# Exploring the Validity of a Creative Personality Scale in University Settings: A Confirmatory Factor Analysis Approach

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**Abstract: Exploring the Validity of a Creative Personality Scale in University Settings: A Confirmatory Factor Analysis Approach. Objective:** This study aims to validate a revised 24-item Creative Personality Scale explicitly tailored for university students using Confirmatory Factor Analysis (CFA). The scale addresses gaps in existing tools initially designed for high school students and offers a more accurate fit for higher education contexts. **Methods:** A sample of 804 students from various faculties was selected through stratified random sampling to ensure diverse representation. The scale was revised after the initial analysis revealed inconsistencies in certain items within the university context. CFA was then employed to assess the revised scale's construct validity and reliability. **Findings:** The revised scale demonstrated significant improvements in internal consistency, with Cronbach's Alpha increasing from 0.823 to 0.858. Additionally, model fit indices were favourable, with a Comparative Fit Index (CFI) of 0.92 and a Root Mean Square Error of Approximation (RMSEA) of 0.04, indicating strong model validity. **Conclusion:** This validated scale provides a reliable and accurate tool for assessing creativity in university students. It enables educational institutions to support better creativity development, which is increasingly essential for academic and professional success. The findings significantly contribute to educational psychology by providing a context-sensitive instrument for higher education.

**Keywords:** confirmatory factor analysis, creative personality scale, internal consistency, validity, and reliability.

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## ◼ INTRODUCTION

Creativity is increasingly recognized as a crucial skill for university students, essential for navigating today's complex job market and academic environments. It drives innovation and problem-solving, enabling individuals to adapt and excel in diverse professional fields (Akpur, 2020; Chang, 2020). However, most creativity measurement tools were designed for younger students and may not fully capture the distinct creative capacities of university students. These students face more complex cognitive demands, requiring tools explicitly tailored to the higher education context. As a result, there is a clear need for validated creativity assessment tools adapted for university settings to assess and support students' potential accurately.

Creative personality refers to traits like openness to experience, curiosity, and risk-taking, all of which foster creative thinking and problem-

solving (R. Sternberg, 2018). However, the relationship between personality and creativity is complex and context-dependent. Some traits, like neuroticism, may negatively affect creativity in specific settings, while other traits, such as openness, consistently show a positive relationship with creativity (Glaveanu et al., 2020). Additionally, factors like education and cultural values significantly shape how personality traits contribute to creative outcomes (Huang, 2022; Mullen, 2019). In conclusion, the concept of a creative personality refers to a set of personality traits that are believed to contribute to creativity.

Research on creative personality scales for school students underscores the importance of validating these tools in specific educational contexts. Tools designed for younger students often fail to translate effectively to university populations due to the different cognitive demands and developmental needs (Scott-Barrett et al., 2023; Taylor et al., 2024). Studies have shown that re-testing these scales in older populations often reveals significant discrepancies, emphasizing continuous validation efforts to ensure these tools remain relevant and accurate across different educational settings (Smits-Engelsman et al., 2021). These findings underscore the importance of ongoing validation efforts across diverse populations, including university students, to develop precise and reliable measurement tools tailored to the unique characteristics of each group.

The literature reveals that creative personality scale validation often varies based on contextual factors such as education and culture. Large sample sizes and rigorous item analysis are essential for enhancing the reliability and validity of these tools (Ordóñez et al., 2022; Schrepp, 2020). To avoid bias and improve accuracy, measurement tools must be tailored to the specific context in which they are used (Tempelaar et al., 2020). This is particularly important when assessing diverse populations like university students, who present unique challenges for validation.

Creativity in higher education has been widely discussed as a critical competency for academic success and career development. Research indicates that creativity is linked to various positive outcomes, including enhanced problem-solving abilities, innovative thinking, and adaptability in diverse professional contexts (Chang, 2020; Cropley, 2020). However, while several tools have been developed to assess creativity in younger students, there is a lack of validated instruments specifically designed for university settings (Taylor et al., 2024; Scott-Barrett et al., 2023). Tools validated for school contexts often fail to capture university students' more complex creative processes, necessitating further research and development of context-sensitive measurement instruments.

Creative personality assessments in secondary education have been extensively validated, focusing on traits like divergent thinking and innovative problem-solving. These tools are crucial for identifying students with exceptional creative potential, allowing educators to tailor interventions that enhance creativity. Such interventions are vital for students' academic and professional success, fostering an educational environment that encourages innovation. Research demonstrates the reliability and validity of these tools in secondary settings, confirming their effectiveness in accurately identifying creative talents (Bolden et al., 2020; Scott-Barrett et al., 2023). However, despite their success at this educational level, their effectiveness in higher educational contexts, where the demands and nature of creativity significantly evolve, needs further exploration.

The transition of assessment tools from secondary to university education presents unique challenges. As students mature, they encounter more complex cognitive tasks and a need for specialized creative skills that differ from their

earlier educational experiences (Gallagher & Savage, 2023; Garcia, 2023). This shift raises concerns about the direct applicability of tools validated for younger students to a university context, where students' cognitive abilities and creative needs have developed further. Studies suggest that adjustments are necessary for these tools to accurately reflect the creativity levels of university students, potentially leading to misinterpretations and inadequate support for developing their creative abilities (Ordóñez et al., 2022; Taþçi et al., 2016). Therefore, reevaluating these tools in university settings is essential for their effectiveness and relevance.

Previous studies on creative personality assessment have primarily focused on validating scales in secondary education settings. These scales often measure divergent thinking, innovative problem-solving, and openness to new experiences (Cropley, 2020; Hong, 2022). While these traits are relevant across educational levels, their manifestation can vary significantly between school and university students due to differences in cognitive development, educational environments, and life experiences (Gallagher & Savage, 2023; Garcia, 2023). Given these variations, it becomes crucial to explore how creative personality traits are expressed and assessed differently across diverse educational contexts to understand better their unique implications for students at each stage of their academic journey.

This study aims to validate a revised 24-item creative personality scale for university students using Confirmatory Factor Analysis (CFA). It seeks to ensure that the scale accurately measures creative traits unique to university students, whose cognitive and developmental characteristics differ from those of high school students. The validation process confirms the scale's consistency and reliability in higher education settings, filling a gap in creativity assessment tools tailored to this context. By establishing construct validity through CFA, the research provides a valuable tool for educators and policymakers to better assess and foster creativity in universities. This scale enables institutions to prepare students more effectively for complex academic and professional challenges, promoting innovation, problem-solving skills, and adaptability essential for future success.

## ■ METHOD

The study involved 804 university students from various faculties, selected through stratified random sampling to ensure diverse representation. Most respondents were female (63.68%), primarily from the social sciences field (48.76%). Respondents were between 18 and 24 years old, with an average age of about 20 years. In the first phase, 429 students participated, while the second phase involved 375 students. The stratified sampling method was used to reflect the diversity in academic backgrounds, year levels, and genders, ensuring that the findings could be generalized to a broader university population. Overall, the data indicate that the research sample is predominantly young female students from various fields of study, with the highest concentration in social sciences. More data is found in Table 1.

**Table 1.** Demographic profile of the research subject

| Demographic profile | Study 1 (N=429) | | Study 2 (N=375) | | Total (N=804) | |
|---|---|---|---|---|---|---|
| | N | % | N | % | N | % |
| **Gender** | | | | | | |
| 1. Male | 129 | 30.1 | 163 | 43.5 | 292 | 36.32 |
| 2. Female | 300 | 69.9 | 212 | 56.5 | 512 | 63.68 |
| **Field of study** | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1. Natural science | 147 | 34.3 | 18 | 4.8 | 165 | 20.52 |
| 2. Social Science | 112 | 26.1 | 280 | 74.7 | 392 | 48.76 |
| 3. Humanity | 170 | 39.6 | 77 | 20.5 | 247 | 30.72 |
| **Aged (Study 1, Mean=20,51, SD=1,04, Study 2, Mean=20,35, SD=1,18)** | | | | | | |
| 18 years old | 7 | 1.6 | 10 | 2.7 | 17 | 2.11 |
| 19 years old | 55 | 12.8 | 74 | 19.7 | 129 | 16.04 |
| 20 years old | 157 | 36.6 | 147 | 39.2 | 304 | 37.81 |
| 21 years old | 148 | 34.5 | 85 | 22.7 | 233 | 28.98 |
| 22 years old | 47 | 11.0 | 40 | 10.7 | 87 | 10.82 |
| 23 years old | 11 | 2.6 | 13 | 3.5 | 24 | 2.99 |
| 24 years old | 4 | .9 | 6 | 1.6 | 10 | 1.24 |

This study employed a psychometric approach to validate a creative personality scale tailored to university students. The reliability of the 24-item scale was assessed first using Cronbach's Alpha, with a threshold of 0.7 indicating acceptable internal consistency. After confirming the reliability, Confirmatory Factor Analysis (CFA) was conducted to assess the scale's construct validity. CFA was chosen as it enables the researchers to evaluate how well the theoretical model fits the empirical data. This approach was essential to ensure that the scale accurately measured creative personality traits within the university context, which differs from other populations, such as high school students.

The primary measurement tool used in this study was the Creative Personality Scale, consisting of 24 items adapted from researchers (Aziz & Guenther, 2023). This scale is designed to measure creative personality traits in university students and uses a 5-point Likert scale ranging from 'strongly disagree' to 'strongly agree.' The scale evaluates six key dimensions: openness to experience, which measures the willingness to engage in new ideas and experiences; willingness to grow, assessing the desire for personal development; perseverance, evaluating persistence in facing challenges; consistency, examining the consistency of one's decisions and actions; tolerance for ambiguity, which reflects comfort with uncertainty and ambiguity; and courage to take risks, which assesses the ability to step out of one's comfort zone. Each dimension is represented by several items, with the scale tested initially on high school students and then revised for the university context based on initial findings. The revised scale demonstrated improved internal consistency, making it a reliable tool for measuring creativity-related personality traits among university students.

The research was conducted in two phases. In the first phase, the scale was administered to 429 students. Following an initial analysis, three items were identified as having low item-total correlations and were subsequently revised. In the second phase, the revised scale was administered to 375 new students, and another CFA was conducted to confirm the scale's construct validity. Model fit was assessed using indices such as the Comparative Fit Index (CFI) and Root Mean Square Error of Approximation (RMSEA), which indicated a good model fit. The development process of scale is in Figure 1.

Figure 1 illustrates the Creative Personality Scale (CPS-24) development process. Initially, CPS-24 consisted of 24 items to measure six aspects of creative personality. After the first round of testing, three items were found to have poor validity. They were subsequently modified based on statistical feedback and participant responses to improve clarity and relevance. Each item used a five-point Likert scale, ranging from
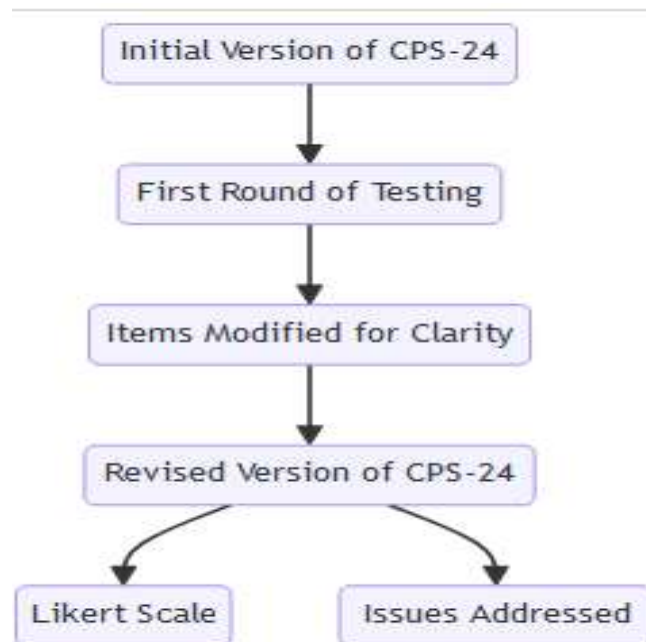
**Figure 1.** The development process of the creative personality scale

'strongly disagree' to 'strongly agree,' allowing for a detailed assessment of students' perceptions and attitudes towards creative processes and their self-identification with creative traits. The revised version underwent meticulous evaluation, ensuring that the modifications effectively addressed the issues identified in the initial analysis, resulting in a reliable and valid assessment tool.

The data were analyzed first for reliability using Cronbach's Alpha, with a threshold of 0.7 or higher indicating acceptable internal consistency. Confirmatory Factor Analysis (CFA) was employed to evaluate the scale's construct validity. Several fit indices were used to assess model adequacy, including the Comparative Fit Index (CFI) and the Root Mean Square Error of Approximation (RMSEA). CFI values close to 0.90 or above indicate a good fit, while RMSEA values below 0.08 suggest an acceptable model fit. These criteria ensure that the measurement tool is reliable and valid for assessing creative personality traits in the target population.

■ **RESULT AND DISCUSSION**

**Result**

This section outlines the reliability and construct validity test results and a list of valid items for the Creative Personality Scale (see Appendix A). The discussion then follows on from this presentation of the study results.

**The Reliability Estimate**

The study aimed to validate a 24-item creative personality scale explicitly adapted for university students. The initial scale was adapted from a tool previously designed for high school students. However, the initial reliability analysis indicated that several items did not align well with the context of higher education. Items such as G2 ("I feel content with the achievements I have gained at the moment"), O2 ("I prefer to do ordinary activities rather than challenging new activities"), and O3 ("When visiting exhibitions, I often ask questions of the staff") showed low or negative item-total correlations, suggesting that these items did not effectively measure the

intended constructs. As a result, these items were revised to reflect better the creative traits relevant to university students, such as emphasizing continuous and openness to new experiences.

Following the revisions, a second reliability analysis was conducted to reassess the improved scale's internal consistency and construct validity. The results of the second analysis, presented in Table 1, show significant improvements in the scale's reliability. The Cronbach's Alpha increased from 0.823 to 0.858, indicating more vital internal consistency. Additionally, all revised items demonstrated higher positive item-total correlations, with previously invalid items like O2 and O3 showing item-total correlations of 0.502 and 0.510, respectively. These improvements confirm the effectiveness of the modifications made to the scale, ensuring it is more reliable and valid for assessing creative personality traits among university students.

**Table 2.** The result of the second analysis (N=375)

| Factors | Item | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted | Status |
|---|---|---|---|---|---|---|
| Willingness | G1 | 70.1947 | 71.077 | .440 | .852 | Good |
| | G2 | 69.7493 | 71.707 | .488 | .851 | Good |
| | G3 | 70.3467 | 70.109 | .450 | .852 | Good |
| | G4 | 70.7733 | 70.898 | .369 | .855 | Good |
| Openness | O1 | 70.2080 | 71.550 | .399 | .854 | Good |
| | O2 | 70.2640 | 70.099 | .502 | .850 | Good |
| | O3 | 69.9573 | 71.025 | .510 | .850 | Good |
| | O4 | 69.6613 | 72.524 | .448 | .852 | Good |
| Perseverance | P1 | 69.9147 | 71.859 | .455 | .852 | Good |
| | P2 | 69.9253 | 72.882 | .340 | .855 | Good |
| | P3 | 70.3627 | 73.595 | .311 | .856 | Good |
| | P4 | 69.5733 | 73.390 | .350 | .855 | Good |
| Tolerance | T1 | 70.5573 | 71.798 | .359 | .855 | Good |
| | T2 | 70.5760 | 71.213 | .447 | .852 | Good |
| | T3 | 70.8293 | 72.409 | .336 | .856 | Good |
| | T4 | 70.0880 | 71.562 | .443 | .852 | Good |
| Take a risk | R1 | 70.0907 | 71.773 | .459 | .852 | Good |
| | R2 | 69.7413 | 72.952 | .384 | .854 | Good |
| | R3 | 69.7787 | 72.798 | .396 | .854 | Good |
| | R4 | 69.9680 | 73.368 | .291 | .857 | Good |
| Consistency | C1 | 70.0640 | 71.921 | .424 | .853 | Good |
| | C2 | 70.2080 | 71.106 | .457 | .851 | Good |
| | C3 | 70.0800 | 71.496 | .474 | .851 | Good |
| | C4 | 69.7680 | 72.018 | .517 | .850 | Good |
| Cronbach's Alpha = .858 | | | | | | |

The improvement in reliability results after revising the scale reinforces the construct validity of this tool for use in higher education contexts.

Model fit indices, such as the Comparative Fit Index (CFI) of 0.92 and the Root Mean Square Error of Approximation (RMSEA) of 0.04,

indicate a good fit with the data. This suggests that the revised scale can more accurately measure the creative traits relevant to university students. These findings strongly support that the adaptations and revisions made to the original scale have successfully enhanced this measurement tool, making it more suitable for assessing creativity at the higher education level.

The reliability testing results show a significant improvement in the internal consistency of the revised creative personality scale after adjustments were made to certain items that were not contextually relevant. The Cronbach's Alpha coefficient increased from 0.823 to 0.858, indicating a high level of reliability for use in higher education contexts. This improvement suggests that the revised items are now better aligned to measure the creative personality dimensions of university students, capturing their unique cognitive and developmental characteristics more accurately. Research has shown that refining the scale's items for the target population is crucial for improving reliability (Schrepp, 2020; Shaw et al., 2021). Thus, this result confirms that adapting psychometric tools to specific populations, such as university students, is necessary for obtaining more reliable measurements

Compared to earlier studies, which focused on creative personality scales designed for secondary school students, the findings highlight a significant novelty (Cropley, 2018, 2020). While previous scales successfully measured creativity among younger students, they did not fully capture the complexities of university-level creativity (Tan, 2022). The current study demonstrates that university students require a more nuanced measurement tool that reflects their advanced cognitive abilities and social experiences. This addresses the gap in the literature, where few tools have been validated for higher education students (Hong, 2022). Therefore, the revised scale in this study contributes to a new

understanding of creativity assessment at the university level.

The methodological implications of these findings are substantial. This study reinforces the importance of iterative reliability testing and item revision when developing psychometric scales. By revising specific items based on initial reliability testing, the study demonstrates how minor adjustments can significantly improve the scale's accuracy. The researchers emphasizes the importance of this approach, highlighting that instruments must be contextually appropriate to ensure reliable results (Camacho, 2022; Schrepp, 2020). In this case, modifying the original items for a university population proved crucial for enhancing the scale's reliability and consistency.

From a practical perspective, the revised scale offers a reliable tool for educational institutions to assess creativity among university students. This has far-reaching implications, as it allows educators to design more targeted interventions and programs that foster creativity, a skill increasingly recognized as critical for success in both academic and professional environments (Glaveanu et al., 2020; R. et al., 2018). Using this more reliable tool, universities can better identify and support students with high creative potential, helping them thrive in environments that demand innovative thinking and problem-solving skills.

**Construct Validity Evidence**

The analysis results are presented in the section through two key tables: the standardized regression weights (Table 2) and the model fit summary (Table 3). These tables provide a comprehensive overview of the model's validity and fit, demonstrating the significant contributions of each item to their respective factors and the overall adequacy of the model in representing the data accurately.

The results of the CFA analysis, as indicated by the standardized regression weights,

demonstrate significant contributions of all items to their respective creative personality factors. 'Willingness to grow' shows the highest standardized regression weight of .932, making it the strongest indicator of the 'creative personality' factor. Other significant contributors include 'tolerance for ambiguity' (.880) and 'openness to new experience' (.844). items across different factors, such as 'consistency in opinion' (.492), 'courage to take a risk' (.801), and 'perseverance in doing the task' (.798), also show substantial weight, confirming their importance in defining creative personality. These high standardized weights, ranging from .314 to .932, underscore the robustness and significance of the measured constructs within the model.

**Table 3**. Standardized regression weights

| Factor | Correlation | Factor | Estimate |
|---|---|---|---|
| Consistency in opinion | <--- | Creative_Personality | .492 |
| Tolerance for ambiguity | <--- | Creative_Personality | .880 |
| Openness to new experience | <--- | Creative_Personality | .844 |
| Willingness to Grow | <--- | Creative_Personality | .932 |
| Courage to Take a Risk | <--- | Creative_Personality | .801 |
| Perseverance in doing the task | <--- | Creative_Personality | .798 |
| G01 | <--- | Willingness to Grow | .590 |
| G02 | <--- | Willingness to Grow | .649 |
| G03 | <--- | Willingness to Grow | .577 |
| G04 | <--- | Willingness to Grow | .446 |
| O01 | <--- | Openness to new experience | .571 |
| O02 | <--- | Openness to new experience | .755 |
| O03 | <--- | Openness to new experience | .631 |
| O04 | <--- | Openness to new experience | .614 |
| C04 | <--- | Consistency in opinion | .627 |
| C03 | <--- | Consistency in opinion | .682 |
| C02 | <--- | Consistency in opinion | .852 |
| C01 | <--- | Consistency in opinion | .712 |
| T01 | <--- | Tolerance for ambiguity | .576 |
| T02 | <--- | Tolerance for ambiguity | .521 |
| T03 | <--- | Tolerance for ambiguity | .528 |
| T04 | <--- | Tolerance for ambiguity | .314 |
| P04 | <--- | Perseverance in doing the task | .528 |
| P03 | <--- | Perseverance in doing the task | .354 |
| P02 | <--- | Perseverance in doing the task | .524 |
| P01 | <--- | Perseverance in doing the task | .622 |
| R04 | <--- | Courage to Take a Risk | .736 |
| R03 | <--- | Courage to Take a Risk | .697 |
| R02 | <--- | Courage to Take a Risk | .549 |
| R01 | <--- | Courage to Take a Risk | .593 |

The model fit is evaluated using several criteria, including CMIN, RMR, GFI, and RMSEA, to assess its overall adequacy. These indicators provide unquestionable insights into different aspects of model fit. The CMIN/DF ratio is a valuable indicator that helps to evaluate the overall chi-square value relative to the degrees of freedom. Lower values indicate a better fit. The RMR measures the average discrepancy between observed and predicted values, with lower values indicating a better fit. The GFI assesses the proportion of variance explained by the model, with values closer to 1 indicating a better fit. Lastly, the RMSEA indicates how well the model, with unknown but optimally chosen parameter estimates, would fit the population's covariance matrix, with lower values indicating a better fit.

**Table 4.** Model of fit summary

| CMIN | | | | | |
|---|---|---|---|---|---|
| **Model** | **NPAR** | **CMIN** | **DF** | **P** | **CMIN/DF** |
| Default model | 53 | 432.424 | 247 | .000 | 1.751 |
| Saturated model | 300 | .000 | 0 | | |
| Independence model | 24 | 750.434 | 276 | .000 | 2.719 |
| Zero model | 0 | 4488.000 | 300 | .000 | 14.960 |
| **RMR, GFI** | | | | | |
| Model | | | **RMR** | **GFI** | **AGFI** |
| Default model | | | .052 | .904 | .883 |
| Saturated model | | | .000 | 1.000 | |
| Independence model | | | .147 | .833 | .818 |
| Zero model | | | .209 | .000 | .000 |
| **RMSEA** | | | | | |
| Model | | | **RMSEA** | **LO 90** | **HI 90** |
| Default model | | | .045 | .038 | .052 |
| Independence model | | | .068 | .062 | .074 |

Table 4 demonstrates that the default model fits well with the data, as indicated by a CMIN/DF ratio of 1.751, below the recommended threshold of 3, suggesting an acceptable model fit. The RMR of .052, a GFI of .904, and an Adjusted AGFI of .883 further support the model's adequacy. The Root RMSEA of .045 indicates a good fit with a 90% confidence interval ranging from .038 to .052 and PCLOSE of .889. In comparison, the independence model exhibits poorer fit indices, such as a higher CMIN/DF ratio of 2.719, RMR of .147, GFI of .833, AGFI of .818, and an RMSEA of .068. These results affirm that the default model provides a reliable framework for understanding the creative personality constructs, and named the Azira Creative Personality Scale (ACPS-24) (Appendix A).

Following the confirmatory factor analysis (CFA), the revised creative personality scale firmly fits the empirical data. The model fit indices, including a Comparative Fit Index (CFI) of 0.92 and a Root Mean Square Error of Approximation (RMSEA) of 0.04, indicate that the theoretical structure of the scale aligns well with the observed data. This suggests that the revised factors effectively measure the creative personality traits of university students. Specifically, the dimension

of "willingness to grow" emerged as the strongest indicator, with a regression weight of 0.932, highlighting its central role in the creative personality of university students. These results align with research, which identified personal growth as a critical factor in fostering creativity within academic settings (Akpur, 2020; Ikhsanudin et al., 2024; Ramly, 2022).

This study introduces a vital novelty compared to previous research, which primarily focuses on creativity measurement in secondary education. While studies validated creative personality scales for younger students (Chung J, 2019; Liu, 2020), this research shows that university students exhibit different creative traits that necessitate a specialized tool. The complexity of cognitive processes and the unique challenges university students face demand a scale that accurately captures these dynamics. This study's findings highlight the need for further research into how creativity is expressed and measured across different educational levels (Hong, 2022), especially in higher education.

The methodological implications of this research underscore the importance of using CFA in psychometric validation. Using CFA allowed the researchers to confirm whether the revised scale's factor structure matched the theoretical model. This rigorous methodological approach ensures that the scale accurately measures the intended constructs. CFA is critical in psychometric testing, particularly when adapting scales for different populations (Bandalos & Finney, 2018; Hoyle, 2000). By applying CFA, this study validates the theoretical underpinnings of the scale and confirms its applicability for university students, emphasizing the importance of detailed statistical analysis in scale development.

The validated scale provides a valuable tool for educators and policymakers in higher education to assess and foster creativity among students. As creativity is increasingly recognized as a vital skill for success in diverse professional fields (Houtgraaf, 2023; White, 2016), this scale can help universities identify students' creative strengths and areas for development. The scale can also inform curriculum design and extracurricular programs to nurture creativity, ensuring students are better prepared for the innovation-driven demands of the modern job market (Beghetto & Corazza, 2019). The tool's adaptability across various academic contexts further enhances its practical utility in fostering educational creativity.

### ■ CONCLUSION

This study validated a revised 24-item creative personality scale explicitly designed for university students, using reliability testing and confirmatory factor analysis (CFA). The findings demonstrate that the revised scale shows high internal consistency, with a Cronbach's Alpha of 0.858, and fits well with the data, as indicated by favourable model fit indices (CFI = 0.92, RMSEA = 0.04). The dimension "willingness to grow" was the most significant factor in measuring creativity among university students. These results contribute significantly to educational psychology by addressing the gap in creativity measurement tools tailored to higher education settings. The validated scale provides an effective instrument for assessing creative traits in university students, allowing educators and institutions to better understand and support creativity development in this demographic.

However, this study has certain limitations that should be addressed in future research. The sample was drawn from a single university, limiting the generalizability of the findings across different cultural and institutional contexts. Future studies should expand the sample size and include universities from diverse regions to confirm the scale's applicability in broader contexts. Additionally, the study relied solely on self-reported data, possibly introducing response bias.

Future research should integrate objective measures of creativity, such as performance-based assessments, to complement the self-report scale. Further exploration is needed to refine weaker items identified in the factor analysis to improve the scale's precision and reliability across various academic settings.

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**Appendix 1.**

The Azira Creative Personality Scale (ACPS-24)

| Items in English | Items in Indonesia |
|---|---|
| **Willingness to grow** | |
| 1. I am highly motivated to engage in tasks that have never been done before | *Saya merasa bergairah jika melakukan pekerjaan yang belum pernah dilakukan sebelumnya.* |
| 2. I feel excited when I gain new knowledge | *Saya merasa bergairah ketika mendapatkan pengetahuan baru* |
| 3. Whenever I finish performing an activity, I desire another activity. | *Setiap saya selesai melaksanakan suatu kegiatan, muncul keinginan melakukan kegiatan lain.* |
| 4. People often describe me as curious because I ask lots of questions. | *Kebanyakan orang menggambarkan saya sebagai pribadi yang serius karena saya banyak bertanya.* |
| **Openness to new experience** | |
| 5. I'd rather learn a new lesson than the familiar one | *Saya lebih suka mempelajari sesuatu yang baru dibandingkan yang sudah biasa* |
| 6. I prefer to do challenging activities. | *Saya lebih suka melakukan kegiatan yang menantang.* |
| 7. I try my best to find answers to problems that are difficult to understand | *Saya berusaha maksimal dalam mencari jawaban terhadap masalah yang sulit dipahami* |
| 8. Although it is tiring, I feel satisfied if I get a new experience. | *Walaupun melelahkan, saya merasa puas jika mendapatkan pengalaman baru.* |
| **Perseverance in doing the task** | |
| 9. I view every challenge as a patience test. | *Saya beranggapan bahwa setiap tantangan adalah ujian kesabaran.* |
| 10. In my opinion, patience can be characterized by perseverance in work | *Menurut saya, kesabaran itu bisa dicirikan dengan adanya ketekunan dalam bekerja.* |
| 11. I often work so hard that the time passes too quickly. | *Meskipun tugas itu sulit, saya biasanya menyelesaikan dengan sempurna.* |
| 12. I believe that with perseverance, the goal will be achieved. | *Saya percaya bahwa dengan ketekunan, tujuan akan tercapai.* |
| **Constancy in opinion** | |
| 13. Though many disagree, I would like to defend my viewpoint. | *Meskipun kebanyakan orang tidak setuju dengan pendapat saya, tapi saya akan mempertahankannya.* |
| 14. Whatever the hazards, I'll stick by my convictions. | *Saya akan memegang teguh pada pendapat saya, apapun resikonya.* |
| 15. As more people criticize me, I become more eager to defend my position. | *Semakin banyak orang mengkritik saya, semakin kuat saya mempertahankan pendapat saya.* |
| 16. One of my prides is when able to maintain a stand. | *Salah satu kebanggaan saya adalah ketika mampu mempertahankan pendirian.* |
| **Tolerance for ambiguity** | |
| 17. I like working on problems with a wide range of potential solutions. | *Saya suka menyelesaikan masalah yang memungkinkan banyak alternatif penyelesaian* |
| 18. Every problem can be resolved in a number of different ways. | *Setiap masalah dapat diselesaikan dengan berbagai macam cara* |
| 19. I can understand the opinions of others that are different from mine. | *Saya bisa memahami pendapat orang lain yang berbeda dengan pendapat saya.* |
| 20. Confusion is one of life's challenges for me. | *Bagi saya, keraguan merupakan salah satu tantang dalam hidup* |

| **Courage to take a risk** | |
|---|---|
| 21. Even if it hurts, I'm willing to take the fallout if I fail. | *Kalau saya gagal, saya siap menanggung segala akibatnya walaupun terasa menyakitkan.* |
| 22. Many of my friends think of me as someone who dares to be responsible. | *Banyak teman beranggapan bahwa saya adalah orang yang bertanggung jawab.* |
| 23. I feel brave because I am willing to accept the consequences of my deeds. | *Saya merasa sebagai orang pemberani karena mau menerima akibat atas perbuatan.* |
| 24. My guiding concept is to be willing to | *Prinsip saya, apapun resikonya saya harus* |