

# Analysis of the Effectiveness of the MSIB Program on Academic Performance and Student Readiness for Work in the Era of Cross-Disciplinary Integration

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## Abstract

This study examines the effectiveness of the Certified Internship and Independent Study Program (MSIB) in enhancing student Academic Performance and Work Readiness, focusing specifically on the integration of cross-disciplinary skills. This quantitative study employs survey data from 155 MSIB participants at Makassar State University. Data were analyzed using simple linear regression to assess the influence of MSIB effectiveness on Academic Performance and Work Readiness. The regression results reveal that the MSIB Program positively and significantly influences both Academic Performance ( $t = 3.515$ ,  $p=0.001$ ) and Work Readiness ( $t = 3.284$ ,  $p = 0.001$ ). These findings suggest that MSIB serves as an effective strategic intervention, equipping students with the competencies required to compete in a job market demanding cross-disciplinary skill integration.

*Keywords:* MSIB, Academic Performance, Work Readiness, cross-disciplinary skill integration.

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## 1. Introduction

Global landscape changes and technological advances have accelerated the transformation of the world of work and increased the demands on college graduates to have competencies that are not only academically strong, but also adaptive, collaborative, and cross-disciplinary (Rizqi Kurnianing Dewi, Asri Rejeki, 2021). Various studies show that there is still a gap between the competencies developed through the learning process in higher education and the skills actually needed by industry, making the issue of competency gaps a major challenge for the development of higher education curricula (Sudarsono et al., 2022).

As one strategy to reduce this gap, many universities in Indonesia have implemented internship and experience-based learning programs that are integrated with the curriculum, including the Certified Internship and Independent Study (MSIB) scheme developed within the framework of the Kampus Merdeka policy (Andrian et al., 2022). This certified internship program facilitates students to be directly involved in professional activities in the world of work through assignments at partner organizations and recognition of achievements in the form of Semester Credit Units (SKS), so that practical experience is systematically linked to the formal learning process (Saweho et al., 2025). Through project-based design and real work experience, programs such as MSIB are expected to strengthen the integration between theoretical mastery and the development of practical competencies and interdisciplinary skills relevant to the needs of the job market (Muhammad Zainul Majdi. et.al, 2024).

Various studies indicate that structured internship experiences positively contribute to enhancing students' self-confidence, soft skills, and perceptions of work readiness (Muhammad Zainul Majdi. et.al, 2024). Other studies have also found that involvement in internship and work-based learning programs has the potential to support academic achievement (Kahar & Kamaruddin, 2025), among others through strengthening learning motivation, the ability to apply knowledge, and higher-order thinking skills (Sudarsono et al., 2022). However, quantitative studies examining the effectiveness of certified internship programs, particularly those adopting the MSIB model, on two main outcomes simultaneously—academic performance and work readiness—using detailed indicators are still relatively limited.

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Although some initial studies have indicated that MSIB significantly increases self-confidence and contributes to graduates' readiness to enter the workforce ( , there is still a need to quantitatively measure the direct impact of this program on two key indicators: academic performance (measured through credit completion, grade improvement, ability to apply knowledge, and independence) and work readiness (measured through work experience, interdisciplinary skills, professional attitude, and self-confidence) of students. Therefore, this study aims to analyze the effectiveness of the MSIB Program in improving students' academic performance and work readiness, particularly in the context of interdisciplinary skill integration. This study seeks to answer two main questions: How effective is the MSIB Program in improving student academic performance and work readiness in the era of interdisciplinary skills integration? And can the MSIB program bridge the gap between academic competencies and industry needs?

## 2. Literature Review

### 2.1. Certified Internship and Independent Study Program (MSIB)

The MSIB program, as an MBKM initiative, is designed to provide off-campus learning experiences worth 20 Semester Credit Units (SKS). Certified internship programs at universities are positioned as a form of *experiential learning* that provides opportunities for students to learn through direct involvement in professional activities in the workplace (Saragih Agnes, 2025) . Research on Certified Internship and Independent Study Programs shows that this scheme is able to improve students' capabilities before entering the workforce, among others through strengthening practical understanding, expanding professional networks, and developing soft skills relevant to industry needs (Saweho et al., 2025) . In the framework of this study, the effectiveness of certified internship programs is understood as the extent to which the implementation of these programs is considered relevant to job demands, supported by adequate guidance, and able to facilitate the integration of interdisciplinary skills in the work environment (Andrian et al., 2022) .

A number of studies examining the impact of internship programs and similar policies such as Kampus Merdeka report that structured work experience integrated with the curriculum can help reduce the gap between graduate competencies and employer expectations (Cahya, 2025) . However, the majority of studies still focus on specific dimensions, such as the improvement of soft skills or perceptions of the program's benefits, so research is needed to measure the effectiveness of the program as a measurable construct and test its influence on academic outcomes and work readiness simultaneously. In the context of this study, MSIB is not only viewed as an activity but as a variable whose effectiveness is measured through task relevance, the quality of guidance/mentoring, and the facilities for integrating interdisciplinary skills provided by the program.

### 2.2. Academic Performance

Academic performance is generally defined as the achievement of student learning outcomes as reflected through quantitative and qualitative indicators, such as grade point average, accuracy of study completion, critical thinking skills, independent learning, and the ability to apply knowledge in real-world contexts (Sudarsono et al., 2022) . The literature shows that certain academic and non-academic factors, including work-based learning experiences and involvement in cognitively challenging activities, are related to graduates' work readiness and success in entering the job market (Prakusya & Irbayuni, 2025) .

Research on *work-based learning* and structured internship programs finds that when students are given the opportunity to apply the theory learned in class in real-world situations, they tend to show increased conceptual understanding, learning motivation, and problem-solving skills (Felita Alysia Putri, 2024) . These conditions have the potential to be reflected in improvements in various academic performance indicators, such as the ability to integrate knowledge across courses, time management in completing academic assignments, and confidence in facing academic assessments (Hanifah et al., 2023) .

### 2.3. Work Readiness

*Work readiness* is understood as an individual's level of preparedness to enter the workforce, which includes a combination of knowledge, skills, and attitudes needed to perform professional roles effectively (Hidayatullah et al., 2025) . A number of empirical studies show that internship experience contributes significantly to increasing work readiness through the strengthening of soft skills, a clearer understanding of the world of work, and increased self-

efficacy in facing work challenges (Muhammad Zainul Majdi. et.al, 2024) . Other research confirms that factors such as work experience, interpersonal competence, and adaptability are important determinants of graduates' work readiness (Suparyati & Habsya, 2024) .

In the context of certified internship programs, work readiness is often measured through indicators such as the relevance of internship experience to the field of work, ability to work in a team, professional communication, discipline, responsibility, and confidence in facing new work situations (Hasanah, 2025) . Several studies that specifically examine certified internship programs similar to MSIB show that a combination of real work experience and intensive guidance from mentors can accelerate students' transition from an academic environment to a professional work environment and improve their perceived readiness to enter the job market.

#### 2.4. Effectiveness of MSIB, academic performance, and work readiness

Research on the effectiveness of internship programs and certified independent studies indicates that these programs have a positive effect on perceptions of work readiness, improvement in soft skills, and students' confidence in planning their careers (Saweho et al., 2025). On the other hand, studies on internship experiences and academic factors find that a combination of academic achievement, work experience, and personal competencies has a significant relationship with graduates' level of work readiness (Halawa, Hagani, 2025) . However, there has been little research that explicitly models the effectiveness of certified internship programs as an independent variable that simultaneously influences academic performance and work readiness within a single analytical framework.

Based on these findings, this study positions the effectiveness of certified internship programs as a construct measured through students' perceptions of project relevance, quality of guidance, and facilities for integrating interdisciplinary skills, which are then tested for their influence on students' academic performance and work readiness. This approach is expected to provide more comprehensive empirical evidence regarding the strategic role of certified internship programs in bridging the gap between academic achievement in higher education and competency demands in the world of work in the era of interdisciplinary skill integration.

### 3. Research Method and Materials

This study uses a quantitative method with a survey approach. This approach allows for standardized analysis to test the effectiveness of the MSIB Program, which is based on measuring students' perceptions of improvements in academic performance and work readiness. The research subjects are active students of Makassar State University (UNM) who have completed the MSIB (Internship or Independent Study) Program in the 6th batch in 2024. The sampling technique used is Purposive Sampling, with the main criteria being: (1) UNM students who have completed MSIB, and (2) Willingness to complete the questionnaire. The number of samples successfully analyzed in this study is N=155 respondents.

The variables measured in this study are:

- a. Independent Variable (X): Effectiveness of the MSIB Program.
- b. Dependent Variable (Y1): Academic Performance.
- c. Dependent Variable (Y2): Work Readiness.

Data collection was conducted using two types of instruments, referring directly to the established indicators.

**Table 1.** Variables and Key Indicators

Variable	Key Indicators
Academic Performance (Y1)	Completion of credits, grade improvement, application of knowledge, independent learning
Work Readiness (Y2)	Relevance of Experience, Use of Interdisciplinary Skills, Team Collaboration, Self-Confidence
Effectiveness of MSIB (X)	Project Relevance, Quality of Mentoring, Facilitation of Cross-Disciplinary Integration

The questionnaire uses a Likert scale with values ranging from 1=Strongly Disagree to 5=Strongly Agree to measure students' perceptions of all indicators of Academic Performance, Work Readiness, and MSIB Effectiveness. Prior to inferential data analysis, a Validity Test and Reliability Test will be conducted on the questionnaire instrument. The collected data will then be analyzed using the following procedures:

- Descriptive Analysis: Calculating the mean, standard deviation, and percentage to describe the condition of each indicator of Academic Performance, Work Readiness, and MSIB Effectiveness.
- Inferential Analysis: To test the hypothesis. Simple Linear Regression Analysis: Used to test the effect of the MSIB Effectiveness variable (X) on Academic Performance (Y1) and Work Readiness (Y2) partially.

Problem-solving approach using a systematic quantitative flow. The stages to be passed include: (1) Research Preparation and Design (instrument development, sample determination), (2) Instrument Testing (Validity and Reliability), (3) Data Collection (questionnaire distribution), (4) Data Processing and Analysis (descriptive analysis and regression analysis), and (5) Interpretation and Conclusion Drawing (formulation of MSIB effectiveness and policy recommendations).

#### 4. Results and Discussion

Descriptive analysis was performed on questionnaire data from N=155 respondents. The overall mean results show that the MSIB Program is considered to have a very positive impact by students:

**Table 2.** Descriptive Analysis Results

Variable	Mean	Standard Deviation (SD)	Category
Academic Performance (Y1)	4.93	0.057	Very Good
Work Readiness (Y2)	4.95	0.045	Very Good
Effectiveness of MSIB (X)	4.97	0.032	Very Good
Overall Average	4.95	0.045	Very Good

The descriptive results showing an overall average of 4.95 out of a maximum scale of 5.00 indicate that students' perceptions of the Effectiveness of the MSIB Program (X), its impact on Academic Performance (Y1), and Work Readiness (Y2) are very positive and close to perfect. Effectiveness of the MSIB Program (X): The MSIB Effectiveness variable achieved the highest average of 4.97. The Indicator of Facilitation of Cross-Disciplinary Skills Integration (R23) achieved a score of 5.00. This shows that the MSIB program is very successful in designing tasks and projects that allow students to combine knowledge from various disciplines, confirming the program's design is relevant to current industry needs. Impact on Academic Performance (Y1): The average Academic Performance (4.93) shows a strong influence. Academic confidence (R5, 5.00) and Practical Skill Mastery (R8, 4.96) are the main drivers, confirming that the MSIB practical experience directly builds students' confidence in completing academic tasks. Impact on Work Readiness (Y2) and Interdisciplinary Integration: The Work Readiness variable (4.95) is also very high. The indicators of Readiness to Enter the Workforce (R13, 5.00) and Interdisciplinary Collaboration (R17, 4.96) reinforce the finding that MSIB successfully produces graduates who are professionally and interdisciplinary ready.

A simple linear regression analysis was conducted to test the partial effect of the MSIB Program Effectiveness variable (X) on Academic Performance (Y1) and Work Readiness (Y2).

**Table 3.** Results of Simple Linear Regression Analysis

Variable Relationship	Significance Value (Sig.)	Regression Coefficient
X on Y1 (Effectiveness of MSIB on Academic Performance)	0.001	0.643
X on Y2 (Effectiveness of MSIB on Work Readiness)	0.001	0.476

The Effect of MSIB Effectiveness (X) on Academic Performance (Y1). Significance Test (t-test): The Sig. value for the MSIB variable (X) on Academic Performance (Y1) is 0.001. Since the value  $0.001 < 0.05$ , it can be concluded that the Effectiveness of the MSIB Program (X) has a significant effect on Academic Performance (Y1). Direction of Influence The regression coefficient for the MSIB (X) variable is 0.643 (positive). This indicates that every one-unit increase in the Effectiveness of the MSIB Program will increase Academic Performance by 0.643.

The Effect of MSIB Effectiveness (X) on Work Readiness (Y2) Significance Test (t-test): The Sig. value for the MSIB variable (X) on Work Readiness (Y2) is 0.001. Since the value of  $0.001 < 0.05$ , it can be concluded that the Effectiveness of the MSIB Program (X) has a significant effect on Work Readiness (Y2). Direction of Influence The regression coefficient for the MSIB variable (X) is 0.476 (positive). This indicates that every one-unit increase in the Effectiveness of the MSIB Program will increase Work Readiness by 0.476.

The results of the simple linear regression analysis strongly confirm the descriptive findings. Answering Research Question 1 Program Effectiveness: The Sig. 0.001 results in both tests (X Against Y1 and X Against Y2) statistically prove that the MSIB Program is very effective in improving students' Academic Performance and Work Readiness. The positive coefficient indicates a direct relationship: the better the program effectiveness (such as project relevance and mentoring quality, as measured in X), the higher the students' Academic Performance and Work Readiness. Academic Performance has a greater influence (Coefficient 0.643) than Work Readiness (Coefficient 0.476), indicating that the MSIB program design is highly successful in promoting academic competence and motivation in line with practical demands. Answering Problem Statement 2 Bridging the Gap: The significant effect of MSIB Effectiveness on Work Readiness (Sig. 0.001) directly validates the hypothesis that this program successfully bridges the gap between academic competencies and industry needs. Significant work readiness influenced by MSIB Effectiveness means that program mechanisms (such as Facilitation of Cross-Disciplinary Integration, which has a descriptive score of 5.00) work optimally in preparing students with the practical and collaborative skills needed in the world of work, surpassing traditional campus curricula.

## 5. Conclusion

Based on the results of descriptive analysis and simple linear regression analysis, this study concludes that the Certified Internship and Independent Study Program (MSIB) has very high effectiveness and a significant effect on improving the Academic Performance and Work Readiness of Makassar State University (UNM) students participating in the 6th MSIB batch. The effectiveness of MSIB on Academic Performance and Work Readiness. The effectiveness of the MSIB Program (X) was proven to have a significant and positive effect on Academic Performance (Y1) and Work Readiness (Y2) with a Sig. value of 0.001 in both tests. This excellent level of effectiveness is demonstrated by the high perceptions of students (Average X = 4.97, Y1 = 4.93, Y2 = 4.95), especially on the indicators of Academic Confidence (5.00) and Readiness to Enter the World of Work (5.00). Then, MSIB Bridges the Industry Gap. The MSIB program has proven successful in bridging the gap between academic competencies and industry needs. This is supported by the significant influence of MSIB Effectiveness on Work Readiness and excellent scores on the key indicator of Facilitation of Cross-Disciplinary Skills Integration. This program has succeeded in producing graduates who not only master theory but are also able to apply and integrate cross-disciplinary skills in real work environments. It is recommended that the Ministry of Education, Culture, Research, and Technology and the MSIB Program Managers maintain and improve the quality of program aspects related to the Facilitation of Cross-Disciplinary Skills Integration, given that this indicator has the highest perception and is key to bridging the industry gap. Expanding opportunities for collaboration between teams from various disciplines in MSIB projects should be a priority. For Makassar State University (UNM), these results can be used as empirical evidence to integrate more project-based learning elements inspired by MSIB into the regular curriculum, especially those that emphasize Practical Skills Mastery and Time Management, which have proven to be highly effective.

## References

- Andrian, D., Titisari, P. W., Hidayat, F., & Septiawan, A. (2022). Efektivitas Program MBKM dalam Meningkatkan Kompetensi Mahasiswa Pasca Kampus. *Edukatif: Jurnal Ilmu Pendidikan*, 4(6), 7403–7414.
- Cahya, A. (2025). Merdeka Belajar Kampus Merdeka (MBKM): Evaluasi Implementasi dan Dampaknya terhadap Kesiapan Kerja Mahasiswa. *JMutiara Urnal Ilmiah Multidisiplin Indonesia*, 3(2), 19–28.
- Felita Alysia Putri, R. A. S. (2024). Shaping The Future of Work Readiness of Internship Students : Role of Gen Z's Resilience. *Jurnal Paedagogy: Jurnal Penelitian Dan Pengembangan Pendidikan*, 11(4), 672–683.
- Halawa, Hagani, E. . a. (2025). Pengaruh Pengalaman Magang , Minat Kerja , Dan Soft Skills Terhadap Kesiapan Kerja Mahasiswa. *Ganaya : Jurnal Ilmu Sosial Dan Humaniora*, 8(2), 112–123.

- Hanifah, R. D., Arifah, W., Rahmanita, M., & Hadi, P. (2023). Did the Internship Program Successfully Build Work Readiness in Tourism Students? *MICEB: Proceeding Medan International Conference Economics and Business*, 1(January), 937–950.
- Hasanah, S. U. (2025). Efektivitas Program Magang dan Studi Independen Bersertifikat ( MSIB ) terhadap Kreativitas Mahasiswa ( Studi Survei di Universitas Islam Jakarta ). *Al-Ubudiyah: Jurnal Pendidikan Dan Studi Islam*, 6(2), 56–64.
- Hidayatullah, S., Alvianna, S., Nurdin, M., Khourouh, U., Manajemen, P. S., Ekonomi, F., & Malang, U. M. (2025). Peran Soft Skill dan Praktik Kerja dalam Meningkatkan Kesiapan Kerja Melalui Motivasi Mahasiswa di Universitas Merdeka Malang. *Jurnal Riset Inspirasi Manajemen Dan Kewirausahaan*, 9(1), 20–30.
- Kahar, S., & Kamaruddin, S. (2025). Pelaksanaan Program MBKM Mandiri oleh Mahasiswa Fakultas Ilmu Pendidikan Universitas Negeri Makassar. *JIIC: Jurnal Intelek Insan Cendikia*, 2(2), 3563–3575.
- Muhammad Zainul Majdi. et.al. (2024). Pengaruh Program Magang Dan Studi Independen Bersertifikat (MSIB) Terhadap Peningkatan Self-Confidence Dan G Kerja Mahasiswa Universitas Hamzanwadi. *CIRCULAR (Jurnal Pendidikan Sosial Dan Ekonomi)*, 2(1), 29–41. <https://doi.org/10.70115/circular.v2i1.263>
- Prakusya, D. Y., & Irbayuni, S. (2025). THE EFFECT OF MSIB INTERNSHIP EXPERIENCE AND COMPETENCE ON WORK READINESS OF UPN " VETERAN " JAWA TIMUR. *JHSS (Journal of Humanities and Social Studies)*, 09(01), 123–125.
- Rizqi Kurnianing Dewi, Asri Rejeki, I. F. S. (2021). IMPROVING WORK READINESS ON GRADUATES: THE ROLES OF PSYCHOLOGICAL CAPITAL. *Journal Universitas Muhammadiyah Gresik Engineering, Social Science, and Health International Conference (UMGESHC)*, 1(2), 442–451.
- Saragih Agnes. (2025). EFEKTIVITAS PROGRAM KEGIATAN MAGANG BERSERTIFIKAT & STUDI INDEPENDEN (MSIB) DALAM UPAYA MENINGKATKAN KERJA MAHASISWA/I UNIVERSITAS HKBP NOMMENSEN MEDAN. *GOVERNANCE: Jurnal Ilmiah Kajian Politik Lokal Dan Pembangunan*, 11(3), 293–303.
- Saweho, F. F., Celia, V., & Handoko, T. W. (2025). *Program Magang dan Studi Independen Bersertifikat ( MSIB ) : Efektivitas dalam Meningkatkan Kapabilitas Mahasiswa Sebelum Memasuki Dunia Kerja*. 8, 38–44.
- Sudarsono, B., Dahlan, U. A., & Author, C. (2022). *Development of Work-Based Learning Models Based on Work Readiness (WBL-WoRe)*. 7(1), 44–62.
- Suparyati, A., & Habsya, C. (2024). Kompetensi Lulusan Pendidikan Vokasi untuk Bersaing di Pasar Global. *JIIP (Jurnal Ilmiah Ilmu Pendidikan) (EISSN:)*, 7(2), 1921–1927.