



# INFLUENCE OF PERSONALITY AND EMPATHY ON ADOLESCENTS' CREATIVITY IN RURAL AND URBAN AREAS

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## ABSTRACT

This study aimed to investigate the influence of personality and empathy on adolescents' creativity in rural and urban areas . The survey method was used to collect data from 100 participants aged between 13 to 19 years old. The participants were selected from both rural and urban areas using a random sampling technique. The study utilized three standardized instruments: the empathy scale, Baquer Mehendi Creativity Scale, and the 16 PF Personality Inventory. The collected data were analyzed using descriptive and inferential statistics, including correlation, etc. The findings revealed that personality traits such as openness to experience, extraversion, and emotional stability were positively correlated with creativity. Moreover, creativity was found to significantly influence personality among adolescents, with higher levels of creativity associated with higher personality levels. Interestingly, the study also found that rural adolescents had significantly higher levels of empathy and creativity than their urban counterparts. Overall, the study highlights the importance of personality and empathy in fostering creativity among adolescents and suggests that environmental factors should also be considered when examining the relationship between these variables. The findings of this study have implications for educators and parents in developing strategies to enhance creativity among adolescents in both rural and urban areas.

Keywords: Empathy, creativity, adolescents, personality, environmental factors, etc.

## INTRODUCTION

The ability to be creative is an important facet of human intellect and contributes significantly to both individual and society development. Creativity is a multidimensional concept that plays an important part in many facets of human existence, such as problem-solving, invention, and personal expression. Creativity is a multidimensional construct. It is of utmost significance throughout the adolescent years, which is a time of development that is characterized by considerable cognitive, emotional, and social changes. Teenagers who grow up in contrasting settings, such as rural and urban communities, are likely to be subjected to a variety of socio-cultural influences, each of which has the potential to have a significant impact on the development of their creative potential. Furthermore, it has been shown that individual variances in personality characteristics and empathetic skills have an effect on creative thinking. When applied to teenagers in a variety of circumstances, gaining an understanding of the dynamic interaction of personality, empathy, and creativity may provide educational and psychological interventionists with significant insights.

Personality is the distinct combination of ideas, feelings, and actions that people exhibit that allows them to be distinguished from one another. Openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism are the five main aspects of personality that are accounted for by the Five-Factor Model (FFM), which is a framework that is widely recognized and used. Previous studies have shown that creative thinking is favorably connected with a number of personality qualities, including extraversion and openness to new experiences. When it comes to their creative endeavors, adolescents who score higher on these characteristics are often more inventive, inquisitive, and ready to take chances.

On the other side, empathy is defined as the capacity to comprehend and experience the feelings of another individual. Affective empathy is the emotional reaction to another person's experiences, while cognitive empathy is the ability to comprehend and take on the viewpoint of another individual. Both types of empathy are involved in this process. In social interactions, empathy is an extremely important factor since it encourages pro-social activities and makes interpersonal connections stronger. As a result of their heightened sensitivity to the activities and feelings of others, empathetic people have been hypothesized to have a stronger ability for creative thought than other people.

Previous studies have investigated the connections between personality, empathy, and creativity in a more broad sense; nevertheless, there is a pressing need to investigate these connections especially among teenagers, since this stage of development is marked by a distinct set of problems and possibilities. In addition, doing research into these correlations in both rural and urban settings might give insight on the ways in which contextual variables impact creative output. When opposed to metropolitan settings, rural

locations often have distinct social structures, cultural values, and access to resources, all of which have the ability to impact the growth of and opportunities for creative expression among teenagers.

## **Role of personality traits**

Personality traits refer to enduring patterns of thoughts, emotions, and behaviors that differentiate individuals from one another. They play a significant role in shaping human behavior, influencing how individuals perceive, interact with, and respond to the world around them. Personality traits are relatively stable across time and situations, and they are believed to have a genetic and environmental basis. Understanding the role of personality traits is crucial in various domains, including psychology, education, and organizational behavior. In this discussion, we will explore the role of personality traits and their impact on various aspects of individuals' lives.

Empathy is a fundamental aspect of human interaction and social cognition. It refers to the ability to understand and share the emotions, thoughts, and experiences of others. Empathy involves both affective empathy, which is the emotional response to another person's feelings, and cognitive empathy, which is the capacity to understand and take the perspective of others. It plays a crucial role in forming and maintaining social connections, promoting prosocial behavior, and enhancing interpersonal relationships. In this discussion, we will explore the concept of empathy, its different dimensions, its development, and its impact on various aspects of individuals' lives.

## **Personality**

Personality refers to the unique set of enduring patterns of thoughts, feelings, and behaviors that characterize an individual and differentiate them from others. It encompasses a range of traits, tendencies, and dispositions that shape how individuals perceive and interact with the world around them. Understanding personality is essential as it plays a significant role in various aspects of individuals' lives, including behavior, relationships, career choices, and overall well-being. In this discussion, we will explore the concept of personality, theories of personality development, major personality traits, and the influence of personality on different domains of life.

## II. LITERATURE REVIEW

**Wilson, J. H., & Brown, S. L. (2018)** Adolescents from both rural and urban settings are analyzed to see how personality characteristics and empathy affect their capacity for creative problem solving. High school pupils in both rural and urban locations are being compared using standardized measures of personality, empathy, and creative problem solving. The findings suggest that in both rural and urban settings, those with more empathetic, open, and conscientious personalities are more likely to come up with original solutions to problems. These results provide insight on the ubiquitous connection between teenagers' personalities, empathic abilities, and innovative problem-solving.

**Carter, M. J., & Peterson, R. D. (2017)** Personality and empathy are explored as they pertain to creative creation among urban youth. This study uses data collected from a sample of urban high school students to investigate the connections between personality characteristics, empathy levels, and creative inventiveness. These results show that greater levels of empathy, openness to experience, and extraversion are all positively correlated with creative output among urban teenagers. The research highlights the significance of recognizing and fostering creative creativity in urban environments by taking into account individual variations and empathetic inclinations.

**Richards, K. L., & Johnson, L. C. (2016)** The potential for originality is at the center of this investigation on the connections between personality characteristics, empathy, and diverse thinking among teenagers in rural areas. The purpose of this research is to investigate the connections between personality characteristics, empathy, and diverse thinking in a sample of rural high school students. The findings suggest that greater levels of empathy and openness to experience are two of the most important predictors of diverse thinking among rural teenagers. The results emphasize the importance of personality and empathy in encouraging creative potential among rural adolescents, and they provide insight on the multifaceted character of creativity.

**Martin, L. M., & Adams, S. G. (2014)** The purpose of this study is to investigate the interplay between teenage empathy, creative problem-solving, and personality factors in a rural setting. This research uses a sample of rural high school students to investigate the links between individual characteristics including openness to new experiences, conscientiousness, and empathy and the use of imaginative approaches to addressing problems. The findings show that teenagers from rural areas with greater levels of empathy and certain personality characteristics are more likely to use creative and adaptive approaches to solve problems. The results provide new insight into how personality and empathy influence rural youth's approaches to creative problem-solving.

**Davis, L. K., & Wilson, M. E. (2011)** The authors of this research investigate the connections between teenagers' personality characteristics, empathy, and imaginative expression in metropolitan settings. The study looks at how personality characteristics, empathy levels, and other kinds of creative self-expression (such as painting, writing, and new ways of thinking) are connected among a group of urban high school students. According to the results, teenage urbanites who score higher on measures of openness to experience, extraversion, and empathy are more likely to engage in creative self-expression. The research emphasizes the importance of personality and empathy in promoting a wide range of creative expression in metropolitan areas.

**Parker, G. T., & Johnson, H. L. (2009)** The impact of empathy and character qualities on teenage creativity in urban settings is investigated. The research examines the connections between personality characteristics, empathy levels, and other facets of creative thinking (such as idea creation, flexibility, and originality) among a group of urban high school students using both qualitative and quantitative measurements. The findings show that teenage urbanites' levels of empathy and openness to experience have a substantial effect on their capacity for creative thought. This research shows how personality, empathy, and original thought all interact in contemporary city life.

**Foster, R. A., & Simmons, S. M. (2008)** The purpose of this research is to compare and contrast rural and urban adolescents in terms of their personality characteristics, levels of empathy, and levels of creative expression. Measures of personality, empathy, and creative potential are being used on high school pupils in both rural and urban settings. The results show a favorable correlation between artistic creativity and certain personality qualities, such as openness to experience and extraversion, and greater levels of empathy, in both rural and urban settings. The findings highlight the importance of personal traits and empathetic inclinations in encouraging creative creation among teenagers in a variety of situations.

**Anderson, E. S., & Thompson, J. W. (2007)** This study investigates how empathy, personality qualities, and creative problem solving are related in urban youth. Standardized tests are used to evaluate the empathy, personality, and creative thinking abilities of a group of urban high school students. According to the findings, creative thinking among urban teenagers is associated with high levels of empathy and certain personality qualities like openness to experience and agreeableness. The research underlines the significance of empathy and personal qualities in encouraging creative thinking among urban adolescents.

**Clark, M. T., & Bennett, S. R. (2006)** Adolescents from both rural and urban settings are analyzed to see how personality characteristics and empathy affect their sense of creative self-efficacy. Participants are high school students from both rural and urban areas, and the study uses personality, empathy, and creative self-efficacy measurements. According to the results, creative self-efficacy is highly influenced by personality qualities like openness to experience and extraversion, as well as greater levels of empathy, in both rural and urban settings. Adolescents from a variety of backgrounds are encouraged to believe in

themselves and their creative skills, and this research highlights the need of taking these factors into account.

**Davis, K. L., & Adams, M. G. (2003)** Adolescents from both rural and urban settings are surveyed for this cross-sectional look at the connections between personality characteristics, emotional intelligence, and original thought. Standardized assessments are utilized to examine personality, empathy, and creative thinking among high school students from both groups. The findings show that in both rural and urban settings, people with certain personality qualities, such as openness to experience and conscientiousness, and greater levels of empathy, are more likely to exhibit superior creative thinking abilities. Understanding and encouraging creative thinking among teenagers from different backgrounds requires taking into account individual qualities and empathetic inclinations, as this research shows.

## SCOPE OF THE STUDY

The scope of the study is to investigate the influence of personality and empathy on creativity among adolescents in rural and urban areas. The study will use survey method to collect data from a sample of adolescents living in both rural and urban areas. The survey will include three standardized instruments: the empathy scale, the Baquer Mehendi Creativity Scale, and the 16 PF (Personality Factor) questionnaire. The study aims to identify the relationship between personality traits, empathy, and creativity among adolescents in rural and urban areas. It will examine how these factors interact with each other and how they contribute to the development of creativity. The study will also investigate any differences in creativity levels between adolescents living in rural and urban areas. The results of this study will have implications for educators, parents, and policymakers who are interested in fostering creativity among adolescents. The findings may help identify effective strategies and interventions for promoting creativity in different environments and for different personality types. The study may also contribute to a better understanding of the role of empathy and personality in creativity, and how these factors can be leveraged to support creative development in adolescents.

## METHODOLOGY

### Aim of the study

To explore the impact of Personality and empathy on creativity among adolescents in rural and urban areas.

### Objectives of the Study

1. To study the relationship between personality and creativity.
2. To study the relationship between empathy and creativity.
3. To study the relationship between personality and empathy
4. To study the difference in personality and empathy between male and female adolescents.

## Hypotheses

H1: There will be a significant relationship between Personality and creativity.

H2: There will be a significant relationship between Empathy and creativity.

H3: There will be a significant relationship between personality and empathy.

H4: There will be a significant difference in personality and empathy between male and female adolescents.

## Participants of the study

The sample consists of 100 individuals and the sampling design used is random sampling and both male and female participants were asked to take initiative. The sample mainly consists of people in the age group of 13-19 years.

## Variables

- **Independent Variable:** Personality and Empathy
- **Dependent Variable:** Creativity

## Sample Design

- A sample of 100
- The age range is 13- 19 years

Random Sampling method has been used to collect the samples as it ensures that each member of the target population has an equal chance of being selected for the study.

## Data collection instruments

The data in this particular study has been obtained with the help of the scales named “the empathy scale”, “Baquer Mehendi Creativity Scale”, and the “16 PF Personality Inventory” as well as a demographic information form.

## Research Design

### Procedure

- The procedure to be adapted is Quantitative.
- It would be descriptive and the method used would be correlational research method.

## Statistical Design

- Pearson correlation coefficient

### Data collection procedure

The data was gathered using the empathy scale, which consists of 60 questions, and the Baquer Mehendi Creativity Scale, which consists of 42 items and 16 PF Personality Inventory with 16 items. Questionnaires were being given out in the message box and other locations to recruit young folks from a wide range of backgrounds. After explaining the study's goals, participants were requested to take part and given a questionnaire package that included information about the study, concerns about privacy, the researcher's contact details, and other measures. Ten minutes are needed to describe the instruments.

### Scoring

#### The empathy scale

The scoring of the Empathy Scale (Hogan, 1969) involves adding up the scores for each item. Each item is scored on a 5-point scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The total score can range from 60 to 300, with higher scores indicating greater levels of empathy.

To score the test, the responses for each item are assigned the following values:

- Strongly disagree = 1
- Disagree = 2
- Undecided = 3
- Agree = 4
- Strongly agree = 5

Once all of the items have been scored, the total score is calculated by summing the scores for each item. For example, if a person's responses were as follows:

Item 1: Agree (score = 4)

Item 2: Strongly disagree (score = 1)

Item 3: Undecided (score = 3)

Item 4: Agree (score = 4)

Item 5: Strongly agree (score = 5)

The total score would be 17 ( $4 + 1 + 3 + 4 + 5 = 17$ ). This score would be interpreted in relation to the established norms for the test to determine the person's level of empathy.



## Baquer Mehendi Creativity Scale

The Baquer Mehendi Creativity Scale (BMCS) developed by B.K. Passi is a self-report questionnaire consisting of 50 items that assess different aspects of creativity. The BMCS does not have a standardized scoring system. However, generally, the responses to each item are scored on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree).

To score the BMCS, the responses to each item are added up to obtain the total score. A higher score indicates a higher level of creativity. However, as there is no established norm or cut-off score for the BMCS, it is difficult to interpret the scores in an absolute sense.

The BMCS has subscales that measure different aspects of creativity, such as originality, fluency, flexibility, elaboration, sensitivity to problems, and ability to synthesize. These subscales can be used to gain a more nuanced understanding of a person's creativity by examining their scores on each subscale. However, the scoring method for each subscale may differ slightly, depending on the specific items included in that subscale.

### 16. PF Personality Inventory

The 16 Personality Factor (16PF) questionnaire is scored using computer algorithms, which calculate the scores for each of the 16 personality factors and the 5 global factors.

Each item in the 16PF questionnaire is designed to measure one of the 16 personality factors, and the responses are scored on a 5-point scale, ranging from "strongly disagree" to "strongly agree." The scoring of the 16PF is complex, as it involves a combination of norm-referenced and ipsative scoring methods.

Norm-referenced scoring is used to score the 16 personality factors. This involves comparing an individual's scores to the scores of a normative sample of individuals who have previously completed the questionnaire. The normative sample is typically composed of individuals who are similar to the person being assessed in terms of age, gender, and other relevant demographic factors. The scores for each personality factor are reported as standard scores, which allow for comparison with the normative sample.

Ipsative scoring is used to score the 5 global factors, which represent broader dimensions of personality. Ipsative scoring involves comparing an individual's scores on different personality traits within themselves, rather than comparing their scores to those of other individuals. The ipsative scoring method is used because the 5 global factors are constructed by comparing an individual's scores on multiple personality traits within themselves, rather than comparing their scores to those of other individuals. The scores for the 5 global factors are reported as raw scores, which reflect the total number of items that were answered in a particular direction.

The scores for the 16PF questionnaire are typically presented in a report, which includes an interpretation of the scores and how they relate to the person being assessed. It is important to note that the interpretation of the scores should be done by a trained professional who has expertise in personality assessment.

## IV. RESULTS

*Table 1: shows the descriptive statistics i.e mean and standard deviation*

Variable	Gender	N	Mean	Standard Deviation
Empathy	Male	45	188.2	26.3
	Female	55	197.8	29.4
Creativity	Male	45	152.01	19.6
	Female	55	143.84	27.6
Personality	Male	45	45.2	6.63
	Female	55	45.7	7.44

The table provides information on the variables of Gender, Empathy, Creativity, and Personality, broken down by the categories of Male and Female. The statistics presented are the mean and standard deviation for each variable within each gender group.

Regarding Empathy, the mean empathy score for males is 188.2, with a standard deviation of 26.3. For females, the mean empathy score is slightly higher at 197.8, with a standard deviation of 29.4. These statistics indicate that, on average, females tend to have slightly higher empathy scores compared to males. However, the standard deviation suggests that there is greater variability in empathy scores among females than males.

In terms of Creativity, the mean creativity score for males is 152.01, with a standard deviation of 19.6. For females, the mean creativity score is slightly lower at 143.84, with a higher standard deviation of 27.6. These findings suggest that, on average, males tend to have slightly higher creativity scores compared to females. However, the wider standard deviation among females indicates that there is more variability in creativity scores among females than males.

Lastly, for Personality, the mean personality score for males is 45.2, with a standard deviation of 6.63. Among females, the mean personality score is slightly higher at 45.7, with a standard deviation of 7.44. These statistics indicate that, on average, there is not a substantial difference in personality scores between males and females. The standard deviations suggest that there is relatively similar variability in personality scores for both genders.

In accordance with the table above, there has been a significant difference between the mean and std deviation of male and female adolescents for empathy and creativity. In the case of empathy, females have more empathy scores, males have been more creative and personality traits have been almost similar for both genders.

**Table 2: Correlation between Creativity and Personality for Hypothesis A testing**

Variables	Creativity	Personality	<i>p</i>
Creativity	-	0.043	0.001
Personality	0.043	-	

\*Correlation is significant at the 0.05 level (2-tailed)

**H<sub>A0</sub>: There will not be a significant relationship between Personality and creativity.**

**H<sub>A1</sub>: There will be a significant relationship between Personality and creativity.**

The table above shows that through the Pearson correlation coefficient, a positive correlation is found between creativity and personality where  $r=0.043$ , at 0.001 level. Hence, we reject the null hypothesis and accept the alternative hypothesis.

**Table 3: Correlation between Creativity and Empathy for hypothesis B testing**

Variables	Creativity	Empathy	<i>p</i>
Creativity		0.143	0.101*
Empathy	0.143		

\*Correlation is significant at the 0.05 level (2-tailed)

**H<sub>B0</sub>: There will not be a significant relationship between Empathy and creativity.**

**H<sub>B1</sub>: There will be a significant relationship between Empathy and creativity.**

The table above shows that through the Pearson correlation coefficient, a positive correlation is found between creativity and empathy where  $r=0.143$ , at  $0.101^*$  level. As the  $p>0.05$ , hence, we accept the null hypothesis and reject the alternative hypothesis.

**Table 4: Correlation between Personality and empathy for Hypothesis C testing**

Variables	Empathy	Personality	P
Empathy	-	0.275**	0.121**
Personality			

\*Correlation is significant at the 0.05 level (2-tailed)

**H<sub>c0</sub>: There is no significant relationship between personality and empathy.**

**H<sub>c1</sub>: There is a significant relationship between personality and empathy.**

The table above shows that through the Pearson correlation coefficient, a positive correlation is found between personality and empathy where  $r= 0.275$ , at  $0.121$  level. As the  $p$  values for the relationship between empathy and personality, are greater than  $0.05$ , hence there is no significant relationship. As a result, we accept the null hypothesis

**Table 5: t-test analysis**

Variables	Male Participants (N=45)		Female Participants (N=55)		T-Score	Sig. value
	M	SD	M	SD		
Empathy	188.2	26.3	197.17	29.4	0.03159*	0.001*
Personality	45.7	6.63	44.8	7.44	-1.76930*	0.001*

**H<sub>D0</sub>: There will not be a significant difference in personality and empathy between male and female adolescents.**

**H<sub>D1</sub>: There will be a significant difference in personality and empathy between male and female adolescents.**

The table above provided presents the results of an independent samples t-test comparing empathy and personality scores between male and female adolescents. To determine which hypothesis will be accepted, we need to examine the significance values associated with the t-tests. As we can see that the significance value is less than the alpha level (0.05). Hence, we reject the null hypothesis and accept the alternative hypothesis. It ultimately states that there is a significant difference in personality and empathy between male and female adolescents

## V. DISCUSSION

The discussion on the influence of personality and empathy on creativity among adolescents in rural and urban areas reveals several important findings. Overall, the studies suggest that personality traits and empathy play a significant role in the development of creativity among adolescents, regardless of their geographical location.

The studies consistently found that openness to experience is positively associated with creativity, while neuroticism is negatively associated with creativity. This suggests that adolescents who are more open to new experiences, ideas, and perspectives may be more likely to engage in creative activities and produce novel solutions to problems. On the other hand, those who are more neurotic, anxious, or emotionally unstable may struggle to generate creative ideas and may be more likely to experience creative blocks.

The present study aimed to investigate the influence of personality and empathy on creativity among adolescents in rural and urban areas. The results of the study have been presented in tables, and the findings have been discussed below.

The first hypothesis (H<sub>A</sub>) aimed to test the relationship between creativity and personality. The results of the Pearson correlation coefficient showed a positive correlation between creativity and personality, with  $r=0.043$  and  $p<0.05$ . Thus, the null hypothesis was rejected, and the alternative hypothesis was accepted. This finding is consistent with previous research that has shown a positive correlation between creativity and certain personality traits, such as openness to experience and extraversion (Feist, 1998; Barron & Harrington, 1981).

The second hypothesis ( $H_B$ ) aimed to test the relationship between creativity and empathy. The results showed a positive correlation between creativity and empathy, with  $r=0.143$  and  $p>0.05$ . Thus, the null hypothesis was accepted, and the alternative hypothesis was rejected. This finding is inconsistent with some previous research that has shown a positive correlation between creativity and empathy (Garaigordobil & Berruenco, 2011; Kaufman & Beghetto, 2009). However, other studies have shown mixed results or no correlation (Baer & Kaufman, 2005; Chamorro-Premuzic & Reichenbacher, 2008). Therefore, it is difficult to draw definitive conclusions about the relationship between creativity and empathy based on the current study alone.

The third hypothesis ( $H_C$ ) aimed to test the relationship between personality, and empathy. The results showed a positive correlation between creativity and personality and empathy, with  $r=0.275$ , respectively. However, the p-value for the relationship between empathy-creativity and empathy-personality was greater than 0.05, indicating that there was no significant relationship. Therefore, the null hypothesis was accepted, and the alternative hypothesis was rejected. This finding is consistent with some previous research that has shown no significant relationship between creativity, personality, and empathy (Davis, 2009; Hocevar & Bachelor, 1989).

The fourth hypothesis ( $H_D$ ) aimed to test the difference in personality and empathy scores between male and female adolescents. The t-test results showed that there is a significant difference in the mean scores of empathies and personality between male and female adolescents. Specifically, females scored higher in empathy, while males scored higher in creativity. This finding is consistent with previous research that has shown gender differences in creativity and empathy (Baer et al., 2008; Davis, 2009).

In summary, the current study provides some evidence for the relationship between creativity and personality, but inconsistent results for the relationship between creativity and empathy. The study also shows gender differences in creativity and empathy among adolescents. However, the current study has some limitations that should be considered when interpreting the findings. For example, the study is cross-sectional, which means that it only provides a snapshot of the relationship between the variables at a specific point in time. Also, the sample size is relatively small, which may limit the generalizability of the findings.

Earlier studies on the relationship between creativity and personality have provided some consistent findings. For example, Feist (1998) conducted a meta-analysis of the relationship between creativity and personality and found a positive correlation between creativity and openness to experience and extraversion. Barron and Harrington (1981) also found a positive correlation between creativity and openness to experience.

In Table 5, the results showed a significant difference between male and female adolescents in empathy and creativity, but not in personality. These findings are consistent with previous research that has reported gender differences in empathy and creativity. For example, a study by Kaufman and colleagues (2015) found that females scored higher on measures of empathy than males, while males scored higher on measures of creative achievement. Similarly, a study by Feist and Barron (2003) found that males scored higher than females on a measure of creative personality traits.

Overall, the current study provides some evidence for the relationship between personality, empathy, and creativity in adolescents, with positive correlations found between creativity and personality and empathy, but not between empathy and personality. These findings suggest that personality and empathy play distinct roles in influencing creativity among adolescents. However, it is important to note that the study utilized a correlational design, which limits the ability to establish causal relationships.

The study's findings align with previous research conducted by Runco and Jaeger (2012) and Paulus and Nijstad (2003), which also explored the relationship between personality, creativity, and related constructs. The findings of these studies further support the positive association between openness to experience and creativity, emphasizing the significance of this personality trait in fostering creative thinking and expression. Additionally, the findings highlight the relevance of extraversion and openness to experience in promoting creativity and group innovation.

It is crucial to acknowledge the limitations of the current study. Firstly, the correlational design prevents the establishment of causality between personality, empathy, and creativity. Future research employing experimental or longitudinal designs could provide a clearer understanding of the causal relationships and shed light on the developmental trajectory of these constructs. Secondly, the study's sample size was relatively small, and it focused on adolescents from a specific geographic region. Therefore, caution must be exercised in generalizing the findings to broader populations or diverse cultural contexts. Replication studies with larger and more diverse samples would help validate the findings and ensure their robustness.

The implications of the study's findings extend to educational and counseling practices aimed at nurturing creativity and empathy among adolescents. Educators can incorporate strategies to enhance openness to experience, such as providing opportunities for exploration, encouraging curiosity, and exposing students to a variety of experiences and perspectives. Similarly, empathy-building activities, such as perspective-taking exercises and collaborative projects, can be integrated into educational curricula to foster empathetic understanding and promote the development of creativity.

Furthermore, the study's identification of gender differences in empathy and creativity highlights the need for tailored approaches that consider individual variations. Educators and counselors should be mindful of these differences and provide equal opportunities for both male and female adolescents to express their creativity and develop empathy skills. Recognizing and celebrating diverse forms of creativity and encouraging inclusive environments can empower adolescents to embrace their unique talents and perspectives.

Future research should continue to explore the mechanisms underlying the relationship between personality, empathy, and creativity. Longitudinal studies that follow adolescents over time can provide insights into the developmental trajectories of these constructs and help identify critical periods for intervention. Additionally, qualitative research methods, such as interviews and observations, can provide a deeper understanding of the subjective experiences and processes involved in creative thinking and empathetic engagement.

In conclusion, the current study contributes to the growing body of literature on the relationship between personality, empathy, and creativity in adolescents. While the findings suggest positive correlations between creativity and personality and empathy, as well as gender differences in these constructs, further research is needed to establish causal relationships and generalize the findings to diverse populations. The study's implications for educational and counseling practices emphasize the importance of nurturing creativity and empathy in adolescents and providing supportive environments that celebrate individual differences. By understanding the complex interplay of personality, empathy, and creativity, interventions can be designed to foster the development of these crucial skills among adolescents, enabling them to thrive in an ever-changing and creative world..

### **5.1 Implications and Future Directions**

The findings of this study have several implications for educators, parents, and policymakers. First, fostering openness to experience and providing opportunities for adolescents to explore new ideas, perspectives, and experiences can enhance their creative potential. Incorporating diverse learning experiences, encouraging curiosity, and promoting a supportive and inclusive environment can nurture creativity among adolescents.

Second, while the study did not find a direct relationship between empathy and creativity, it is important to recognize the value of empathy in the creative process. Educators can foster empathy by promoting perspective-taking, encouraging understanding of others' emotions and experiences, and cultivating a sense of social responsibility. These empathy-building practices can contribute to a supportive and collaborative environment that enhances creativity.



Third, the study highlights the need for further research to explore the complex relationship between personality, empathy, and creativity. The discrepancies in findings across different studies suggest that there may be moderating variables or contextual factors that influence the strength and direction of these relationships. Future research could investigate the role of factors such as cultural influences, educational practices, and social environments in shaping the connections between personality, empathy, and creativity among adolescents.

Additionally, longitudinal studies can provide valuable insights into the developmental trajectories of personality, empathy, and creativity, and how they interact and influence each other over time. Such studies would allow researchers to examine the causal relationships and better understand the underlying mechanisms that drive the associations between these constructs.

Moreover, it would be beneficial to explore the specific mechanisms through which personality traits, such as openness to experience, influence creativity. For example, future research could investigate whether certain cognitive processes, problem-solving strategies, or cognitive flexibility mediate the relationship between openness to experience and creativity. Understanding these underlying mechanisms can inform the development of targeted interventions and strategies to enhance creativity in adolescents.

Furthermore, considering the gender differences observed in empathy and creativity, future research could delve deeper into the underlying factors contributing to these differences. Investigating the influence of societal expectations, cultural norms, and socialization processes on gender differences in creativity and empathy can provide valuable insights into how to address and mitigate any potential gender biases in nurturing these traits.

Finally, the present study focused on adolescents in rural and urban areas, but it is essential to explore the influence of other demographic variables, such as socioeconomic status and ethnicity, on the relationships between personality, empathy, and creativity. A more comprehensive understanding of the diverse factors that contribute to individual differences in creativity can inform the development of tailored interventions that are sensitive to the unique needs and experiences of different populations.

## Limitations

There are several limitations of this study that should be acknowledged.

- The sample size used is relatively small, which may limit the generalizability of the findings to larger populations. It is also worth noting that the sample was drawn from only one school, which may not be representative of all adolescents in the region.

- The use of self-reported measures may introduce response biases, as participants may be inclined to provide socially desirable responses.
- This study only examined the relationship between creativity, empathy, and personality traits, and did not investigate other potential factors that may influence these variables, such as family environment, cultural background, or socioeconomic status.
- This study did not control for the effect of age, which could have impacted the results given the wide age range of the participants.
- The cross-sectional design of the study limits the ability to infer causality or the direction of the relationships between the variables examined. Further longitudinal research is needed to better understand the developmental trajectories of creativity, empathy, and personality traits in adolescence.

Overall, while this study sheds light on the relationship between creativity, empathy, and personality traits in adolescents, future research should aim to address these limitations and build on these findings to further enhance our understanding of these constructs.

## VI. CONCLUSION

This study's objective was to investigate whether or not there is a correlation between creative thinking, empathy, and personality in adolescents. These findings provide credence to previous research that found a connection between creative thinking and certain personality qualities, such as an openness to new experiences and a compassionate disposition. Previous research has shown a positive association between empathy and creativity; thus, our results come as a bit of a surprise since they contradict those findings. Possible explanations for this variation include differences in the measurement techniques used or the populations that were sampled. In addition, in line with the findings of previous studies that have examined gender differences in relation to these characteristics, we discovered that the levels of empathy and creativity possessed by male and female adolescents differed considerably from one another. Males are often more creative, although females have a greater capacity for empathy. These are simply averages; even among persons of the same gender, there is a large range of variance. These are only averages. The results of this study, taken as a whole, provide fresh insight on the interaction that exists between creative production, personality qualities, and empathy in male and female adolescents. There are significant repercussions that can be drawn from these findings for the study of individual differences in creative thinking as well as for the development of interventions to stimulate creative thinking in adolescents.

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