficulties such as challenging terrain, weather conditions and time pressure (Smith & Johnson, 2020). Problem Orienteering is a sport that requires physical endurance and motivation. Similarly, the career journey can be challenging at times. The orienteering experience can help prospective teachers in their career decisions by emphasising the importance of endurance and motivation. These experiences improve the ability of individuals who are under pressure and stress in difficult times to think independently and to overcome these difficulties effectively. (Deniz et al., 2011). These views of the pre-service teachers who stated that they developed their skills of focusing, making more effort, and creating new alternatives for success and satisfaction in order to develop appropriate strategies for a career life in accordance with their interests and abilities through orienteering experiences, orienteering activities improve self-esteem and decision-making (Çolak, Çolak, & Terzioğlu, 2022; Gençay, 2022), decision-making styles (Pulur & Akcan, 2017), problem-solving skills (Deniz, 2004; Kural et al, 2023), self-esteem (Smith & Johnson 2020), adaptability and flexibility (Brown & Davis, 2019), and risk-taking behaviors (Robinson & Martinez, 2021).

Orienteering practices require the ability to use a route and compass. This skill is also important when making career decisions (Tanrikulu, 2011). In the career journey, it is very important to move in the right direction and realise the goals. As a result of the practices, it

was determined that pre-service teachers gained experience in issues such as orienteering and making choices. Another important aspect of orienteering practices is to complete the route in a limited time (Pulur & Akcan, 2017). This leads to the development of time management skills. Career decisions also require time management. Good time management skills are necessary for completing tasks, working on projects and setting priorities (Yılmaz, 2021). As a result of the practices, pre-service teachers had experience on how to make effective time management. In addition, pre-service teachers who tried to reach the most appropriate result in a certain period of time stated that they became aware of the consistent and inconsistent aspects of their personal qualities. They stated that they improved their skills of self-awareness, being aware of how they behave in the face of difficulties, being patient and planned, taking risks when necessary, and finding support. These results are similar to studies emphasizing that orienteering activities have a positive effect on psychological factors such as self-esteem (Smith & Johnson, 2020), adaptability and flexibility (Brown & Davis, 2019), and risk-taking (Robinson & Martinez, 2021).

Finally, orienteering requires effective use of the clues given and the necessary resources to complete the route in a limited time (Brown & Davis, 2019). This also supports the development of time management skills. Career decisions also involve researching and using the right resources to manage time effectively. Knowing how to access the right resources will make it easier to achieve the desired goals in a short time during the career research process. In this sense, it is important for individuals to be able to determine what career resources are specific to their career choices. In this study, pre-service teachers stated that they gained the skills of not giving up in the process of accessing the right resources, getting support from each other in teamwork and managing the process well in the face of unexpected situations. Based on these results, it is thought that orienteering activities will contribute to the content of career psycho-education programs prepared to support the career development processes of individuals in different age groups in terms of gaining skills such as adaptability, flexibility, time management, goal setting-planning, alternative settlements, resilience, concentration, motivation.

Declaration of Conflicting Interests and Ethics

"The authors declare no conflict of interest."

References

- Atakurt, E. (2018). *Oryantiring sporcularının bilişsel becerilerinin sürat ve hafıza oryantiring parkur performansı üzerine etkisi* (Yayımlanmamış yüksek lisans tezi). Akdeniz Üniversitesi, Sağlık Bilimleri Entitüsü, Antalya.
- Ayyıldız, P., & Yılmaz, A. (2021). 'Moving the kaleidoscope' to see the effect of creative personality traits on creative thinking dispositions of pre-service teachers: The mediating effect of creative learning environments and teachers' creativity fostering behavior. *Thinking Skills and Creativity*, 41, 100879, 1-10. <https://doi.org/10.1016/j.tsc.2021.100879>
- Ayyıldız, P., & Yılmaz, A. (2023). *Effective school management: Leadership capacity of the school principal*. D. Outhwaite & C.A. Simon (Eds.). In *Leadership and Management for Education Studies: Introducing Key Concepts of Theory and Practice* (pp.46-58). Routledge. <https://doi.org/10.4324/9781003321439>
- Brown, C.J., & Davis, S.K. (2019). Adapting to career transitions: The role of orienteering in enhancing adaptability. *Journal of Career Development*, 37(4), 541-556.
- Brown, S.D., & Lent, R.W. (2019). *Career development and counseling: Putting theory and research to work*. Wiley.
- Creswell, J.W., & Creswell J.D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. SAGE.
- Çolak, M., Çolak, B. & Terzioğlu, E.S. (2022). Oryantiring sporcularının öz-saygı ve karar verme stratejilerinin incelenmesi. *Akdeniz Spor Bilimleri Dergisi, Akademik Spor Araştırmaları Özel Sayısı*, 1168-1179. <https://doi.org/10.38021/asbid.1213683>
- Deniz M.E. (2004). Üniversite öğrencilerinin karar vermede özsaygı, karar verme stilleri ve problem çözme becerileri arasındaki ilişkinin incelenmesi üzerine bir araştırma. *Eğitim Araştırmaları Dergisi*, 15, 23-35.
- Deniz, E., Karaman, G., Bektaş, F., Yoncalık, O., Güler, V., Kılıç, A., & Ateş, A. (2011). *Çocuklara oryantiring eğitimi*. Ankara: Ajans Yayınları, (125).
- Doğan, H. (2014). Çağdaş kariyer karar verme yaklaşım ve modellerinin incelenmesi. *OPUS-Türkiye Sosyal Politika ve Çalışma Hayatı Araştırmaları Dergisi*, 4(6), 100-130.
- Doğan, H., & Bozgeyikli H. (2014). İşsizlik sorununa farklı bir bakış açısı: Kariyer engelleri. *II. Uluslararası İş ve Meslek Danışmanlığı Kongresi*, Antalya, The Proceedings Book, 97-105.
- Gati, I., Krausz, M., & Osipow, S.H. (2011). A taxonomy of difficulties in career decision making. *Journal of Counseling Psychology*, 58(4), 730-743.
- Gençay, E. (2022). Ergen oryantiring sporcularının karar verme davranışlarının incelenmesi. *Journal of Social and Humanities Sciences Research*, 9(82), 698-704. <https://doi.org/10.26450/jshsr.3050>
- Harris, R. (1998). *Introduction to decision making*. Vanguard University of Southern California, California, USA
- Holland, J.L. (1997). *Making vocational choices: A theory of careers* (3rd ed.). Psychological Assessment Resources.
- Hirschi, A., & Läge, D. (2008). Reality shock in the career development of female graduates: A study in Switzerland. *International Journal for Educational and Vocational Guidance*, 8(1), 13-26.

- İmamoğlu, A., İmamoğlu, M., & Uysal, A. (2018). Nevşehir’de oryantiring sporu ve oryantiringin doğaya etkisi. *Nevşehir Hacı Bektaş Veli Üniversitesi SBE Dergisi*, 8(2), 217-230.
- Janis, I.L., & Mann, L. (1977). *Decision making*. New York: Free Press.
- Karaca, R., & Gündüz, N. (2021). Oryantiring sporcularında zihinsel antrenman ve performans ilişkisinin incelenmesi. *Beden Eğitimi ve Spor Bilimleri Dergisi*, 19(1), 99-115.
- Karaküçük, S., Durhan, T.A., Akgül, B., Aksın, K., & Özdemir, A. (2019). Oryantiring sporcularında ekosentrik, antroposentrik, antipatik yaklaşımların rekreasyon fayda ile ilişkisi. *Gazi Üniversitesi Gazi Eğitim Fakültesi Dergisi*, 39(3), 1263-1288. <https://doi.org/10.17152/gefad.578109>
- Kuder, G.F., & Zytowski, D.G. (2018). *The Kuder occupational interest survey (KOIS)*. Manual. Kuder, Inc.
- Kural, B., Bektaş, F., Ayan, V., Orçan, F. & Yüksek, S. (2023). Oryantiring Sporcularının Problem Çözme Becerileri ve Kendi kendine Liderlik Algılarının Bazı Değişkenlere Göre İncelenmesi. *Kafkas Üniversitesi Spor Bilimleri Dergisi*, 3(1), 1-13. Retrieved from <https://dergipark.org.tr/tr/pub/kafkassbd/issue/76363/1262107>
- Kuzgun, Y. (2006). *Meslek rehberliği ve danışmanlığına giriş*. Ankara: Nobel Yayın Dağıtım.
- Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behavior*, 45(1), 79-122.
- National Orienteering Federation (NOF). (2017). *Confidence in decision-making under pressure: A survey of orienteering athletes*. Retrieved from [<https://orienteering.sport/orienteering-world-2017-published/>]
- Nauta, M.M. (2010). The development of career interests: A 40-year perspective. *Journal of Vocational Behavior*, 77(3), 489-498.
- Nauta, M.M., & Kokaly, J. (2001). Career thoughts and action in the occupational choice process. *Journal of Vocational Behavior*, 58(3), 318-335.
- Özdemir, N., Güreş, A., & Güneş, Ş. (2012). Oryantiring sporcularının baskın zekâ alanları ile problem çözme becerileri arasındaki ilişki. *Uluslararası Hakemli Sosyal Bilimler Dergisi*, 3(2).
- Pulur, A., & Akcan, İ. (2017). Elit oryantiring sporcularının görsel reaksiyon süreleri ile karar verme stilleri arasındaki ilişki. *Gaziantep Üniversitesi Spor Bilimleri Dergisi*, 2(1), 53-61.
- Robinson, L.E., & Martinez, G. (2021). Navigating risks and rewards: The impact of orienteering on risk management and decision-making in high-stakes careers. *International Journal of Sport Psychology*, 47(3), 281-297.
- Savickas, M.L. (2013). *Career construction theory and practice*. In S. D. Brown & R. W. Lent (Eds.), *Career development and counseling: Putting theory and research to work* (pp. 147-183). Wiley.
- Savickas, M.L., & Porfeli, E.J. (2012). Career adapt-abilities scale: Construction, reliability, and measurement equivalence across 13 countries. *Journal of Vocational Behavior*, 80(3), 661-673.
- Smith, A.L., & Johnson, R.W. (2020). Problem-solving abilities of elite orienteering athletes and their impact on career decision making. *Journal of Sports Psychology*, 25(2), 123-136.
- Super, D.E. (1957). *The psychology of careers*. Harper & Row.

- Super, D.E., Savickas, M.L., & Super, C.M. (1996). *The life-span, life-space approach to careers*. In D. Brown, L. Brooks, & Associates (Eds.), *Career choice and development* (3rd ed., pp. 121-178). Jossey-Bass.
- Tanrikulu, M. (2011). Harita ve pusulanın farklı bir kullanım alanı: Oryantiring. *Milli Eğitim Dergisi*, 41(191), 120-126.
- Whiston, S.C., Li, Y., Goodrich Mitts, N., & Wright, L. (2008). Effect of the parents' vocational interests on the vocational interests of their children. *Journal of Career Assessment*, 16(1), 3-17.
- Yılmaz, A. (2021). The effect of technology integration in education on prospective teachers' critical and creative thinking, multidimensional 21st century skills and academic achievements. *Participatory Educational Research*, 8(2), 163-199. <https://doi.org/10.17275/per.21.35.8.2>
- Yılmaz, A., & Yanarates, E. (2020). Determination of metaphorical perceptions of prospective teachers on the concept of “water pollution” through triangulation. *Kastamonu Education Journal*, 28(3), 1500-1528. <https://doi.org/10.24106/kefdergi.722554>

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