

Profile of Entrepreneurial Interests of Science Teacher Candidates

M. Yamin¹, Ali Imran², Agus Muliadi³

¹Department of Biology Education, FKIP, Universitas Mataram

²Department of Sport and Health Education, FIKKM, Universitas Pendidikan Mandalika

³Department of Biology Education, FSTT, Universitas Pendidikan Mandalika

*E-mail: aliiimran@undikma.ac.id

Abstract

This study aims to describing biology students' perceptions of entrepreneurial interest. This study is an exploratory research with 55 biology education students as respondents. The research instrument used was a closed questionnaire with degraded answers according to a Likert scale that had been validated by experts and declared valid. Analysis of research data used is descriptive quantitative statistics and inferential statistics with Anova test at a significance level of 5%. The results of the study show that (1) the perceptions of biology education students regarding entrepreneurial interest are as follows: second-semester students have an average score of 3.05 with a category of Tall, fourth-semester students have an average score of 3.01 with a category of Tall, sixth-semester students have an average score of 3.23 with a category of Tall, and eighth-semester students have an average score of 3.00 with a category of Tall; (2) no significant difference in the perceptions of second, fourth, sixth, and eighth-semester students regarding entrepreneurial interest, which is proven by a significance value of 0.554, which is greater than 0.05 (>0.05).

Keywords: *Entrepreneurial Interests, Science Teacher Candidates*

INTRODUCTION

In the 21st century, the concept of 21st-century skills has gained significant importance due to the rapidly evolving landscape of work and society. These skills encompass a broad range of competencies, work habits, and character traits that are deemed essential for success in contemporary careers and workplaces (Luo, 2022). Saavedra & Opfer (2012) identified fundamental 21st-century skills as creativity, communication, problem-solving, collaboration, critical thinking, technology literacy, and cross-cultural skills, based on a comparative review of international frameworks for 21st-century skills. These skills are crucial for individuals to navigate the complexities of the modern world and contribute effectively to the development of their organizations (Ramalingam et al., 2021).

In the 21st century, the development of life skills has become increasingly crucial to equip individuals with the competencies needed to thrive in a rapidly changing world. These skills go beyond traditional academic knowledge and focus on fostering critical competencies that are vital for navigating the complexities of contemporary life (Akyol, 2023). Life skills are integral for individuals to succeed in the modern era, where

technological advancements, globalization, and diverse workplaces require a versatile skill set (Kocaman, 2022). These skills are crucial for personal development, social interactions, and overall well-being (Prajapati et al., 2016). Life skills education plays a significant role in bridging the gap between basic functioning and capabilities, empowering individuals to lead healthy and fulfilling lives (Lolaty et al., 2012).

Life skills-oriented education is crucial for equipping individuals with essential competencies to effectively navigate various aspects of life. This form of education aims to develop a diverse set of skills essential for personal growth, social interactions, and professional success. It focuses on enhancing critical competencies such as problem-solving, communication, collaboration, adaptability, and creativity, which are vital for individuals to thrive in the 21st century (Nasheeda et al., 2018). Life skills-oriented education is an essential effort to develop students' knowledge and skills, shape their character and responsibility, and provide motivation to achieve optimal performance (Rina & Kamila, 2020). This aligns with Sudarsana (2017) opinion that the development of life skills is crucial for fostering self-help behavior, and thus must be conducted in

a structured and systematic manner to provide “provisions” for students after graduation (Noor, 2015).

The life skills education program is designed to address specific focus areas based on needs and outcomes, one of which is through entrepreneurship education. This is affirmed by Muliadi, Sarjan & Rokhmat (2022) who state that the development of life skills for students requires a structured effort through entrepreneurship education in higher education. This policy is crucial, considering that in 2022, Indonesia’s Human Capital Index ranked 130th out of 199 countries in the world (Shanti, 2023). Another social phenomenon that continues to burden Indonesia is the high labor force and unresolved unemployment issues (Muliadi & Mirawati, 2020). The Central Statistics Agency reported in February 2023 that the open unemployment rate was 5.83% of the total working-age population in Indonesia, with 5.91% being diploma graduates and 5.52% being bachelor's degree graduates.

The fact that the unemployment rate remains high proves that college graduates are still not competitive and independent (Muliadi, Mirawati & Prayogi, 2021) and are still oriented towards being job seekers rather than job creators (Indriyatni, Wahyuningsih & Purwanto, 2014). The labor force participation rate in Indonesia is still quite high due to the dependence of college graduates on job opportunities (Santoso & Handoyo, 2019). Therefore, the development of knowledge and skills in entrepreneurship becomes a concrete solution for students to become creative, competitive, and independent graduates (Mirawati, Wardana, & Sukaatmadja, 2016), and can reduce the unemployment rate and have a positive impact on the national economy (Listyawati, 2017).

Entrepreneurial skills are an important competency to be developed for college students to avoid unemployment issues (Munawar & Supriatna, 2018). The development of entrepreneurial skills must be carried out systematically and consistently (Muliadi & Mirawati, 2020), considering the important role of

entrepreneurship for the future of students and the economic development of the Indonesian nation (Wardhani, Riani & Susilaningsih, 2018; Paramita, 2017). According to Afwan, Vahlia & Sholiha (2022), economic growth can be enhanced by fostering entrepreneurs who are innovative and globally competitive. Therefore, entrepreneurship education is crucial for developing the knowledge, skills, and attitudes needed for success in entrepreneurial endeavors. Entrepreneurship education fosters a mindset of innovation, risk-taking, and opportunity recognition among individuals (Taylor & Thorpe, 2004).

Entrepreneurship education is designed to enhance awareness of entrepreneurship as a viable career path and equip individuals with the skills to navigate the complexities of starting and managing a business (Bae et al., 2014). By incorporating entrepreneurship education into the college curriculum, it can foster entrepreneurial interest and capability among students (Natuna et al., 2021). Currently, entrepreneurship education is a mandatory course in the curriculum of the Biology Education Study Program at Mandalika University of Education, aiming to facilitate the development of students’ life skills in the field of entrepreneurship. Entrepreneurship education is expected to develop students’ knowledge and self-efficacy to become entrepreneurs (Wardhani, Riani & Susilaningsih, 2018). This is reinforced by Sunarni, Zulkarnain & Benty (2017), who stated that students’ knowledge about entrepreneurship will increase their interest in pursuing entrepreneurial ventures.

Given the importance of entrepreneurial skills, efforts to prepare individuals from an early age by fostering an entrepreneurial spirit in educational settings and their surroundings are necessary (Paramita, 2017; Muliadi & Mirawati, 2020). Entrepreneurial skills are not innate but can be learned by anyone through various relevant sources (Barnawi & Arifin, 2016). According to Muliadi, Mirawati, and Prayogi (2021), students’ knowledge of entrepreneurship, acquired through campus learning, can be strengthened by input and

support from experienced entrepreneurs around them, known as subjective norms. According to the Theory of Planned Behavior (TPB), subjective norms are one of the factors that influence self-efficacy and students' interest in entrepreneurship, where students have confidence in following the guidance or recommendations of their lecturers (Listyawati, 2017).

Numerous studies have explored the impact of entrepreneurship education on students' entrepreneurial mindset, self-efficacy, and intentions. Research indicates that entrepreneurship education positively influences students' entrepreneurial intentions by improving their attitudes, cognition, and self-efficacy towards entrepreneurship (Sang & Lin, 2019; Wardana et al., 2020). Additionally, entrepreneurship education programs have been found to enhance entrepreneurial alertness, creativity, and innovation among students, thereby promoting an entrepreneurial orientation (Türker & Selcuk, 2009). Various studies have highlighted the mediating role of entrepreneurial mindset, self-efficacy, and learning orientation in the relationship between entrepreneurship education and entrepreneurial intentions (Wang et al., 2021; Pham & Le, 2023). To strengthen the results of this research, it is necessary to conduct a study to map the entrepreneurial interests of students based on their semester levels in the biology education study program.

METHOD

This study is a descriptive exploratory research (Muliadi & Mirawati, 2020; Muliadi, Mirawati & Prayogi, 2021) aimed at describing biology students' perceptions of entrepreneurial interest. The respondents of this study consisted of 55 biology education students at Mandalika University of Education. Respondents were obtained using the convenience sampling technique due to the consideration of accessibility in filling out the questionnaire online (Fink, 2011).

The research instrument was a closed-ended questionnaire with answers graded according to

the Likert scale (Muliadi, Mirawati & Prayogi, 2021) and utilized Google Forms as the medium (Adha, et al., 2020). The questionnaire was constructed based on indicators of student perceptions of entrepreneurial interest developed by Muliadi, Mirawati & Prayogi (2021). The questionnaire contained 4 statements and had been validated by experts and declared valid.

The data analysis used descriptive quantitative statistics and inferential statistics. Descriptive quantitative analysis was used to describe the data on students' perceptions of entrepreneurial interest. The average perception data was interpreted using the assessment criteria developed by Nugroho et al. (2023), as presented in Table 1.

Table 1. Criteria for interpreting student perceptions

Average score	Category
3.25 < X ≤ 4.00	Very High
2.50 < X ≤ 3.25	Tall
1.75 < X ≤ 2.50	Low
1.00 < X ≤ 1.75	Very Low

The inferential statistical analysis used is an Anova test at a 5% significance level to determine the differences in students' perceptions of entrepreneurial interest based on their semester levels. The formulated statistical hypotheses are as follows: H₀: μ₁ = μ₂ (no significant difference in students' perceptions based on semester level) and H₁: μ₁ ≠ μ₂ (a significant difference in students' perceptions based on semester level). If the analysis results are significant or the p-value of the Anova test is less than 0.05, then H₀ is rejected, and H₁ is accepted, or vice versa.

RESULTS AND DISCUSSION

Description of data on biology students' perceptions of entrepreneurial interest is presented in Table 2.

Table 2. Data on students' perceptions of entrepreneurial interest

Semester	N	ΣScore	Mean	Category
II	10	30.50	3.05	Tall
IV	20	60.25	3.01	Tall
VI	15	48.50	3.23	Tall
VIII	10	30.00	3.00	Tall

The description of the data measured in the table above shows that the perceptions of biology education students regarding entrepreneurial interest are as follows: second-semester students have an average score of 3.05 with a category of Tall, fourth-semester students have an average score of 3.01 with a category of Tall, sixth-semester students have an average score of 3.23 with a category of Tall, and eighth-semester students have an average score of 3.00 with a category of Tall. The data description is further illustrated in the following figure.

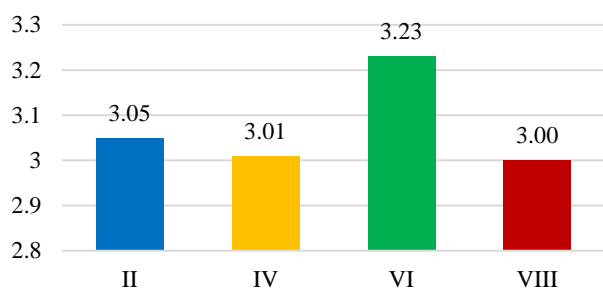


Figure 1. Average perception scores of students

The differences in students' perceptions of entrepreneurial interest based on their semester levels were analyzed using parametric statistics, after meeting the prerequisite tests, namely homogeneity and normality tests, as presented in Table 3.

Table 3. Results of homogeneity and normality tests

N	Homogeneity		Normality	
	Levenes Statistical test score	Sig.	Kolmogorov-Smirnov's test score	Sig.
55	1.275	0.293	1.341	0.055

Based on the data in Table 3, the results of the homogeneity test show a significance value of 0.293, which is greater than 0.05 (>0.05), indicating that the data variance is homogeneous. The normality test results show a significance value of 0.055, which is greater than 0.05 (>0.05), indicating that the data is normally distributed. An Anova test was then conducted, and the analysis results are presented in Table 4.

Table 4. Anova test results

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	0.516	3	0.172	0.704	0.554

Within Groups	12.468	51	0.244
Total	12.984	54	

The Anova test results in Table 4 show a significance value of 0.554, which is greater than 0.05 (>0.05), indicating that H₁ is rejected and H₀ is accepted. This means there is no significant difference in the perceptions of second, fourth, sixth, and eighth-semester students regarding entrepreneurial interest.

The results of this study explain that (1) second, fourth, sixth, and eighth-semester biology education students have a high interest in entrepreneurship; (2) there are no significant differences in entrepreneurial interest among students in the second, fourth, sixth, and eighth semesters. These findings show that biology education students at all semester levels have a high interest in pursuing entrepreneurship. This indicates that second, fourth, sixth, and eighth-semester students have a good understanding of entrepreneurship, fostering a uniform interest in this field. However, the average perception scores show that sixth-semester students have the highest scores compared to students in other semesters, meaning that sixth-semester students have a better knowledge of entrepreneurship. This could be because biology education students are taking entrepreneurship education courses in the sixth semester. Thus, the results of this study emphasize that the confidence of biology students in entrepreneurship begins with a good understanding of entrepreneurship (Muliadi, Mirawati & Prayogi, 2021).

The results also confirm that high entrepreneurial interest is influenced by entrepreneurship education. Entrepreneurship education facilitates students structurally to develop knowledge and skills in entrepreneurship (Supeni & Efendi, 2017; Setyawan, 2016). Furthermore, the knowledge acquired in entrepreneurship can change perceptions and self-efficacy in entrepreneurship, eventually influencing entrepreneurial interest (Muliadi, 2020). This aligns with Hattab (2014), who stated that knowledge gained from entrepreneurship education affects students' attitudes and interest in entrepreneurship. Students' knowledge of

entrepreneurship increases their interest in pursuing entrepreneurship (Walter & Block, 2016; Sunarni, 2017), enabling them to create new ventures and provide employment for others (Alhaji, 2015).

This study is supported by research from Wardhani, Riani & Susilaningsih (2018), which emphasizes that entrepreneurship education can foster students' interest in entrepreneurship to compete globally. Other studies by Arni et al. (2022) and Hidayah et al. (2022) highlight that entrepreneurship education can develop an entrepreneurial mindset in students, leading to entrepreneurial interest after completing their education. This underscores that entrepreneurship education enhances awareness, creativity, and innovation among students, driving entrepreneurial orientation. Additionally, entrepreneurship education positively influences students' entrepreneurial interest by increasing cognition and self-efficacy in entrepreneurship. Therefore, entrepreneurship education can raise awareness of entrepreneurship as a viable career path and equip individuals with the skills to navigate the complexities of starting and managing a business.

The findings of this study demonstrate that entrepreneurship education is crucial in fostering students' interest and capability in entrepreneurship. This is supported by Mwasalwiba (2012), who highlights the importance of entrepreneurship education in equipping individuals with the necessary skills and knowledge to recognize and pursue commercial opportunities. Other studies also confirm that entrepreneurship education can foster an entrepreneurial mindset, creativity, and innovation in students, thereby increasing entrepreneurial interest (Alvarez & Busenitz, 2001; Marshall et al., 2018). This is reinforced by Pittaway et al. (2011) and Bell (2021), who state that entrepreneurship education plays a key role in developing entrepreneurial skills among students. Moreover, entrepreneurship education can facilitate the formation of entrepreneurial mentality, skills, and competencies among

students (Grivokostopoulou et al., 2019; Heinonen & Poikkijoki, 2006). Therefore, it can be affirmed that entrepreneurship education is a crucial factor in fostering students' understanding, skills, confidence, perceptions, and interest in entrepreneurship (Fiet, 2001; Antoncic & Hisrich, 2003).

CONCLUSION

Based on the results of the study, it can be concluded that (1) the perceptions of biology education students regarding entrepreneurial interest are as follows: second-semester students have an average score of 3.05 with a category of Tall, fourth-semester students have an average score of 3.01 with a category of Tall, sixth-semester students have an average score of 3.23 with a category of Tall, and eighth-semester students have an average score of 3.00 with a category of Tall; (2) no significant difference in the perceptions of second, fourth, sixth, and eighth-semester students regarding entrepreneurial interest, which is proven by a significance value of 0.554, which is greater than 0.05 (>0.05).

ACKNOWLEDGMENTS

We would like to thank to all the parties that help to complete the research entitled "Profile of Entrepreneurial Interests of Science Teacher Candidates".

REFERENCES

- Adha, M.A., Arifin, I., Maisyaroh, Sul-toni & Sunarni. (2020). Perbedaan Minat Berwirausaha Berdasarkan Jenis Kelamin Mahasiswa. *JAMP: Jurnal Adminitrasi dan Manajemen Pendidikan*, 3 (3), 208-215. <http://dx.doi.org/10.17977/um027v3i32020p208>
- Afwan, B., Suryani, N., & Ardianto, D. T. (2020). The Development of Digital Flipbook Media Based on the 5 Hours Battle of Kalianda upon High School History Materials. *Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social*

- Sciences*, 3 (2), 1003–1012.
<https://doi.org/10.33258/birci.v3i2.930>
- Akyol, N. (2023). Examination on 21st -century skills of preschool teachers. *E-International Journal of Educational Research*.
<https://doi.org/10.19160/e-ijer.1168267>
- Alhaji, A. (2015). Entrepreneurship Education and Its Impact on Self Employment Intention and Entrepreneurial Self-Efficacy. *Journal Humanities and Social Sciences*, 3(1), 57–63.
- Alvarez, S. and Busenitz, L. (2001). The entrepreneurship of resource-based theory. *Journal of Management*, 27(6), 755-775.
<https://doi.org/10.1177/014920630102700609>
- Antonic, B. & Hisrich, R. (2003). Clarifying the Intrapreneurship Concept. *Journal of Small Bussiness and Enterprise Development*, 10 (1), 7-24.
<http://dx.doi.org/10.1108/14626000310461187>
- Arni, Y., Siswandari, S., Akhyar, M., & Asrowi, A. (2022). Effect of networking based entrepreneurial learning on employability interest for university students. *Dinamika Pendidikan*, 17(1), 117-132.
<https://doi.org/10.15294/dp.v17i1.36832>
- Bae, T., Qian, S., Cai, M., & Fiet, J. (2014). The relationship between entrepreneurship education and entrepreneurial intentions: a meta-analytic review. *Entrepreneurship Theory and Practice*, 38(2), 217-254.
<https://doi.org/10.1111/etap.12095>
- Barnawi & Arifin, M. (2016). *Schoolpreneurship: Membangkitkan Jiwa & Sikap Kewirausahaan Siswa*. Yogyakarta: Ar-Ruzz Media.
- Bell, R. (2021). Underpinning the entrepreneurship educator's toolkit: conceptualising the influence of educational philosophies and theory. *Entrepreneurship Education*, 4(1), 1-18.
<https://doi.org/10.1007/s41959-020-00042-4>
- Fiet, J. (2001). The Theoretical Side of Teaching Entrepreneurship. *Journal of Business Venturing* 16 (1), 1-24.
[https://doi.org/10.1016/S0883-9026\(99\)00041-5](https://doi.org/10.1016/S0883-9026(99)00041-5)
- Fink, A. (2011). *How to sample in surveys. In how to sample in surveys (2nd edition)*. Thousand Oaks, CA: SAGE Publication.
<https://us.sagepub.com/en-us/nam/how-to-sample-in-surveys/book225416>
- Grivokostopoulou, F., Kovas, K., & Perikos, I. (2019). Examining the impact of a gamified entrepreneurship education framework in higher education. *Sustainability*, 11(20), 5623. <https://doi.org/10.3390/su11205623>
- Hattab, H. W. (2014). Impact of Entrepreneurship Education on Entrepreneurial Intentions of University students in Egypt. *The Journal of Entrepreneurship*, 23 (1), 1-18.
<https://doi.org/10.1177%2F0971355713513346>
- Heinonen, J. and Poikkijoki, S. (2006). An entrepreneurial-directed approach to entrepreneurship education: mission impossible?. *The Journal of Management Development*, 25(1), 80-94.
<https://doi.org/10.1108/02621710610637981>
- Hidayah, E., Subandowo, M., & Karyono, H. (2022). The effect of blended learning strategy and entrepreneurship motivation on learning outcomes. *Edutec Journal of Education and Technology*, 5(4), 866-874.
<https://doi.org/10.29062/edu.v5i4.364>
- Indriyatni, L., Wahyuningsih, P. & Purwanto, A.B. (2014). Pengembangan Model Pelatihan Kewirausahaan Untuk Perempuan Pengangguran Di Kabupaten Demak. *Prosiding Seminar Nasional & Internasional*, 1-24.
- Kocaman, B. (2022). Investigating secondary school students' level of 21st century skills. *Asian Research Journal of Arts & Social Sciences*, 1-10.
<https://doi.org/10.9734/arjass/2022/v17i330306>
- Listyawati, I.H. (2017). Pengaruh Sikap, Norma Subyektif dan Kontrol Keperilakuan Terhadap Niat Berwirausaha pada Mahasiswa

- di Yogyakarta. *Jurnal Bisnis, Manajemen, dan Akuntansi*, 4 (1), 57-68.
- Lolaty, H., Ghahari, S., Tirgari, A., & Fard, J. (2012). The effect of life skills training on emotional intelligence of the medical sciences students in iran. *Indian Journal of Psychological Medicine*, 34(4), 350-354. <https://doi.org/10.4103/0253-7176.108217>
- Luo, Y. (2022). A research on the correlation between 21st century skills and english reading strategy of english majors: a quantitative study in chengdu university. *Pacific International Journal*, 5(3), 18-30. <https://doi.org/10.55014/pij.v5i3.173>
- Marshall, D., Davis, W., Dibrell, C., & Ammeter, A. (2018). Learning off the job: examining part-time entrepreneurs as innovative employees. *Journal of Management*, 45(8), 3091-3113. <https://doi.org/10.1177/0149206318779127>
- Mirawati, N.M., Wardana, I.M., & Sukaatmadja, I.P.G. (2016). Pengaruh Sikap, Norma Subjektif, dan Persepsi Kontrol Keperilakuan, terhadap Niat Siswa SMK di Kota Denpasar untuk Menjadi Wirausaha. *Jurnal Ekonomi dan Bisnis*, 5 (7), 1981-2010.
- Muliadi, A., Sarjan, M. & Rokhmat, J. (2022). Pembelajaran IPA Berbasis Bioentrepreneur Pada Etnosains Poteng Jaje Tujak: Perspektif Filsafat. *JPIN: Jurnal Pendidikan Indonesia*, 5 (2). <https://doi.org/10.47165/jpin.v5i2.338>
- Muliadi, A., Mirawati, B. & Prayogi, S. (2021). The Effect Entrepreneurship Education and Subjective Norm on Biology Students' Self-Efficacy in Entrepreneurial. *Prisma Sains: Jurnal Pengkajian Ilmu dan Pembelajaran Matematika dan IPA IKIP Mataram*, 9 (1). 127-135. <https://doi.org/10.33394/jps.v9i1.3981>
- Muliadi, A., Imran, A. & Sabrun S. (2021). Bioteknologi Berbasis Bioentrepreneurship: Persepsi Mahasiswa Biologi. *JIME: Jurnal Ilmiah Mandala Education*, 7 (4), 321-327. <http://dx.doi.org/10.36312/jime.v7i4.2461>
- Muliadi, A. (2020a). Sikap *Entrepreneur* Mahasiswa Pendidikan Biologi. *Jurnal Ilmu Sosial dan Pendidikan*, 4 (3), 286-291. <http://dx.doi.org/10.36312/jisip.v4i3.1208>
- Muliadi, A. (2020b). Perbedaan Gender dalam Sikap *Entrepreneur* Mahasiswa Pendidikan Biologi. *Jurnal Ilmiah Mandala Education*, 6 (2), 329-334. <http://dx.doi.org/10.36312/jime.v6i2.1439>
- Muliadi, A. (2020c). Microbiology Learning Based on Bioentrepreneurship: Prospective Teacher's Perception. *Jurnal Ilmu Sosial dan Pendidikan*, 4 (4), 352-357. <http://dx.doi.org/10.36312/jisip.v4i4.1527>
- Muliadi, A. & Mirawati, B. (2020). The Impact of Personal Attitude and Subjective Norm on Entrepreneurial Interest of Biological Education Students. *E-Saintika: Jurnal Penelitian dan Pengkajian Ilmu Pendidikan*, 4 (3), 342-351. <https://doi.org/10.36312/e-saintika.v4i3.307>
- Muliadi, A., Asri, I.H. & Lestari, Y. (2020). Efek Pengetahuan dan Lingkungan Keluarga terhadap Sikap *Entrepreneur* Mahasiswa. *Educatio: Jurnal Ilmu Kependidikan*, 15 (2), 65-77. <https://doi.org/10.29408/edc.v15i2.2836>
- Muliadi, A. (2019). Pembelajaran Biologi Berbasis *Entrepreneurship*. *Proceeding National Conference: Education, Social Science, and Humaniora*, 1 (1), 269-275.
- Munawar, A. & Supriatna, N. (2018). Pengaruh Sikap dan Motivasi Terhadap Minat Berwirausaha Siswa. *Jurnal Kajian Pendidikan Ekonomi dan Ilmu Ekonomi*, 2 (1), 14-23. <http://dx.doi.org/10.23969/oikos.v2i1.916>
- Mwasalwiba, E. (2012). Entrepreneurship education: a review of its objectives, teaching methods, and impact indicators. *Ieee Engineering Management Review*, 40(2), 72-94. <https://doi.org/10.1109/emr.2012.6210519>
- Nasheeda, A., Abdullah, H., Krauss, S., & Ahmed, N. (2018). A narrative systematic review of life skills education: effectiveness, research gaps and priorities. *International Journal of Adolescence and Youth*, 24(3),

- 362-379.
<https://doi.org/10.1080/02673843.2018.1479278>
- Natuna, D., Putra, M., & Azhar, A. (2021). Teachers' performance in online learning during covid-19 outbreak: an analysis based on 21st century proficiency. *International Journal of Educational Best Practices*, 5(2), 197.
<https://doi.org/10.31258/ijebp.v5n2.p197-210>
- Noor. (2015). Pendidikan kecakapan Hidup (life skill) di Pondok Pesantren dalam Meningkatkan Kemandirian Santri. *Jurnal Empowermen*, 3 (1).
- Nugroho, P.S., Nasir, M., Syafi'i, M., & Erviyenni, E. (2023). The Profile Perception of Student's Collaboration and Creative Thinking Skills in Physics. *Jurnal Penelitian Pendidikan IPA*, 9(2), 775-779.
<https://doi.org/10.29303/jppipa.v9i2.3055>
- Paramita, D.T. (2017). *Pembelajaran Kewirausahaan Berbasis Alam (Studi Kasus pada SMP Alam Ar Ridho Semarang)*. Skripsi. Universitas Negeri Semarang
- Pham, H. & Le, T. (2023). Entrepreneurial education and entrepreneurial intention among higher education students in vietnam: do entrepreneurial self-efficacy and family support matter?. *Higher Education Skills and Work-Based Learning*, 13(2), 403-422.
<https://doi.org/10.1108/heswbl-10-2022-0213>
- Pittaway, L., Rodriguez-Falcon, E., Aiyegbayo, O., & King, A. (2011). The role of entrepreneurship clubs and societies in entrepreneurial learning. *International Small Business Journal Researching Entrepreneurship*, 29(1), 37-57.
<https://doi.org/10.1177/0266242610369876>
- Prajapati, R., Sharma, B., & Sharma, D. (2016). Significance of life skills education. *Contemporary Issues in Education Research (CIER)*, 10(1), 1-6.
<https://doi.org/10.19030/cier.v10i1.9875>
- Ramalingam, S., Yunus, M., & Hashim, H. (2021). Exploring esl learners' blended learning experiences and its' effectiveness through web-based technologies. *International Journal of Evaluation and Research in Education (IJERE)*, 10(4), 1436.
<https://doi.org/10.11591/ijere.v10i4.21465>
- Rina, U.M. & Kamila, M. (2020). Pendidikan Keterampilan Hidup (Life Skill) Anak Usia Dini Selama Masa Pandemi Covid-19 di Lingkungan Keluarga. *TEMATIK: Jurnal Pemikiran dan Penelitian Pendidikan Anak Usia Dini*, 6 (2), 53-61.
<https://doi.org/10.26858/tematik.v6i2.15473>
- Saavedra, A. & Opfer, V. (2012). Learning 21st-century skills requires 21st-century teaching. *Phi Delta Kappan*, 94(2), 8-13.
<https://doi.org/10.1177/003172171209400203>
- Sang, D. & Lin, J. (2019). How does entrepreneurial education influence the entrepreneurial intention of college students: the moderating and mediating effects of entrepreneurial alertness. *International Journal of Emerging Technologies in Learning (IJET)*, 14(08), 139.
<https://doi.org/10.3991/ijet.v14i08.10408>
- Santoso, S.A.& Handoyo, S.E. (2019). Pengaruh Sikap, Norma Subyektif, Kontrol Perilaku Yang Dirasakan, Dan Orientasi Peran Gender Terhadap Intensi Berwirausaha Di Kalangan Mahasiswa Fakultas Ekonomi Universitas Tarumanagara. *Jurnal Manajerial dan Kewirausahaan*, 1 (1), 1-13.
- Shanti, H.D. (2023). Indeks Pembangun Manusia Indonesia Duduki Peringkat 13 Dunia. [Online]
<https://mataram.antaranews.com/berita/239743/indeks-pembangunan-manusia-indonesia-duduki-peringkat-130-dunia>
- Setyawan, A. (2016). Apakah Gender Bermakna Pada Model Pembentukan Minat Berwirausaha?. *Jurnal Manajemen Teori dan Terapan*, 9 (2), 120-127.
<http://dx.doi.org/10.20473/jmtt.v9i2.3017>

- Sudarsana, I. K. (2017). Membentuk Karakter Anak Sebagai Generasi Penerus Bangsa Melalui Pendidikan Anak Usia Dini. *Purwadita: Jurnal Agama dan Budaya*, 1 (1). <https://doi.org/10.55115/purwadita.v1i1.8>
- Supeni, R.E dan Efendi, M. (2017). Minat Mahasiswa dalam Berwirausaha Perguruan Tinggi Swasta di Kabupaten Jember. *Prosiding Seminar Nasional dan Call for Paper Ekonomi dan Bisnis*. Jember, 27-28 Oktober 2017: 449-463.
- Sunarni, S., Zulkarnain, W., & Benty, D. D. N. (2017). Need Analysis Mapping of Entrepreneurship Training of University Student. *3rd International Conference on Education and Training (ICET 2017)*, 128(Icet), 23-28. <https://doi.org/10.2991/icet-17.2017.4>
- Taylor, D. and Thorpe, R. (2004). Entrepreneurial learning: a process of co-participation. *Journal of Small Business and Enterprise Development*, 11(2), 203-211. <https://doi.org/10.1108/14626000410537146>
- Turker, D. & Selcuk, S. (2009). Which Factors Affect Entrepreneurial Intention of University Students? *Journal of European Industrial Training*, 33 (2).
- Walter, S. G., & Block, J. H. (2016). Outcomes of Entrepreneurship Education: An Institutional Perspective. *Journal of Business Venturing*, 31 (2), 216-233.
- Wang, J., Murad, M., Bajun, F., Tufail, M., Mirza, F., & Rafiq, M. (2021). Impact of entrepreneurial education, mindset, and creativity on entrepreneurial intention: mediating role of entrepreneurial self-efficacy. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.724440>
- Wardhani, J.P.K., Riani, A.L. & Susilaningsih. (2018). Pembelajaran Kewirausahaan Berbasis Proyek. *Prosiding Seminar Nasional Pendidikan Administrasi Perkantoran (SNPAP) 2018, 27 Oktober 2018*, 54-59.