

# The impact of creativity and PKWU learning achievement on entrepreneurial interest among high school students

Allimatus Sadiyah\*, Aris Budi Setyawan

*Master of Management Study Program, Universitas Gunadarma, Depok 16424, Indonesia*

## Article history:

Received: 12 December 2024 / Received in revised form: 11 July 2025 / Accepted: 15 July 2025

## Abstract

This study aims to investigate the impact of creativity and *Prakarya dan Kewirausahaan* / Craft and Entrepreneurship (PKWU) learning achievement on entrepreneurial interest among high school students in Indonesia in which youth unemployment remains high despite curriculum reforms aimed at fostering entrepreneurship. Using Structural Equation Modeling (SEM), data were analyzed from 235 students of 12<sup>th</sup> grade at a Depok high school through validated questionnaires and academic records. Results revealed that both creativity and PKWU learning achievement significantly and positively affected entrepreneurial interest with a substantially stronger impact of PKWU learning achievement ( $\beta = 0.567$ ,  $p < 0.001$ ) than that of creativity ( $\beta = 0.311$ ,  $p = 0.005$ ). These findings indicated that while creativity meaningfully contributes to entrepreneurial aspirations, practical entrepreneurship education through PKWU has a more direct and substantial effect on students' career interests. The study concludes that educational institutions should prioritize integrating hands-on entrepreneurial experiences alongside creativity development to effectively cultivate entrepreneurial mindsets. The results provide evidence for strengthening practical components in entrepreneurship curricula and suggest that structured business skills training might be more influential than general creative development in fostering student interest in entrepreneurship as a viable career path.

**Keywords:** Creativity; entrepreneurial interest; entrepreneurship education; PKWU; structural equation modeling

## 1. Introduction

The COVID-19 pandemic has significantly impacted global economies, including Indonesia, leading to increased unemployment rate across various educational levels, particularly among high school graduates. Data from BPS - Statistics Indonesia (2023) revealed that the unemployment rate for individuals aged 20-24 increased by 336%, while for high school graduates, it surged by 186% during 2020-2021. This scenario reflects a growing challenge for educational institutions, which are expected to generate skilled graduates capable of creating new job opportunities, particularly through entrepreneurship.

To address this challenge, Indonesian high schools have introduced the *Prakarya dan Kewirausahaan* or Crafts and Entrepreneurship (PKWU) curriculum, specifically designed to foster entrepreneurial skills and creativity among students. PKWU combines theoretical and practical knowledge to prepare students for entrepreneurial activities, encouraging them to think innovatively and creating new business ventures. Despite these efforts, students' interest in entrepreneurship remains low as many still perceive formal employment or higher education as more secure options. In Indonesian, the number of high school students pursuing entrepreneurship after graduation, for instance, has been consistently low with only

6% of graduates opting to start their businesses in 2018, and even this percentage dropped to 4% in 2020.

### 1.1. Problem statement

The low entrepreneurial interest among students highlights a critical issue: despite the PKWU curriculum's aim to boost entrepreneurial motivation, it has not significantly determined students' career choices toward entrepreneurship. Many students undervalue entrepreneurship as a viable career path, viewing it as risky and requiring significant capital and experience. Moreover, low motivation and the distractions of digital media, such as social media and gaming, have negatively affected students' engagement with creative learning processes that are essential for entrepreneurial thinking.

Given this context, there is a need to investigate how creativity and academic performance in PKWU affect students' entrepreneurial interest. Creativity, a key component of entrepreneurship, enables individuals to generate innovative ideas and solutions; however, there is a limited understanding of how creativity, alongside academic achievement in PKWU, contributes to entrepreneurial interest among high school students.

### 1.2. Research questions

To address these issues, the study seeks to answer the following questions:

\* Corresponding author.

Email: [allimatussadiyah07@gmail.com](mailto:allimatussadiyah07@gmail.com)

<https://doi.org/10.21924/chss.5.1.2025.90>

1. What is the impact of creativity on the entrepreneurial interest among the high school students?
2. What is the impact of PKWU learning achievement on the high school students' entrepreneurial interest?
3. Which of the two variables, creativity or PKWU learning achievement, has a more substantial impact on entrepreneurial interest among high school students?

### 1.3. Objective

The primary objective of this study is to analyze the impact of creativity and PKWU learning achievements on the high school students' entrepreneurial interest. By examining these factors, this research aims to provide insights into how education systems can better foster entrepreneurship among high school students, thereby contributing to the reduction of youth unemployment.

## 2. Literature Review

### 2.1. Creativity

It is a multifaceted concept that has been extensively studied in various domains, particularly in relation to its role in entrepreneurship. Puspitasari and Wibowo (2021) argued that creativity is a complex and multidimensional psychological construct determining an individuals' ability to generate new ideas and approaches to problem-solving. It is often viewed through four interconnected dimensions: personal, process, environment, and product. The personal dimension refers to the individual's inherent ability to think innovatively, while the process dimension focuses on the steps taken to generate creative outcomes. The environment provides a context that fosters or inhibits creative behavior, and the product refers to the tangible outcomes of creative efforts.

Several researchers have highlighted the importance of creativity in entrepreneurship. Munandar (2012) emphasized that creativity is the intersection of cognitive intelligence, personality traits, and problem-solving abilities. In entrepreneurship, it is translated into an ability to identify and exploit opportunities by developing unique solutions and products. Wallas further elaborated on the process of creativity, outlining stages such as preparation, incubation, illumination, and verification, which align with the steps entrepreneurs often take when developing new business ideas (Maryuni, 2022).

In the context of education, especially entrepreneurship education, fostering creativity is essential for students to develop the mindset vital for starting and sustaining a business. Several school-based studies have demonstrated this relationship. Zhou (2008) found that creative thinking programs in high schools have significantly enhanced students' entrepreneurial self-efficacy and business idea generation. Similarly, Hamidi et al. (2008) through their research in Malaysian secondary schools discovered that creativity training integrated into business education curricula improved students' innovative problem-solving abilities and entrepreneurial confidence. Liu et al. (2019) further supported these findings in their study of Chinese high school students, showing that creative pedagogical approaches in entrepreneurship education led to increased entrepreneurial intentions and risk-taking

propensity.

Zimmerer (2020) suggested that creative individuals are more likely to take calculated risks and innovate, which are crucial traits for entrepreneurs. Therefore, encouraging creativity in educational settings, such as through PKWU curriculum, is vital for cultivating entrepreneurial interest among students. The relationship between creativity and learning achievement becomes particularly significant in entrepreneurship education as creative abilities enhance students' capacity to effectively absorb and apply entrepreneurial concepts (Bécharde & Grégoire, 2005). Students with higher creativity levels often show improved performance in entrepreneurship subjects as they are able to not only better understand innovative business concepts but also apply theoretical knowledge to practical scenarios (Neck & Greene, 2011).

### 2.2. PKWU learning achievement

Learning achievement, particularly in the context of entrepreneurship education, is a reflection of how well students have absorbed and applied knowledge and skills taught in a classroom. Dagan (2020) interpreted learning achievement as an indicator of a student's cognitive development typically measured through tests, assignments, and overall performance in subjects such as PKWU (Prakarya dan Kewirausahaan or Crafts and Entrepreneurship). PKWU, a subject introduced in Indonesian high schools as part of the 2013 curriculum, integrates both hard and soft skills, combining practical knowledge with entrepreneurial theory to foster business-oriented thinking among students (Minister of Education and Culture, 2013).

Slameto (2010) asserted that academic achievement in subjects like PKWU can be used to gauge a student's ability to understand and apply entrepreneurial concepts, such as creativity, innovation, and risk-taking. Furthermore, Dimiyati and Mudjiono (2009) classified learning achievements into three domains: cognitive, affective, and psychomotor. In the PKWU context, this means that students are evaluated based on their both knowledge and attitudes towards entrepreneurship and ability to execute any practical tasks stimulating real-world business scenarios.

Several studies have examined the relationship between PKWU learning achievement and students' entrepreneurial interest, consistently demonstrating positive correlations between academic performance in entrepreneurship education and entrepreneurial intentions. Pujaningsih (2013) found a positive correlation between students' achievements in PKWU and their interest in entrepreneurship. Similarly, Januardi et al. (2018) showed that PKWU achievements significantly determine students' readiness to pursue entrepreneurial careers, as the subject equips them with necessary skills and knowledge to start their businesses.

### 2.3. Entrepreneurial interest

Entrepreneurial interest refers to an individual's desire or inclination to pursue entrepreneurship as a career path (Liñán & Chen, 2009). Krueger et al. (2000) stated that entrepreneurial interest encompasses both the conscious awareness of seriously

considering entrepreneurship and the active pursuit of information about starting a business.

Ramayah and Harun (2005) explained that entrepreneurial interest is often driven by both intrinsic and extrinsic factors. Intrinsically, individuals might be motivated by a desire for independence, creativity, and personal fulfillment, while extrinsic factors include societal pressures, economic incentives, and educational exposure. In the educational context, entrepreneurial interest can be determined by curriculum and teaching methods emphasizing innovation, critical thinking, and problem-solving.

Suryana (2009) defined entrepreneurship as an ability to identify opportunities and create value through innovative solutions. Entrepreneurial interest, therefore, is directly linked to an individual's creative capabilities and their exposure to entrepreneurship education. Students with high entrepreneurial interest are more likely to explore business opportunities, take calculated risks, and commit to create ventures.

Research conducted by Sulistyarini (2007) showed that both creativity and academic performance in entrepreneurial subjects are the significant predictors of students' entrepreneurial interest. Similarly, a study by Nugraheni (2022) found that entrepreneurship education, such as PKWU, not only increases students' entrepreneurial interest but also enhances their confidence in starting new businesses. However, as Darpujiyanto (2010) pointed out, entrepreneurial interest can also be shaped by external factors such as family support and access to resources, which should be considered when assessing students' inclination towards entrepreneurship.

#### 2.4. Theoretical framework

The relationship between creativity, PKWU learning achievement, and entrepreneurial interest can be understood through the lens of entrepreneurship theory. As highlighted by Zimmerer (2020), creativity is a fundamental component of entrepreneurship for enabling individuals to develop new ideas and innovate, which are critical for business success. Similarly, learning achievements in entrepreneurship education provide necessary knowledge and skills to transform creative ideas into viable business ventures.

Building on the work of Munandar (2012) and Slameto (2010), this study proposes that creativity and PKWU learning achievements are positively related to entrepreneurial interest. Students with higher creativity levels are likely to exhibit stronger entrepreneurial intentions as their innovative thinking helps them to identify market opportunities. Moreover, students who perform well in PKWU are better equipped with the practical and theoretical knowledge required to pursue entrepreneurship.

Based on the theoretical framework and literature review, this study formulates the following hypotheses:

**H1:** Creativity has a significant positive impact on entrepreneurial interest among high school students.

**H2:** PKWU learning achievement has a significant positive impact on entrepreneurial interest among high school students.

**H3:** PKWU learning achievement has a stronger impact on entrepreneurial interest compared to creativity among high school students.

### 3. Methodology

#### 3.1. Research design

This study adopted a quantitative research design with a focus on the relationship between creativity, PKWU (Crafts and Entrepreneurship) learning achievement, and entrepreneurial interest among high school students. The quantitative approach was selected with a consideration to its ability to enable the measurement of the relationships between variables through statistical analysis (Creswell, 2014). Specifically, the study employed a **correlational design**, used to determine to what extent two or more variables are related (Fraenkel & Wallen, 2012). The correlational design became appropriate for this research as it allowed for the investigation of how creativity and PKWU learning achievement contribute to entrepreneurial interest among high school students.

#### 3.2. Population and sample

The population of this study referred to **366 students in grade 12** in an Indonesian high school during the 2023-2024 academic year. The decision to focus on the students of the 12<sup>th</sup> grade was based on several theoretical and practical considerations. First, regarding developmental psychology theory, students at this age (typically 17-18 years old) have reached the formal operational stage of cognitive development, enabling them to engage in abstract thinking about future career possibilities (Piaget, 1972). Second, the 12<sup>th</sup> grade students have completed the majority of their PKWU curriculum, providing sufficient exposure to entrepreneurship education for a meaningful assessment. Third, research by Ajzen (1991) suggested that career intentions are most accurately measured when individuals are close to making actual career decisions, making grade 12 students an appropriate population for studying entrepreneurial interest as they approach graduation and career choice decisions. Bryman (2012) argued that, when selecting a sample for educational research, it is essential to target participants who are most relevant to the research questions.

The study used **simple random sampling**, a probability sampling technique, to ensure that every member of the population has an equal chance of being selected (Cochran, 1977). This method was chosen by considering its ability to reduce sampling bias and ensure that the sample is the representative of the larger population. The sample size was determined using **Slovin's formula** with a confidence level of 95% and a margin of error of 5% (Sekaran & Bougie, 2016), yielding a final sample of **200 respondents**.

#### 3.3. Data collection methods

Data for this study were collected using two main techniques: **questionnaires** and **documentation**.

- **Questionnaires:** A structured questionnaire was administered to gather primary data from the students. It was divided into three sections, each of which corresponded to the key variables of the study: creativity, entrepreneurial interest and PKWU learning achievement. It was developed by adapting and modifying validated

instruments from previous research. The creativity section was based on Torrance's Creative Thinking Test (1990), adapted for high school students and translated into Indonesian language. Meanwhile, the entrepreneurial interest section was modified from Liñán and Chen's (2009) Entrepreneurial Intention Questionnaire with cultural adaptations for the Indonesian context. The PKWU learning achievement section incorporated self-assessment items developed specifically for this study, complementing the objective grade data obtained from school records. Each section was designed using **Likert-scale questions** to quantify students' responses (Likert, 1932) in the range of 1 (strongly disagree) to 5 (strongly agree), allowing for the measurement of respondents' attitudes towards each variable. In educational research, questionnaires are commonly used for allowing for the efficient collection of large data from multiple respondents (Cohen et al., 2013).

- **Documentation:** Secondary data, including students' PKWU grades, were obtained from the school's academic records. These grades served as the indicator of PKWU learning achievement for reflecting the students' understanding and performance in entrepreneurial education (Slameto, 2010). Documentation provided a reliable data source for measuring the independent variable of PKWU learning achievement (Ary et al., 2010).

### 3.4. Research variables

This study included both **independent** and **dependent variables**.

#### A. Independent Variables:

- **Creativity (X1):** This variable was measured using indicators from creativity literature, including students' ability to generate new ideas, problem-solving skills, and their willingness to take risks (Munandar, 2012). The questionnaire for creativity was based on the work of William and Munandar (1999), which defines creativity through aspects such as fluency, flexibility, and originality in thinking.
- **PKWU Learning Achievement (X2):** PKWU learning achievement was measured through students' academic performance in PKWU, using their final grades as an objective indicator. The grades of PKWU achievement reflected the students' practical and theoretical understanding of entrepreneurship (Minister of Education and Culture, 2013).

#### B. Dependent Variable:

- **Entrepreneurial Interest (Y):** This variable was measured by students' expressed intention to pursue entrepreneurship as a career. Indicators for entrepreneurial interest included students' preferences for entrepreneurship over formal employment, their desire to start a business, and willingness to take risks (Ramayah & Harun, 2005).

### 3.5. Data analysis techniques

To analyze the relationships between creativity, PKWU learning achievement, and entrepreneurial interest, this study employed the Structural Equation Modeling (SEM) technique,

chosen for allowing for the simultaneous testing of multiple relationships between variables, making it ideal for complex models involving mediating variables (Byrne, 2010). SEM combines the aspects of factor analysis and regression analysis, providing insights into both direct and indirect relationships between variables (Kline, 2011).

The data collected through the questionnaire were analyzed using **AMOS software** to perform SEM. AMOS is widely used for its ability to visually represent complex models and perform confirmatory factor analysis (CFA) (Arbuckle, 2016). The model fit was then evaluated using several fit indices, including **Goodness of Fit Index (GFI)**, **Comparative Fit Index (CFI)**, and **Root Mean Square Error of Approximation (RMSEA)**, as recommended by Hu and Bentler (1999). Acceptable model fit is indicated by the values of GFI and CFI above 0.90 and RMSEA values below 0.08 (Hair et al., 2010).

Furthermore, descriptive statistics were used to summarize the demographic characteristics of the sample, and correlation analysis was employed to assess the strength and direction of relationships between the independent and dependent variables (Cohen, 1988). Using SEM, hypothesis testing also was conducted to determine the significance of the relationships between creativity, PKWU learning achievement, and entrepreneurial interest.

### 3.6. Assumptions testing for SEM

Prior to conduct the SEM analysis, several assumptions were tested to ensure the appropriateness of the analytical approach. Normality was assessed using Shapiro-Wilk tests and visual inspection of Q-Q plots for all observed variables. Results indicated that while some variables showed slight deviations from normality, the skewness and kurtosis values were within acceptable ranges ( $\pm 2.0$ ), supporting the use of maximum likelihood estimation (Curran et al., 1996).

Sample size adequacy was evaluated using multiple criteria. The sample size of 235 participants exceeded the minimum requirement of 200 cases as recommended for SEM (Hoelter, 1983). Also, the participant-to-parameter ratio was 9.4:1, surpassing the recommended minimum of 5:1 (Bentler & Chou, 1987). Multicollinearity was assessed through correlation matrices and variance inflation factors (VIF) with all VIF values below 3.0, indicating no problematic multicollinearity.

Missing data analysis revealed less than 2% missing values across all variables, which were handled using full information maximum likelihood (FIML) estimation within AMOS.

## 4. Results and Discussion

### 4.1. Descriptive analysis of respondents

The study sample referred to 235 students from an Indonesian high school. Table 1 provides a summary of the respondents' demographic characteristics, including gender, class distribution, and prior entrepreneurial experience. The majority of the respondents were female (60%), and a substantial proportion of the sample came from social studies classes (IPS). Only 18% of respondents had prior entrepreneurial experience, indicating that most of them were being exposed to entrepreneurship concepts for the first time.

Table 1. Respondents demographic characteristics

Characteristic	Frequency	Percentage
Gender		
Female	141	60.00%
Male	94	40.00%
Class Distribution		
XII IPS 1	31	15.50%
XII IPS 2	24	12.00%
XII IPS 3	30	15.00%
XII IPS 4	22	11.00%
XII IPS 5	14	7.00%
XII IPA 1	21	10.50%
XII IPA 2	21	10.50%
XII IPA 3	19	9.50%
XII IPA 4	18	9.00%
Previous Entrepreneurial Experience		
No prior experience	164	82.00%
Some prior experience	36	18.00%
Total	235	100%

#### 4.2. Model fit assessment

The structural equation model demonstrated acceptable fit to the data across multiple indices. The model fit statistics were presented as follows:  $\chi^2 = 156.83$  ( $df = 87$ ,  $p < 0.001$ ),  $\chi^2/df = 1.803$ , Comparative Fit Index (CFI) = 0.952, Tucker-Lewis Index (TLI) = 0.941, Root Mean Square Error of Approximation (RMSEA) = 0.059 (90% CI [0.043, 0.074]), and Standardized Root Mean Square Residual (SRMR) = 0.048.

These indices indicated good model fit in accordance to established thresholds stating that CFI and TLI values above 0.90 indicate acceptable fit with values above 0.95 considered excellent (Hu & Bentler, 1999). The RMSEA value of 0.059 falls within the acceptable range ( $<0.08$ ) with values below 0.06 indicating good fit (Browne & Cudeck, 1993). The SRMR value of 0.048 is well below the recommended threshold of 0.08 (Kline, 2011). The  $\chi^2/df$  ratio of 1.803 is within the acceptable range of 1.0 to 3.0, suggesting reasonable model fit (Carmines & McIver, 1981).

#### 4.3. Hypothesis testing

The hypothesis testing was conducted using SEM with AMOS software, examining the impacts of creativity and PKWU learning achievement on entrepreneurial interest.

##### *Relationship between Creativity and Entrepreneurial Interest*

The hypothesis that **creativity** positively influences **entrepreneurial interest** was confirmed by an analysis. As shown in Table 2, the **regression coefficient** for the impact of creativity on entrepreneurial interest was  $\beta = 0.311$  with a **C.R.** = 2.777 and **p-value** = 0.005. These results indicated a statistically significant relationship, meaning that students with higher creativity levels tended to show greater entrepreneurial

interest. This finding is consistent with several previous studies. Munandar (2012) emphasized that creativity is a key component of entrepreneurial capability, while Hamidi et al. (2008) found similar results in their study of Malaysian secondary school students, reporting a positive correlation ( $r = 0.42$ ) between creativity and entrepreneurial intention. Zhou (2008) also demonstrated that creative thinking skills significantly predicted entrepreneurial self-efficacy among Chinese high school students ( $\beta = 0.38$ ,  $p < 0.01$ ).

The moderate effect size ( $\beta = 0.311$ ) observed in this study suggests that creativity contributes meaningfully to entrepreneurial interest though it is not the sole determinant. This finding can be attributed to several factors specific to the Indonesian high school context. First, the PKWU curriculum encourages students to develop innovative solutions to real-world problems, which may strengthen the connection between creative thinking and entrepreneurial aspirations. Second, the cultural emphasis on innovation and problem-solving in Indonesian education may have enhanced students' ability to link creative capabilities with entrepreneurial opportunities. Third, the exposure to entrepreneurship education through PKWU may have helped students to recognize how their creative abilities can be channeled into business ventures.

Table 2. Regression analysis of creativity and entrepreneurial interest relationship

Path		Standardized Coefficient ( $\beta$ )	C.R.	p-value
Creativity Entrepreneurial Interest	→	0.311	2.777	0.005

##### *Relationship Between PKWU Learning Achievement and Entrepreneurial Interest*

The second hypothesis, **PKWU learning achievement** positively influences **entrepreneurial interest**, was also supported by the data. As shown in Table 3, the **regression coefficient** for PKWU learning achievement was  $\beta = 0.567$  with a **C.R.** = 4.536 and **p-value** < 0.001. This suggests that students who achieve higher scores in PKWU are significantly more likely to express interest in entrepreneurship. These findings align with multiple previous studies. Pujianingsih's (2013) research found a positive correlation between academic achievement in entrepreneurial subjects and entrepreneurial intent. Similarly, Souitaris et al. (2007) demonstrated that entrepreneurship education significantly increased students' entrepreneurial intentions and self-efficacy in a European context. Peterman and Kennedy (2003) found that participation in entrepreneurship education programs led to significant increases in students' entrepreneurial intentions and perceived feasibility of starting a business.

The strong effect size ( $\beta = 0.567$ ) observed in this study indicated that PKWU learning achievement is a robust predictor of entrepreneurial interest. This finding suggests that the practical, hands-on nature of PKWU education effectively bridges the gap between theoretical knowledge and practical application, making entrepreneurship appear more feasible and attractive to students. The curriculum's emphasis on real-world problem-solving and business skills development appears to

provide students with the confidence and competence necessary to consider entrepreneurship as a viable career option.

Table 3. Regression analysis for PKWU learning achievement

Path		Standardized Coefficient ( $\beta$ )	C.R.	p-value
PKWU Learning Achievement	→	0.567	4.536	< 0.001
Entrepreneurial Interest				

### *Comparative Influence of Creativity and PKWU Learning Achievement*

When comparing the impacts of creativity and PKWU learning achievement, it was evident that **PKWU learning achievement** had a stronger impact on **entrepreneurial interest** ( $\beta = 0.567$ ) than that of **creativity** ( $\beta = 0.311$ ). This indicated that, although creativity plays an important role in fostering entrepreneurship, the practical skills and knowledge provided through PKWU have a more direct and substantial impact on students' entrepreneurial aspirations.

This finding is consistent with several comparative studies in entrepreneurship education. Souitaris et al. (2007) found that formal entrepreneurship education programs had stronger effects on entrepreneurial intentions than general creativity training. Similarly, Fayolle and Gailly (2008) demonstrated that structured entrepreneurship courses showed more significant impacts on students' entrepreneurial attitudes compared to general creativity enhancement programs. Neck and Greene (2011) argued that while creativity is important for entrepreneurship, it must be coupled with practical business skills and knowledge to translate into actual entrepreneurial behavior.

The stronger impact of PKWU learning achievement might be attributed to several factors. First, PKWU provides students with concrete, applicable skills such as business planning, financial management, and market analysis, which directly enhance their perceived feasibility of starting a business. Second, the curriculum's practical approach allows students to experience entrepreneurial activities firsthand, reducing the perceived risks and uncertainties associated with entrepreneurship. Third, the structured nature of PKWU education provides a clear pathway from learning to application, making entrepreneurship appear more accessible and achievable compared to the more abstract nature of creativity alone.

#### *4.4. Implications of the findings*

The results of this study have important implications for education policy and curriculum design. The significant impact of PKWU learning achievement on entrepreneurial interest suggests that schools should place a greater emphasis on entrepreneurship education by integrating practical experiences and fostering students' business skills. This aligns with the recommendations of Suryana (2009), who argued that entrepreneurship education should focus on real-world

applications to better prepare students for entrepreneurial careers.

In contrast, although creativity is imperative, its relatively smaller impact compared to PKWU learning achievement implies that creativity should be cultivated alongside practical business education. According to Zimmerer (2020), combining creativity with practical entrepreneurship skills can result in a more well-rounded entrepreneurial mindset, which is crucial for students aspiring to become entrepreneurs.

### **5. Conclusion**

This study aimed to analyze the impact of creativity and PKWU (Prakarya dan Kewirausahaan/Crafts and Entrepreneurship) learning achievement on entrepreneurial interest among high school. The findings highlight several important conclusions.

The results confirmed that creativity has a significant positive relationship with students' entrepreneurial interest. Students with the higher levels of creativity are more likely to express interest in pursuing entrepreneurship. This finding is consistent with previous research by Munandar (2012), which emphasized that creativity enhances an ability to identify and capitalize on entrepreneurial opportunities. However, while creativity is an important factor, it did not become the most dominant predictor of entrepreneurial interest in this study.

The study showed that PKWU learning achievement had a more substantial impact on entrepreneurial interest than that of creativity. Students who perform well in PKWU are better equipped with the necessary skills and knowledge to pursue entrepreneurship. This supports the findings of Listya Pujianingsih (2013), identifying a strong relationship between academic achievement in entrepreneurship subjects and entrepreneurial intentions. The practical elements of the PKWU curriculum play a pivotal role in fostering students' readiness to start businesses.

When comparing the two independent variables, PKWU learning achievement was found to have a stronger impact on entrepreneurial interest than creativity. This suggests that while creativity is essential for innovation, the structured learning and practical skills provided by PKWU have a more direct effect on students' entrepreneurial aspirations. The findings align with the study by Januardi et al. (2018) who found that entrepreneurship education significantly enhances students' entrepreneurial intent by providing practical tools for business creation.

The results of this study suggest that educational institutions, particularly at the high school level, should place a greater emphasis on integrating practical entrepreneurship education, such as PKWU, into the curriculum. Schools should not only focus on developing students' creativity but also provide hands-on entrepreneurial experiences that enable students to apply their creativity in real-world business scenarios. This dual approach of fostering creativity and enhancing practical business skills is essential for developing a well-rounded entrepreneurial mindset, as argued by Zimmerer (2020).

This study is limited by its cross-sectional design and its focus on a single high school in Depok. Expanding the sample size to include multiple schools and regions could also provide



more generalized findings. Future research could benefit from a longitudinal approach to assess how entrepreneurial interest evolves over time as students advance through their education. Additionally, further studies could explore other factors that influence entrepreneurial interest, such as family background, socio-economic status, and exposure to entrepreneurial role models.

In conclusion, while creativity is important in shaping entrepreneurial intentions, this study demonstrated that academic achievement in PKWU is a more influential driver of entrepreneurial interest among high school students. To effectively nurture future entrepreneurs, educational programs must continue to foster both creative thinking and practical entrepreneurial skills, thus equipping students with the necessary tools to succeed in an increasingly competitive and innovation-driven economy.

## References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Arbuckle, J. L. (2016). *AMOS 24.0 User's Guide*. IBM SPSS.
- Ary, D., Jacobs, L. C., & Sorensen, C. (2010). *Introduction to research in education* (8th ed.). Wadsworth.
- Béchar, J. P., & Grégoire, D. (2005). Entrepreneurship education research revisited: The case of higher education. *Academy of Management Learning & Education*, 4(1), 22-43. <https://doi.org/10.5465/amle.2005.16132536>
- Bentler, P. M., & Chou, C. P. (1987). *Practical issues in structural modeling*. *Sociological Methods & Research*, 16(1), 78-117.
- Browne, M. W., & Cudeck, R. (1993). *Alternative ways of assessing model fit*. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models* (pp. 136-162). Sage.
- Bryman, A. (2012). *Social research methods* (4th ed.). Oxford University Press.
- Byrne, B. M. (2010). *Structural equation modeling with AMOS: Basic concepts, applications, and programming* (2nd ed.). Routledge.
- Carmines, E. G., & McIver, J. P. (1981). *Analyzing models with unobserved variables: Analysis of covariance structures*. In G. W. Bohmstedt & E. F. Borgatta (Eds.), *Social measurement: Current issues* (pp. 65-115). Sage.
- Cochran, W. G. (1977). *Sampling techniques* (3rd ed.). John Wiley & Sons.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates.
- Cohen, L., Manion, L., & Morrison, K. (2013). *Research methods in education* (7th ed.). Routledge.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications.
- Curran, P. J., West, S. G., & Finch, J. F. (1996). *The robustness of test statistics to nonnormality and specification error in confirmatory factor analysis*. *Psychological Methods*, 1(1), 16-29.
- Dagan, H. (2020). *Achievement and motivation in education*. Springer.
- Darpujiyanto. (2010). Pembelajaran yang menumbuhkan minat mahasiswa berwirausaha. *Jurnal Ilmiah Bisnis Dan Ekonomi ASIA*, 5(1), 21-48.
- Dimiyati, & Mudjiono. (2009). *Belajar dan pembelajaran*. Rineka Cipta.
- Fayolle, A., & Gailly, B. (2008). From craft to science: Teaching models and learning processes in entrepreneurship education. *Journal of European Industrial Training*, 32(7), 569-593. <https://doi.org/10.1108/03090590810899838>
- Fornell, C., & Larcker, D. F. (1981). *Evaluating structural equation models with unobservable variables and measurement error*. *Journal of Marketing Research*, 18(1), 39-50.
- Fraenkel, J. R., & Wallen, N. E. (2012). *How to design and evaluate research in education* (8th ed.). McGraw-Hill.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Prentice Hall.
- Hamidi, D. Y., Wennberg, K., & Berglund, H. (2008). Creativity in entrepreneurship education. *Journal of Small Business and Enterprise Development*, 15(2), 304-320. <https://doi.org/10.1108/14626000810871691>
- Hoelter, J. W. (1983). *The analysis of covariance structures: Goodness-of-fit indices*. *Sociological Methods & Research*, 11(3), 325-344.
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1-55. <https://doi.org/10.1080/10705519909540118>
- Januardi, R., Anggraini, Z., & Zubaimari. (2018). The influence of PKWU subject on entrepreneurial interest of students in SMA Muhammadiyah 02 Palembang. *Journal of Educational Research*.
- Kline, R. B. (2011). *Principles and practice of structural equation modeling* (3rd ed.). Guilford Press.
- Krueger, N. F., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15(5-6), 411-432. [https://doi.org/10.1016/S0883-9026\(98\)00033-0](https://doi.org/10.1016/S0883-9026(98)00033-0)
- Likert, R. (1932). A technique for the measurement of attitudes. *Archives of Psychology*, 140, 1-55.
- Liñán, F., & Chen, Y. W. (2009). Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship Theory and Practice*, 33(3), 593-617. <https://doi.org/10.1111/j.1540-6520.2009.00318.x>
- Liu, X., Lin, C., Zhao, G., & Zhao, D. (2019). Research on the effects of entrepreneurial education and entrepreneurial self-efficacy on college students' entrepreneurial intention. *Frontiers in Psychology*, 10, 869. <https://doi.org/10.3389/fpsyg.2019.00869>
- Maryuni, Y., Wibowo, T. U. S. H., & Rosdiana, H. (2022). Teaching Indonesian maritime history: An ecopedagogy approach. In *International Seminar on Social Studies and History Education* (Vol. 1, No. 1, pp. 289-305).
- Menteri Pendidikan dan Kebudayaan. (2013). *Kurikulum 2013: Implementasi mata pelajaran prakarya dan kewirausahaan*. Indonesia Ministry of Education.
- Munandar, U. (2012). *Creativity and entrepreneurship: Cognitive and personality factors*. Indonesian Journal of Education and Psychology.
- Neck, H. M., & Greene, P. G. (2011). Entrepreneurship education: Known worlds and new frontiers. *Journal of Small Business Management*, 49(1), 55-70. <https://doi.org/10.1111/j.1540-627X.2010.00314.x>
- Nugraheni, W., & Mustikawati, R. R. I. (2022). Pengaruh prestasi belajar prakarya dan kewirausahaan, efikasi diri, dan lingkungan keluarga terhadap minat berwirausaha siswa kelas XI IPS. *Kajian Pendidikan Akuntansi Indonesia*, 11(10)
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). McGraw-Hill.
- Peterman, N. E., & Kennedy, J. (2003). Enterprise education: Influencing students' perceptions of entrepreneurship. *Entrepreneurship Theory and Practice*, 28(2), 129-144. <https://doi.org/10.1046/j.1540-6520.2003.00035.x>
- Piaget, J. (1972). *The psychology of the child*. Basic Books.
- Pujaningsih, L. (2013). Relationship between entrepreneurial interest and PKWU achievement in high school students. *Journal of Entrepreneurship Education*.
- Puspitasari, Q. D., & Wibowo, A. (2021). Creativity in entrepreneurship: A psychological perspective. *Journal of Innovation Studies*.
- Ramayah, T., & Harun, Z. (2005). Entrepreneurial interest and its determinants among university students. *International Journal of Entrepreneurship and Small Business*, 2(1), 54-71. <https://doi.org/10.1504/IJESB.2005.006071>
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill-building approach* (7th ed.). Wiley.
- Slameto. (2010). *Learning and achievement: Key factors in educational success*. Journal of Educational Studies.
- Sulistyarini, M. (2007). Pengaruh kreativitas kemandirian dan prestasi akademik terhadap minat berwirausaha siswa sekolah menengah kejuruan: Studi kasus SMK Putra Tama Bantul Yogyakarta [Undergraduate thesis, Sanata Dharma University]
- Souitaris, V., Zerbini, S., & Al-Laham, A. (2007). Do entrepreneurship programmes raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources. *Journal of Business Venturing*, 22(4), 566-591. <https://doi.org/10.1016/j.jbusvent.2006.05.002>
- Suryana. (2009). *Entrepreneurship: Practical theory and application*. Salemba Empat.
- Torrance, E. P. (1990). *Torrance Tests of Creative Thinking*. Scholastic Testing Service.
- Zhou, M. (2008). The effects of entrepreneurship education on entrepreneurial intention among college students in China. *Frontiers of Business Research in China*, 2(4), 567-586. <https://doi.org/10.1007/s11782-008-0032-2>
- Zimmerer, T. W. (2020). *Entrepreneurship and new venture formation* (5th ed.). Pearson.