Journal of Professional & Applied Psychology *Original Article*

Moderating Role of Emotional Intelligence: Exploring the Association between Personality Traits and Creativity in Young Adults

Faiz Younas[1], Maryam Khalid[2], Shazia Qayyum[3*]

Abstract

The paper looked into the potential moderating role that emotional intelligence might play between personality traits and creativity in young adults. The following hypotheses were put forth: a) personality traits, emotional intelligence, and creativity would have a strong positive relationship; b) personality traits and emotional intelligence would predict creativity; and c) emotional intelligence would moderate the relationship between personality traits and creativity. Using a non-probability sampling, 200 young adults (n = 100 women and n = 100 men) aged 18 to 35 years (M = 23.85, SD = 3.74) were recruited for this cross-sectional correlational study. Findings indicated a significant positive connection among personality traits, emotional intelligence and creativity. Moreover, neuroticism and emotional intelligence were found to predict creativity significantly. Lastly, emotional intelligence moderated the relationship between personality traits (openness to experience and extraversion) and creativity. These indigenous findings would have significant implications for young adults, researchers, counsellors, and educational psychologists for awareness, policy-making and further research endeavours.

Keywords: Creativity, Emotional Intelligence, Extraversion, Neuroticism, Openness to Experience, Personality Traits

Received: 03 May 2024; Revised Received: 20 June 2024; Accepted: 21 June 2024

[1]Lecturer, Institute of Applied Psychology, University of the Punjab, Lahore, Pakistan.
[2]BS (Hons) Scholar, Institute of Applied Psychology, University of the Punjab, Lahore, Pakistan.
[3*]Associate Professor, Institute of Applied Psychology, University of the Punjab, Lahore, Pakistan.

***Corresponding Author Email:**
shazia.appsy@pu.edu.pk

Introduction

Personality traits demonstrate the characteristic patterns of thoughts, feelings, and behavior of people, and they imply stability and consistency (Diener & Lucas, 2021), which is why they play a significant role in understanding and predicting individual behavior and mental processes. Considered relatively stable and internally consistent, they are inferred from a pattern of thinking, feeling, and behaving of a particular individual. Meanwhile, creativity is generating an original concept or thing that is also beneficial (Fuentes et al., 2019). It is a distinct talent that belongs to gifted individuals who might use it to stand out in various industries (Froehlich, 1969). Psychologists have recently argued that creativity is a product of particular education and learning rather than a distinctive talent or ability of a selected few (Nikolopoulou, 2018). It is possible to view creativity as a trait shared by extraordinary people. It is also a life skill that helps people realize their full potential as artists and make worthwhile decisions (Richardson & Mishra, 2018). However, it will be incomplete if one is unable to identify, assess and control one's own emotions as well as those of others, which is why it is pertinent to study emotional intelligence while investigating personality traits and creativity. Emotional intelligence is managing one's own and understanding others' feelings (Dewaele, 2018). It is a

This article is distributed under the terms of the Creative Commons Attribution Non Commercial 4.0 International License (https://www.creativecommons.org/licenses/by-nc/4.0/) which permits non-Commercial use, reproduction and distribution of the work without further permission provided the original work is attributed as specified.
© Copyright: The Authors (2024)

valid marker of work performance (Hou et al., 2018).

The people within an organization, including their personalities, give it an ability to innovate (Li et al., 2022). The link between creativity and personality is nuanced and not always straightforward (Zhang et al., 2024). Research has indicated that creativity is the result of the interaction between individual factors and personality. Studies have shown that personality and self-esteem affect creativity (Fuentes et al., 2019). For example, creative people also have high self-esteem (Chacon-Lopez & Maeso-Broncano, 2023). Fan and Cai (2020) reported that living in this world depends entirely on creativity. Meanwhile, researches have highlighted the link between creativity and emotional intelligence (EI) (Yu et al., 2019). According to the current study, EI may be one of the individual variables that contributes to our knowledge of the relationship between creativity and personality. The theory is predicated on the idea that EI supports cognitive processes including reasoning, problem-solving, and decision-making (Mayer & Salovey, 1993). This, in turn, promotes inventive behavior, which is related to employee creativity. Numerous researches have demonstrated the connection between creativity and EI (e.g., Jafri, 2019). There hasn't been much research done on EI as a tool to comprehend the relationship between the study's two variables. Given that EI has a moderating function in work attitude and performance, there is a vacuum in the literature regarding what constitutes a moderating influence in predicting employee creativity (Murmu & Neelam, 2022). Consequently, the study's second goal is to investigate how EI influences the association between creative thinking and personality factors. Comprehending the relationship between EI and the two variables could aid firms in creating intervention programs that foster employee creativity.

Literature Review

Creativity and Emotional Intelligence

Creativity and emotional intelligence (EI) have been studied recently (Jafri, 2018). One aspect of EI is to redirect negative emotions into problem solving (Tu et al., 2018). People with high EI produce creative results (Yildrim et al., 2019). Emotionally intelligent people promote creativity by exploring ideas (Xu et al., 2019). EI also increases creativity in employees (Darvishmotevali et al., 2018; Geher et al., 2017). Furthermore, Ivcevic and Brackett (2015) discovered that those who were more receptive to new experiences had higher creative levels. Students' "creative problem solving" was also significantly predicted by EI (Mohammadi, 2019). In a recent study, Sahin (2016) used a domain-specific methodology and discovered that there appears to be a distinct set of connections between EI traits and each creative domain. For instance, a substantial correlation was found between self-control and mechanical/scientific creativity, and sociability was significantly correlated with scholarly creativity (Mvududu, 2020).

The relationship between emotional intelligence and creativity was examined by Xu et al. (2019) using a meta-analysis that compiled 75 studies with a total sample size of 18,130. The findings indicated a moderately significant statistical correlation ($r = 0.32$, $p < .01$) between these two constructs, and the relationship was stronger when emotional intelligence and creativity were measured using subjective reports, such as trait emotional intelligence and creative personality. Additionally, EI fosters effective emotion regulation, empathy, self-control, and collaboration—all of which have a significant and favorable impact on employee creativity (Kasuma & Rusdi, 2024). In gifted children, creative self-efficacy was considerably positively predicted by EI (Chen & Cheng, 2023).

Past studies have also found the moderating role of EI. Parke et al. (2015) discovered,

for instance, that employee creativity is moderated by EI through good affect. Similar to this, creativity moderate the relationship between potential for creativity and accomplishments (Sordia et al., 2019). The idea of creativity has, nonetheless, been the subject of extensive research and has been connected to personality traits as well (El Othman et al., 2020).

Creativity, Emotional Intelligence and Personality Traits

The Componential theory of creativity shows that personality traits influence creativity (Wu & Wu, 2020). Sternberg's (2006) "Personality Investment Theory," defines the personality traits of creative people and according to him, creativity comes from six different but connected sources: mental skills, ways of thinking, motivation, knowledge, environment, and personality. A recent study on the connection between personality and creativity has expanded and produced reliable results (Jirásek & Sudzina, 2020; Novikova et al., 2020). Different studies have also linked various personality traits to different components of EI and creativity. In a study on software engineers in Pakistan, extraversion, conscientiousness, and openness to experience all positively predicted creativity (Amin et al., 2020). On the other hand, neuroticism negatively predicted creativity (Hong et al., 2020). Additionally, extraversion, and agreeableness had a favourable link with students' creativity (Abedini, 2021; Kirsch et al., 2021). Other studies also indicated that conscientiousness and openness to experiences (OTE) predicted employees' creativity (Zare & Flinchbaugh, 2018). Extraversion and OTE have a good correlation with creativity (Kuška et al., 2020).

EI is linked with the comprehension and regulation of feelings. These are the vital components in the formation of personality. Hence EI and personality are related. For example, a study in Pakistan found that EI and neuroticism had a negative relation. EI had positive relation with the other four personality traits (Atta et al., 2013). Extraversion, agreeableness and OTE were important predictors of EI among Saudi Arabian university advisers (Alghamdi et al., 2017). Dong et al. (2022) and Szczesniak et al. (2020) found similar results. El Othman et al. (2020) also found a substantial correlation between higher extroversion and higher EI. They also found a significant correlation between higher neuroticism and lower EI. Neuroticism and conscientiousness did not affect EI (Kokkinos & Vlavianou, 2019). Conscientiousness and EI were positively correlated (Sanchez-Ruiz & El Khoury, 2019). Alegre et al. (2019) found that all B5 traits strongly predicted EI. EI and extraversion have been proven to have positive connections (Salceanu & Agapie, 2022).

Some researchers reported that EI moderated the link between extraversion, agreeableness, conscientiousness, and OTE. It also mediated the connection between neuroticism and gratitude (Szcześniak et al., 2020). El Othman et al. (2020) reported that EI mediates the association between intuitive decision-making style and conscientiousness. It appears to moderate the relationship between OTE and decision-making. Additionally, moderating regression analysis indicates that cultural intelligence increases the impact of EI on innovativeness (Darvishmotevali et al., 2018). EI also enhanced the relationships between conscientiousness, extraversion, OTE, and employee creativity (Jafri, 2019). Comprehending and analyzing creativity on an individual basis, particularly considering the moderating influence of emotional intelligence and personality, is crucial, particularly in highly contextualized settings where there is a theoretical vacuum in the literature. By examining the connection between the personality, EI, and its eventual impact on creativity, this study aims to close the gap.

From the above literature, personality traits and creativity might have a complicated

relationship. To uncover this, we sought to (a) examine personality traits and emotional intelligence as predictors of creativity in young adults, (b) determine if emotional intelligence affected the link between personality traits and creativity, and (c) evaluate gender differences in creativity in young adults. As a result, the following assumptions were tested.

H1: There would likely be a positive link between personality traits (conscientiousness, openness to experience, extraversion, agreeableness), emotional intelligence and creativity, and a negative connection between creativity and neuroticism.

H2: Personality traits and emotional intelligence would likely predict creativity.

H3: Emotional intelligence would likely moderate the link between personality traits (extraversion, openness to experience) and creativity.

Method

Research Sample and Design

The current study is a correlational research approach. The statistical population consists of young people (aged 18–35 years) from different cities in Pakistan (n = 100 men and n = 100 women). The demographic information of the participants showed that the mean age for both male and female participants was 24 years (*SD* = 3.74).

Measures

Big Five Inventory (BFI)

The five personality traits are measured using this self-report instrument (John et al., 1991). This 44 item scale is scored on a five-point Likert scale from 1 (completely disagree) to 5 (agree a lot). Extraversion (8 items), conscientiousness (9 items), neuroticism (8 items), agreeableness (9 items), and OTE (10 items) are the five subscales. For example, “can be kind of careless”, and “is creative and inventive.” The reliability coefficients for the key five factors are 0.75, 0.82, 0.89, 0.84, and 0.82 respectively.

The Schutte Self-Report Emotional Intelligence Test (SSEIT)

A self-report SSEIT (Schutte et al., 1998) consisting of 33 items, ranging from 1 (strongly disagree) to 5 (strongly agree) was used. General emotional intelligence is measured using four subscales of the SSEIT: emotion usage, emotion perception, emotion management, and emotion management of oneself and others. Items included “when my mood changes, I see new possibilities”. The reliability of the entire scale is .90. The sum of the all responses from each subtest determines the final score.

Kaufman Domains of Creativity Scale (K-DOCS)

Five categories of creativity (50 items) were evaluated using K-DOCS (Kaufman, 2012): academic, performing arts, scientific, everyday, and artistic. Here are a few instances of the items: "Writing a computer program" for Scientific; "Acting in a play" for Performance; "Understanding how to make myself happy" for Everyday; "Developing a fresh perspective on an old debate" for Scholarly; and "Appreciating a beautiful painting" for Artistic. On a 5-point Likert scale, 1 representing "much less creativity" and 5 representing "much more creativity," respondents rated their level of creativity relative to their experience level. Internal consistency reliability in this study was 0.93 for the overall scale and (respectively) 0.78, 0.82, 0.91, 0.82, and 0.91 for the subscales.

Procedure

After attaining official permission from relevant authorities, authors of the scales and the ethics committee, a Google Form link was shared with potential participants, and only those who were online with their consent, before obtaining permission from the authors of the scale. The participants also received guarantees of anonymity, information about the investigation's goal, and the option recruited who gave their formal consent and filled out the questionnaires completely. This was

followed by data analysis and interpretation.

Results

Table 1

Psychometric Properties for Scales (N=200)

Scale	*M*	*SD*	Range	Cronbach's α
Personality Traits				
Extraversion	24.79	4.98	10-38	.59
Agreeableness	33.59	5.20	22-45	.63
Conscientiousness	29.21	5.50	14-43	.64
Neuroticism	25.64	6.56	9-40	.78
Openness	35.84	5.49	15-46	.64
Emotional Intelligence	122.93	17.31	45-159	.91
Creativity				
Self/Everyday	39.97	7.15	11-55	.83
Scholarly	37.86	8.06	11-54	.87
Performance	31.54	9.60	10-50	.90
Mechanical/Science	29.13	8.35	9-45	.89
Artistic	31.23	8.57	9-45	.90

Note. *M*=Mean, *SD*=Standard Deviation

Table 1 provides the Cronbach Alpha for the scales and sub-scales used in the study.

Table 2

Correlations for Study Variables (N=200)

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Gender	---	-.24**	-.07	.04	.03	.16*	.04	.09	.02	-.06	-.16*	-.20**	.07
2. Age		---	.22**	.32**	.19**	-.05	.17**	.12	.07	.14	-.08	.06	.00
3. Extraversion			---	.19**	.43**	-.15*	.30***	.38***	.45**	.23**	.16*	.16*	.12
4. Agreeableness				---	.30**	-.02	.26***	.39***	.30**	.34**	.09	.19**	.20**
5. Conscientiousness					---	-.24**	.28***	.40***	.47**	.16*	.10	.10	.12
6. Neuroticism						---	.01	-.11	-.21**	-.18**	-.15*	-.16*	-.07
7. OTE							---	.55***	.48***	.38***	.07	.18**	.25***
8. Emotional Intelligence								---	.68***	.43***	.15*	.22**	.24**
9. Self/Everyday									---	.48**	.25**	.33**	.36**
10. Scholarly										---	.62**	.58**	.67**
11. Performance											---	.63**	.68**
12. Me/Sc												---	.66**
13. Artistic													---

Note. *$p < .05$, **$p < .01$, ***$p < .001$; OTE = Openness to experience; Me/Sc = Mechanical/Scientific

Table 2 shows the correlation among BFI, EI, and creativity and their Pearson correlations. Conscientiousness, OTE, extraversion, agreeableness, EI and creativity were positively related. However, neuroticism was negatively related to creativity. All personality traits except neurotocism had significant positive relationship with EI. Neuroticism did not have any relationship with EI.

Table 3

Regression Coefficients of Personality Traits and Emotional Intelligence on Creativity (N=200)

Variables	*B*	*SE*	*t*	*p*	95% *CI*
Constant	63.28	21.68	2.92	.004	[20.53, 106.04]
Extraversion	.70	.49	1.42	.156	[-.27, 1.66]
Agreeableness	.84	.44	1.89	.061	[-.04, 1.71]
Conscientiousness	-.18	.45	-.41	.685	[-1.08, .71]
Neuroticism	-.77	.33	-2.33	.021	[-1.43, -.12]
Openness	.83	.46	1.79	.075	[-.09, 1.74]
Emotional Intelligence	.46	.16	2.88	.004	[.15, .77]

Note. CI = Confidence Interval

Table 3 shows the effect of personality traits and emotional intelligence on creativity in young adults. With an R^2 value of .23 and F (6, 193) = 9.60, p <.001, the predictors explained 23% variance in the outcome variable. The table showed that neuroticism negatively predicted creativity whereas emotional intelligence positively predicted creativity, Moreover, extraversion, agreeableness, conscientiousness, and OTE did not predict creativity.

Table 4

Moderation of Emotional Intelligence Between openness and Creativity (N=200)

Variables	Model 1			Model 2		
	B	**β**	**SE**	**B**	**β**	**SE**
Constant	169.72***		2.13	172.28***		2.28
Openness	4.65	.14	2.56	2.22	.07	2.66
EI	11.05***	.33***	2.56	9.74***	.29***	2.56
Openness × EI				-4.66**	-.20**	1.67
R^2	.18				.21	
ΔR^2					.03**	
Constant	169.72***		2.12	171.61***		2.20
Extraversion	4.43	.13	2.30	4.10	.12	2.26
EI	11.95***	.36***	2.30	10.13***	.31***	2.36
Extraversion × EI				-5.04**	-.18**	1.83
R^2	.18				.21	
ΔR^2					.03**	

Note.

Table 4 shows the moderation of EI between OTE and creativity and the moderation of EI between extraversion and creativity. In openness Model 1, the findings revealed that OTE × EI predicted creativity. The ΔR^2 value of .03 revealed a 3% variance change in model 1 and model 2 with ΔF (1, 196) =7.77, p<.01. Hence, the link between OTE and creativity was moderated by EI.

In Model 2 of extraversion, the findings revealed that extraversion × EI predicted creativity. The ΔR^2 value of .03 revealed a 3% variance change in model 1 and model 2 with ΔF (1, 196) =7.63, p<.01. Results show that connection between extraversion and creativity was moderated by EI.

Discussion

The goal of this investigation was to study how personality traits and EI can be used to predict creativity in young adults. Except for neuroticism, the research findings indicated a considerable positive link between EI, personality traits, and creativity. These were supported by Taneja et al. (2020). They discovered a favorable connection between EI and personality traits (OTE, conscientiousness, extraversion, agreeableness). Moreover, Hjalmarsson and Daderman (2020) discovered that EI had a positive association with all personality qualities, except neuroticism, with which it had a negative relationship. It suggested that having a neurotic personality could lower one's emotional intelligence. Similarly, Arslan et al. (2017) found a negative link between neuroticism and EI.

It was also found that OTE is strongly positively linked with creativity. Tan et al.'s (2016) findings that individuals with high openness scores also reported high intrinsic motivation, which in turn improved self-rated creativity, also supported this conclusion. Similar to this, Chen et al. (2019) found that OTE and cognitive flexibility contributed to students' creativity. Five distinct categories of creativity by Kaufman were found to be significantly related to OTE in another study by Tidikis and Dunbar (2017). Similar conclusions were reached by Jafri (2019) in his study on workers, who found that conscientiousness, extraversion, and openness to new experiences all significantly boosted workers' creativity.

According to findings, only neuroticism significantly negatively predicted creativity, but EI was found to be a positive predictor of creativity. Even yet, research has shown that EI predicts various creative areas, which is supported by other studies (Rodrigues et al., 2019; Silva & Coelho, 2018; Xu et al., 2019). This may be due to an individual's greater capability to maintain happy affect while also being able to direct negative affect in more productive ways (Richardson & Mishra, 2018). Gao et al. (2020) indicated that neuroticism displayed a U-shaped connection with creativity, are consistent with the negative correlation of neuroticism with creativity. Similar to this, neuroticism negatively predicted creativity (Amin et al., 2020).

Extraversion, agreeableness, conscientiousness, and OTE were not found to be predictive of creativity in our study. This contradicted earlier research conclusions. This may be because different tasks may elicit different components of creative thought, and creativity is a multifaceted construct. While some tasks may not exhibit a substantial association, others may be more strongly associated to particular personality traits. However, one study by Silvia et al. (2009) found that agreeableness and conscientiousness did not predict creativity.

The findings additionally showed that EI and all domains of creativity, including everyday, performance, artistic, academic, and scientific creativity, were positively correlated. It makes sense to talk about how EI and creativity relate to particular domains because this information can be useful in developing creativity in those disciplines. Creativity subscales (scientific and artistic) were linked to thought facilitation. It is an EI component that highlights whether moods may be employed to support cognition (Kaufman et al., 2015). Previous investigation has demonstrated the link between EI and creativty subscales (performance, daily and scientific) (Tu et al., 2018). Furthermore, the mechanic/scientific creativity was predicted by a component of EI (Mvududu, 2020).

In this study, EI moderated the connection between extraversion- creativity. It also moderated OTE and creativity . Jafri (2019) also found that EI greatly strengthened the connections between the creativity and extraversion of an employee. Ivcevic and Brackett (2015) also reported that affect regulation moderated of the link between creativity and OTE.

Conclusion

Understanding the link between personality traits, EI, and creativity in adults was the goal of this study. A significant positive link between four personality traits, EI, and creativity was found in this study. Moreover, personality qualities like agreeableness and conscientiousness predicted creativity in the presence of EI. However, neuroticism negatively predicted creativity. Finally, it was discovered that EI improved the link between creativity and personality traits like extraversion and OTE.

Limitations and Recommendations

There are undoubtedly a few limitations. The work is correlational, making it impossible to evaluate causal relationships. Therefore, the existing methodology does not fully explain how personality traits and EI are related to creativity. Additionally, a highly particular operational definition of creativity is being used in our research. A vast variety of creative endeavors, including those in the domains of art, poetry, technology, and more, are undoubtedly a part of the human experience. The current research only looked at a small portion of this varied set of skills. The fact that this study only used a quantitative methodology is one of its shortcomings. It would be advantageous to take a qualitative approach to future studies because emotional intelligence and creativity are ideas that are dependent on interaction. We advise using a mixed-technique approach in future studies.

Implications

This study helps to highlight the significance of personality factors in young people's creative abilities. Testing the contribution of EI to the personality traits-creativity relationship is more critical. No one has looked at the processes through which EI promotes creativity. This study, in our opinion, adds to the continuing discussion concerning how unique personality traits relate to various creative fields. These results can be utilized to help people of all ages be guided and nurtured to maximize their creative potential by making the best use of their natural abilities and traits.

Contribution of Authors

Faiz Younas:, Methodology, Writing - Reviewing & Editing, Supervision
Maryam Khalid: Conceptualization, Investigation, Data Curation, Formal Analysis, Writing – Original Draft
Shazia Qayyum: Methodology, Writing - Reviewing & Editing

Conflict of Interest

There is no conflict of interest declared by the authors.

Source of Funding

The authors declared no source of funding.

Data Availability Statement

The datasets of the current study are not available publicly due to ethical reasons but are available from the corresponding author [S.Q.] upon the reasonable request.

References

Abedini, Y. (2021). Students' creativity in virtual vs. classroom courses on the basis of their personality traits: A prediction study. *Electronic Journal of E-Learning*, *18*(6). https://doi.org/10.34190/jel.18.6.005

Alegre, A., Pérez-Escoda, N., & López-Cassá, E. (2019). The relationship between trait emotional intelligence and personality: is trait EI really anchored within the big five, big two and big one frameworks? *Frontiers in Psychology*, *10*(866). https://doi.org/10.3389/fpsyg.2019.00866

Alghamdi, N. G., Aslam, M., & Khan, K. (2017). Personality traits as predictor of emotional intelligence among the university teachers as advisors. *Education Research International*, *2017*, 1–6. https://doi.org/10.1155/2017/9282565

Amin, A., Basri, S., Rahman, M., Capretz, F., Akbar, R., Gilal, R., & Shabbir,

F. (2020). The impact of personality traits and knowledge collection behavior on programmer creativity. *Information and Software Technology*, *128*, 106405.

Arslan, C., Bülbül, E., & Büyükbayraktar, G. (2017). The predictive role of emotional intelligence on personality and shyness. *Universal Journal of Educational Research*, *5*(10), 1835–1842. https://doi.org/10.13189/ujer.2017.051022

Atta, M., Ather, M. H., & Bano, M. (2013). Emotional Intelligence and Personality Traits among University Teachers: Relationship and Gender Differences. *International Journal of Business and Social Science*, *4*(17), 253-259.

Chacon-Lopez, H., & Maeso-Broncano, A. (2023). Creative development, self-esteem and barriers to creativity in university students of education according to their participation in artistic activities. *Thinking Skills and Creativity*, *48*, 101270.

Chen, X., & Cheng, L. (2023). Emotional intelligence and creative self-efficacy among gifted children: Mediating effect of self-esteem and moderating effect of gender. *Journal of Intelligence*, *11*(1), 17. https://doi.org/10.3390/jintelligence11010017

Chen, X., He, J., & Fan, X. (2019). Relationships between openness to experience, cognitive flexibility, self-esteem, and creativity among bilingual college students in the U.S. *International Journal of Bilingual Education and Bilingualism*, *25*(1), 1–13.

Darvishmotevali, M., Altinay, L., & De Vita, G. (2018). Emotional intelligence and creative performance: Looking through the lens of environmental uncertainty and cultural intelligence. *International Journal of Hospitality Management*, *73*, 44–54. https://doi.org/10.1016/j.ijhm.2018.01.014

Dewaele, M. (2018). The relationship between trait emotional intelligence and experienced ESL/EFL teachers' love of English, attitudes towards their students and institution, self-reported classroom practices, enjoyment and creativity. *Chinese Journal of Applied Linguistics*, *41*(4), 468–487. https://doi.org/10.1515/cjal-2018-0034

Diener, E., & Lucas, R. E. (2021). Personality Traits. In R. Biswas-Diener & E. Diener (Eds), *Noba textbook series: Psychology.* DEF publishers. http://noba.to/96u8ecgw

Dong, X., Kalugina, O. A., Vasbieva, D. G., & Rafi, A. (2022). Emotional intelligence and personality traits based on academic performance. *Frontiers in Psychology*, *13*, 894570. https://doi.org/10.3389/fpsyg.2022.894570

El Othman, R., El Othman, R., Hallit, R., Obeid, S., & Hallit, S. (2020). Personality traits, emotional intelligence and decision-making styles in Lebanese universities medical students. *BMC Psychology*, *8*(1). https://doi.org/10.1186/s40359-020-00406-4

Fan, M., & Cai, W. (2020). How does a creative learning environment foster student creativity? An examination on multiple explanatory mechanisms. *Current Psychology*, *41*, 4667–4676. https://doi.org/10.1007/s12144-020-00974-z

Froehlich, E. (1969). Creativity and the gifted learner. *Michigan Reading Journal*, *3*(1). https://scholarworks.gvsu.edu/mrj/vol3/iss1/3

Fuentes, P., Jurado, M., Linares, G., Ruiz, O., Márquez, S., & Saracostti. (2019). Self-expressive creativity in the adolescent digital domain: personality, self-esteem, and emotions. *International Journal of Environmental Research and Public Health*, *16*(22), 4527. https://doi.org/10.3390/ijerph16224527

Gao, Y., Zhang, D., Ma, H., & Du, X. (2020). Exploring creative entrepreneurs' IEO: extraversion, neuroticism and creativity. *Frontiers in Psychology*, *11*. https://doi.org/10.3389/fpsyg.2020.02170

Geher, G., Betancourt, K., & Jewell, O. (2017). The link between emotional intelligence and creativity. *Imagination, Cognition and Personality*, *37*(1), 5–22. https://doi.org/10.1177/0276236617710029

Hjalmarsson, V., & Dåderman, M. (2020). Relationship between emotional intelligence, personality, and self-perceived individual work performance: A cross-sectional study on the Swedish version of TEIQue-SF. *Current Psychology*. https://doi.org/10.1007/s12144-020-00753-w

Hong, M., Dyakov, G., & Zheng, J. (2020). Self-esteem and psychological capital: Their mediation of the relationship between big five personality traits and creativity in college students. *Journal of Psychology in Africa*, *30*(2), 119–124. https://doi.org/10.1080/14330237.2020.1744286

Hou, X., Li, W., & Yuan, Q. (2018). Frontline disruptive leadership and new generation employees' innovative behaviour in China: the moderating role of emotional intelligence. *Asia Pacific Business Review*, *24*(4), 459–471. https://doi.org/10.1080/13602381.2018.1451126

Ivcevic, Z., & Brackett, A. (2015). Predicting creativity: Interactive effects of openness to experience and emotion regulation ability. *Psychology of Aesthetics, Creativity, and the Arts*, *9*(4), 480–487. https://doi.org/10.1037/a0039826

Jafri, H. (2018). Moderating role of job autonomy and supervisor support in trait emotional intelligence and employee creativity relationship. *Vision: The Journal of Business Perspective*, *22*(3), 253–263. https://doi.org/10.1177/0972262918785960

Jafri, H. (2019). Moderating role of emotional intelligence on personality– employee creativity relationship. *Management and Labour Studies*, *45*(1), 15–30. https://doi.org/10.1177/0258042x19890243

Jirásek, M., & Sudzina, F. (2020). Big five personality traits and creativity. *Quality Innovation Prosperity*, *24*(3), 90.

John, O. P., Donahue, E. M., & Kentle, R. L. (1991). *Big Five Inventory (BFI)* [Database record]. APA PsycTests. https://doi.org/10.1037/t07550-000

Kasuma, A. B. H., & Rusdi, Z. M. (2024). Does emotional intelligence influence employee creativity? The moderating role of job complexity. *Asian Journal of Economics and Business Management*, *3*(1), 446–453. https://doi.org/10.53402/ajebm.v3i1.388

Kaufman, J. C. (2012). Counting the muses: Development of the kaufman domains of creativity scale (K-DOCS). *Psychology of Aesthetics, Creativity, and the Arts*, *6*(4), 298–308. https://doi.org/10.1037/a0029751

Kaufman, S. B., Quilty, L. C., Grazioplene, R. G., Hirsh, J. B., Gray, J. R., Peterson, J. B., & DeYoung, C. G. (2015). Openness to experience and intellect differentially predict creative achievement in the arts and sciences. *Journal of Personality*, *84*(2), 248–258. https://doi.org/10.1111/jopy.12156

Krisch, C., Lubart, T., de Vries, H., & Houssemand, C. (2021). Scientific creativity in psychology: A cognitive-conative approach. In *Research Anthology on Rehabilitation Practices and Therapy* (pp. 145-167). IGI Global. DOI: 10.4018/978-1-7998-3432-8.ch009

Kokkinos, C. M., & Vlavianou, E. (2019). The moderating role of emotional intelligence in the association between parenting practices and academic achievement among adolescents. *Current Psychology*, *40*. https://doi.org/10.1007/s12144-019-00343-5

Kuška, M., Trnka, R., Mana, J., & Nikolai, T. (2020). Emotional creativity: A meta-analysis and integrative review. *Creativity Research Journal*, *2*, 151–160.

Li, W., Gill, S. A., Wang, Y., Safdar, M. A., & Sheikh, M. R. (2022). Proactive personality and innovative work behavior: Through the juxtapose of schumpeter's theory of innovation and broaden-and-build theory. *Frontiers in Psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.927458

Mayer, J. D., & Salovey, P. (1993). The intelligence of emotional intelligence. *Imagination Cognition and Personality*, *17*(3), 433–442.

Mohammadi, F. S. (2019). Predicting creative problem solving by students of medical sciences based on components of emotional Intelligence and cognitive-behavioral readiness for change . *Journal of Advanced Pharmacy Education & Research*, *9*(S2), 99–103.

Murmu, S., & Neelam, N. (2022). Impact of emotional intelligence and personality traits on managing team performance in virtual interface. *Asian Journal of Business Ethics*, *11*(4), 1–21. https://doi.org/10.1007/s13520-022-00154-1

Mvududu, M. (2020). Can trait emotional intelligence variables of well-being, self-control, emotionality, and sociability individually or collectively predict a software development engineer's creativity? *Doctor of Business Administration (DBA)*, *29*. https://digitalcommons.georgefox.edu/dbadmin/29/

Nikolopoulou, K. (2018). Creativity and ICT: theoretical approaches and perspectives in school education. *Research on E-Learning and ICT in Education*, 87–100. https://doi.org/10.1007/978-3-319-95059-4_5

Novikova, A., Berisha, S., Novikov, L., & Shlyakhta, A. (2020). Creativity and personality traits as foreign language acquisition predictors in university linguistics students. *Behavioral Sciences*, *10*(1), 35. https://doi.org/10.3390/bs10010035

Parke, M. R., Seo, M.-G., & Sherf, E. N. (2015). Regulating and facilitating: The role of emotional intelligence in maintaining and using positive affect for creativity. *Journal of Applied Psychology*, *100*(3), 917–934. https://doi.org/10.1037/a0038452

Richardson, C., & Mishra, P. (2018). Learning environments that support student creativity: Developing the SCALE. *Thinking Skills and Creativity*, *27*, 45–54.

https://doi.org/10.1016/j.tsc.2017.11.004

Rodrigues, P., Jorge, E., Pires, A., & António, P. (2019). The contribution of emotional intelligence and spirituality in understanding creativity and entrepreneurial intention of higher education students. *Education + Training*, *61*(8), 870–894. https://doi.org/10.1108/et-01-2018-0026

Şahin, F. (2016). General intelligence, emotional intelligence and academic knowledge as predictors of creativity domains: A study of gifted students. *Cogent Education*, *3*(1). https://doi.org/10.1080/2331186x.2016.1218315

Salceanu, C., & Agapie, O.M. (2022). Emotional intelligence and personality traits in higher education. *Technium Social Sciences Journal*, *33*(1), 416–429. https://doi.org/10.47577/tssj.v33i1.

Sanchez-Ruiz, M.J., & El Khoury, J. (2019). A model of academic, personality, and emotion-related predictors of university academic performance. *Frontiers in Psychology*, *10*. https://doi.org/10.3389/fpsyg.2019.02435

Schutte, N. S., Malouff, J. M., Hall, L. E., Haggerty, D. J., Cooper, J. T., Golden, C. J., & Dornheim, L. (1998). Development and validation of a measure of emotional intelligence. *Personality and Individual Differences*, *25*(2), 167–177. https://doi.org/10.1016/s0191-8869(98)00001-4

Silva, D., & Coelho, A. (2018). The impact of emotional intelligence on creativity, the mediating role of worker attitudes and the moderating effects of individual success. *Journal of Management & Organization*, *25*(02), 284–302. https://doi.org/10.1017/jmo.2018.60

Silvia, P. J., Nusbaum, E. C., Berg, C., Martin, C., & O'Connor, A. (2009). Openness to experience, plasticity, and creativity: Exploring lower-order, high-order, and interactive effects. *Journal of Research in Personality*, *43*(6), 1087–1090. https://doi.org/10.1016/j.jrp.2009.04.015

Sordia, N., Martskvishvili, K., & Neubauer, A. (2019). From creative potential to creative achievements. *Swiss Journal of Psychology*, *78*(3-4), 115–123. https://doi.org/10.1024/1421-0185/a000227

Sternberg, R.J. (2006). The nature of creativity. *Creativity Research Journal, 18*(1), 87-89.

Szcześniak, M., Rodzeń, W., Malinowska, A., & Kroplewski, Z. (2020). Big five personality traits and gratitude: The role of emotional intelligence. *Psychology Research and Behavior Management*, *13*, 977–988. https://doi.org/10.2147/prbm.s268643

Tan, C., Lau, X., Kung, Y., & Kailsan, A. (2016). Openness to experience enhances creativity: the mediating role of intrinsic motivation and the creative process engagement. *The Journal of Creative Behavior*, *53*(1), 109–119. https://doi.org/10.1002/jocb.170

Taneja, N., Gupta, S., Chellaiyan, G., Awasthi, A., & Sachdeva, S. (2020). Personality traits as a predictor of emotional intelligence among medical students. *Journal of Education and Health Promotion*, *9*. https://doi.org/10.4103/jehp.jehp_678_19

Tidikis, V., & Dunbar, N. D. (2017). Openness to experience and creativity: When does global citizenship matter? *International*

Journal of Psychology, *54*(2), 264–268. https://doi.org/10.1002/ijop.12463

Tu, C., Guo, J., Hatcher, R. C., & Kaufman, J. C. (2018). The relationship between emotional intelligence and domain-specific and domain-general creativity. *The Journal of Creative Behavior*. https://doi.org/10.1002/jocb.369

Wu, T., & Wu, T. (2020). Applying project-based learning and SCAMPER teaching strategies in engineering education to explore the influence of creativity on cognition, personal motivation, and personality traits. *Thinking Skills and Creativity*, *35*, 100631. https://doi.org/10.1016/j.tsc.2020.100631

Xu, X., Liu, W., & Pang, W. (2019). Are emotionally intelligent people more creative? a meta-analysis of the emotional intelligence–creativity link. *Sustainability*, *11*(21), 6123. https://doi.org/10.3390/su11216123

Yildrim, F., Trout, Y., & Hartzell, S. (2019). How are entrepreneurial intentions affected by emotional intelligence and creativity? *Periodica Polytechnica Social and Management Sciences*, *27*(1), 59–65. https://doi.org/10.3311/ppso.12619

Yu, X., Li, D., Tsai, H., & Wang, C. (2019). The role of psychological capital in employee creativity. *Career Development International*, *24*(5), 420–437. https://doi.org/10.1108/cdi-04-2018-0103

Zare, M., & Flinchbaugh, C. (2018). Voice, creativity, and big five personality traits: A meta-analysis. *Human Performance*, *32*(1), 30–51.

Zhang, W.-G., Ding, Y., & Xu, F. (2024). How does proactive personality affect employee creativity and ostracism? The mediating role of envy. *Heliyon*, *10*(4). https://doi.org/10.1016%2Fj.heliyon.2024.e25457