

Improving Self-Direction Among Vocational Students During On-the-Job Training Through Behavioural Psychoeducation

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ABSTRACT

Navigating the transition from vocational education to industry requires robust self-direction, yet many students exhibit passive behaviors and anxiety during industrial work practices. This gap between structured schooling and industrial independence hinders work readiness. This study evaluated the effectiveness of behavioral-based psychoeducation in enhancing self-direction among learners. Employing a quantitative quasi-experimental design with a one-group pretest-posttest approach, the study involved 20 Grade XII Computer Network students at SMKN 6 Batam, selected via purposive sampling for moderate self-direction levels. Data were collected using a validated self-direction scale and analyzed using Wilcoxon Signed Ranks and N-Gain tests. Results demonstrated a significant improvement, with mean scores rising from 91.90 (moderate) to 129.80 (high). Wilcoxon test confirmed statistical significance ($Z = -3.920$, $p = 0.000$), while the N-Gain score of 0.94 indicated high intervention effectiveness. Findings suggest that behavioral-based psychoeducation, leveraging positive reinforcement and self-management, fosters student autonomy. Consequently, integrating psychological interventions into pre-internship preparation programs is crucial for bridging the school-industry gap. This research underscores the necessity of holistic support systems in vocational education to ensure students possess psychological resilience and directional clarity required for successful industrial adaptation and career stability in a competitive labor market. Thus, educators must prioritize mental readiness alongside technical skills to optimize outcomes.

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1. INTRODUCTION

Self-direction is a critical metacognitive competence defined as the process whereby learners systematically manage their thoughts, feelings, and actions to attain their goals (Garrison, 2003;

Morris, 2024). This capacity involves three cyclical phases: forethought (planning and goal setting), performance control (self-monitoring and strategy implementation), and self-reflection (self-evaluation and adaptation). Theoretically, the importance of self-direction aligns significantly with Knowles' Adult Learning Theory (Andragogy), which posits that adult learners are self-directed, relying on internal motivation and taking responsibility for their learning (Findik, 2025; Knowles, 1978; Livingston & Cummings-Clay, 2023). Furthermore, in the context of skill acquisition and performance, Bandura's Social Learning Theory is highly relevant, highlighting that self-direction is nurtured through observational learning (modeling), perceived efficacy, and reciprocal interaction between behavior, environment, and cognitive factors (Bandura, 1999). Essentially, self-direction transforms passive students into active, resilient, and autonomous learners, a necessary trait for career success.

Within this educational ecosystem, successful transition relies on a holistic integration of learning processes, professional language, behavioral modeling, and character development (Alwi et al., 2025; Andriyani, et al., 2024; Indriyani, et al., 2025; Zuve et al., 2023). Learning in the vocational context must transcend technical competence to include the nuances of workplace communication, where precise language serves as a tool for negotiation and feedback acquisition (Gidion & Ulya, 2025; Islami & Ulya, 2025; Ningsi & Ulya, 2025; Wulandari & Ulya, 2025). This communicative competence is reinforced through behavioral modeling, where students observe and emulate professional conduct, bridging the gap between theoretical knowledge and practical application (Afnita et al., 2023; Haryanti & Ulya, 2025; Karina et al., 2026; Naini & Ulya, 2025; Rahma et al., 2026; Ramadhan et al., 2025; Wardana & Ulya, 2026). Ultimately, these elements cultivate essential character traits such as resilience and accountability, which are the foundation of self-direction (Erni, et al., 2025; Liusti, et al., 2024; Saputra & Ulya, 2025; Sari, et al., 2024; Ulya, 2025;). Therefore, any preparatory framework that overlooks the interplay between linguistic confidence, role modeling, and character building risks leaving students ill-equipped for the autonomous expectations of the industry.

Vocational High School education aims to bridge the gap between educational outputs and industry needs, with On-the-Job Training serving as the core implementation phase (Kebede et al., 2024; Yoto et al., 2024). This mandatory internship requires students to transition from a highly structured school setting to an autonomous, professional work environment. This transition demands high levels of self-direction, including problem-solving independence, time management, effective communication, and cultural adaptation (Baharum et al., 2023, 2023; Lin, 2026; Macdonald & Cole, 2024). However, an increasing number of reports and observations suggest that many vocational high school students struggle with this transition.

Preliminary data gathered from SMKN 6 Batam, particularly involving students in the Computer Network and Telecommunications Engineering (TJKT) major, confirms a persistent issue. Based on initial assessments, a significant portion of students are categorized as having moderate levels of self-direction. This manifested behaviorally as: (1) Passivity and lack of initiative in undertaking new tasks; (2) Difficulty in managing unsupervised time and meeting deadlines without constant supervision; (3) Hesitancy in seeking feedback or communicating performance issues with industrial supervisors; and (4) High anxiety related to adapting to professional norms. This evidence points to a critical performance deficit that, if unaddressed, directly impedes the quality of on the job training experience and overall work readiness.

Existing school guidance and counseling programs often address student readiness through general career orientation or affective support, which tend to be broadly focused and rely heavily on traditional group discussion methods. While these methods offer awareness, they frequently lack the specific, measurable, and action-oriented strategies needed to systematically train and embed complex

self-direction behaviors. There is a clear gap in interventions that utilize a structured, systematic, and direct training approach targeting the specific observable behaviors associated with self-direction.

To effectively address the observed behavioral deficits, this study proposes a targeted psychoeducation service utilizing a Behavioral Approach (Herrera et al., 2023; Stiles-Shields et al., 2024). This rationale is grounded in the premise that self-direction comprises a set of learned, observable, and modifiable behaviors. The intervention systematically integrates four key behavioral principles: (1) Positive Reinforcement, which strengthens desired self-directed actions through consistent recognition; (2) Modeling, utilizing video demonstrations or peer examples to illustrate successful self-management strategies; (3) Behavior Modification, structuring the learning environment to promote successive approximations of goal-oriented behavior; and (4) Feedback, providing clear and immediate performance information to guide self-correction. This latter component aligns with Self-Regulated Learning Theory, wherein feedback is critical for the self-reflection phase (Zimmerman et al., 2020). Collectively, this approach offers a tangible, skills-based framework that transcends theoretical understanding, directly translating learning into the observable actions required for success in on-the-job training settings.

Despite the evident need for practical behavioral training, few studies in the local vocational context have rigorously tested the effectiveness of a Behavioral-Based Psychoeducation model specifically on self-direction during the industrial internship phase. This lack of empirical evidence represents the research gap. Therefore, the research objective of this study is to empirically analyze the effectiveness of behavioral-based psychoeducation services in significantly improving the self-direction level of vocational high school students during their Industrial Work Practice.

2. METHODS

This study employed a quantitative approach utilizing a Pre-Experimental method with a one-group pretest-posttest Design. The subjects consisted of 20 Grade XII students majoring in Computer Network and Telecommunications Engineering (TJKT) at SMKN 6 Batam. Participants were selected using a purposive sampling technique based on the criteria of exhibiting a moderate level of self-direction. Data collection utilized a valid and reliable self-direction scale. Data were analyzed using the Wilcoxon Signed Ranks Test and N-Gain score to determine the effectiveness of the intervention.

This research utilizes a quantitative approach with a Pre-Experimental design, specifically the one-group pretest-posttest Design. In this design, a single group is measured before and after the treatment without a control group for comparison. The design follows the pattern O1 X O2, where O1 represents the pretest measurement to establish the baseline of students' self-direction, X represents the intervention (Behavioral-Based Psychoeducation), and O2 represents the posttest measurement to observe changes after the intervention. This design was chosen to measure the changes in the dependent variable (self-direction) within the specific group undergoing the treatment. The population for this study included all 116 Grade XII students majoring in Computer Network and Telecommunications Engineering (TJKT) at SMKN 6 Batam, distributed across four classes.

The sample was selected using purposive sampling, a non-probability sampling technique where subjects are chosen based on specific characteristics relevant to the research objectives. The sample consisted of 20 students. The primary inclusion criterion was students identified as having a moderate level of self-direction based on the initial pre-test and observations. This category was selected because these students possess sufficient awareness to be open to improvement but still require reinforcement through intervention. The primary instrument used was a Self-Direction Scale developed based on three main dimensions: self-management, motivation/desire for learning, and self-control/self-monitoring (Garrison, 1997). The instrument utilized a Likert scale with five response

alternatives ranging from "Very Suitable" to "Very Unsuitable". The instrument underwent expert judgment and empirical testing using the Pearson Product-Moment technique. Out of 40 initial items, 34 items were declared valid, while 6 were discarded.

The reliability of the instrument was examined using Cronbach's Alpha, which yielded a coefficient of 0.793. This value indicates that the instrument possesses good internal consistency and is considered reliable for research purposes.

The research procedure was implemented in three main phases over a predetermined schedule in October 2025. The first phase was the pretest (O1), which aimed to assess the participants' initial level of self-direction. The second phase involved the intervention (X), in which the experimental group received Behavioral-Based Psychoeducation services. This intervention consisted of four sessions conducted twice a week. The sessions addressed four primary topics: (1) self-introduction and understanding self-direction, (2) developing intrinsic motivation, (3) self and time management, and (4) self-monitoring and evaluation. The activities incorporated behavioral principles, including positive reinforcement, modeling, and self-management strategies. The final phase was the posttest (O2), administered immediately after the intervention to measure the participants' final level of self-direction.

Because the data were not normally distributed, non-parametric statistical methods were applied for analysis. For hypothesis testing, the Wilcoxon Signed Ranks Test was used to examine whether a significant difference existed between the pretest and posttest scores of the paired samples. The level of significance was established at 0.05 ($p < 0.05$).

3. FINDINGS AND DISCUSSION

3.1 Findings

The study analyzed the self-direction scores of 20 Vocational High School (SMK) students before and after receiving behavioral-based psychoeducation. Prior to the intervention, the baseline data (pretest) showed an average self-direction score of 91.90, which falls into the "Moderate" category. This baseline indicates that while students possessed fundamental self-management capabilities, they lacked the advanced autonomy required for the high-pressure environment of industrial work practices. The data distribution at this stage was notably homogeneous, with individual scores ranging tightly between 86.00 and 98.00. This relative homogeneity suggests a baseline condition that is stable and analytically advantageous; as noted by Guetterman & Molina-Azorin (2024), extreme variability at the outset of an intervention can undermine internal validity and obscure treatment effects. The absence of outliers in the pretest confirms that the sample shares a similar starting point, ensuring that subsequent changes can be more confidently attributed to the intervention rather than pre-existing disparities.

Following the four-session intervention, the posttest data revealed a substantial and uniform increase across the sample. The average score rose significantly to 129.80, a marked improvement of 37.90 points from the baseline. Consequently, the group's classification shifted from "Moderate" to "High". This shift is not merely statistical but represents a qualitative transformation in the students' readiness; a "High" score implies an enhanced capacity for self-regulation, initiative, and independent problem-solving, competencies that are critical for success in the industrial sector.

The detailed distribution of scores for each participant, as presented in Table 1, further corroborates the intervention's efficacy. Notably, every single participant (100%) demonstrated an increase in their self-direction score, with no negative ranks or ties observed in the comparative

analysis. The magnitude of improvement varied but remained universally positive, with the lowest individual gain recorded at 30 points and the highest at 50 points. This consistency across all 20 participants serves as robust empirical evidence that the behavioral approach—utilizing reinforcement, modeling, and shaping—was effective for the entire cohort, regardless of their specific initial standing within the moderate range.

Table 1. Distribution of Pretest and Posttest Scores of Self-Direction (N=20)

No.	Respondent Code	Pretest Score	Category (Pretest)	Posttest Score	Category (Posttest)	Gain
1	FQR	97	Moderate	128	High	31
2	SLSI	86	Moderate	132	High	46
3	MRA	88	Moderate	129	High	41
4	RZA	95	Moderate	132	High	37
5	CRS	92	Moderate	129	High	37
6	NDY	95	Moderate	127	High	32
7	TLT	91	Moderate	129	High	38
8	RF	91	Moderate	129	High	38
9	RFA	91	Moderate	130	High	39
10	ZFY	95	Moderate	127	High	32
11	RH	98	Moderate	130	High	32
12	DP	91	Moderate	136	High	45
13	ARM	97	Moderate	127	High	30
14	SYT	88	Moderate	130	High	42
15	MR	95	Moderate	128	High	33
16	MRO	91	Moderate	128	High	37
17	INA	91	Moderate	130	High	39
18	INR	88	Moderate	138	High	50
19	DPR	86	Moderate	128	High	42
20	RHN	92	Moderate	129	High	37
Mean		91.9		129.8		37.9

To verify the significance of the observed increase, a Wilcoxon Signed Ranks Test was conducted. The analysis yielded a Z value of -3.920 with an Asymptotic Significance (2-tailed) of 0.000. This result confirms that there is a statistically significant difference in students' self-direction between the pretest and posttest conditions ($p < 0.05$), leading to the rejection of the null hypothesis (H_0).

Table 2. Wilcoxon Signed Ranks Test Statistics

Statistics	Value
Z	-3.92
Asymp. Sig. (2-tailed)	0
Negative Ranks	0
Positive Ranks	20
Ties	0

To demonstrate the strength of the intervention beyond statistical significance, the effect size (r) was calculated using the formula $r = Z / \sqrt{N}$, where N is the total number of observations (40). The calculated effect size is 0.62, which indicates a large effect. Furthermore, the effectiveness was corroborated by the N-Gain score analysis, which resulted in a mean score of 0.948. As shown in Table

3, this places the intervention in the "High" effectiveness category, with individual N-Gain scores ranging from 0.84 to 0.97999.

Table 3. N-Gain Score Analysis for Intervention Effectiveness

Metric	Value	Interpretation
Mean N-Gain	0.94	High Effectiveness
Minimum N-Gain	0.84	High Effectiveness
Maximum N-Gain	0.97	High Effectiveness
N-Gain %	94.20%	Effectiveness

The statistical evidence confirms that behavioral-based psychoeducation not only produces a significant improvement in self-direction scores but also demonstrates a strong intervention effect, effectively bridging the gap between students' initial moderate capabilities and the high level of self-direction required for industrial practice.

3.2 Discussion

The findings of this study provide robust empirical evidence supporting the efficacy of behavioral-based psychoeducation in enhancing self-direction, as evidenced by the significant shift in students' scores from a moderate baseline ($M=91.90$) to a high category ($M=129.80$). Theoretically, this result extends Bandura's Social Learning Theory, particularly the mechanism of modeling and self-regulation. The intervention demonstrated that self-direction is not merely an innate trait but a learnable competency that can be cultivated through observation and structured behavioral modification. By observing successful behaviors and receiving positive reinforcement, students internalized the standards of industrial work, validating Skinner's operant conditioning principles, where reinforced behaviors such as initiative-taking and time management are more likely to be repeated and sustained.

Furthermore, this study supports Zimmerman's Self-Regulated Learning (SRL) theory, specifically regarding the phases of forethought and performance control (Zimmerman et al., 2020). The intervention explicitly trained students to set goals and monitor their progress, effectively bridging the gap between cognitive understanding and behavioral execution. Unlike traditional guidance which often focuses on information dissemination, this behavioral intervention developed concrete workplace readiness skills. By employing techniques like shaping (breaking tasks into manageable steps) and behavioral rehearsal, the program transformed abstract concepts of "independence" into observable actions required in industrial work practices, such as proactively seeking feedback from supervisors and managing workflow without constant instruction. This confirms recent findings that self-regulation interventions are crucial for distinguishing high-performing vocational students from those who struggle with the transition to professional environments (Chen, 2026; Cohen, 2012; Nnadozie & Khumalo, 2023).

Despite the positive outcomes, several limitations must be acknowledged to contextualize the findings. First, the study utilized a small sample size ($N=20$), which limits the generalizability of the results to the broader population of vocational students. Second, the use of a One Group Pretest-Posttest design constitutes a pre-experimental approach lacking a control group. This absence represents a threat to internal validity, as it is difficult to rule out confounding variables such as maturation or history effects, meaning the improvement could theoretically be attributed to external factors rather than the intervention itself (Mather et al., 2022).

Third, the measurement was short-term, conducted immediately after the fourth session. Without a longitudinal follow-up, it remains unclear whether the behavioral changes are sustained throughout the months-long duration of the internship. The reliance on a self-report instrument introduces the potential for response bias, particularly social desirability bias, where students might rate themselves higher to meet perceived expectations rather than reflecting their actual workplace behavior (Grutterink & Meister, 2022).

The proven effectiveness of this intervention holds significant implications for school counselors and vocational education policy (Otu, 2024). For school counselors, this study suggests a paradigm shift from general information services to structured behavioral training. Counselors should adapt this program by moving beyond classroom lectures and integrating active behavioral techniques such as role-playing industrial scenarios and using behavior modification logs into their classical guidance curriculum. The module developed in this study can serve as a standardized prototype for "pre-departure" training.

For policy, specifically within the vocational education sector, the findings advocate for the inclusion of behavioral training modules as a mandatory prerequisite for *Prakerin*. Preparation for industrial practice often focuses heavily on technical hard skills; however, this study highlights that behavioral soft skills, specifically self-direction and self-regulation, are equally critical for safety, adaptability, and performance. Schools should formalize collaborations with industrial partners to align these behavioral learning goals with industry standards, ensuring that students are not only technically proficient but also behaviorally autonomous before entering the workforce.

4. CONCLUSION

The research results empirically demonstrate that behavioral-based psychoeducation is highly effective in improving the self-direction of vocational high school (SMK) students during their industrial work practice. Initially, students exhibited a "Moderate" level of self-direction with an average pretest score of 91.90, indicating a baseline proficiency that was insufficient for the autonomous demands of the industry. Following the four-session intervention, actual observations revealed a significant transformation, with the average posttest score rising to 129.80, placing the students in the "High" category. The statistical analysis using the Wilcoxon Signed Ranks Test ($Z = -3.920$, $p < 0.05$) confirmed significant differences between the pre- and post-treatment conditions. Furthermore, the N-Gain score of 0.94 classifies the intervention as having a "High" level of effectiveness, with 100% of participants showing score improvements⁴. These findings confirm that behavioral techniques specifically modeling, positive reinforcement, and self-management training successfully developed the students' initiative, discipline, and ability to manage tasks independently.

Based on the proven efficacy of the intervention, it is recommended that this behavioral based psychoeducation model be formally integrated into the school's guidance and counseling curriculum. Specifically, school counselors should adopt this four session module as a mandatory "pre-departure" training program for all students preparing for industrial work practice. Rather than relying solely on informational briefings, counselors are encouraged to utilize the behavioral strategies validated in this study such as role-playing industrial scenarios and using self-monitoring logs to actively build soft skills. This integration ensures that students are equipped with concrete behavioral tools to navigate workplace challenges, thereby reducing anxiety and increasing performance reliability during their internships.

To validate and expand upon these findings, future research should address the methodological limitations of the current study. First, subsequent studies should employ a True Experimental Design with a randomized control group to more rigorously isolate the effects of the intervention from

external variables. Second, researchers should expand the scope by utilizing a larger sample size and conducting multi site testing across different vocational schools to enhance the generalizability of the results to the broader population of adolescents. Finally, longitudinal tracking is essential; future studies should measure self-direction not just immediately after the intervention, but also during and after the internship period to assess the long-term retention and practical application of the learned behaviors in real-world industrial settings.

REFERENCES

- Afnita, A., Husein, A., & Ulya, R. H. (2023). Interactive E-Book Model Based on Local Wisdom as a Media for Learning Exposition Text Reading Skills. *Al-Ta'lim Journal*, 30(3), 201–211. <https://doi.org/10.15548/jt.v30i3.781>
- Alwi, N. A., Kenedi, A. K., Ulya, R. H., Azizah, Z., Mardin, A., Irwandi, I., Nadiroha, W., & Fadira, Y. A. (2025). Pelatihan Cerita Anak Budaya Lokal untuk Literasi Siswa bagi Guru Sekolah Dasar. *Jurnal Pengabdian Masyarakat (ABDIRA)*, 5(4), 534–541. <https://doi.org/10.31004/abdira.v5i4.1098>
- Andriyani, N., Ulya, R. H., & Selviana, A. M. (2024). Resilience of Language Functions as Social Order and Control in Superstitions among the Malay Community in Indonesia. *Pascasarjana ISBI Bandung Conference Series*, 1(1).
- Baharum, H., Ismail, A., McKenna, L., Mohamed, Z., Ibrahim, R., & Hassan, N. H. (2023). Success factors in adaptation of newly graduated nurses: a scoping review. *BMC Nursing*, 22(1), 125. <https://doi.org/10.1186/s12912-023-01300-1>
- Bandura, A. (1999). Social cognitive theory: An agentic perspective. *Asian Journal of Social Psychology*, 2(1), 21–41. <https://doi.org/10.1111/1467-839X.00024>
- Chen, L. (2026). Examining the role of emotional regulation in vocational education: effects on academic performance, self-motivation, and learning satisfaction. *International Journal of Inclusive Education*, 1–35. <https://doi.org/10.1080/13603116.2026.2615728>
- Cohen, M. T. (2012). The importance of self-regulation for college student learning. *College Student Journal*, 46(4), 892–903.
- Erni, E., Piliang, W. S. H., & Ulya, R. H. (2025). Revitalisasi Sastra Lisan Syair Riau melalui Kegiatan Ekstrakurikuler di SMPN 4 Siak Hulu. *Edu Research*, 6(4), 2152–2164.
- Erni, E., Piliang, W. S. H., Ulya, R. H., & Fatmadona, R. (n.d.). Transforming Oral Literature into Educational Media: Integrating Character Values in Indonesian Language Learning. *Gurindam: Jurnal Bahasa Dan Sastra*, 5(2), 146–165.
- Fındık, L. Y. (2025). Adult Learning Theories. *Exploring Adult Education Through Learning Theory*, 29–54. <https://doi.org/10.4018/979-8-3693-5812-2.ch002>
- Garrison, D. R. (1997). Self-directed learning: Toward a comprehensive model. *Adult Education Quarterly*, 48(1), 18–33. <https://doi.org/10.1177/074171369704800103>
- Garrison, D. R. (2003). Cognitive presence for effective asynchronous online learning: The role of reflective inquiry, self-direction and metacognition. *Elements of Quality Online Education: Practice and Direction*, 4(1), 47–58.
- Gidion, M. Z., & Ulya, R. H. (2025). Struktur, isi, dan unsur kebahasaan teks berita siswa kelas VII MTsN 7 Tanah Datar. *Edu Research*, 6(1), 1835–1849.
- Grutterink, H., & Meister, A. (2022). Thinking of you thinking of me: An integrative review of meta-perception in the workplace. *Journal of Organizational Behavior*, 43(2), 327–341. <https://doi.org/10.1002/job.2516>
- Guetterman, T. C., & Molina-Azorin, J. F. (2024). In this issue: Special issue dedicated to Michael D.

- Fetters. In *Journal of Mixed Methods Research* (Vol. 18, Issue 3, pp. 197–202). SAGE Publications Sage CA: Los Angeles, CA. <https://doi.org/10.1177/15586898241263466>
- Haryanti, S., & Ulya, R. H. (2025). Analisis Korelasional antara Keterampilan Membaca Pemahaman dengan Keterampilan Menulis Teks Eksposisi Siswa. *Edu Research*, 6(3), 1982–1991.
- Herrera, S. N., Sarac, C., Phili, A., Gorman, J., Martin, L., Lyallpuri, R., Dobbs, M. F., DeLuca, J. S., Mueser, K. T., & Wyka, K. E. (2023). Psychoeducation for individuals at clinical high risk for psychosis: A scoping review. *Schizophrenia Research*, 252, 148–158. <https://doi.org/10.1016/j.schres.2023.01.008>
- Indriyani, V., Triana, H., Thamsin, A. C., Ulya, R. H., & Hafrison, M. (2025). Efektivitas copywriting dan storytelling dalam meningkatkan kompetensi karang taruna untuk promosi budaya dan wisata lokal. *Jurnal Inovasi Hasil Pengabdian Masyarakat (JIPEMAS)*, 8(3), 582–595. <https://doi.org/10.33474/jipemas.v8i3.24141>
- Islami, F., & Ulya, R. H. (2025). Pengaruh model Project Based Learning berbantuan media audiovisual terhadap keterampilan menulis teks prosedur siswa kelas VII SMP Pembangunan Laboratorium UNP. *EDU RESEARCH*, 6(1), 1388–1398.
- Karina, L., Ulya, R. H., Tamsin, A. C., & Hafrison, H. (2026). Pengaruh Model Project Based Learning Berbantuan Media Autentik Terhadap Keterampilan Menulis Teks Berita Siswa Kelas XI SMA Negeri 5 Merangin. *JURNAL MANAJEMEN PENDIDIKAN*, 14(1).
- Kebede, A., Asgedom, A., & Asfaw, A. (2024). Is linking technical and vocational training with industry a bridge to employability? Lessons from a literature review for Ethiopia. *Cogent Education*, 11(1), 2406721. <https://doi.org/10.1080/2331186X.2024.2406721>
- Knowles, M. S. (1978). Andragogy: Adult learning theory in perspective. *Community College Review*, 5(3), 9–20. <https://doi.org/10.1177/009155217800500302>
- Lin, Y. (2026). The Role of Overseas Work Adjustment in Enhancing Career Success for Self-Initiated Expatriates: Investigating the Interplay of Protean Career Attitude, Cultural Intelligence, and Learning Goal Orientation. *Human Resource Development Quarterly*. <https://doi.org/10.1002/hrdq.70013>
- Liusti, S. A., Anggraini, D., Henanggil, M. D. F., & Ulya, R. H. (2024). Minangkabau Women's Resistance: A Critical Discourse Analysis of Sara Mills. *Pascasarjana ISBI Bandung Conference Series*, 1(1).
- Livingston, M., & Cummings-Clay, D. (2023). Advancing adult learning using andragogic instructional practices. *International Journal of Multidisciplinary Perspectives in Higher Education*, 8(1), 29–53.
- Macdonald, K. C., & Cole, M. B. (2024). Self-direction in productive aging: A qualitative study. *Physical & Occupational Therapy in Geriatrics*, 42(1), 1–22. <https://doi.org/10.1080/02703181.2023.2225549>
- Mather, M., Pettigrew, L. M., & Navaratnam, S. (2022). Barriers and facilitators to clinical behaviour change by primary care practitioners: a theory-informed systematic review of reviews using the Theoretical Domains Framework and Behaviour Change Wheel. *Systematic Reviews*, 11(1), 180. <https://doi.org/10.1186/s13643-022-02030-2>
- Morris, T. H. (2024). Four dimensions of self-directed learning: A fundamental meta-competence in a changing world. *Adult Education Quarterly*, 74(3), 236–254. <https://doi.org/10.1177/07417136231217453>
- Naini, I., & Ulya, R. H. (2025). Reasoning patterns and sentence construction errors in students' scholarly articles: A content analysis of academic writing in Padang City. *Al-Ishlah: Jurnal Pendidikan*, 17(2), 2786–2796. <https://doi.org/10.35445/alishlah.v17i2.7447>
- Ningsi, T. N., & Ulya, R. H. (2025). Pengaruh Project Based Learning terhadap keterampilan menulis teks biografi siswa fase E SMA Negeri 1 Sutera. *Edu Research*, 6(1), 1892–1903.

- Nnadozie, V., & Khumalo, S. (2023). Self-agency and academically high-performing students' success: Towards a praxis for academic support in one South African university. *Journal of University Teaching and Learning Practice*, 20(1), 1–28. <https://doi.org/10.53761/1.20.01.17>
- Otu, M. S. (2024). Effect of purpose-based career coaching on career decision-making. *Current Psychology*, 43(31), 25568–25594. <https://doi.org/10.1007/s12144-024-06247-3>
- Rahma, A., Ulya, R. H., Nursaid, N., & Anggraini, D. (2026). Efektivitas PJBL-Mind Mapping Terhadap Keterampilan Menulis Teks Tanggapan Siswa SMP. *JURNAL MANAJEMEN PENDIDIKAN*, 14(1).
- Ramadhan, S., Dewirahmadanirwati, D., Ulya, R. H., & Jamaluddin, N. B. (2025). The coagulation of politeness and character in Indonesian language learning in the digital era. *Al-Ishlah: Jurnal Pendidikan*, 17(2), 2752–2763. <https://doi.org/10.35445/alishlah.v17i2.6844>
- Saputra, A., & Ulya, R. H. (2025). Capacity Building Aplikasi Perpustakaan Digital untuk Meningkatkan Akses Informasi dan Literasi Masyarakat di Nagari Sulit Air, Kabupaten Solok, Provinsi Sumatera Barat. *Edu Research*, 6(3), 2070–2082.
- Sari, H. Y., Rachman, A., Putri, D. S., Ulya, R. H., & Widhyah, D. Y. (2024). The Narrative of Crime in Andrea Hirata's Novel 'Orang-Orang Biasa': A Formulaic Study. *Lensa: Kajian Kebahasaan, Kesusastraan, Dan Budaya*, 14(2), 258–270. <https://doi.org/10.26714/lensa.14.2.2024.258-270>
- Stiles-Shields, C., Reyes, K. M., Lakhtakia, T., Smith, S. R., Barnas, O. E., Gray, E. L., Krause, C. J., Kruzan, K. P., Kwasny, M. J., & Mir, Z. (2024). A personal sensing technology enabled service versus a digital psychoeducation control for primary care patients with depression and anxiety: a pilot randomized controlled trial. *BMC Psychiatry*, 24(1), 828. <https://doi.org/10.1186/s12888-024-06284-z>
- Ulya, R. H. (2025a). Korelasi keterampilan menyimak dengan keterampilan menulis teks berita siswa kelas VII UPT SMP Negeri 4 Sungai Tarab. *Edu Research*, 6(1), 1172–1179.
- Ulya, R. H. (2025b). Superstition Mitigation Of Pregnant Women In Malay Riau. *Musāwa Jurnal Studi Gender Dan Islam*, 24(1), 38–54.
- Wardana, M. P., & Ulya, R. H. (2026). Pengaruh Model Project Based Learning Berbantuan Media Mind Mapping terhadap Keterampilan Menulis Teks Berita Siswa Kelas VII MTsN 1 Kota Padang. *Pendas: Jurnal Ilmiah Pendidikan Dasar*, 11(01), 143–157.
- Wulandari, A. R., & Ulya, R. H. (2025). Korelasi keterampilan membaca pemahaman dan keterampilan menulis teks negosiasi siswa kelas X SMA Negeri 1 Koto XI Tarusan. *Edu Research*, 6(2), 2560–2565.
- Yoto, Marsono, Suyetno, A., Mawangi, P. A. N., Romadin, A., & Paryono. (2024). The role of industry to unlock the potential of the Merdeka curriculum for vocational school. *Cogent Education*, 11(1), 2335820. <https://doi.org/10.1080/2331186X.2024.2335820>
- Zimmerman, M. S., Smith, A. G. C., Sable, C. A., Echko, M. M., Wilner, L. B., Olsen, H. E., Atalay, H. T., Awasthi, A., Bhutta, Z. A., & Boucher, J. L. (2020). Global, regional, and national burden of congenital heart disease, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet Child & Adolescent Health*, 4(3), 185–200. [https://doi.org/10.1016/S2352-4642\(19\)30402-X](https://doi.org/10.1016/S2352-4642(19)30402-X)
- Zuve, F. O., Atmazaki, A., Ardoni, A., Amir, A., Afnita, A., Ulya, R. H., & Henanggil, M. D. F. (2023). In House Training Penelusuran Informasi Berbasis Literasi Digital Dalam Penulisan Artikel Ilmiah Guru SMPN Kota Padang. *Jurnal Pengabdian UNDIKMA*, 4(1), 243–250. <https://doi.org/10.33394/jpu.v4i1.6538>