



Factors influencing career path selection among gifted individuals: Their perspectives

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ABSTRACT

This study investigated the factors influencing career decisions among gifted individuals, with particular attention to the role of enrichment programs. It examined how personal environments and academic backgrounds contribute to career choices using a quantitative research design. The findings revealed that 82.4% of participants selected their careers based on personal interest, while 52.9% identified family support as a significant influence. Environmental elements such as teachers and societal expectations affected 41.2% of respondents, and 17.6% considered labor market conditions in their decision-making. Only 14.29% reported that academic performance, particularly grade point average (GPA), restricted their choice of specialization. These results underscore the value of enrichment programs in enhancing students' awareness of career pathways and their ability to align aspirations with capabilities. The findings suggest that such programs should be developed in coordination with families and schools and include practical learning experiences. Future research should assess the long-term effects of enrichment programs and propose strategies to reduce the gap between students' preferred careers and labor market demands.

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1. Introduction

The selection of a career defines the most essential choice that shapes both personal life and professional development. The career choice determines the match quality between job market requirements and personal and professional objectives, achievement potential. A profession acts as a fundamental life component that affects people psychologically, socially, and economically since it determines their living patterns and mental state. A match between professional choices and individual abilities, and personal interests results in improved workplace job satisfaction, which produces greater productivity and performance in the workforce. Consequently, both individuals and society benefit from this alignment (Gazi et al., 2024).

The selection process for career paths by talented individuals incorporates psychological aspects with

social elements and economic considerations, while cultural elements interact to form a complete decision-making process. It is essential to identify these factors to match people with suitable career paths, which leads to professional fulfillment and personal satisfaction. The selection of a career primarily depends on the social environment present around us. Professional job direction for individuals relies heavily on the social support they receive from their family network and friends, according to research findings. Research shows that future career decisions tend to favor the occupations where individuals possess relatives or friends who work (Yang and Su, 2025).

Professions receive different perceptions because cultural factors play an essential role in defining these perceptions. The choices that cultural traditions promote for careers end up shaping the career decisions of people, while psychological factors strongly influence career development pathways. Research shows that future career-related anxiety causes negative impacts on individual choice selection among students. Most individuals encounter anxiety due to a lack of clarity about their future career possibilities, combined with self-doubt about competence, which results in delayed important career decisions. The process of selecting

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a career heavily depends on economic elements. People examine monetary aspects across careers as they decide their future occupations. Research reveals that salary levels, together with job opportunity availability, act as significant factors that shape career directions. People sometimes choose careers because of economic strain or to establish financial foundations that do not reflect their genuine talents and skills (Petravić et al., 2024).

Academic institutions take a key part in directing their students toward appropriate professional choices. Studies demonstrate how educational quality, along with the career guidance counselors at educational institutions, determines student choices about their future careers. The effectiveness of proper career guidance helps students understand their capabilities, which leads to better choices for their occupational development.

Personal abilities, together with personal interests, strongly determine career decisions for individuals. Research shows that people who hold unique talents or special interests normally choose occupations that match their abilities. Artists tend to enter creative fields because of their talent, and people with analytical abilities prefer scientific and technical careers. Results in career planning success because employers must understand individual characteristics.

A variety of social elements, together with psychological aspects and economic conditions, in addition to cultural influences, determine career choices. Several factors continuously interact with one another, which create challenges for identifying an individual's dominant influence. Talented individuals face career path development characterized by multiple interconnected factors that require a thorough evaluation for understanding.

The social environment, together with psychological attributes, economic conditions, and educational quality, form the key factors that direct career decisions. Appreciating the various factors helps people make better career decisions, which leads to occupational success and personal contentment.

Research on educational enrichment programs received substantial support from this study, which investigates their ability to identify talented students for suitable careers. Specialized educational programs will get enhancements from these findings, which boost career achievement possibilities for gifted people.

1.1. Definition of key terms

1. Talent Development: The method of talent development provides a system to build excellent capabilities while supporting gifted people through targeted field development that meets both personal interests and individual specifications (Garavan et al., 2012).
2. Career Guidance: The structured, continuous process of career guidance allows people to

achieve awareness of themselves and explore professional preferences before choosing their future career direction (Patton, 2022).

3. Enrichment Programs: Enrichment programs represent specialized educational frameworks that develop learning environments through experiential activities that advance critical thinking capacities and uncover and develop the talents of gifted students (Kim, 2016).
4. Family Support: Family backing of gifted individuals includes both love and emotional support, which strengthens their sense of confidence and guides them toward career goals (Vialle, 2017).
5. Gifted Education: The educational model of gifted education provides specialized learning environments for gifted students that present demanding opportunities to enhance their complete potential development (Bhatt, 2011).

1.2. Theoretical framework

The theoretical constructs utilized in this research blend person–environment fit theory with career choice theory to examine the complex interactions of intrinsic as well as extrinsic factors influencing gifted students' vocational pathways. Familial support and cohesion feature as a key component in supporting students to develop self-efficacy in traversing professional challenges, as cited by Koçak et al. (2021). On a contrasting note, Alrashdan et al. (2018) highlighted that working atmospheres favorable to personality traits are basic to satisfaction as well as achievement. Jung (2021) argued that interactions between perfectionism and identity confusion give rise to internal conflict in career choice among gifted students. The three views collectively represent empirical studies to uncover ways in which improvement programs enable interaction among individual strengths as well as professional involvement.

Careers produce significant consequences for gifted individuals because they need perfect direction toward occupations compatible with their intellectual talents. Gifted students encounter difficulties because of too many career options combined with insufficient educational guidance (Asante and Darko-Baffoe, 2022). The research underlined how family background, together with school environment and community activities, influences students toward their future careers.

The literature demonstrates how enrichment programs create successful matches between career opportunities and gifted people's capabilities and vocational interests. Kim (2016) revealed that these programs develop important thinking abilities, which lead to better decision-making abilities. These programs connect fundamental education with individualized requirements, which helps people succeed academically as well as socially. Current research needs more investigation to understand how enrichment programs directly influence career selection choices.

Career choices among gifted individuals are shaped by multiple factors:

- A. Personal Factors: Personal drive combined with skill set and personal passion leads the way to decisive choices. Self-awareness at a high level leads to better career decision success, according to [Alrashdan et al. \(2018\)](#). Research shows that matching skills and interests with career interests leads to better job satisfaction ([Koivusilta et al., 2013](#)). In accordance with Career Choice Theory, Holland stresses that career decision success requires an important match between people's personality traits and their workplace environment.
- B. Familial Factors: Family matters deeply to career guidance since it provides both personal reinforcements along societal pressure. According to [Zhang et al. \(2020\)](#), family influences on career selection frequently surpass personal career preferences. [Koçak et al. \(2021\)](#) supported the significant relations between family support and career self-efficacy. [Jiang \(2022\)](#) demonstrated how family cohesion creates confidence for navigating workplace challenges.
- C. Environmental Factors: The path people choose towards their careers gets heavily affected by social norms, along with cultural factors. [Wu \(2017\)](#) demonstrates that cultural factors determine how self-efficacy develops with possible outcomes of expanded or limited opportunities. According to [Griffin and Hu \(2019\)](#), parental anticipations shape student career attitudes for the long term, but [Pasha and Siddiqui \(2020\)](#) demonstrated how social acknowledgment interacts with parental pressure during career choice processes.
- D. Labor Market Factors: Economic conditions, financial stability, and personal background influence career feasibility. According to [Wake and O'Donnell \(2024\)](#), financial pressure within the family leads students primarily from disadvantaged income brackets to face difficulties in career development. According to [Koivusilta et al. \(2013\)](#), financial limitations simultaneously influence the process of selecting a career as well as professionals' ability to evolve over time. The success of enrichment programs is elevated when they focus on jobs that the job market needs.

Enrichment programs face challenges due to limited funds, together with weak integration with the labor market, as well as inadequate infrastructure capabilities and insufficient counselor education. [Cerrito and Behun \(2021\)](#), together with [Martinez et al. \(2017\)](#), demonstrated resource limitations that block implementation, whereas [Fiandra et al. \(2022\)](#) confirmed that insufficient counselor training weakens the effectiveness of career guidance.

The delivery of career guidance experiences variations based on gender alongside social-cultural norms of different societies ([Aurangzeb et al., 2021](#);

[Fiandra et al., 2022](#)). The effectiveness of educational analytics could be affected by trust and transparency problems and the benefits provided by technical improvements in counseling services ([Gedrimiene et al., 2023](#)). To resolve these challenges, the infrastructure needs improvement, combined with continuous counselor training alongside culturally appropriate methods.

Gifted students become part of program development to create better connections between academic success and improved student learning and relevance. According to [Koçak et al. \(2021\)](#), involving students leads to better academic performance and greater curriculum matching with career objectives. According to [Al-Zoubi \(2014\)](#), student participation leads to enhanced academic performance together with higher self-assurance.

According to [Kim \(2016\)](#) and [Jen et al. \(2017\)](#), the process of program participation increases critical thinking abilities, together with problem-solving, alongside developing creativity and independent learning. By using this method, students gain important skills needed for their present academic work and their future professional life.

The theoretical framework demonstrates that gifted individuals form their career decisions because of personal, familial, environmental, and economic factors. The effectiveness of enrichment programs depends on how well they meet student requirements while complying with the present job market demands. Resolving resource limitations together with counselor preparation deficiencies, along with cultural assumptions about expectations, constitutes the most urgent issues to tackle. A student-contributed approach to designing educational programs will boost student motivation along with operational innovation, which leads to enduring professional achievement.

2. Literature review

The review examines different elements that affect gifted individuals as they select their careers. The development of cognitive capabilities stems from enrichment programs. However, psychological elements, family pressure, and job market developments perform equally important functions. There are current gaps in the integration between customized career counseling services and enrichment programs. The research evaluates how cognitive abilities, mental attributes, and economic standards affect future professions. This section is structured as follows:

Multiple studies confirm that enrichment programs build career preparedness skills in gifted students. According to [Aljughaiman and Ayoub \(2012\)](#), enrichment programs make students more analytical and creative but demonstrate only small effects on their practical capabilities. [Reis et al. \(2021\)](#) established that enrichment activities advance creative decision-making processes while improving problem-solving, which supports their value in developing career-related cognitive skills.

A study by [Al-Zoubi \(2014\)](#) demonstrated that enrichment programs directly lead to improved academic results, which matches the findings of [Elhoweris et al. \(2022\)](#) about superior critical reading abilities in verbally gifted students. Research-related studies mostly focus on cognitive development because they provide minimal discussion about career decision-making.

[Jung \(2021\)](#) studied psychological obstacles, including multiple capabilities together with perfectionism and societal stress, that challenge career choices. [Jung \(2021\)](#) highlighted how personalized career guidance should be implemented despite recognizing the positive effects of enrichment programs in resolving psychological matters. According to [Bucaktepe et al. \(2024\)](#), there is value in structured enrichment programs, but self-discovery activities need to supplement this approach.

Research shows that career preparation results from enrichment programs, but these outcomes depend on program organization, along with participant requirements. Further investigation should combine individualized career counseling solutions with enrichment programs to maximize their performance.

The decision process for gifted individuals regarding their careers heavily depends on their psychological factors, along with their intrinsic motivation. According to [Jung \(2021\)](#), multipotentiality, along with perfectionism, stands as a major obstacle that creates obstacles for career dedication. [Ghaleb \(2024\)](#) showed that knowing oneself in career selection leads to enduring satisfaction in the workplace.

[McKinney et al. \(2015\)](#) established that students whose education exposed them to targeted fields before secondary school adopted those professions as their career choices. [Bucaktepe et al. \(2024\)](#) support the dual effect of personal discovery as well as outside influences on vocational identity formation. According to [Bannan et al. \(2021\)](#), external workplace incentives like pay increases, along with promotion opportunities and favorable working conditions, usually drive employees more than internal motivations do.

The dissimilar outcomes indicate that personal interests, together with self-awareness, remain vital; however, outside economic influences heavily affect career decisions, specifically in structured professional fields. For effective career guidance of gifted individuals, it is necessary to integrate their personal interests and self-awareness together with external economic factors.

Various empirical studies reveal a pervasive impact of societal and family expectations on career choices pursued by gifted students. Evidence presented by [Zhang et al. \(2020\)](#) and [Koçak et al. \(2021\)](#) showed that support from family, family solidarity, and expectations often override personal preference in making a career choice. Moreover, [Griffin and Hu \(2019\)](#) highlighted parental aspiration as an influencing force in determining

directions in long-term career growth, particularly in competitive academic settings. These findings highlight the importance of balancing family influences with individual vocational goals to support autonomy and alignment among skills, interests, and career pathways.

[Stefani \(2024\)](#) showed that family influences together with school influences strongly affect career selection, especially among female students, and top-performing students demonstrate higher confidence in their career choices. [Bucaktepe et al. \(2024\)](#) provided a complex view suggesting that personal career investigation matches family backing as a vital aspect.

These findings suggest that parental guidance proves helpful for career development until it reaches excessive levels, which restricts independence in career choices. Future studies should develop techniques that maintain a proper balance between family influence and personal decision-making to unite internal goals with external expectations.

Several studies suggest that labor conditions play a modest role in how students make their career choices. According to [Bannan et al. \(2021\)](#), fear of losing their jobs and the need for better pay are the most important reasons for pharmacy students when making career choices. They wrote that many high-achieving students now shape or modify their careers in response to their nation's development strategies. According to the author, personal ambition and a sense of true meaning help gifted individuals remain satisfied in their jobs for a long time, not just the demand from outside the workplace.

As revealed by [Stefani \(2024\)](#), while a few students react to recent changes in the labor market, some are mainly bothered by what their families and educators expect. Patrick [Jung \(2021\)](#) suggested that gifted individuals are guided by their desire for learning rather than monetary rewards. Therefore, counseling must reflect an individual's dreams as well as the shifting job market. To help students, guidance should give information that fits the market and doesn't undermine what they like and what they do best.

The influence of enrichment programs on career decisions stands as an unclear matter despite their proven benefits for cognitive abilities and academic results. Self-awareness and intrinsic motivation, together with personal factors, dominate career choices more than individual preferences and psychological factors. Labor market trends play a supporting role in personal and social factors when it comes to career decision-making. All research experts affirm that enrichment programs create skills and that familial and social pressure shape career selection. Arguments persist about which factors dominate career decisions between individual interests and external pressures, and the level of labor market impact.

Research on the joint effect of enrichment programs and personalized career counseling is still

minimal despite valuable findings existing. There is a lack of sufficient long-term investigation into how gifted individuals pursue their careers throughout their working lives. This research addresses existing knowledge gaps through an evaluation of enriching programs combined with psychological factors and external factors on career decision-making processes.

Exceptional individuals encounter career decision-making as a vital life challenge due to their eligibility in multiple fields. Lack of proper career guidance creates talent misplacement because talented individuals select fields that contradict their skills or job market requirements (Panjaitan et al., 2024). Job satisfaction, along with future productivity performance, becomes negatively affected when their abilities and job requirements do not match. Gifted students need an educational setting equipped with excellent enrichment programs to make strong professional choices effectively. Career path selection occurs because of personal abilities and interests and environmental support from family and community members, yet enrichment programs direct talented individuals toward specialized fields that match their skills. Many such programs experience reduced effectiveness because of their insufficient strategies to match the needs of gifted individuals.

Research on enrichment program effects for career development exists widely, but an investigative space remains about how programs effectively steer gifted pupils to fulfill their career potential (Agarwal et al., 2023). Research investigates the basic effects of enrichment programs, yet fails to identify specific program characteristics that result in better gifted individual direction. A complete investigation must explore the factors affecting the career decision-making of gifted people through a specific examination of enrichment programs fitting their special requirements (Xue, 2024). The failure of enrichment programs has multiple issues that go beyond insufficient resources, along with poor planning, since gifted individuals are not adequately involved in program design and evaluation processes. The exclusion of beneficiaries from program development weakens their ability to provide needed skills, which would help gifted individuals make informed career choices (Myat et al., 2024). The study problem centers on understanding the elements that drive gifted individuals toward selecting their career paths, alongside an investigation of enrichment programs as facilitators for sound career decision-making. The investigation targets two main research questions about factors affecting the career path choices of gifted individuals, as well as the role of enrichment programs in their career decision guidance.

2.1. Study questions

1. How do enrichment programs influence the career choices of gifted individuals?

2. What is the role of environmental factors in shaping career path selection among gifted individuals?
3. How does family influence the career path selection of gifted individuals?
4. To what extent does the labor market affect career path selection among gifted individuals?
5. What is the impact of personal factors on career path selection among gifted individuals?
6. How do various factors collectively influence career path selection among gifted individuals?

2.2. Study objectives

1. Analyze the impact and effectiveness of enrichment programs on gifted individuals' career choices.
2. Investigate the role of environmental factors in career path selection.
3. Investigate the role of family in career path selection.
4. Analyze the influence of the labor market on career path selection among gifted individuals.
5. Explore the role of personal factors in career path selection among gifted individuals.
6. Give a comprehensive analysis of factors influencing career path selection among gifted individuals.

The research fills an academic gap regarding the effects of enrichment programs on guiding gifted people toward making better career choices. The study builds career decision theories by developing a conceptual structure to link personal factors with environmental support when examining career decision pathways. This study adds to the enrichment programs literature by exposing academic professionals to the barriers and possibilities within these initiatives to help researchers enhance these programs toward educational and career alignment.

The study presents workable guidelines for creating enrichment programs that fulfill the demands of gifted learners to enhance their career choice development processes. Educational policies can use these results to develop learning spaces that help gifted students sustain their career progression. The research study gives both educational settings and family members specific tools to aid gifted students throughout crucial decisions about their careers. The research enhances human development results by improving gifted enrichment programs and career selection for these individuals and works to develop skilled professionals while expanding their practical career options.

3. Methodology

This study used a descriptive-analytical method because it is effective in examining social and educational phenomena. The design allowed for a clear description of the subject while also analyzing

the factors that influence it, which provided a deeper understanding of the research problem.

The study population included Saudi participants in enrichment programs between the ages of 18 and 35. The sample consisted of individuals who had completed a structured program and were willing to discuss its effect on their career aspirations. Participants were selected to represent different ages, genders, disciplines, and types of enrichment. Although the sample size was limited, it was sufficient for generating detailed insights, as the focus was mainly on qualitative analysis. Data collection continued until no new codes or themes emerged, following principles of qualitative research that emphasize diversity and depth. Triangulation methods were not applied, which is considered a limitation, and future studies may include additional data sources to strengthen reliability.

The main instrument for data collection was open-ended personal interviews. These interviews focused on three central themes: the role of enrichment programs in career guidance, the influence of personal and environmental factors, and the challenges of career decision-making.

Data were collected over a three-month period through in-depth interviews. Participants gave consent for their conversations to be recorded, which ensured accuracy, and detailed summaries were prepared to capture the most important points related to the research topic.

The data were analyzed using thematic analysis. First, interview transcripts were reviewed manually to identify meaningful segments. These were refined into codes and then entered into NVivo 12 for organization. Related codes were grouped into broader categories, and main themes were identified. To ensure reliability, two researchers independently coded one-quarter of the transcripts and then discussed differences until agreement was reached. The preliminary findings were also shared with some participants to confirm that the interpretations reflected their experiences accurately.

NVivo further supported the analysis by helping structure, manage, and assess the frequency of themes. The systematic process ensured that the participants' perspectives were represented authentically and that the results were both rigorous and contextually grounded.

3.1. Study scopes

1. Objective Scope: The research investigates how educational enrichment programs, together with environmental conditions, affect gifted individuals' career choices, specifically regarding select challenges they face. The study addresses every aspect related to the research questions by studying career guidance and talent development.
2. Time Scope: Research occurs in the academic year 2024-2025 to observe contemporary patterns in career guidance practices. This period

encompasses all phases of data collection, analysis, and interpretation.

3. Spatial Scope: The research site is in Saudi Arabia, whereas it focuses on different educational institutions together with specialized centers. The study encompasses different locations because it aims to study numerous learning and social contexts.
4. Human Scope: The study focuses on analyzing gifted participants from educational enhancement programs. The study utilizes a purposive participant selection method, which includes individuals from 21 to 40 years old representing different academic and social groups.

4. Results

Various programs have helped shape the future careers of gifted individuals. More than three-quarters (88.2%) of participants believed that these programs greatly influenced what career path they took. A study of the data suggests that impact comes mainly from exposure to many professions, advice from program educators, and involvement in research activities. Half of the respondents said that normal enrichment activities helped them gain awareness of their future jobs by trying out different activities, and another 20% reported that specialized programs helped them focus on careers in AI and healthcare. The same 13.3% mentioned that having mentors and publishing in the field played a role in forming their careers. Overall, they demonstrate that quality enrichment should cover experiential learning, support from specialists, and the inclusion of research. Well-structured programs can allow high-ability people to learn skills needed for their future careers and get to know themselves better.

As shown in [Table 1](#), enrichment programs play a vital role in molding gifted learners' professional choices through their ability to enhance understanding and learning skills while connecting them with mentors and providing research facilities. Improving program results requires designing experiences that connect abstract learning to practical work while showing multiple professions, along with individualized career guidance. The design process of these programs, alongside their evaluation, should involve gifted students to ensure their career directions evolve correctly, thus creating better career guidance methods.

When it came to their careers, 41.2% of participants mentioned the influence of schools and social pressures ([Table 2](#)). Teachers in school were considered the most influential, but girls often found female teachers most encouraging and inspiring about careers. Even before students could recognize their talents, social influences such as names given in early years and opinions in the community could shape their choices. Out of all participants, only 14.29% mentioned professors and academic advisors as having influenced their ways of thinking and learning, showing they had seen little impact from the faculty at the university. Some students did

not have access to many career possibilities because schools in their regions did not have a variety of programs. As a result, we see that it is important to ensure more types of educational programs are

available and to encourage career guidance by teachers early on to resist limits created by the environment.

Table 1: Impact of enrichment programs on career path selection among gifted individuals

No.	Quotes	Percentage	Number of participants	Sub-factors	Percentage	Number of participants	Main factor
1	There is no doubt that enrichment programs had a positive impact on defining my career orientation.	40.0%	6	General enrichment programs	88.2%	15	Enrichment program factors
2	Enrichment programs enabled me to take on challenges and develop skills that helped me determine what I want.						
3	The programs expanded my knowledge in various fields and provided me with a broad perspective.						
4	They clarified my understanding of the medical field and guided me toward it, shaping my career path.	20.0%	3	Program type			
5	The program was comprehensive and influenced my shift toward artificial intelligence instead of medicine.						
6	These programs confirmed that the healthcare field suits me better than other options.						
7	Our research-based technical program had a significant impact on my specialization choice.	13.3%	2	Trainers in programs			
8	Mawhiba topics and medical programs gave me a sense of distinction.						
9	The variety of programs contributed to gaining a broader perspective.						
10	The professor who trained us made me love the specialty.	13.3%	2	Scientific activities			
11	The trainers were always a source of advice and guidance, influencing my choices.						
12	The team and the trainer helped me shift toward artificial intelligence.						
13	Scientific publications, such as patents, encouraged me to pursue certain fields.	13.3%	2	Number of programs			
14	Practical experiences and the information we received were the most influential factors.						
15	The critical thinking and problem-solving program helped us significantly.						
16	The number of programs I attended played a crucial role in expanding my career options.	13.3%	2				
17	The variety of programs contributed to gaining a broader perspective.						
18	Participating in multiple programs clarified my career path more clearly.						

Table 2: The impact of environmental factors on the career path selection of gifted individuals

No.	Quotes	Percentage	Number of participants	Sub-factors	Percentage	Number of participants	Main factor
1	Teachers at school also played a role in certain career aspects they discussed.	42.86%	3	School environment and teachers	41.2%	7	Environmental factors
2	The memorization environment and its surroundings had a significant impact on me. I was influenced in this regard.						
3	As for the female teachers, they were very encouraging and always pushed me to envision myself as a successful doctor. They used to say: 'We see you as a great doctor.' They were a source of motivation for me.						
4	Some university professors I studied under had an influence through their discussions.	14.29%	1	University environment and faculty			
5	Since childhood, they have called me 'Doctor,' instilling this belief in me.	42.86%	3	Surrounding community environment			
6	Only the opinions of family and friends.						
7	The nearest city with a university only offered a chemistry major, so I felt chemistry was the closest fit for me.						

Most respondents claimed that their family played a major role in helping them decide on their careers, as 52.9% mentioned it (Table 3). The strong influence of parents was felt through emotional support and always being involved in the children's education. Sometimes, shared experiences and expectations with siblings shaped a person's plans

for their job or career, adding pressure to follow the family's wishes. Many individuals decided to pursue careers in medicine mainly because of what their family expected, and not just because they were passionate about it. There were many benefits to family discussions, though sometimes it meant our decisions weren't always our own. This study points

out that families can help or sometimes block our career growth, so it's important for guidance from families to equip gifted individuals to make their own decisions.

Relatives, including siblings, influenced 55.56% of participants in their career decisions. The family members influenced career direction through joint experiences and profession-specific advice and family bonds, which sometimes required specific professional commitments. The participant explained how they felt pressured to choose medicine because their family lacked doctors, which demonstrates conflicts between individual dreams and family demands. A significant number of medical professionals looked to their families as their main driving force behind sustaining their career commitments over time. Family members helped students stay in their fields by providing continuous support, especially in difficult healthcare disciplines, which proved the need for family backing in building confidence, resilience, and persistence.

Many participants allowed family discussions to dictate their professional path selection. People who engaged in open family conversations had the opportunity to study multiple academic paths and professional choices until settling on their ultimate path. An interviewee revealed that family conversations about majors shaped their academic direction because meaningful conversations provide crucial knowledge when deciding a career path. The study findings support parents in guiding their gifted children through career discovery rather than coercing desired career choices because this method helps individuals select fields that match their desired and skilled professions. Family backing proves vital for developing career commitment, yet the final career selection needs to be influenced by individual aspirations rather than outside influences. Family awareness programs should be strengthened because they help gifted individuals navigate careers with an encouraging framework that lets them make independent decisions.

Table 3: Impact of family on career path selection among gifted individuals

No.	Quotes	Percentage	Number of participants	Sub-factors	Percentage	Number of participants	Main factor
1	My parents played a greater role in choosing my career path than anyone else.	44.44%	4	Parents	52.9%	9	Family factor
2	My parents were present in many aspects of my life, especially in choosing my career path.						
3	My family encouraged me to continue. They were the ones who motivated me to pursue a career in the healthcare field.	55.56%	5	Extended family			
4	Certainly, my family had a significant role in my choice of major.						
5	My family was supportive of the idea.						
6	Since there were no doctors in my family, I felt this would be a new challenge for me.						
7	After consulting with my family and relatives, I chose this major.						

Just 17.6% of gifted individuals said that aspects of the labor market played a direct role in shaping their careers (Table 4). Among the various branches, artificial intelligence and tourism caught the eye because they are new and fit well with Saudi Vision 2030. Still, because participants were curious about new jobs yet not fully knowledgeable, they pursued job applications with some anxiousness. National policies helped reveal what was essential in the

economy, yet they did not direct what motivated a person's career. Since there was room for specialized research and study in some areas, some people realized that these fields were more suited for them. Overall, career plans were influenced by the labor market only secondarily, which means joining the two will assist in ensuring gifted students are prepared for employment options.

Table 4: Impact of the labor market on career path selection among gifted individuals

No.	Quotes	Percentage	Number of participants	Sub-factors	Percentage	Number of participants	Main factor
1	It was a new specialization in the region. We had no idea what the work environment would be like in the future.	66.67%	2	Emerging specialization	17.6%	3	Labor market factor
2	I chose it because tourism was a newly introduced specialization and was one of the fields supported by the national vision.						
3	One of the main advantages of my specialization is that after graduation, I am not limited to working in a hospital. I can also pursue an academic career or other fields of study.						

When it comes to choosing a career, 82.4% of people said personal factors had the biggest impact (Table 5). These included vital aspects such as passion, curiosity, wanting independence, and striving for significance. Many (42.86%) of them noted a deep, lasting passion for subjects such as

medicine or engineering, but some highlighted how involvement in other activities, such as leadership, helped them understand themselves. Through exploration and studies, individuals could link their talents with suitable career choices. There were fewer people (7.14%) who wanted to help others

and chose to study health or social services. Meanwhile, 14.29% of respondents ended up choosing another field due to academic constraints, showing that flexible entry should be available in

colleges. This study has shown that the authentic career goals of gifted individuals are achieved when their internal needs are guided by valuable learning experiences.

Table 5: The impact of personal factors on the career choices of gifted individuals

No.	Quotes	Percentage	Number of participants	Sub-factors	Percentage	Number of participants	Main factor
1	I had a personal motivation toward a specific career path.						
2	I love technology, mathematics, and science, and enrichment programs reinforced this.						
3	I was certain about pursuing a specific field, such as engineering.	42.86%	6	Personal drive and passion			
4	My biggest motivation was my interest in this particular field.						
5	I had a vision of myself that I wanted to achieve.						
6	Taking the initiative to participate in activities helped me discover myself.	14.29%	2	Independence and self-initiative			
7	I researched, compared, and considered my preferences when applying.				82.4%	14	Personal factors
8	I had a strong interest in specific topics such as health and social issues.	21.43%	3	Exploration and self-interest			
9	I observed social issues and followed prominent cases. I was very interested and wanted to be a lawyer.						
10	I wanted to work in a field that would allow me to solve others' health and social problems.	7.14%	1	Desire to benefit others			
11	University admission did not align with my initial ambition.						
12	I was inclined toward the healthcare field, and my goal was to study medicine, but my grades did not allow me to enter medical school.	14.29%	2	Factors related to academic performance			

As shown in Table 6, the analysis showed that there are five important areas affecting career selection: enrichment programs, personal characteristics, family life, the setting around a person, and parts of the labor market. Enrichment programs were singled out by 88.2% of participants as being most important due to exposure to adventures (40%) and taking part in particular activities (20%). Taking an interest in a subject and wishing to pursue it early were more significant factors (82.4%) compared to other motivations. Parents (29%) and the idea of what a family should be (23.9%) were the biggest influences for young

adults. Around 41.2% of respondents reported that the culture at school and general beliefs in society impacted them. Even though working conditions were the weakest factor, many young people found the possibility of new jobs and flexible careers attractive. Since these various aspects are closely tied, multidimensional career assistance should help gifted students meet both their goals and the demands of their families.

The provision of custom support programs, based on abilities and interests, helps education and career systems guide gifted people to make choice decisions that offer true fulfillment.

Table 6: General classification of factors influencing the career choices of gifted individuals

Main factor	Number of participants	Percentage	Sub-factors	Number of participants	Percentage
Enrichment program factors	15	88.2%	General enrichment programs	6	40.0%
			Type of programs	3	20.0%
			Trainers in programs	2	13.3%
			Scientific activities	2	13.3%
			Number of programs	2	13.3%
Personal factors	14	82.4%	Personal drive and passion	6	42.86%
			Exploration and self-interest	3	21.43%
			Independence and Self-Initiative	2	14.29%
			Academic performance-related factors	2	14.29%
Family factors	9	52.9%	Desire to benefit others	1	7.14%
			Family	5	55.56%
			Parents	4	44.44%
Environmental factors	7	41.2%	Teachers and school environment	3	42.86%
			Surrounding community environment	3	42.86%
			University Environment and Faculty	1	14.29%
Labor market factors	3	17.6%	Emerging specializations	2	66.67%
			Labor market demand	1	

To support the interpretation of the study's findings and enhance the coherence of the presented results, a visual representation has been developed. Fig. 1 serves to consolidate the identified themes into a unified conceptual overview.

To enhance the clarity of the study's conceptual framework, Fig. 1 has been included to visually illustrate the interconnected factors influencing career path selection among gifted individuals. This diagram synthesizes the seven core constructs

identified through thematic analysis—namely self-awareness, enrichment programs, career exploration, motivation, family expectations, school guidance, and sociocultural influences—demonstrating how these domains interact to inform and shape students' career choices. Fig. 1 provides a structured overview of the relationships among variables, facilitating a more intuitive understanding

of the complex decision-making process faced by gifted learners.

By visually mapping the dynamics between personal, educational, and contextual factors, the illustration reinforces the study's findings and theoretical grounding, offering readers a comprehensive and accessible representation of the phenomena under investigation.

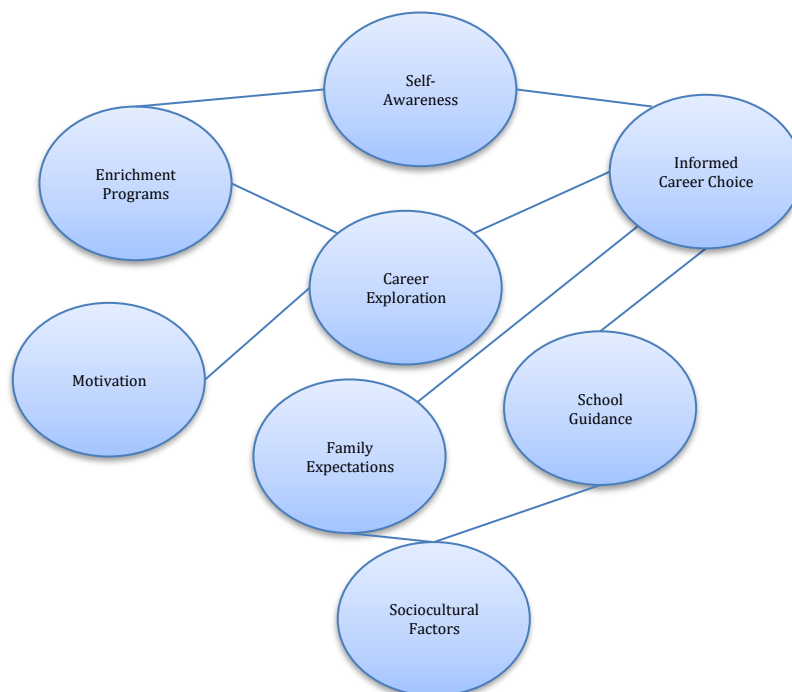


Fig. 1: Conceptual summary of factors influencing career path selection among gifted individuals

5. Discussion

Findings from the study point out that many aspects influence the career decisions of gifted students, though enrichment programs seem to have a more decisive impact. Also, in line with the Person–Environment Fit Theory (Koçak et al., 2021), as well as Holland's Career Choice Theory (Koivusilta et al., 2013), the study shows that personality should be considered in order to find a suitable career that fits one's abilities. Even though students were driven to learn by themselves, likely preferences were likely shaped by external pressure from where they lived. In contrast to Jung (2021), who attributed challenges to internal conflicts, this study noticed that more participants felt worried or anxious because of expectations from families. This research includes additional factors, contrasting with Aljughaiman and Ayoub (2012), by explaining that if programs are not compatible with the system and culture, they may not be effective. The following are the findings written by Cerrito and Behun (2021), who believe that school counseling should be both culturally flexible and fit the background of the school community. For this reason, enrichment programs benefit from changes in their structure, in addition to adding more content.

The literature shows that enrichment programs play an active role in helping people choose their

future careers. Aljughaiman and Ayoub (2012) discovered enrichment programs that boost analytical ability and creative competencies, thus preparing students to make strategic decisions. The theory of successful intelligence-formulated enrichment programs led Reis et al. (2021) to discover enhancements in problem-solving, together with decision-making skills. Al-Zoubi (2014) verified exactly how enrichment programs influence student academic success and their career path choices.

The quality of a professional program directs how students choose their career path. Participants indicated that 20% of them strengthened their discipline understanding through research-technology-focused enrichment activities to discover their areas of interest. The participants who pursued academic specializations relied on direction from both industry experts and trainers to the extent of 13.3%.

Evidence from this research shows that enrichment programs hold essential value in helping gifted students discover their career path. The study confirms the necessity of developing extensive programs that combine real-world experience and career guidance services to help students make important academic choices. The career options people pursue are determined mostly by personal interests, together with their passions. Most decisions made by participants (82.4%) stemmed

from internal motivation according to the survey results. Data demonstrates consistency with earlier studies, which show that people who clearly know themselves assist in better career decision-making by selecting activities based on personal interests rather than outside forces (Alrashdan et al., 2018).

The findings stress how enrichment programs work with psychological elements in family scenarios and changes in the workforce to influence students' career selection processes. These studies demonstrate how cognition progresses together with natural passions and environmental factors, which determine the career directions of intellectually advanced people.

The study demonstrates that enrichment programs bring value to career guidance. Aljughaiman and Ayoub (2012) discovered that enrichment programs develop analytical competencies and creative abilities that students need to make strategic choices. Koçak et al. (2021) indicated that enrichment programs, which stem from successful intelligence theory, enhance student capabilities to solve problems and make decisions. Al-Zoubi (2014) demonstrated that these programs directly influence both academic success and career choices of students.

The quality of educational programs determines students' career selection process. One-fifth of participants revealed that enrichment activities focusing on research and technology made them understand different subjects better, so they could determine their academic focus. Participants indicated that trainer and industry expert advice proved vital in choosing their academic studies by a percentage of 13.3.

The results confirm that enrichment programs must remain fundamental to developing career knowledge in gifted students. Such findings prove the necessity to implement integrated programs that merge career counseling with practical applications when supporting students through their crucial career-decision periods.

Individual personal traits, including personal passion as well as self-interest, affect career selection choices substantially. More than three-quarters of the participants (82.4%) declared that their career selections depended mainly on self-driven reasons. People who understand their capabilities and strengths well make better career choices because they base their decisions on personal interests instead of outside influences (Alrashdan et al., 2018).

Students in this educational environment develop their potential while learning about careers, which helps them base important life decisions on their unique capabilities.

The labor market indirectly affects specialization demand but makes minimal direct contact with gifted students. The labor market served as the basis for the selection choices of just 17.6% of respondents. Scientific studies demonstrate that family environments, together with surrounding circumstances, are stronger influence factors

compared to other variables. Bannan et al. (2021) discovered that despite available positions, job opportunities do not typically influence the career decisions of students. Family and community factors demonstrate better power to influence individuals than external elements. Socially stable and prestigious careers hold more importance to business administration students than market demand requirements, according to McKinney et al. (2015). Students make career decisions based more on school and social forces than on factors linked to the labor market (Stefani, 2024).

The research outcome demonstrates that career counseling services need to blend personal career goals with real-world employment opportunities. This study focuses on Saudi Arabia, yet its conclusions strengthen existing theories on the subject. In particular, the study shows that culturally adapted enrichment programs are supported by research and can help expand the effectiveness of intelligence theory and person-environment fit theory in countries outside the West. In addition, the qualitative method and the analysis of detailed interviews give clearer insights, since they account for cultural and educational backgrounds. While it does not present a brand-new idea, the study builds a basis for future studies between different cultures. Thus, it is suggested that future studies apply this theory to determine whether and how these models can be used in government-funded gifted education globally.

A comprehensive career guidance method helps gifted individuals choose their professions based on accurate information that leads to stable career decisions.

Grade point average (GPA) and academic performance demonstrate minimal influence on gifted individuals when they decide their future careers. The survey showed that only 14.29% of respondents faced academic score limitations when selecting their specialization. Scholarly studies indicate that the educational setting alongside societal interactions has more weight than academic performance when determining life choices. High-achieving students, according to Stefani (2024), base their career decision-making on personal competence rather than GPA, thus minimizing academic score importance. Al-Zoubi (2014) confirmed that educational enrichment programs drive better academic results, which produce more effective career decision outcomes than academic performance alone.

Bannan et al. (2021) specified that pharmacy, alongside other specific fields, does experience academic score impacts, yet career decisions are based primarily on work environment elements and predicted career expectations.

Through these results, it becomes necessary to establish extensive career counseling programs that extend beyond students' academic accomplishments. The integration of self-efficacy, together with enrichment opportunities and real-world experiences, into career counseling helps gifted

individuals select professions that match their abilities and aspirations, and interests.

5.1. Limitations of the study

This study, while offering valuable insights into the career path decisions of gifted individuals, is subject to several limitations. First, the relatively small sample size ($n = 17$) limits the generalizability of the findings beyond the specific participant group. Second, the qualitative nature of the research, while rich in depth, may be prone to interpretative subjectivity. Third, data triangulation or external validation of results was not employed, which limits the methodological rigor in terms of confirming findings across multiple independent sources or methods. While the study utilized member checking and inter-coder reliability checks to ensure internal validity, these do not substitute for triangulation techniques such as combining interviews with document analysis or observations. Future research is encouraged to apply methodological triangulation and multi-source validation strategies to enhance the robustness and credibility of findings. Additionally, the study is context-specific to gifted individuals within the Saudi enrichment program landscape, which may affect the applicability of findings to different cultural or institutional contexts. These limitations should be considered when interpreting the results and designing future studies.

6. Conclusions

The research examined the elements that contribute to gifted individuals choosing their future professions while evaluating the impact that enrichment programs have on their career choices. The study results show that enrichment programs provide substantial career awareness development through their work in developing creative thinking abilities and broadening professional understanding, so students can match their talents with suitable careers. The selection process for a career relies on three main elements, namely, family and community support, together with personal motivational factors and educational guidance. The environment has proved significantly more important than workforce demands in shaping specialization directions among students. The study findings demonstrate that enrichment programs need to address specific requirements of gifted students through practical learning activities, while educational institutions must enhance cooperation with families to provide all-encompassing career development support. The study reveals how gifted participants should take part in program evaluation and development stages to guarantee both the effectiveness and relevance of enrichment programs. When enrichment programs optimize their procedures, they will prepare gifted individuals to make sustainable career choices, which leads to their future professional achievements and societal engagement. Research in

the future should determine extended program effects on participants and establish methods to close the difference between career choices and market employment needs.

6.1. Recommendations

The successful development of career decision-making in gifted individuals demands special enrichment programs based on their specific interests and abilities, with hands-on educational activities. Enhanced institutional-family partnerships alongside family workshops will create supportive learning conditions to improve career exploration between educational institutions and their students. The evaluation and design process of enrichment programs should involve gifted individuals to create alignment with their aspirations through continuous feedback provided by advisory committees. Maximum enrichment program success relies on adequate funding from government departments and private initiatives to improve interactive learning facilities. Creating a detailed career guidance handbook and conducting community awareness efforts will provide structured support that promotes both career decision-making and the social impact of gifted individuals.

6.2. Study implications and future directions

The study findings show the essential function of enrichment programs combined with family support and educational counseling services on the career choice-making process of gifted students. Policymakers, together with educators, need to establish specific career counseling plans that combine hands-on learning and customized guidance to meet this requirement. The partnership between schools and families should be strengthened as it promotes better career awareness and better decision-making abilities. Research must investigate how enrichment programs influence career success over a prolonged period while developing approaches to close the gap between gifted peoples' dreams and real industry needs for continual professional development and social service.

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Compliance with ethical standards

Ethical considerations

This study adhered to ethical research standards throughout all stages. Prior to data collection, informed consent was obtained from all participants, ensuring they understood the research objectives and their rights, including the right to withdraw at any time without consequence. Participant anonymity and confidentiality were strictly maintained, with all data securely stored and used solely for research purposes. The study protocol was reviewed and approved by the Ethics Committee at King Faisal University, ensuring compliance with institutional and international ethical guidelines for research involving human participants.

Conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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