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BRIDGING EDUCATION AND INDUSTRY: THE IMPLEMENTATION PHASE OF AN INTEGRATED INDUSTRIAL CLASS

Muhamad Fadholi^{*1}, Siti Zulaikha², Sri Muji Rahayu³, Muhammad Daffa Aulia Ridwan⁴

^{*1,2,3}Faculty of Education, Universitas Negeri Jakarta

Jl. Rawamangun Muka No.11, Jakarta Timur, Indonesia

⁴Albukhary International University

Jln Tun Razak, Bandar Alor Setar, 05200 Alor Setar, Kedah, Malaysia

*Corresponding Author. E-mail: fadholimuhamad@gmail.com

Abstract: High graduate unemployment rates from Indonesian vocational high schools highlight a critical mismatch between educational competencies and industry demands. This article investigates the implementation phase of an integrated industrial class program within the Hospitality Skills Program at SMK Negeri 60 Jakarta, designed to address this gap. Using a qualitative descriptive approach, data were gathered via interviews, observations, and document analysis, focusing on program execution. Findings reveal a "week release" system alternating students between school and partner hotels, involving systematic dispatch, industry induction, and departmental placements for active participation in operational tasks. School-led monitoring and support were integral. This immersive implementation significantly enhanced students' technical and interpersonal skills. However, challenges included student adaptation, logistical issues, and aligning school-industry expectations. The study concludes that successful industrial class implementation, vital for mitigating the competency gap, hinges on strong school-industry collaboration, robust support, and adaptive management, offering insights for effective work-integrated vocational learning.

Keywords: Industrial Class, School-Industry Partnership, Work-Integrated Learning.

INTRODUCTION

Education is broadly recognized as a cornerstone of national progress, pivotal in cultivating highly skilled human resources equipped to navigate and overcome global challenges. Within this landscape, vocational education assumes a particularly strategic function, aiming to forge a competent workforce directly aligned with the diverse needs of various industrial sectors. The ultimate success of such educational endeavors is essential not only for individual career development but also for bolstering a nation's competitive edge in a rapidly evolving global economy (Zona & Zulvia, 2022).

In the Indonesian context, vocational high schools are central to this mission. The Indonesian National Education System Law No. 20 of 2003 explicitly states that vocational education is tasked with preparing students for specific skills tailored to industrial requirements (UU SISDIKNAS, 2003). Reflecting this emphasis, the 2022/2023 academic year saw 14,265 vocational schools across Indonesia, catering to approximately 5.05 million students, underscoring the substantial national investment in this educational pathway.

Despite this significant commitment and the large annual cohort of graduates, a persistent challenge is the high rate of unemployment among vocational school alumni. Data from Indonesia's Centre Statistics Agency (BPS) revealed that in 2022, the open unemployment rate for vocational school graduates stood at 9.42% (Badan Pusat Statistik, 2023; Hermawan et al., 2023; Statistik Indonesia, 2024; Zona & Zulvia, 2022). This figure was notably one

of the highest among all educational attainment categories, signaling a critical issue in the transition from vocational schooling to stable employment.

This phenomenon of graduate unemployment raises crucial questions regarding the alignment between the competencies developed within vocational institutions and the actual demands of the contemporary labor market. There appears to be a significant “mismatch”, where the skills and knowledge provided by schools do not fully meet the complex expectations of industries. Modern industries increasingly seek graduates who possess not only robust technical (hard) skills but also a suite of interpersonal (soft) skills, including effective communication, teamwork, problem-solving abilities, and a proactive work attitude.

To proactively address this disparity, the Indonesian Ministry of Education has promoted the “link and match” initiative. This policy framework aims to systematically synchronize vocational school curricula with prevailing industry standards and real-world practices, thereby ensuring graduates are better prepared for the workforce. A primary and promising implementation of this “link and match” strategy is the establishment of “industrial class” programs (Agustin et al., 2023; Delcker, 2023; Putri & Widayati, 2020; Satriyanto, 2023; Wahyudi & Wibawa, 2019).

Industrial class programs are specifically designed as intensive, collaborative partnerships between educational institutions and various industry stakeholders. These programs endeavor to seamlessly integrate the established educational curriculum with extensive, practical, hands-on experience within authentic industrial settings (Abdul Shukor, 2020; Anwar et al., 2023; Ferm, 2021; Ricci et al., 2023). The core idea is to immerse students in the realities of their chosen vocational field, allowing them to apply theoretical knowledge in practical contexts and understand industry culture and expectations firsthand.

The objectives of such integrated classes are multifaceted, aiming to provide students with a more holistic and relevant educational journey. By directly engaging with industry professionals and practices, students are expected to significantly enhance both their technical competencies and their interpersonal skills. This immersive approach not only boosts their skill sets but also allows them to develop crucial soft skills like adaptability and professionalism, which are highly valued in today’s competitive job market, ultimately improving their employability upon graduation.

The successful realization of the benefits offered by industrial class programs is heavily contingent upon effective and systematic management. This article delves into the critical management dimensions of an integrated industrial class program specifically tailored for the hospitality sector. It focuses on exploring the implementation as they are applied to create and sustain an educational model designed to effectively bridge the persistent gap between vocational education outputs and the dynamic needs of the industry. Through an in-depth examination of these managerial components, this paper aims to offer valuable insights for the development and continual improvement of industrial class programs.

Industrial Class Program

The Industrial Class Program (ICP) has emerged as a significant pedagogical model within vocational education, designed to bridge the gap between academic learning and the practical demands of the industry. It is fundamentally a collaborative endeavor, representing a structured partnership between vocational high schools and relevant industries or businesses. The industrial class is a specialized learning environment managed jointly by the school and industry partners, aiming to create an educational climate that closely mirrors real-world work conditions (Khirdany et al., 2021; Priambudi et al., 2020). The core concept involves integrating classroom-based instruction with substantial hands-on experience in actual industrial settings, one of the models is a blend of school-based work-oriented training and experiential learning within the industry (Fania et al., 2024; Fauzan et al., 2024; Khirdany et al., 2021).

The overarching purpose of industrial class programs is to enhance the “link and match” between vocational education outputs and the dynamic needs of the labor market (Azman et al., 2020; Khirdany et al., 2021). The primary goal is to produce graduates who are not only competent but also possess skills and work ethics that align with the expectations of industries or businesses, thereby improving their employability and competitiveness (Vokasi, 2020). The objectives of the industrial class are to produce a high-quality workforce with relevant knowledge and skills, strengthen the connection between vocational school and the job market, and increase the overall effectiveness and efficiency of vocational training. These programs aim to move beyond theoretical instruction by providing students with direct exposure to industry practices, technologies, and professional cultures, thus preparing them more comprehensively for their future careers. The emphasis is on developing both technical skills specific to their vocational field and essential interpersonal skills crucial for workplace success (Astuti et al., 2023; Fania et al., 2024; Sumbodo et al., 2020).

The benefits of the industrial class are multifaceted, extending to students, educational institutions, and industry partners alike. For students, these programs offer invaluable opportunities to gain practical work experience, develop a deeper understanding of their chosen field, and cultivate essential soft skills such as communication, teamwork, and problem-solving (Fania et al., 2024; Ricci et al., 2023; Sumbodo et al., 2020). Effective

implementation of industrial class programs often involves several key components and strategic management. Curriculum synchronization between the school and industry partners is the foundational step, ensuring that what is taught aligns with the current industry practices and standards (Farhan & Arifin, 2019; Forestyanto et al., 2019; Rebia et al., 2023). This often involves industry professionals practicing curriculum design, guest lecturing, or providing direct training. The structure of industry engagement can vary, with models like the "week release" system, as implemented at SMK Negeri 60 Jakarta, allowing students to alternate between school-based learning and industry practice. Formal agreements, typically through a Memorandum of Understanding (MoU), are crucial for defining the roles, responsibilities, and expectations of both the school and the industry (Priambudi et al., 2020). Furthermore, continuous evaluation and monitoring, involving feedback from students, teachers, and industry supervisors, are vital for program improvement and ensuring that the ICP remains relevant and effective in achieving its objectives (Fauzan et al., 2024; Mashudi et al., 2021). The active involvement of the industry in all stages, from planning to evaluation, is consistently identified as a critical success factor (Priambudi et al., 2020).

RESEARCH METHODOLOGY

This study employed a qualitative descriptive research approach to explore and provide a rich understanding of the management of the management of an integrated industrial class program within a vocational high school setting. Qualitative methodology was chosen for its suitability in capturing the complexities, perspectives, and lived experiences of those involved in the program, allowing for an in-depth examination of the processes and dynamics at play (Eatough & Tomkins, 2022; Sardana et al., 2023). The descriptive nature of the study aimed to meticulously detail the activities, strategies, challenges, and facilitating factors encountered during the operational stage of the industrial class.

The research was conducted at Public Vocational School 60 Jakarta, known for its established industrial class program, particularly within its hospitality skills program. This program served as the specific case for examining the implementation phase. Data collection pertinent to the implementation phases was primarily conducted between April and June 2024, building upon preliminary fieldwork.

To ensure a holistic view of the implementation phase, participants were selected purposively based on their active roles, direct involvement, and comprehensive knowledge of the program's execution (Brinkmann, 2022; Drisko, 2022; Mayring, 2022). Key informants include the School Principal, the Vice Principal for Public Relations, the head of the hospitality skills program, and several productive vocational teachers who were directly engaged in supervising or instructing students during their industry placements. Additionally, two students actively participating in the hospitality industrial class were included to provide perspectives from the recipients of the program's implementation.

A multi-method approach to data collection was employed, with each method tailored to gather specific information pertinent to the implementation phase. In-depth, semi-structured interviews formed the cornerstone of data collection, designed to elicit detailed narratives about how the industrial class was practically carried out, the specific roles and responsibilities of both school staff and industry supervisors during this phase, the communication mechanisms utilized, challenges faced during operationalization, and the strategies developed to address these challenges. Complementing the interviews, direct observations were conducted to understand the contextual elements of implementation, such as the school facilities supporting the program and, where possible, aspects of the student's learning environment during their industry engagement. Furthermore, a thorough document analysis was undertaken, examining operational guidelines, student placement records, schedules for the "week release" system, teacher monitoring reports from industry visits, communication logs, and any documented feedback related to the program's execution.

The analysis of collected data was guided by a qualitative thematic approach with a specific focus on the implementation phase. This iterative process involved, firstly, data reduction, where all gathered information specifically relating to the implementation process was meticulously reviewed, coded to identify key activities and challenges, and then categorized. Secondly, data display techniques, such as narrative summaries and thematic charts, were used to organize the reduced data, thereby highlighting the core components and dynamics of the program's implementation. Finally, conclusion drawing and verification involved formulating initial findings regarding the key features and challenges of the implementation phase, which were systematically verified by cross-referencing different data sources.

To bolster the trustworthiness and rigor of the research findings concerning the implementation phase, several established qualitative research strategies were employed. Triangulation of data was achieved by using multiple sources and methods to corroborate information specifically about the program's execution. Where feasible, member checking was conducted by sharing preliminary interpretations with key informants involved in the implementation to solicit their feedback and ensure accuracy. A detailed audit trail of the research process was

maintained, with the overarching aim of providing a rich, credible, and descriptive account of the implementation phase of the integrated industrial class at Public Vocational School 60 Jakarta.

RESULTS AND DISCUSSION

Result

The implementation phase of the Integrated Industrial Class program for the Hospitality Skills Program at The Public Vocational School 60 Jakarta was characterized by a series of coordinated activities designed to immerse students in authentic industry environments. This phase, spanning from the second semester of Grade X to the fifth semester of Grade XII, involved structured student engagement in partner hotels, continuous supervision, and active school support.

Student Dispatch, Industry Induction, and Learning Structure

The formal commencement of the industry-based learning involved the dispatch of students who had successfully passed the industries and business-conducted selection process to their assigned partner hotels. A key structural element of the implementation was the "week release" system. Initially, for the Grade XI cohort, this meant a full week of industry placement followed by a full week of school-based learning. This was later refined for the Grade X cohort, where students within each hotel were divided into two teams (Team A and Team B). These teams then alternated their weeks in the industry, ensuring a continuous student presence at the partner hotel while also allowing for regular rotation back to school. This system aimed to balance practical immersion with ongoing theoretical instruction.

Upon arrival at the hotels, students underwent an initial induction process. This orientation, conducted by hotel personnel, was crucial for acclimatizing students to the new environment. It typically included an introduction to the hotel's operational procedures, specific work tasks they would be performing, workplace regulations including grooming and professional conduct, and the overall culture of the establishment. This initial guidance was designed to ease their transition from the school setting to the more demanding and professional industrial environment.

Departmental Placement, Task Assignment, and Practical Skill Application

Students were placed in various departments within the hotels, aligning with the competencies outlined in the Hospitality Skills Program. While the school advocated for placements in core areas like Front Office (FO), Housekeeping (HK), and Food & Beverage (F&B), the final departmental assignments were often determined by the hotel's operational requirements and their assessment of individual student capabilities during the initial interview. For example, students in FO might be involved in learning guest check-in/check-out procedures and handling guest inquiries, while those in Housekeeping would engage in in-room preparation, maintaining cleanliness standards, and potentially laundry operations.

During their weeks in the industry, students were actively involved in the daily operational tasks of their assigned departments. This hands-on engagement was central to the program's philosophy, allowing students to directly apply the theoretical knowledge and foundational skills learned at school. The tasks assigned were intended to be authentic and contributory to the hotel's operations, providing students with a realistic experience of the demands and responsibilities of hospitality roles. The duration of work in the industry was typically nine hours per day, from Monday to Friday, and partner hotels provided students with a "duty meal."

Supervision, Guidance, and Progressive Independence in Industry

Supervision within the industry was primarily the responsibility of designated hotel professionals within each department. In the initial stages of their placement, particularly during the first week, students received more intensive guidance and direct supervision as they learned new tasks and adapted to workplace protocols. However, the approach aimed to foster progressive independence. As students demonstrated competence and familiarity with their roles, they were entrusted with performing tasks more autonomously, although still under the general oversight of their industry supervisors. Students were consistently encouraged to proactively seek assistance or clarification from hotel employees whenever they encountered difficulties or unfamiliar situations. This model aimed to build both their technical skills and their problem-solving abilities in a real-world context.

School's Monitoring, Communication, and Student Support Mechanisms

Public Vocational School 60 Jakarta maintained a robust system for monitoring and supporting students throughout their industry placements. Regular communication channels were established involving the school teachers and program heads, the students, and the industry partners. A key component of this was the scheduled monitoring visits conducted by a team of teachers, which included both vocational productive and general subject teachers. These visits, typically occurring every two months, allowed teachers to observe students in their work

environment, discuss their progress, gather feedback from industry supervisors, and address any emerging challenges.

Beyond formal visits, ongoing communication was facilitated through phone calls and WhatsApp messaging. This allowed for timely reporting of any issues or concerns by students or industry partners. Homeroom teachers and the Head of the Hospitality Program played a crucial role in providing continuous guidance, counseling, and motivation to students. They were the primary points of contact for students experiencing difficulties, whether personal or work-related, during their industry placement. When students returned to school for their academic week, teachers, particularly homeroom teachers, would often conduct informal "reflections" to discuss their experiences, what they had learned, and any challenges they faced in the industry.

Observed Student Development and Skill Enhancement

The implementation phase led to notable developments in student competencies. The direct and sustained engagement in hotel operations provided students with significant practical experience, often utilizing industry-standard facilities and equipment that were more advanced than those available at the school. This hands-on practice was consistently reported to enhance both their technical skills in areas such as guest service protocols, room preparation techniques, and the use of hotel management systems. For example, students demonstrated increased proficiency in handling guest interactions and performing specific departmental tasks.

Equally important was the development of interpersonal skills. Students reported marked improvements in their self-confidence and communication abilities, largely attributed to the necessity of interacting directly with guests, colleagues, and supervisors in a professional setting. The experience also fostered a better understanding of workplace expectations, teamwork, discipline, and professional conduct. The long-term nature of the engagement, spanning several semesters, was considered vital for allowing students to internalize these skills and adapt to the rhythms and demands of the hospitality industry.

Challenges Encountered and Facilitating Factors During Implementation

The implementation phase was not without its challenges. A primary hurdle, particularly in the initial stages, was the student adaptation period. Adjusting to the discipline, pace, and cultural norms of the professional workplace proved difficult for some, occasionally leading to issues such as tardiness or minor behavioral infractions. Logistical concerns, such as the travel distance to some hotels and the associated costs, were also raised by students and parents. There were also instances of misaligned expectations regarding student work hours or duties, sometimes requiring the school to liaise with industry partners to ensure the educational focus of the placement was maintained and that students were not treated merely as supplementary labor, especially concerning work on school holidays or outside agreed schedules. In a few isolated cases, students were withdrawn from the program by the school due to persistent difficulties with attendance, discipline, or overall attitude, underscoring the importance of student readiness and commitment.

Several factors facilitated the smoother implementation of the program. The strong commitment and support from partner industries, which were willing to accommodate the "week release" system and invest time in mentoring students, were crucial. The dedication of the school staff, including teachers who adapted their teaching approaches and provided consistent monitoring and support, was also a significant enabler. Clear communication protocols between the school and industry partners helped in addressing issues as they arose. Furthermore, the school's policy of not overburdening students with excessive academic assignments during their industry week allowed them to fully focus on their practical learning experiences. The ongoing collaborative relationship cultivated between SMK Negeri 60 Jakarta and its industry partners was fundamental to navigating challenges and ensuring the overall effectiveness of the program's implementation.

Discussion

This study focused on the implementation phase of an integrated industrial class program within the Hospitality Skills Program at Public Vocational School 60 Jakarta, aiming to understand how such initiatives bridge education and industry in practice. The findings reveal a structured and dynamic implementation process, centered around a "week release" system that alternated student learning between the school and partner hotels. This core model, designed to provide sustained, real-world exposure, aligns with the principles of experiential learning, where students actively construct knowledge and skills through direct engagement in authentic contexts (Bianchini & Maffei, 2020; Ertürk & Şahin, 2019; Zhu, 2024). The division of students into alternating teams for industry placement further demonstrates an adaptive approach to ensure both continuous industry engagement and manageable student cohorts.

The process of student dispatch, industry induction, and departmental placement is critical in setting the stage for

effective work-based learning. The initial orientation provided by hotel personnel, covering operational procedures, workplace culture, and professional expectations, is consistent with best practices for integrating newcomers into an organizational setting. This induction phase is vital for mitigating the initial "shock" students might experience when transitioning from a school to an industrial environment, as noted in the results. The placement of students in departments relevant to their hospitality training, such as Front Office and Housekeeping, directly supports the program's goal of developing industry-specific competencies. However, the finding that final placements were sometimes dictated by hotel operational needs underscores a common tension in school-industry partnerships, where educational goals must be balanced with the practical realities and demands of the host organization.

The nature of task assignment and supervision within the industry is a cornerstone of the implementation's effectiveness. The study found that students were actively involved in operational duties, moving beyond mere observation to hands-on application of skills. This aligns with literature emphasizing that meaningful participation in real tasks is crucial for skill acquisition and competency development in vocational settings (Gielnik et al., 2016; Ruiters & Maree, 2022). The model of initial intensive guidance followed by progressive independence under the oversight of industry professionals reflects a scaffolded learning approach. This allows students to build confidence and take ownership of their learning, while still having a safety net of support. The provision of a "duty meal" and adherence to a structured work schedule, as detailed in the results, also contribute to simulating a genuine employment experience.

The active role of Public Vocational School 60 Jakarta in monitoring and supporting students during their industry placements is a significant finding and resonates with literature highlighting the importance of ongoing school involvement in work-based learning programs (Agus Prohimi et al., 2024; Sutiman et al., 2022). The combination of regular teacher visits, continuous communication channels, and reflective sessions upon return to school demonstrates a multi-faceted support system. These mechanisms not only allow the school to track student progress and well-being but also to address challenges promptly and maintain strong lines of communication with industry partners. This proactive engagement is crucial for ensuring the quality of the learning experience and for troubleshooting issues that inevitably arise during off-campus placements.

The observed development in both hard and soft skills among participating students is a key outcome of the implementation phase. The enhancement of technical skills through the use of industry-standard equipment and participation in real hotel operations directly addresses the "link and match" objective of aligning vocational training with industry needs (Azman et al., 2020; Khirdany et al., 2021). Perhaps more critically, the reported improvements in self-confidence, communication abilities, and understanding of professional conduct highlight the program's success in cultivating essential soft skills. These interpersonal competencies are increasingly recognized by employers as vital for workplace success and are often more challenging to develop in purely classroom-based settings. The long-term, iterative nature of the industry engagement appears particularly conducive to this holistic skill development.

Despite the successes, the challenges encountered during implementation—such as student adaptation difficulties, logistical issues, and occasional misalignments in expectations with industry partners—are not uncommon in such collaborative programs. The process of student adjustment to the discipline and demands of the workplace is a well-documented aspect of work-integrated learning. The school's approach to addressing these challenges through guidance, counseling, and open communication with both students and industry partners is indicative of a responsive management strategy. The rare instances of student withdrawal due to persistent issues also underscore the importance of student readiness and the need for clear expectations from all parties involved.

The facilitating factors identified, particularly the strong support from partner industries and the commitment of school staff, are critical enablers for the successful implementation of industrial class programs. The willingness of hotels to accommodate the "week release" system and invest in student guidance is a testament to a robust school-industry partnership, a factor repeatedly emphasized in vocational education literature (Ferm, 2021; Muktiarni & Rahayu, 2023; Priambudi et al., 2020). Similarly, the dedication of teachers in adapting their schedules and providing consistent support and monitoring is vital for the program's coherence and effectiveness. The school's effort to minimize the academic burden on students during their industry week further allowed for focused experiential learning.

In conclusion, the implementation phase of the integrated industrial class at Public Vocational School 60 Jakarta demonstrates a committed effort to bridge the gap between education and industry through sustained, practical student engagement. The "week release" system, combined with active school monitoring and strong industry collaboration, appears effective in fostering both technical and soft skills relevant to the hospitality sector. While challenges related to student adaptation and logistical coordination exist, the program's structure and the responsive management strategies employed provide a valuable model for implementing impactful work-integrated learning in vocational education. The findings suggest that the success of such implementation hinges on clear communication, mutual commitment from school and industry, and a flexible approach to addressing the dynamic realities of learning

in the workplace.

CONCLUSION

The implementation phase of the integrated industrial class program at Public Vocational School 60 Jakarta represents a critical juncture where the strategic "link and match" between vocational education and industry demands is actively operationalized. This study's findings indicate that the execution of this phase, characterized by a "week release" system, direct student immersion in partner hotels, and continuous school-industry collaboration, is fundamental to achieving the program's objectives. The structured approach to student dispatch, industry induction, departmental placement, and task assignment provided a framework for students to engage meaningfully with authentic workplace practices within the hospitality sector.

The implementation process was instrumental in fostering tangible skill development among students. Through hands-on engagement with real-world tasks and industry-standard facilities, participants demonstrated notable improvements in both technical skills specific to hospitality operations and crucial interpersonal skills such as communication, self-confidence, and professionalism. The sustained nature of the industry exposure, coupled with guidance from industry professionals and active monitoring by school staff, created a conducive environment for this holistic competency development. This underscores the value of experiential learning models in preparing vocational students for the multifaceted demands of the contemporary workforce.

However, the implementation phase was not without its challenges. Issues related to student adaptation to the professional environment, logistical considerations such as travel, and occasional misalignments in expectations between the school and industry partners were evident. These challenges highlight the complexities inherent in managing work-integrated learning programs and underscore the need for robust support systems, clear communication protocols, and proactive problem-solving from both educational institutions and industry collaborators.

Despite these hurdles, the successful execution of the industrial class was largely attributed to strong partnerships with supportive industries and the dedicated involvement of school personnel. The commitment of partner hotels to mentor students and the adaptability of teachers in monitoring and guiding them were critical facilitating factors. Ultimately, the implementation phase at Public Vocational School 60 Jakarta demonstrates that with careful execution, consistent support, and a collaborative spirit, integrated industrial class programs can effectively bridge the gap between theoretical education and practical industry requirements, significantly enhancing student preparedness for their future careers in the hospitality sector. The experiences and lessons learned during this operational stage offer valuable insights for refining and scaling similar vocational education initiatives.

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