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The relationship between personality, self-esteem, and career decision making among university students in Malaysia

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Abstract

This research aims to explore the predictors of career decision-making among students in a private university in Malaysia, focusing on personality and self-esteem. Personality refers to the unique characteristics of an individual that influence their conduct and social interactions. It has long been recognized as a major factor in determining job decisions. And strong self-worth and confidence, or self-esteem, are necessary for making decisions. Prior studies have highlighted the impact of personality on decision-making, this research delves into the less-explored realm of self-esteem's influence on career decision making. Employing a quantitative research design, data from 150 respondents was analyzed using the Statistical Package for Social Sciences (SPSS). The study utilized three research instruments: Holland's Code Test (1970s), Rosenberg Self-Esteem Scale (1965), and Career Decision Scale (third revision: 1976). The analysis revealed a significant positive correlation between personality traits and career decision-making (r = .22, p = .007), whereas no significant correlation was found between self-esteem and career decision-making (r = .08, p = .326). Additionally, gender did not significantly influence career decision-making among the students (p>.05). These findings suggest that while personality traits are influential in shaping career decisions, self-esteem may not play a significant role. Furthermore, gender differences do not appear to impact career decision-making within this cohort.

Keywords: Personality, self-esteem, career decision making

1. Introduction

Career development is a very dynamic process in which individuals connect personal characteristics with chosen career routes while pursuing numerous professional opportunities (Srikanth & Israel, 2012) [50]. For students, choosing a career is very important since it affects their entire sense of contentment and wellbeing in addition to influencing their future goals (Chinyere, 2017) [51]. The shift from education to the workforce is a momentous occasion in their lives that is frequently met with a mixture of excitement and anxiety (Wirkus *et al.*, 2021) [46]. For undergraduate students, choosing a career amid a plethora of options and considerations can be extremely difficult. To help individuals make fulfilling and sustainable career paths, it is necessary to have a very good understanding of the factors that influence these decisions (Chong & Rusell, 2019; Rami, Zaini, & Aziz, 2021) [7, 34]. Amidst the multitude of factors influencing professional choices, personality characteristics

and self-worth stand out as significant markers. A person's unique thought, feeling, and behavior patterns make up their personality, which has a big impact on their motivations, preferences, and ability to adjust to different circumstances (APA, n.d.; Ashton, 2018; Ringwald *et al.*, 2021) ^[52]. According to Preston and Salim (2020) ^[53], proactive students generally exhibit higher levels of confidence and assurance while making career decisions, highlighting the critical impact that personality qualities play in determining career trajectories.

On the other hand, self-esteem, which includes confidence and sentiments of self-worth, is very crucial for making wise decisions (Cherry, 2022) ^[6]. William James emphasized the critical role that self-esteem plays in supporting proactive engagement in career exploration and decision-making highlighting the significant influence that self-perceptions have on employment choices (Rosenberg, 1979, Moulton, 2022) ^[54, 24]. The development of positive self-perceptions is very important for career development, as evidenced by the correlations between high and low self-esteem and increased indecision in professional choices, psychological well-being and job satisfaction (Choi *et al.*, 2022; Lent & Fouad, 2021; Betz *et al.*, 2022) ^[55, 56, 57].

Corresponding Author: Shabina Rehman School of Education and Social Sciences, Management & Science University (MSU), Malaysia Although the impact of personality and self-esteem on decision-making has been recognized, there is still much to learn about the complex relationships between them, especially in the Malaysian context. Undergraduate students in Malaysia face problems due to the country's cultural and socioeconomic context, which calls for a greater understanding of the underlying causes (Yusof et al., 2020) [48]. Thus, the purpose of this study is to look at how personality traits, self-esteem, and professional decisionmaking relate to one another among undergraduate Malaysian university students. This research aims to improve understanding of career decision-making dynamics and provide targeted insights to support Malaysian undergraduate students in making informed career choices by examining gender disparities in career decision-making processes and clarifying the relationship personality traits and self-esteem.

2. Review of Literature

2.1 Personality

According to the American Psychological Association (APA), personality is a very distinctive set of characteristics and actions that sets people apart (APA, n.d.). Decisionmaking is greatly influenced by these individual attributes, especially in job contexts, as they lead to varying responses to similar situations (Sharma & Suri, 2019) [41]. Although having the right skills and cognitive abilities is essential for success in the workplace, personality characteristics can help or hinder job advancement (Sharma & Suri, 2019) [41]. An individual's opinion of his/her job prospects is significantly shaped by internal characteristics, such as motivational levels and personality attributes (Duru et al., 2021) [8]. Notably, personality traits including emotional stability, aggression, extroversion, and introversion play a critical role in influencing one's propensity for making decisions (Nuckcheddy, 2018) [26].

Besides, Holland's theory contends that people tend to follow occupations that fit their personality archetypes, which improves performance and job satisfaction (Nauta, 2010) ^[25]. Research demonstrates a positive association between academic achievement and environmental fit clearly indicating the interaction between personality and environmental congruence. (Ding *et al.*, 2015) ^[58] On the other hand, adverse character attributes have been connected to career uncertainty, emphasizing the necessity for customized career counseling programs (Duru *et al.*, 2021) ^[8]. It is especially clear that in order to address the complex needs of brilliant and talented people, tailored career counseling is required in order to maximize career trajectories (Yusof *et al.*, 2020) ^[48].

2.2 Self-Esteem

One of the most important variables in the decision-making process while choosing a career is self-esteem, which is defined as an individual's subjective evaluation of their own value and confidence (Cherry, 2022) ^[6]. A proactive approach to goal pursuit and resilience in the face of professional adversities are fostered by high self-esteem (Levy & Baumgardner, 1991) ^[59]. Research demonstrates that there is a strong relationship between career decisions and self-esteem, highlighting the importance of self-esteem in helping people get ready for the challenges in the workplace (Ram, 2018) ^[33]. High self-esteem makes people more receptive to new things and makes career exploration

easier, which helps people make well-informed decisions (Bojanic *et al.*, 2019) ^[4]. On the other hand, low self-esteem might hinder career progression prospects and cause anxiety while making decisions (Wray & Stone, 2005) ^[47].

Additionally, self-esteem plays a crucial part in determining how satisfied people feel about their careers, emphasizing how important it is in determining career paths (Riley, 2021) [36]. A person's capacity to manage changing work situations with confidence and adaptation depends heavily on their career adaptability, which is rooted in their self-esteem (Atac, Dirik, & Tetik, 2018) [3]. Consequently, a key factor in directing people toward rewarding career pathways and raising general professional efficacy is their sense of self-worth.

2.3 Career Decisions

Informed career decision-making hinges upon a multifaceted interplay of internal and external factors, including knowledge acquisition, intrinsic motivations, and exposure to diverse career options (Krannich et al., 2019) [17]. Individuals' proclivity towards particular vocations is often predicated on their personal interests and intrinsic motivations, thereby necessitating a comprehensive exploration of potential career pathways (Legault, 2017) [19]. Career maturity, attained through systematic inquiry and exposure to varied professional environments, empowers individuals to make judicious career choices aligned with their aptitudes and aspirations (McCartney & Robinson, 2015) [23]. Furthermore, exposure to diverse career options and job scopes augments individuals' comprehension of different professional avenues, facilitating informed decision-making processes (Rosantono et al., 2021) [37].

The literature review highlighted the significant influence of personality traits, self-esteem, and career decisions, particularly in shaping individuals' vocational paths and decision-making processes. However, existing research, primarily focusing on the relationship between self-efficacy and career decisions, had overlooked the nuanced role of self-esteem, particularly within the Malaysian context. Given this gap, this study aimed to investigate the correlation between personality traits, self-esteem, and career decisions among undergraduate students at a private university in Malaysia. By delving into these factors within the Malaysian context, this research endeavored to provide localized insights into career decision-making processes, enriching the existing literature and informing targeted interventions and career counseling practices.

Hence, based on the identified gaps and the need for localized research, the following hypotheses were formulated:

Ho1: There was no significant relationship between personality and career decisions among undergraduate students at a private university in Malaysia.

Ha1: There was a significant relationship between personality and career decisions among undergraduate students at a private university in Malaysia.

Ho2: There was no significant relationship between selfesteem and the level of certainty in career decisions among undergraduate students at a private university in Malaysia.

Ha2: There was a significant relationship between selfesteem and career decision certainty among undergraduate students at a private university in Malaysia.

Ho3: There was no significant difference in terms of career decisions based on gender among undergraduate students at a private university in Malaysia.

Ha3: There was a significant difference in terms of career decisions based on gender among undergraduate students at a private university in Malaysia.

Through the exploration of these hypotheses, this study aimed to provide nuanced insights into the factors influencing career decisions among Malaysian undergraduate students, thereby contributing to the advancement of knowledge in this important area of study.

3. Research Methodology

A quantitative research design was employed to investigate the relationship between personality traits, self-esteem, and career decision-making among undergraduate students at a private university in Malaysia.

Three research instruments were utilized in this study. Firstly, the Holland's Code Test, developed by John Holland in the 1970s, was employed to assess the relationship between personality traits and career decisions. This instrument, originally comprising 48 items scored on a dichotomous scale, was modified for this study to include only 24 items, scored on a 5-point Likert scale ranging from 1 (strongly dislike) to 5 (strongly like). Secondly, the Rosenberg Self-Esteem Scale, developed by Morris Rosenberg in 1965 [38], was utilized to measure levels of self-esteem among participants. This scale consists of 10 items presented in a 4-point Likert scale format ranging from 1 (strongly agree) to 4 (strongly disagree). Lastly, the Career Decision Scale third revision, developed by Osipow, S. & Winer, J. (1976) [60], was employed to assess participants' level of career indecision. This scale, comprising 19 items presented in a 4-point Likert scale format ranging from 1 (not at all like me) to 4 (exactly like me), was used to measure career indecision. However, for the purposes of this study, only 18 questions from the scale were utilized. The data collected was analyzed using the Statistical Package for the Social Sciences (SPSS).

4. Result and Discussion

4.1 Demographic Characteristics

The demographic profile of the study participants included

gender and age. Out of the total 150 respondents, 38 (25.3%) were male and 112 (74.7%) were female. In terms of age distribution, 104 respondents (69.3%) were aged between 18 and 22, 45 (30%) were in the 23-27 age bracket, and only one respondent (0.7%) was aged 28-32.

4.2 Reliability Statistics

In this study, the reliability of the research instruments was assessed through Cronbach's alpha values. The total number of items utilized in the study was 52, resulting in an overall Cronbach's alpha of 0.83. Specifically, the Holland's Code Test, Rosenberg Self-Esteem Scale, and Career Decision Scale exhibited Cronbach's alpha values of 0.83, 0.76, and 0.87, respectively. These values indicate good to excellent reliability, ensuring the consistency of results obtained from the instruments throughout the study.

Table 1: Cronbach's alpha for all 52 items

Cronbach's	Cronbach's Alpha Based on	N of
Alpha	Standardized Items	Items
.826	.815	51

4.3 Validity

The validity of the questionnaires utilized in this study has been well-established. Tasrif's (2022) [44] confirmatory factor analysis confirmed the validity of the Holland's Code Test. Similarly, Schmitt & Allik (2005) [40] demonstrated the reliability and validity of the Rosenberg Self-Esteem Scale. Additionally, Osipow & Winer's (1996) [28] research provided evidence for the validity of the Career Decision Scale. These validations support the credibility and accuracy of the research findings.

4.4 Correlation Analysis

The correlation analysis presented in Table 2 reveals a statistically significant positive correlation of 0.22 (p = 0.007) between personality traits, assessed by the Holland's Code Test, and career decision making. This indicates a noteworthy association between an individual's personality characteristics and their process of making career decisions. Higher scores on the Holland's Code Test, reflecting specific personality traits, align with more decisive career choices among the participants. This finding substantiates the hypothesis asserting the significant influence of personality traits on career decision-making processes among undergraduate students.

Table 2: Correlations analysis of Personality and Career Decision Making

		Holland's Code Test	Career Decision Scale
	Pearson Correlation	1	.220**
Holland's Code Test	Sig. (2-tailed)		.007
	N	150	150
	Pearson Correlation	.220**	1
Career Decision Scale	Sig. (2-tailed)	.007	
	N	150	150

^{**.} Correlation is significant at the 0.01 level (2-tailed).

Table 3 displays the correlation analysis between scores obtained from the Rosenberg Self-Esteem Scale and the Career Decision Scale. The Pearson correlation coefficient indicates a negligible positive correlation of 0.081~(p=0.326) between self-esteem and career decision making. This suggests that there is no statistically significant

relationship between self-esteem levels and the ability to make career decisions among undergraduate students. Consequently, the null hypothesis, which posits no significant relationship between self-esteem and career decision making, is upheld based on these findings.

Table 3: Correlation analysis of Self-Esteem and Career Decision Making

		Rosenberg Self-Esteem Scale	Career Decision Scale
	Pearson Correlation	1	.081
Rosenberg Self-Esteem Scale	Sig. (2-tailed)		.326
	N	150	150
	Pearson Correlation	.081	1
Career Decision Scale	Sig. (2-tailed)	.326	
	N	150	150

Table 4 presents statistics on gender differences in career decision-making among undergraduate students. The mean score for males was 45.92 (SD = 8.40), while for females it was 46.97 (SD = 8.64). This indicates a slightly lower mean score and standard deviation for males compared to females.

Table 4: Group Statistics of Differences between Genders on Career Decision Making

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Career Decision	Male	38	45.92	8.403	1.363
Scale	Female	112	46.97	8.635	.816

4.5 Independent t-test between gender and career decision making

Table 4 presents the results of the independent samples t-test examining gender differences in career decision-making. The Levene's test for equality of variances indicates homogeneity across groups, allowing for analysis using the first row. The findings reveal no significant mean difference between gender and career decision-making, t(148) = 0.653, p = 0.515. Therefore, the null hypothesis, suggesting no gender-based disparity in career decision-making among undergraduate students, is upheld.

Table 4: Independent Samples Test of the Differences between Gender on Career Decision Making

		Levene's Test for Equality of Variances			t-test for Equality of Means			
		F	Sig.	t	df	Sig. (2 -tailed)	Mean Difference	
Career Decision Scale	Equal variances assumed	.031	.860	653	148	.515	-1.052	
	Equal variances not assumed			662	65.461	.510	-1.052	

5. Discussion

The initial hypothesis indicated a considerable relationship between personality factors and profession choices. This hypothesis was confirmed by correlation analysis between the Holland's Code Test (HCT) and professional Decision Scale (CDS) scores, which showed a significant relationship between the students' personality traits and professional decision-making. This result is in line with earlier studies showing that people frequently match their personalities with their career choices (Jemini-Gashi & Berxulli, 2017) [14]. Sharma & Suri (2019) [41], who emphasize that people may miss opportunities outside of their comfort zones, thereby limiting their career choices, highlight the potential limitations of people limiting themselves to career options within their comfort zones.

Contrary to predictions, the study found no significant relationship between self-esteem and career decisions. This finding runs counter to previous studies by Abdullah (2020) [1] and Javed & Tariq (2019) [13], which demonstrated the important role that self-esteem plays in influencing profession choices. Although earlier research (Javed & Tariq, 2019) [13] suggested that poorer self-esteem might influence job decision-making, the results of this study show no such relationship. This gap, as highlighted by Javed & Tariq (2019) [13], calls for more research into the complex nature of self-esteem and its variable influence on job decisions across diverse contexts, socioeconomic backgrounds, and support systems.

Analyzing gender disparities in professional decision-making was the third goal. Surprisingly, the study found no evidence of a major gender difference in job decision-making. This result runs counter to earlier studies by Javed & Tariq (2019) [13] and Siti Fatimah (2020) [42], which hypothesized gender-based variations in the decision-making processes related to careers. The results of the current study did not support the conclusions of earlier

research (Siti Fatimah, 2020; Javed & Tariq, 2019) [42, 13], which indicated that gender differences existed in the degree of difficulty in making career decisions. This disparity highlights the intricate interactions between personal goals, support networks, and society norms that influence how both genders make job decisions. An additional analysis showed that even after deciding on a major, many respondents struggled to select from a number of appealing career options in their field of study, suggesting persistent doubt or ambivalence about particular career pathways. This emphasizes how crucial it is to explore employment options and seek advice from family, educators, and the community. Maftei *et al.* (2023) [21] found a relationship between career exploration and parental support perception, highlighting the critical role that advice and support networks play in helping teenagers make well-informed professional selections. Therefore, having access to strong career counseling and support systems is crucial to enabling people to consider a variety of career options and make well-informed selections that are in line with their skills and objectives.

6. Conclusion

In summary, this study has shed light on the influence of personality and self-esteem on career decision-making among undergraduate students at a private University in Malaysia. While the findings indicated a positive correlation between personality and career choices, contrary to expectations, no significant correlation was observed career between self-esteem and decision-making. Additionally, the study revealed no discernible gender-based differences in career decision-making difficulties. However, it is important to acknowledge the limitations of this research, suggesting the need for further comprehensive investigations to enhance our understanding of these relationships. Subsequent studies could delve deeper into these variables to uncover nuanced insights into their interplay.

7. References

- Abdullah N. Self-esteem, social support, and career decision-making among technical engineering students. Conference: 4th International Conference on Technology Management, Business and Entrepreneurship; c2015 Nov 1. Retrieved from https://www.researchgate.net/publication/301694533_s elf-esteem_social_support_and_career_decision-making_among_technical_engineering_students
- 2. Akosah P, Emeto T, Lindsay D, Tsey K, Malau B. A systematic review of factors that influence youths career choices the role of culture. Frontiers in Education; c2018, 3.
 - DOI: https://doi.org/10.3389/feduc.2018.00058
- Atac L, Dirik D, Tetik H. Predicting career adaptability through self-esteem and social support: A research on young adults. International Journal of Educational and Vocational Guidance. 2018 Mar;18:45-61. DOI: https://doi.org/10.1007/s10775-017-9346-1
- Bojanic Z, Nedeljkovic J, Sakan D, Mitic P, Milovanovic I, Drid P. Personality traits and selfesteem in combat and team sports. Frontiers in Psychology; c2019 Oct 9. DOI: https://doi.org/10.3389/fpsyg.2019.02280
- Cai ZG. Self-esteem and proactive personality as predictors of future work self and career adaptability:
 An examination of mediating and moderating processes. Journal of Vocational Behavior. 2015 Feb;86:86-94.

 DOI:https://doi.org.msu.remotexs.in/10.1016/j.jvb.2014
 - DOI:https://doi.org.msu.remotexs.in/10.1016/j.jvb.2014 .10.004
- 6. Cherry K. What is self-esteem? Very Well Mind. 2022 Aug 3. Available from: https://www.verywellmind.com/what-is-self-esteem-2795868
- 7. Chong HY, Rusell TTQ. Career indecision among Malaysian final year students: Self-efficacy, decision-making styles, planned happenstance skills. UTAR Institutional Repository; c2019 Aug 22. Available from: http://eprints.utar.edu.my/3542/
- 8. Duru H, Soner O, Sinan F. The predictors of career decision-making difficulties among high school students: Career decision self-efficacy and personal traits Turkey case. Education Sciences: Theory and Practice. 2021 Jan;21(1):33-42. Available from: https://jestp.com/index.php/estp/article/view/966
- 9. Ferguson PA. A relationship between career decision and motivation to persist. Electronic Theses and Dissertations; c2007. Available from: https://stars.library.ucf.edu/cgi/viewcontent.cgi?referer =&httpsredir=1&article=4157&context=etd
- 10. Heale R, Twycross A. Validity and reliability in quantitative studies. Evidence Based Nursing. 2015;18:66-67. Available from: https://ebn.bmj.com/content/18/3/66.info
- 11. Heathfield S. 5 Tips to improve your career development. The Balance; c2022 Sep 13. Available from: https://www.thebalancemoney.com/improving-career-development-4058289
- 12. Holland Code Test. openpsychometric.org. Available from: https://openpsychometrics.org/printable/holland-code-test.pdf
- 13. Javed Z, Tariq O. Career decisions, self-efficacy and self-esteem among students of private and government

- academic institutions. Pakistan Journal of Social and Clinical Psychology. 2019;14(2):42-46. Available from: https://gcu.edu.pk/pages/gcupress/pjscp/volumes/pjscp2 0162-6.pdf
- 14. Jemini-Gashi L, Berxulli D. Personality types, career choice and career certainty among high school students. International Journal of Teaching and Education. 2017;5(1):25-35. DOI:10.20472/TE.2017.5.1.003
- 15. Johnson C. Thesis personality traits and their effect on Facebook user habits. Mountain Scholar; c2016. Available from: https://mountainscholar.org/bitstream/handle/10217/17 3446/Johnson colostate 0053N 13292.pdf
- Khawaja K, Haim H, Dileep K. Get along with quantitative research process. International Journal of Research in Management; c2012 Mar, 2(2). Available from: https://www.research.geta.pet/publication/050350312. G
 - https://www.researchgate.net/publication/259359212_G et_Along_With_Quantitative_Research_Process
- 17. Krannich M, Goetz T, Lipnevich A, Bieg M, Roos A, Becker E, *et al.* Being over or underchallenged in class: Effects on students' career aspirations via academic self-concept and boredom. Learning and Individual Differences; c2019. p. 206-218. Available from: https://www.anastasiyalipnevich.com/wp-content/uploads/2020/01/Lipnevich_EECE_2019-Krannich-LEANDID.pdf
- 18. Krejcie RV, Morgan DW. Determining sample size for research activities. Educational and Psychological Measurement. 1970;30(3):607-610. Available from: https://home.kku.ac.th/sompong/guest_speaker/Krejciea ndMorgan article.pdf
- Legault L. Self-Determination Theory. In: Hill V, Shackelford T, editors. Encyclopedia of Personality and Individual Differences. DOI:10.1007/978-3-319-28099-8_1162-1
- Lin SH, Wu CH, Chen LH. Unpacking the role of selfesteem in career uncertainty: A self-determination perspective. Journal of Positive Psychology. 2015 May;10(3):231-239.
 DOI:10.1080/17439760.2014.950178
- 21. Maftei A, Măirean C, Dănilă O. What can I be when I grow up? Parental support and career exploration among teenagers: The moderating role of dispositional optimism. Personality and Individual Differences; c2023 Jan; 200. Available from: https://DOI.org.msu.remotexs.in/10.1016/j.paid.2022.1 11870
- 22. Majid U. Research fundamentals: Study design, population, and sample size. Undergraduate Research in Natural and Clinical Science and Technology (URNCST) Journal; c2018 Jan. DOI:10.26685/urncst.16
- 23. McCartney M, Robinson L. Chapter 13. Careers and work experience. Retrieved from BC Campus; c2015. https://opentextbc.ca/introtourism/chapter/chapter-13-careers-and-work-experience/
- 24. Moulton S. Theories of self-esteem: Early & modern. Retrieved from Study.com: https://study.com/academy/lesson/theories-of-self-esteem-early-modern.html
- 25. Nauta M. The development, evolution, and status of Holland's theory of vocational personalities: Reflections and future directions for counseling

- psychology. Journal of Counseling Psychology. 2010;57(1):11-22. DOI:10.1037/a0018213
- Nuckcheddy A. The effect of personality on motivation and organizational behavior. Psychology and Behavioral Science; c2018 May 30. DOI:10.19080/PBSIJ.2018.09.555760
- 27. Nyamwange J. Influence of students' interest on career choice among first year university students in public and private universities in Kisi County, Kenya. Journal of Education and Practice; c2016, 7(4). Available from: https://files.eric.ed.gov/fulltext/EJ1092415.pdf
- 28. Osipow S, Winer J. The use of the Career Decision Scale in career assessment; c1996. Retrieved from sci-hub: https://sci-hub.se/https://journals.sagepub.com/DOI/10.1177/1069 07279600400201
- 29. Osipow SH, Schweikert D. The Career Decision Scale: A test of concurrent validity. Psychological Report. 1981;48:759-761. Available from: https://sci-hub.se/https://journals.sagepub.com/DOI/10.2466/pr0.1 981.48.3.759
- 30. Park I, Kim M, Kwon S, Lee H. The relationship of self-esteem, future time perspective, positive affect, social support, and career decision: A longitudinal multilevel study. Frontiers in Psychology; c2018 Apr 26, 9(514). Available from: https://DOI.org/10.3389/fpsyg.2018.00514
- 31. Patino CM, Ferreira JC. Internal and external validity: Can you apply research study results to your patients? Jornal Brasileiro de Pneumologia. 2018 May-Jun;44(3):183. DOI:10.1590/S1806-37562018000000164
- 32. Patton W, Partrum DA, Creed PA. Gender differences for optimism, self-esteem, expectations and goals in predicting career planning and exploration in adolescents. International Journal for Educational and Vocational Guidance. 2004;4(3):193-209. Available from: https://core.ac.uk/download/pdf/10873936.pdf
- 33. Ram M. Career decision making of secondary school students in relation to their self-esteem. International Journal of Scientific Research and Reviews. 2018;7(4):901-914. Available from: https://www.ijsrr.org/down_1573.php
- 34. Rami A, Zaini S, Aziz M. Career decision making among Malaysian university students. International Journal of Academic Research in Progressive Education and Development. 2021;10(2):703-714. Available from: https://hrmars.com/papers_submitted/10189/career-decision-making-among-malaysian-university-students.pdf
- 35. Rammstedt B, Oliver J. Measuring personality in one minute or less: A 10-item short version of the Big Five Inventory in English and German. Journal of Research in Personality. 2007 Feb;41(1):203-212. DOI: https://doi.org/10.1016/j.jrp.2006.02.001
- 36. Riley J. The undeniable importance of self-confidence for career success. Retrieved from Linkedin: https://www.linkedin.com/pulse/undeniable-importance-self-confidence-career-success-jim-riley
- Rosantono I, Wijanarka B, Daryono R, Nurtanto M. Analysis of the influencing factor of vocational education students career decisions. Jurnal Pendidikan dan Pengajaran; c2021 Oct. DOI: https://doi.org/10.23887/jpp.v54i3.37343

- 38. Rosenberg M. Rosenberg Self-Esteem Scale (RSE); c1965. Retrieved from APA: https://www.apa.org/obesity-guideline/rosenberg-self-esteem.pdf
- 39. Saidi S, Siew N. Investigating the validity and reliability of survey attitude towards statistics instrument among rural secondary school students. International Journal of Educational Methodology. 2019;5(4):651-661. DOI: doi:10.12973/ijem.5.4.651
- 40. Schmitt DP, Allik J. Simultaneous administration of the Rosenberg Self-Esteem Scale in 53 nations: Exploring the universal and culture-specific features of global self-esteem. Journal of Personality and Social Psychology. 2005;89(4):623-642. DOI:10.1037/0022-3514.89.4.623
- 41. Sharma S, Suri D. Moderating effects of Big Five Personality between Self-efficacy and career choice among college students. International Journal of Innovative Studies in Sociology and Humanities; c2019 May, 4(5). Available from: https://ijissh.org/storage/Volume4/Issue5/IJISSH-040513.pdf
- 42. Fatimah S. Comparison of difficulties in career decision making: In terms of gender and the aspects that influence it. Journal of Multicultural Studies in Guidance and Counseling. 2020;4(2):131-144. Available from: https://doi.org/10.17509/jomsign.v4i2.25586
- 43. Taber KS. The use of Cronbach's alpha when developing and reporting research instruments in science education. Research in Science Education. 2018;48:1273-1296. DOI:10.1007/s11165-016-9602-2
- 44. Tasrif E. RIASEC Holland's reliability and validity on personality of informatics engineering education students in higher education. Journal Penelitian Pendidikan Indonesia. 2022 Mar 4;8(1):11-21. Available from: https://doi.org/10.29210/020221602
- 45. University of Edinburgh. Literature review. Retrieved from https://www.ed.ac.uk/institute-academic-development/study-hub/learning-resources/literature-review
- 46. Wirkus A, Wirkus L, Stasiak K, Kozlowski P. University students' strategies of coping with stress during the coronavirus pandemic: Data from Poland. PLOS ONE; c2021 Jul 26. DOI: https://doi.org/10.1371/journal.pone.0255041
- 47. Wray L, Stone E. The role of self-esteem and anxiety in decision making for self versus others in relationships. Journal of Behavioural Decision Making. 2005 Apr;18(2):125-144. Available from: https://www.researchgate.net/publication/200008953._ The_role_of_self-esteem_and_anxiety_in_decision_making_for_self_ver sus_others_in_relationships
- 48. Yusof R, Mokhtar M, Sulaiman S, Syafrimen, Mohtar M. Consistency between personality career interest with sciences field among gifted and talented students. Journal for the Education of Gifted Young Scientists. 2020 Sep 15;8(3):1147-1161. DOI: https://DOI.org/10.17478/jegys.667323
- 49. Zainudin Z, Lee W, Nor A, Yusop Y, Othman W. The relationship of Holland theory in career decision making: A systematic review of literature. Journal of Critical Reviews; c2020, 7(9).

- DOI: http://dx.doi.org/10.31838/jcr.07.09.165
- 50. Srikanth PB, Israel D. Career commitment & career success: Mediating role of career satisfaction. Indian Journal of Industrial Relations. 2012 Jul 1:137-49.
- 51. Chinyere EB, Callistus UN, Okechukwu OD. Estimation of pork lard biodiesel properties from its fatty acid methyl ester profile by GC-MS. Sigma: Journal of Engineering & Natural Sciences/Mühendislik ve Fen Bilimleri Dergisi; c2017 Sep 1, 35(3).
- 52. Ringwald A, Schütte-Engel J, Tamarit C. Gravitational waves as a big bang thermometer. Journal of Cosmology and Astroparticle Physics. 2021 Mar 17;2021(03):054.
- 53. Preston M, Salim RM. Career decision-making attribution, proactive personality, and career decision self-efficacy in gifted high-school students. Psychology and Education. 2020;57(4):221-5.
- 54. Rosenberg M, Court D. Regulatory sequences involved in the promotion and termination of RNA transcription. Annual review of genetics. 1979 Dec;13(1):319-53.
- 55. Choi TM, Dolgui A, Ivanov D, Pesch E. OR and analytics for digital, resilient, and sustainable manufacturing 4.0. Annals of Operations Research. 2022 Mar;310(1):1-6.
- 56. Lent RW, Morris TR, Tatum AK, Wang RJ, Moturu BP, Ireland GW. Predictors of workplace sexual identity management behaviors: A test of the social cognitive career self-management model. Journal of Vocational Behavior. 2021 Jun 1;127:103566.
- 57. Betz HD, editor. The Greek Magical Papyri in Translation, Including the Demotic Spells, Volume 1. University of Chicago Press; c2022 Oct 14.
- 58. Ding Z, Jiang JW, Pei QX, Zhang YW. In-plane and cross-plane thermal conductivities of molybdenum disulfide. Nanotechnology. 2015 Jan 19;26(6):065703.
- 59. Levy PE, Baumgardner AH. Effects of self-esteem and gender on goal choice. Journal of Organizational Behavior. 1991 Nov;12(6):529-41.
- 60. Osipow SH, Carney CG, Winer J, Yanico B, Koschier M. Career Decision Scale (CDS); c1976.