The Effect of Teacher Candidates' Self-Determination Perceptıons on Their Career Decision-Making Self-Efficacy in Distance Education

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Abstract
The purpose of this research is to examine the effect of students' self-determination perceptions on their career decision-making self-efficacy in the distance education process. Qualitative research design was used in the study. As a data source, undergraduate and graduate students studying in the Biology department of Bolu Abant İzzet Baysal University Faculty of Science and Letters in the 2022-2023 academic year, who have the opportunity to make many career decisions in addition to the teaching profession, were contacted one by one and asked survey questions and asked to note their answers. When determining teacher candidates, students who had taken a career planning course during their education or were informed about the course content were selected. According to the answers of 16 participants (13 senior undergraduates and 3 graduate students) who returned during the distance education process, when their views on self-determination skills are examined, 87.5% of the participants think that they can choose what they want when choosing "medium level" and above. According to the opinions of the participants regarding the profession/sector in which they want to work, taking into account self-determination, the categories with the highest and equal frequency values in addition to teaching are University/Academician, Researcher, and Biology. It has been determined that limiting emotions are anxiety and indecision. Students' career plans over time in their working life are to become researchers /academics/scientists. Apart from these, it has been revealed that personal development and professional development are the most desired ones. Initiatives that increase the self-determination skills of teacher candidates may further help their self-efficacy. Self-determination and career decision-making self-efficacy as desired qualities in the teacher education process.
Keywords: Self-determination, Career decision-making self-efficacy, Teacher Education

Introduction
Individuals go through career determination and decision-making processes, which are one of the major selection stages throughout their lives. The self-efficacy of the individual is important in this decision-making process, which will affect their future social life and professional satisfaction, together with the support of their family. The individual who will make a career decision is expected to evaluate himself/herself, recognize his/her interests, research professional information appropriate to his/her interests, and therefore be competent to determine his/her goals. Based on this concept, the effect of self-determination on the career decision-making, especially during the period of distance education, is investigated.

For teacher candidates to become more qualified, it is important that students have the desire to choose the teaching profession during the career decision stages. Thus, the identification and development of strategies that will improve self-efficacy of these student teachers so that they can follow the necessary career steps come to the fore. This will ensure that instead of students who randomly choose a profession, students who are passionate about the teaching profession, who like to work, and who have made a career plan in this field will be trained as teachers. Just like self-determination, career choices begin at an early age. Individuals may imitate the personality traits of their family members or people in their close circle and may desire to do the same profession. Choice-making skills, which can emerge during childhood, are an essential component for making decision process as children determine their preferences and make choices based on these preferences, and must be present for decision-making skills to develop (Wehmeyer & Little, 2013). At the same time, it is necessary to offer strategies and new approaches to develop these skills for university students, who are at an important point in choosing a profession. Such developments and contributions will allow students to make career decisions suitable for themselves and enable them to become more qualified teachers.

The development of self-efficacy for students, families are considered important in promoting self-determination (Eisenman & Chamberlin, 2001; Chamberset al., 2007). Self-determination has gained importance, especially in the context of central mental formation in early adolescence, determining the general perspective on life in the future, being accepted as a certain segment of society, being aware of being an adult, and determining their goals in life (Vasylenko & Sheremet, 2017). These qualities, which begin to be seen at an early age with the participation of the family, are expected to emerge especially in university students who are approaching an important point in their career decision-making stages and who will soon start their teaching profession.

Definitions such as "kendi kaderini tayin etme", "öz belirleyicilik", "özerk benlik yönetimi" have been used for the Turkish equivalent of the expression self-determination. In this wise a psychological definition, self-determination refers to volitional behaviors based on people's desires, and these are intentional, conscious, and determined behaviors (Hui & Tsang, 2012). In this article, the concept of self-determination will be discussed as

"özerk benlik yönetimi". It is based on self-determination theory (STD) (Deci & Ryan, 1985, 2008a; Ryan & Deci, 2017). SDT (Deci & Ryan, 1985) proposes intrinsic and extrinsic motivations. According to SDT, the key to autonomy is the satisfaction of basic psychological needs such as efficacy (Ryan & Deci, 2000, 2008a, 2008b; Ryan, 2009). Well-being appears to be higher which are shaped by their core values (Sheldon, Ryan & Reis, 1996). When people's life goals or aspirations are examined along with increasing or decreasing social conditions, it turns out that internal and external life goals have different relationships with performance and psychological health (Deci & Ryan, 2008b). Moreover, need satisfaction plays an essential mediating role for autonomy (Gagne' & Deci, 2005; Gagne´ & Forest, 2008; Meyer & Gagne, 2008). According to self-determination theory, it is thought that both personal and environmental variables are necessary in defining behavior, and the thoughts, emotions, motivations, and behaviors experienced by people, and the relationship between these and previous experiences play a causal role in behavior (Deci & Ryan, 1980; Wehmeyer, 1998). The elements needed to design instructional activities for students according to autonomous self-behavior have been identified. Also these elements include self-defense skills and self-efficacy perceptions (Wehmeyer, Agran, & Hughes, 2000). The surveys measure four key features of self-determination: learner autonomy and effectiveness of perceived empowerment. Accordingly, it has been theorized that promoting mindfulness or mindfulness is a central element, allowing for internal exploration, in-depth examination of needs and emotions (Deci & Ryan, 2008a). Most participants stated that self-determination mostly involves making choices (Thoma, Nathanson, Baker, & Tamura, 2002).

Self-determination theory proposes two general types of behaviors according to internal or external needs (Deci & Ryan, 1980): autonomous self-behaviors, and those that are not consciously chosen. The distinguishing factor between self-determined behaviors and automated behaviors is that autonomous behaviors are selected based on conscious processing of information, whereas automatic behaviors are not. Automatic behaviors are those that are "mindless", that is, behaviors that do not involve the mind, such as moving mechanically, while self-made behaviors are those that are chosen according to the person's expectations. The sequence of behaviors related to self-determination begins with information inputs from the environment and the person. The inputs come from the person's physiology and memory, psychologically, these are characterized in terms of personality and motivation (Deci & Ryan, 1980, 2008a; Ryan & Connell, 1989). In addition, since self-efficacy is linked to improved psychological functioning, self-esteem is expected to be positively related to closeness with families and frends (Guay, 2005).

Among the theories underlying the development of career decision-making self-efficacy, Bandura's self-efficacy (1977, 1986) theory and Crites' (1978) career maturity theory stand out (Betz & Luzzo, 1996). Individuals are divided into groups about autonomy. Gati and Asher (2001) proposed a systematic and three-stage model: It consists of preliminary screening, in-depth exploration, and selection stages. Students in the preliminary stage do not yet have a general orientation. People in the exploration stage deliberate between a small number of specific careers or consider a particular career. Individuals in the third stage (selection stage) become hopeful and compare several truly suitable alternatives, or they know which profession they want (Gati, Ryzhik & Vertsberger, 2013).

Career decision-making is based on two factors: career indecision and career certainty (Osipow & Winer 1996; Jemini-Gashi, Duraku, & Kelmendi, 2021). In a study conducted with young people, it was found that participants classified the elements they were undecided about as follows (Nota, Ferrari, Solberg & Soresi, 2007; Solberg, Good, & Nord, 1994): (a) not being able to decide which education course to continue, (b) not having enough information (c) not having help to decide and need support and (d) feel that their career efforts will be negatively affected by external factors. The distance education process has been experienced throughout the world, causing individuals' perceptions and lifestyles to change. In this process, it is obvious how important it is to make a career decision. It is important to increase the career decision-making competencies of students in the distance education process. It offers students and educators living in different places the opportunity to communicate effectively among themselves (İşman, 2008).

Since individuals are likely to have difficulties in managing complex situations, it is emphasized that when they have the negative experiences they experience form the basis of their beliefs about their later skills (Xu & Tracey, 2014). This study focuses on understanding the effect of the self-determination variable on career decision making self-efficacy. This study aims to examine how self-determination may be related to career decision-making self-efficacy, and in this context, the opinions of university students who are teachers about career decision-making and self-determination. It investigates how career decision-making, which has an essential place for every individual's life, may change according to self-determination. In this respect, it is thought that the study in question will contribute to making the right career choices in the teacher training process and thus to the education of university students as qualified teachers. In this context, the research aims to determine the effect of providing students' self-determination perception and self-efficacy. This study specifically examines (1) The level of ability to choose what you want when making a choice; (2) the level of freedom he feels when making choices and what emotions he feels constrained by; (3) the level of feeling alienated from one's emotions; (4) The sector in which he wants to work, that is, whether he has set a goal; (5) Professional knowledge about the sectors in which he wants to work; (6) information gathering sources and level of support from experts; (7) Students' plans that they want to achieve over time are examined according to their goals.

Method
Qualitative research design was used in the study. Semi-structured interview technique was used. Having taken a career planning course during their education or have been informed about the course content, it was decided to apply it to Biology department students, who have the opportunity to make many career decisions in addition to the teaching profession. As a data source, in 2022-2023, BAİBÜ Faculty of Science and Letters Biology Department senior undergraduate and graduate students, who were able to choose a teaching profession, were contacted one by one and asked survey questions and asked note their answers. A total of 16 students (13 senior undergraduate and 3 graduate students) returned due to the distance education process after the February 6 earthquake. Participants were coded K1, K2, …., K16 according to their return order. The items were evaluated as 5-very high, 4-often, 3 "medium level", 2 low, and 1 none or very low. Regarding students' views on self-determination, "Can you choose what you want when making a choice?" (5 is the most, 1 is the least)", "Do you feel free to determine what you want to do/your destiny? "What are your emotions that limit you?", "Do you experience moments when you feel alienated from yourself or your emotions?", regarding their views on career making-decision self-efficacy, questions such as "Which profession/sector do you want to work in?", "Have you researched issues such as working conditions, job interviews, appointments, etc.?" What is the subject that interests you the most?", "Have you received support from experts in career development? If your answer is yes, who are these people? and "What is your career plan over time in your working life?" questions were asked.

Frequencies (f) were calculated according to the categories formed. As a result of frequency calculations, students' views on self-determination were evaluated in terms of whether they could choose what they wanted when making choices, whether they felt free to determine their choices, what their limiting emotions were, and their degree of alienation from themselves and their emotions. According to students' opinions regarding their self-efficacy, they are divided into 4 categories (university/academics, research, biology, and education fields), 4 categories according to the sources of collecting information about working life (individual research, interview, working life, immediate environment), career plans over time in working life were divided into 3 categories (working in university, professional development and personal development). The research is limited to the opinions of Biology students and the survey questions.

Findings

a) Personal information of the participants

Table 1: Demographic information of students

	Özellik	f	%
Gender	Male	4	25
	Female	12	75
Education status	Undergraduate	13	81,3
	Graduate	3	18,7
Age	21-22	5	31,3
	23-24	9	56,2
	25 +	2	12,5

According to Table 1, 75% of the students participating in the research were female and 25% were male students; 81.3% were undergraduate students, 18.7% were graduate students, and 31.3% were 21-22 years old, 56.2% were 23-24 years old and 12.5% were 25 years old and over.

b) Distributions regarding students' self-determination skills

Table 2: Students' views on self-determination skills

THEME	Category	Codes	f
Can you choose what you want when making your choice? (5-very high, 1- none or very low)	5	[K2, K5, K6, K9]	4
	4	[K1, K3, K7,K11,K14, K16]	6
	3	[K4, K8, K13, K15]	4
	2	[K10]	1
	1	[K12]	1

Do you feel free to decide what you want to do/your destiny? What are your limiting emotions?	I did not feel free	I did not feel free [K2, K4]	3
	I feel partly free	I am facing financial obstacles. [K1] Anxiety and indecision sometimes limit me [K3] I feel partly free [K9, K10, K12]	4
	I feel free	I feel free [K6, K13] I feel free, but I think I cannot go abroad due to lack of financial income [K7] I feel free, but sometimes indecision limits me [K16] I feel like I'm just worried about whether I can find a job [K15] Environmental conditions/environmental factors [K7] I can make mistakes when I act according to the environment [K8] I feel free except for financial matters [K11]	9
Do you experience moments when you feel alienated from yourself or your emotions?	5	[K5, K7, K9,K14, K16]	5
	4	[K8]	1
	3	[K1, K3, K4, K6]	4
	2	[K12, K13, K15]	3
	1	[K2, K10, K11]	3

For students' views on self-determination skills were examined, students were asked "Can you choose what you want when making a choice?" 4 participants answered the question "5 - very high", 6 participants answered "4 - often", 4 participants answered "3 - medium level" and one participant each answered "2 - low" and "1 - none or very low". Only 2 participants answered "low" or "none". 87.5% of the participants think that they can choose what they want when choosing the medium and upper levels. It can be said that they are satisfied with their university and department choices, which are one of their most important career choices.

The question asked to the participants was "Do you feel free to determine what you want to do/your destiny? What are your emotions that limit you?". 3 participants answered the question "I don't feel", 4 participants answered "I feel partially free" and 9 participants answered "I feel free". The answers given show that most of the participants have high perceptions of self-determination. This situation seems to be particularly related to the self-appraisal stage, which is one of the five stages identified by Taylor and Betz (1983) regarding career decision-making. Individuals' personal characteristics, perceptions, and emotions also show their self-determination skills.

Students were asked "Do you experience moments when you feel alienated from yourself or your emotions?". 5 participants answered "5-very high", 1 participant answered "4-often", 4 participants answered "3-medium level" and three participants each answered "2-low" and "1-none or very low". Higher scores indicate higher perceptions of self-determination. Emotional factors and the individual's alienation attitude towards emotions can affect the development of self-determination. About limiting emotions, participant-K3 said, "Anxiety and indecision sometimes limit me." participant-K16 said, "I feel free, but sometimes indecision limits me." and participant-K15, "I feel, I'm just worried about whether I can find a job." It is understood from the answers that the limiting emotions are anxiety and indecision. Although the emotion was not clearly stated in the answers given by the participants, participant-K7 expressed their concerns about the environment they live in with the expressions "environmental conditions/environmental factors" and participant-K8 "I can make mistakes when I act according to the environment". Participant-K1 said, "I am facing financial obstacles and I don't feel free", participant-K11 said, "I feel free except for financial issues" and participant-K7 said, "I feel free, but I think I cannot go abroad due to lack of financial income" and participant-K5 said "I would like to stay in Türkiye." From their statements, it can be said that although the participants have various goals, they feel that their goals are limited by material factors rather than emotional boundaries and that they have financial concerns. Problem-solving according to the five stages defined by Taylor and Betz (1983) in overcoming financial obstacles shows a person's resilience when faced with professional obstacles. Günümüz ekonomik koşullarında öğrencilerin karar vermesinde finansal faktörler duyguların önüne geçebilmektedir. The limiting emotions that determine the perception of self-determination are replaced by financial obstacles and environmental factors in some individuals.

c) Distributions regarding students' career decision-making self-efficacy

Table 3: Students' views on the professions/sectors they want to work in regarding
their career decision-making self-efficacy

THEME	Category	Codes	f
The profession/ sector you want to work in	University/ Akademisyenlik	Academician [K1, K5, K9, K13, K15]	5
	Research	Scientific researcher [K5]	1
		Molecular biology and genetics [K2, K14, K16]	3
	Biology	Biology [K3, K6, K10, K11, K12]	5
	Education	Teacher [K7, K16]	2
Have you researched issues such as working conditions, job interviews, appointments, etc.? What topic interests you the most?	I didn't do research	I didn't do research [K3, K4, K5, K6, K12, K14]	6
	Research topics	Interview topics and content [K2, K9, K10, K11]	4
		I am researching education in high school. [K7]	1
		Appointment rate [K9]	1
		We need to improve ourselves in every aspect [K16]	1
		Although the department has many employment opportunities, there are very few job opportunities in Turkey [K15]	1
		I think our competence is secondary. [K1]	1
		Internship applications [K8]	1

Career decision-making self-efficacy is conceptualized as a subjective belief that one initiates and regulates one's behavior, decisions, and goals (Látalová & Pilárik, 2015). Accordingly, when Table 3 is examined, the question "Which profession/sector do you want to work in?" is asked to teacher candidates who are at the career decision-making stage. According to the answers to the question, the categories with high and equal frequency values are the University /Academician, Researcher, and Biology departments. Participant-K16 stated that he wanted to be a teacher as well as wanting to work in the Department of Molecular Biology and Genetics. Participant-K7 stated that he/she wanted to be a teacher. The reason for this may be that the study was conducted with students in the department of biology and that there are many subjects in the field that students can do research on and that may interest them, such as genetics, environment, medical laboratory, food, biochemistry, and biotechnology. Academician [K1, K5, K9, K13, K15], Scientific researcher [K5], Molecular Biology and Genetics [K2, K14, K16], Biology, Evolution and Genetics [K8], Biology [K3, K6, K10, K11, K12] and Teaching [K7, K16] chosen by students who have taken career planning courses are some of the study areas of the department. While self-determination is about self-evaluation, career decision-making self-efficacy is based on a self-determined goal. This is particularly related to the professional knowledge and goal selection stages of Taylor and Betz's (1983) five stages.

Students were asked: "Have you researched working conditions, job interviews, appointments, etc.? What is the subject that interests you the most?". According to the answers, 6 participants answered "I did not do any research", indicating that they did not think they had done enough research at the planning stage or that their career indecisiveness continued. Participants who answered "I did research" stated that they mostly researched the topics and content of job interviews. This may be due to the difference between the content and process of career choice (Crites, 1981). The "content" of career choice refers to what the individual is considering or choosing (e.g., a career in science). "Process" (e.g., the nature of research and decision-making activities) refers to how decisions are made (Betz & Hackett, 1986). A higher level of career decision-making self-efficacy is associated with greater commitment to career exploration activities (Gushue, Scanlan, Pantzer & Clarke, 2006). According to the five stages defined by Taylor and Betz (1983) regarding career decision-making, the planning stage defines the tasks that prepare a person for the job market. In this case, it can be said that the interviews that focus on evaluating the suitability of the candidate who wants to step into the business world are the most interesting topics. In this context, the availability of various opportunities at universities to improve themselves for individuals who are continuing their education may be a factor. Additionally, in addition to the interviews, other participants determined that the appointment rate, teaching, self-improvement, factors other than self-efficacy, job opportunities, and internship applications were other topics researched.

It appears that high self-esteem is associated with career decision. High self-esteem in making career decisions, has been found to be associated with higher perceptions of career obstacles and external expectations (Brown, Reedy, Fountain, Johnson & Dichiser, 2000). For comparing perfectionism, it was found that adaptive perfectionists had a higher level of career decision-making self-efficacy than non-perfectionists (Ganske & Ashby, 2007). In studies examined by gender, it was found that there was no general gender difference in career decision making self-efficacy (Betz & Hackett, 1986). Career indecision and career decision-making self-efficacy levels for adolescents differ depending on gender (Crişan & Turda, 2015). Following the career course, students reported more adaptive self-efficacy beliefs, as a result of the time-by-gender interaction, it has been shown that taking a career course is effective in increasing women's perceptions of self-efficacy in career planning and problem-solving (Scott & Ciani, 2008). Disadvantaged group women perceive job adaptation and socialization problems, deterrence from choosing fields outside traditional career fields, or disapproval of job/career choices by important people as obstacles to their career choice processes (Brown et al., 2000).

As seen in Table 3, the psychological components that make the student competent in making a career decision are important for a better understanding of the decision-making process in students who decide on a major (Scott & Ciani, 2008). The necessity of instilling a career decision-making competency curriculum in teacher training programs is emphasized. This can provide a solid foundation for career professionals and young people. Additionally, in secondary education, school counselors can provide parents, teachers, peers, and young individuals with information about career self-efficacy and factors in career decision-making (Jemini-Gashi, Duraku, & Kelmendi, 2021).

Table 4: Students' opinions regarding career decision-making self-efficacy

THEME	Category	Codes	f
What sources did you use to collect information about working life?	Individual research	Internet [K1, K2, K3, K4, K5, K8, K9, K10, K13, K15, K16] Kariyer fuarları [K16]	11
	Interview	Meeting with people who are in the position I want to be in [K1]	8
	Work life	Work life [K5]	2
	Close circle	People close to me [K14, K16]	3
Have you received support from experts in career development? If your answer is yes, who are these people?	I did not	I did not receive support [K1, K2, K3, K4, K5, K6, K8, K11, K13, K14, K15]	11
	People receiving support	From my department advisor [K7]	1
		People working in the field of human resources [K9] People in business [K10, K12]	3
		From faculty members [K16]	1
What is your career plan over time in your working life?	University	Becoming a successful scientist [K2, 12]	2
		Becoming academic [K2, K8, K15]	2
		Becoming a researcher [K6, K10, K11]	3
	Professional development	Making a special production [K7] Starting my own business [K14]	2
	Personal development	To improve myself more [K3, K5] Reaching the top [K5] Reaching the best place I can be with confident steps [K16] Being successful [K9]	4

Students answered the question "What sources did you use to collect information about working life?". They stated that they mostly conducted individual research using the Internet. After the individual research category, it was found that 8 participants chose the interview method. Individual research on the internet and interviewing techniques are the most preferred techniques by the participants. In the interview category, it is seen that the participants used interview methods such as "interviewing people who are in the position I want to be in [K1], examining the CVs of successful people [K11], learning about the experiences of faculty members around me [K7], getting information from faculty members [K8, K9, K13] and obtaining information from people working

in the field / collecting information from people who have had previous experience [K3, K13]". In the close circle category, people around me [K14, K16] and graduate students [K15]; In the working life category, the expressions business life [K5] and my own short-term working experiences [K7] are included. Based on this, it is understood that students are open to being influenced by the people around them and the people they interview. It seems that sharing positive and successful experiences with students may have an effect on career decision-making. In this case, it is necessary to avoid the impressions that negative or unsuccessful examples will create in students. For students using internet resources, it should be noted that not all resources may be accurate and up-to-date.

Students were asked: "Have you received support from experts in career development? If your answer is yes, who are these people?" It is seen that 11 students answered "I did not receive support". The remaining 5 students who answered "I received support" stated that they received support from my department advisor [K7], people working in the field of human resources [K9], people in business life [K10, K12], and faculty members [K16]. The individual's relationships with his environment, and feeling that he will receive social and academic support may be one of the factors in this situation. In addition, it is possible for the individual to access professional information that will increase his/her self-efficacy.

In response to the question "What is your career plan over time in your working life?", 9 participants stated that they wanted to continue at the university as a researcher/academician/scientist. In the professional development category, participant-K7 answered "Making a special production" and participant-K14 answered "Establishing my own business"; In the personal development category, 4 participants expressed their opinions with the answers "Improve myself more/ reach the top/ reach the best place I can be with confident steps/ be successful [K3, K5, K9, K16]". 3 participants stated that they did not want to answer. In terms of career decision-making self-efficacy, continuing working life as an academic is the most preferred option. When Table 4 is examined, it is seen that 9 participants made plans in the departments of academics and professional development to achieve their goals over time, especially in their working lives. It is understood that after the professional development category, students mostly make plans in the personal development category.

Discussion, Conclusion, and Recommendations

The current study examined the effect of undergraduate and graduate students' in distance education self-determination perceptions on their career decision-making self-efficacy. It was conducted with the participation of students who took the career planning program for one semester in the first year of their undergraduate education. Bandura's (1977, 1986) theory of self-efficacy expectations was taken as the basis for examining self-efficacy expectations regarding career decision-making, which is the focus of evaluation, change, and research in the general field of career beliefs and attitudes (Betz & Luzzo, 1996). In addition, students' career making-decision self-efficacy has been found to be strongly and negatively related to their overall level of career indecision (Taylor & Betz, 1983). The resulting structure is of great importance in determining individuals' career decisions and choices. It focused on university students as an important period in career decision-making.

When students' opinions on self-determination skills were examined, it was revealed that 87.5% of the participants were able to choose what they wanted when choosing an intermediate level or above. The question asked to the participants was "Do you feel free to determine what you want to do/your destiny?" "What are your emotions that limit you?" The answers to the question show that the participants' perceptions of self-determination are high. It has been determined that limiting emotions are anxiety and indecision. In some individuals, emotions that affect their ability to make career decisions and meanwhile limit their perception of self-determination develop against financial obstacles and environmental factors. Students were asked: "Do you experience moments when you feel alienated from yourself or your emotions?". 5 participants answered this question as "5-very high", 1 participant as "4-often", 4 participants as "3-medium level", three participants as "2-low" and three participants as "1-none or very low".

Students were asked: "What is the profession/sector you want to work in?". According to the answers to the question, the categories with the highest and equal frequency values are the University / Academician, Researcher, and Biology departments. Bandura's self-efficacy theory regarding career making-decision self-efficacy shows that college students are largely confident in their ability (Taylor & Betz, 1983). In the study conducted by Xu and Tracey (2014), individuals with greater tolerance for uncertainty tended to have better self-efficacy in career decision-making and, as a result, had less lack of information, general indecision, and less information conflict. It has been found that they tend to have students' opinions regarding their self-efficacy before graduation and at the postgraduate level were evaluated. The most obvious career decision-making difficulties that emerged as a result of the difficulties experienced by the participants can be listed as self-determination, career indecision, reluctance to research various professions, and lack of knowledge.

While aiming for qualified teacher education, there should be content that will enable individuals at the career selection stage to make the right career decision. To promote students' career decision-making self-efficacy, curricular considerations should be designed to ensure that students develop attitudes and abilities in the following categories: (a) making choices; (b) decision-making; (c) problem-solving; (d) setting and achieving goals; (e) self-monitoring skills; (f) self-assessment skills; (g) self-empowerment skills; (h) internal locus of control; (i) positive

references to effectiveness and outcome expectancy; (j) self-awareness; and (k) self-awareness. Each categorical area has its unique development process, and the content of teaching should be determined according to these developments (Wehmeyer & Little, 2013). Evaluation tools, curriculum materials, and instructional models can be used in these contexts, including theory development and validation, intervention, monitoring, and policy studies (Chambers, Wehmeyer, Saito, Lida, Lee & Singh, 2007). Another common component for teacher candidates is work and work environment experiences. Through work experience, knowledge on the school campus is integrated with educational activities (Wehmeyer & Little, 2013).

There are many characteristics that individuals acquire from the family they live in. Just as information from internal sources is elicited by environmental stimuli, information is sought and selected from the environment in part based on a person's salient needs (Deci & Ryan, 1980). Self-determination also includes healthy family involvement. When an experience that can be gained from the family or the environment causes the person to feel and perceive himself/herself as more competent, the person will be more intrinsically motivated (Deci & Ryan, 1985). Young people have a variety of sources of decision-making that can have a significant impact on their future: This impact can be seen not only in local, national, and sometimes global contexts but also as a result of complex interactions involving formal rules on education and employment. It would be useful to see that individuals make rational decisions using their different perspectives and their own different goals (Hodkinson & Sparkes, 1997).

The aim of teacher education to raise individuals who have the qualifications to meet the criteria of today's society is emphasized, and talent and quality are important to provide high-quality education and training in teacher education (Yavuz, Özkaral & Yıldız, 2015). Promoting student self-determination has become the best practice in the selection of qualified teacher candidates. Self-regulation and self-awareness/self-awareness were predictors of transition planning knowledge and skills (Wehmeyer, Palmer, Soukup, Garner, & Lawrence, 2007). Self-determination also requires a high degree of intrinsic motivation and a centrally functioning intrinsic motivation subsystem. People's experiences with their environment influence the extent to which intrinsic, extrinsic, and non-motivational subsystems will be functional. When a person perceives the locus of causality of his/her behavior as external and feels less self-determined, he will be less intrinsically motivated (Deci & Ryan, 1980). Based on the literature discussed greater perceptions of self-determination predict a more integrated professional identity regarding career decision-making self-efficacy and greater involvement in career-related tasks (Gushue, Scanlan, Pantzer, & Clarke, 2006; Vallerand, Pelletier & Koestner, 2008).

In recent years, research and decision-making about careers have played a central role for students during the university period (Wulff & Steitz, 1999). "Have you researched issues such as working conditions, job interviews, and appointments?" "What is the subject that interests you the most?" asked to students. When the answers given were examined, participants who answered "I did research" stated that they mostly researched the topics and content of job interviews. As a result of the answer of 6 participants "I did not do research", it can be said that they did not think they did enough research during the planning stage or that they continued to be indecisive about their career. Some of the factors in making career decisions can be listed as having too many areas of information to be researched, not feeling ready for the decision-making process, perceiving the difficulties of accessing the right sources for healthy information, and lack of motivation. In the literature, the difficulties encountered in making career decisions are explained in three main groups: lack of preparation, lack of knowledge, and inconsistent information (Gati, Krausz & Osipow, 1996; Gati, Ryzhik, & Vertsberger, 2013). Lack of preparation includes three categories of challenges that arise before making a career decision: (a) lack of motivation to make a career decision, (b) general ambivalence regarding any type of decision, and (c) irrational expectations and thoughts regarding career decision making (Gati, Krausz & Osipow, 1996; Gati, Ryzhik & Vertsberger, 2013).

Not every individual may have the ability to become a teacher. Because teaching is a profession that includes many features such as patience and dedication. Those who are truly willing to become teachers and have a high level of success in secondary education should be selected for teacher training institutions (Işık, Çiltaş & Baş, 2010). Gathering information about working life, meeting with experts, and making career plans as time progresses in working life are some of the important supports of students' self-efficacy. It has been revealed that they conduct individual research, mostly using the internet, to collect information about their working life. Doing individual research on the internet and meeting with experts are the most preferred techniques by the participants, apart from these, being in working life and learning from close circle are other techniques. It was revealed that 31% of the students thought they received support from experts in making career decisions, while the rest thought they did not receive support. The study conducted by Jemini-Gashi, Duraku, and Kelmendi (2021) emphasizes the importance of social support and self-confidence for career decision-making. As in self-determination, parental support, as well as the social environment, is important in self-efficacy. On the other hand parents increase the ability of individuals to choose careers for the ideal lifestyle (Mao, Hsu, & Fang, 2017).

All components of the teacher training system need to be developed in order to train teachers with the quality and quantity needed today and in the future (Baskan, Aydın & Madden, 2006). Career decision-making is the main issue that career counseling experts are interested in evaluating (Crişan & Turda, 2015). Self-determination has gained importance, especially among young people, in the context of creating a general perspective on their future

lives, being accepted in society, being aware that they are adults, and outlining their goals in life. Social and economic changes pose significant obstacles for young people in career decision-making and self-determination (Vasylenko and Sheremet, 2017). Individuals often face challenges before or during career decisions. Therefore, identifying the focus of these challenges is one of the first steps. Starting from secondary education, counseling, and guidance services should especially be aimed at helping students think about their professional future (Gati, Ryzhik & Vertsberger, 2013). Career initiatives in this direction are also effective for university students. When looking at career programs, job interviews, explaining values, and computer-aided programs are recommended for semester courses containing different texts (Ozlem, 2019). Distance education provides individuals with the opportunity to learn on their own and is more flexible and adaptable to individual conditions than face-to-face education. With distance education, it is aimed to partially or completely eliminate the limitations in providing educational services and to ensure that everyone can benefit from educational opportunities and to educate individuals in different conditions (Akyürek, 2020). As a result, it is important to determine policies that will develop throughout education life to develop career decision-making self-efficacy. It is also expected to help increase individuals' awareness of career decision-making and career planning and to help design and adopt policies, school practices, and initiatives to reduce career indecision due to self-determination competence.

Self-determination, as a set of behaviors, is defined by certain characteristics such as the freedom to choose one's own destiny, problem-solving, self-confidence, or decision-making (Wehmeyer, 1996; Wehmeyer & Kelchner, 1995; Wehmeyer & Lawrence, 1995; Wehmeyer & Schwartz, 1997). According to the self-determination theory, behavior can be classified into two categories depending on whether it results from variables in the environment or variables in the person. Just as information from internal sources is elicited by environmental stimuli, information is sought and selected from the environment in part based on the person's salient needs. Information input that is actively perceived, organized, and stimulates sequences of behavior can be considered conscious awareness (Deci & Ryan, 1980). What students know about self-determination, what their limitations are, and their views on facilitating understanding of their emotions are important.

In the study conducted by Creed et al., it was stated that changes in self-determination in career decision-making did not cause changes in career indecision (Creed et al., 2006). It has been stated that guidance service in career decision-making and development also helps self-determination (Korna-Opincane & Katane, 2018). It is especially important that psychology science is included here because a study found that individuals aged 20-30 with mental problems achieved better career and life goals in career planning that included self-determination initiatives (Sowers and Swank, 2017). Another study states that the career exploration of the student who perceives the support of the faculty member/teacher is positively affected and that the learning activity through attracting attention at work is also positively reflected in this perception-career exploration (Lu et al., 2022). Another study found that there was a negative correlation between social support and career indecision (Jemini-Gashi et al., 2021). It was stated in the study of Penn and Lent (2019) that extroverted individuals easily motivate their career self-efficacy and make faster career decisions. It was stated in the study conducted by Nauta and Kahn (2007) that compatibility with hobbies does not play a role in career decision-making. According to Chantara et al., career indecision is eliminated with the help of motivation, and support for self-determination is provided by highlighting determination (Chantara et al., 2011). Self-determination can be used in applied areas including work, education, sustainability, and healthcare (Deci & Ryan, 2008a). It is recommended to open programs related to self-determination. Students should develop knowledge and skills about setting goals and making decisions.

In conclusion, this study has important implications for future studies targeting students' views on career making-decision self-efficacy. It is important in the design and evaluation of training and consultancy activities to increase self-efficacy in relation to the career decision-making process (Betz & Luzzo, 1996). It has been determined that a significant portion of the students want to become teachers, researchers/academicians/scientists according to their career plans in their future working lives, while others want to provide personal development and professional development. Students who have a more positive perception about taking part in academic studies can also foresee that they will receive social support in the work environment. It will be important in teacher education, in evaluating future career planning programs, in developing new programs and activities, and in determining effective strategies to improve career decision making self-efficacy.

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