



# Evidence Review

*SMK-PK Program*

August 2024



**PSKP**  
Pusat Standar dan Kebijakan Pendidikan

**IDinsight**



# Executive Summary

## SMK-PK (SEKOLAH MENENGAH KEJURUAN-PUSAT KEUNGGULAN) EVIDENCE REVIEW

### Introduction

This evidence review report is a collaboration between IDinsight and PSKP (Center for Education Standards and Policies) which aims to investigate indications of positive results and areas of improvement for the *Sekolah Menengah Kejuruan - Pusat Keunggulan* SMK(PK) Program.

SMK-PK is a secondary-level vocational school transformation program that seeks to empower vocational schools or *Sekolah Menengah Kejuruan* (SMK) in Indonesia by improving teachers' industry-related competencies, implementing a work-based learning curriculum for students, strengthening the role and capacity of school principals in establishing partnerships with industries, and improvement of infrastructures through the provision of funds. Over two years of implementation, 2,172 schools have been selected as SMK-PK to implement the programs.

We reviewed global best practices of Technical Vocational Education Training (TVET) reforms and PSKP's studies on the SMK-PK program. This report synthesizes these findings to inform ongoing policy and research discussions on vocational school transformation in Indonesia.

# Summary of findings

## Alignment with Global Evidence

We found that some components of the SMK-PK Program are aligned with the global best practices in the effort to increase the quality of vocational school and TVET, particularly for its:

- **prioritization on empowering SMK-Industry partnership** (see [Finding #1](#) and [Finding #2](#)), and
- **implementation of work-based learning** (see [Finding #5](#))

At the same time, future school transformation with multiple programs such as SMK-PK can improve implementation by:

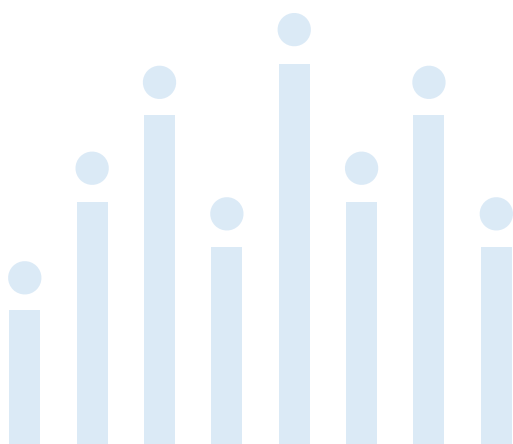
- strengthening **support from the national and sub-national government to SMK with a weaker local industry ecosystem** (see [Finding #2](#))
- equipping SMK principals with **instructional leadership capacities** and **teachers with an avenue for collaborative learning among teachers** (see [Finding #3](#) and [Finding #4](#)), and
- improving **the support for senior teachers to implement *Kurikulum Merdeka* and work-based learning** (see [Finding #5](#))

## Indications of Positive Progress

PSKP studies **identify positive shifts in principals' and teachers' motivation and commitments to industry partnerships**, which are crucial for implementing work-based learning.

## Recommendations for Measuring Impact

**A robust impact evaluation with a clear and specific outcome of interest is needed to determine the effectiveness of SMK-PK as a multi-intervention** reform program in improving labor-market outcomes (such as job placements or income of students) and/or student-learning outcomes in the highly decentralized education system of Indonesia.



# Findings and recommendations

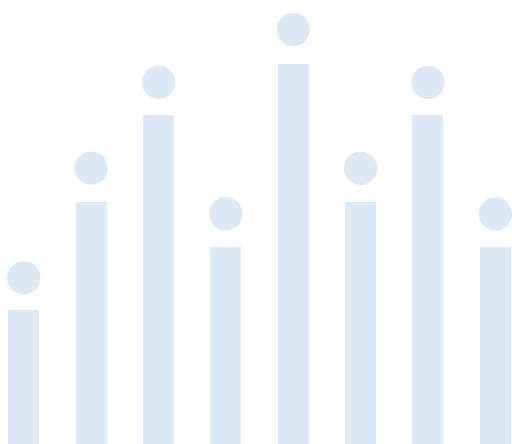
## #1 The strength of the SMK-PK program lies in strengthening the relationship between SMK and industrial partners

Capacity building of principals and teachers in establishing relationships with industry partners is one of the main components of the SMK-PK Program. Relationships with industry partners are also the basis for establishing work-based learning programs for students and teachers in SMK.

The PSKP study found that SMKs that received the SMK-PK Program are more prepared and active in identifying industry partners to implement work-based learning programs for teachers and learners. In addition, some examples of implementation and components of the SMK-PK program are aligned with best practices in vocational education reform. For example, the SMK-PK program emphasizes strengthening SMK's linkages with industry so that learning is aligned with industry needs. Global evidence shows that multi-intervention transformation programs for vocational education show varying outcomes for employment and learning outcomes. These outcomes are influenced by the intervention components, the fidelity of program implementation, and the political situation in which the program is implemented.

### Recommendation:

- **Conducting a robust impact evaluation with a clear outcome of interest** is needed to determine the effectiveness of SMK-PK as a multi-intervention reform program in improving labor-market (job placement, income, and retention of SMK graduates) and/or student-learning outcomes.



## #2 The SMK-PK program encourages SMK to establish partnerships with industry though some struggle to find suitable industry partners

The PSKP study highlighted that the SMK-PK program was able to encourage principals, vice principals and, in some cases, partnership development teams to build partnerships with industry. For example, these partnerships provide an avenue for SMKs to conduct workshops on work culture with guest lecturers from industry or internship programs in industry for teachers and students.

However, the PSKP study also noted that some SMK *Pusat Unggulan* still face difficulties in establishing partnerships with productive industries due to the limited number of large-scale industries in the region that can absorb many students for internship programs. Global studies suggest SMKs need to prioritize building high-quality partnerships with industry, and productive partnerships with industry partners can start by involving industry in curriculum planning. In the Indonesian context, evidence suggests that industry partnerships have the potential to open up more opportunities for SMK teachers to receive training that can improve vocational skills and knowledge.

### Recommendation:

- Encouraging and building **the capacity of SMKs to have stronger partnerships with industry** should continue to be a key component of SMK-PK.
- Given the limited global studies on effective strategies to support SMKs in some regions with limited large industries, PSKP could conduct assessments to identify the barriers SMKs face when seeking suitable industry partners. This assessment may include:
  - **Vocational & Industry Program Alignment:** Assess whether there is a mismatch between the SMK's main vocational program and the industries available in the region;
  - **Competition:** Assess the extent to which competition among SMKs affects their ability to partner with established industries when the number of such industries is limited;
  - **Partnerships with MSMEs:** Looking at whether the establishment of partnerships with MSMEs is considered a good alternative;

Through this assessment, PSKP can identify the specific type of support that SMKs in the region need to effectively overcome these barriers.

### #3 Training in the SMK-PK program motivates teachers to implement collaborative strategies in the development of lesson plans though senior teachers still struggle with digital tools and assessments in *Kurikulum Merdeka*

At the start of the SMK-PK program, participating SMKs receive online and hybrid training on SMK-PK priorities, *Kurikulum Merdeka*, and digital platforms. The training begins with sessions for the learning committee, including the principal, vice principal, and representatives of general, vocational, and counseling teachers. This committee then conducts In-House Training (IHT) for all Grade 10 SMK teachers using the same modules. The Center for Vocational Education Quality Assurance Development (BB/BPPMPV) serves as the instructor for the learning committee.

Research on Teacher Professional Development (TPD) programs shows mixed results, with many studies indicating minimal impact on teacher knowledge and practice. However, TPD programs can be effective when they include face-to-face sessions, are tailored to teachers' specific needs, and provide ongoing support and opportunities for collaborative learning.

Qualitative findings from PSKP studies reveal that teachers, energized by the training, show increased confidence in the classroom, adopt collaborative lesson planning, and implement differentiated learning as required by *Kurikulum Merdeka*. However, senior teachers often struggle with digital teaching tools like Platform *Merdeka Mengajar* (PMM) and key components of *Kurikulum Merdeka*, such as diagnostic assessments.

#### Recommendation:

- **Conduct a systematic comparison of the actual training implementation against the before-implementation training plan and design.** This could provide valuable insights into the fidelity of the implementation and help improve the current evaluation process.
- **Incorporate an analysis of knowledge gains** by looking at the results of pre- and post-training assessments to enrich qualitative findings from the systematic comparison study.
- **Ensure that teachers, including senior teachers, could access collaborative learning avenues** that enable them to learn from their peers.

## #4 School Principals Play A Significant Role In Strengthening Partnerships With Industries, With Crucial Support From The Local Education Agency

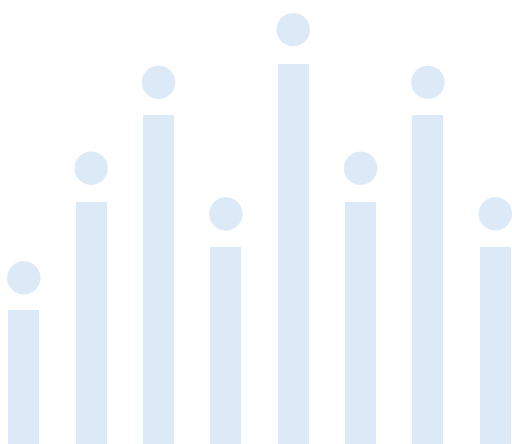
In the SMK-PK Program, school principals have a dual role in program implementation. First, school principals are responsible for initiating learning committee training and in-house training at the school level. Second, school principals assume the leadership role in establishing a school-level strategy of building partnerships with industry partners and overseeing the implementation of these partnerships.

There is limited evidence on the effectiveness of school principal training programs in the context of vocational schools. For general schools, **interventions targeting school leaders' management practices generally can significantly improve learning outcomes, but the design component that led to the impact is not yet clear**. Thus, a programmatic focus on principals' professional development that includes instructional leadership training and individualized coaching, could be one of the key program priorities.

**PSKP findings highlight that the role of school principals needs to be supported by proactive and supportive local education agencies, especially in finding and securing partnerships with industry partners.** However, the limited number of large and compatible industry partners remains a challenge for school principals to exert their leadership role in building partnerships with industry partners.

### Recommendation:

- **Strengthening the capacity of principals with instructional leadership training and mentorship**, similar to our recommendations for the Mobilizing Schools Program.
- **In future research, it is worth exploring how principal training impacts different outcomes: school quality, learner learning outcomes or improved teacher competencies.** The role of principals also needs to be supported by a proactive and supportive local education office, especially in seeking and securing partnerships with industry partners.



## #5 SMK-PK Program Encourages SMK to Implement Work-Based Learning To Align SMK With Industry Demands

One of the key components of SMK-PK is the implementation of work-based learning activities for teachers and students. These activities are operationalized through partnerships with industries and the implementation of *Kurikulum Merdeka*. Work-based learning programs can be conducted within a school environment through initiatives such as Teaching Factory, where students practice their vocational skills in industry-like settings. Additionally, out-of-school work-based learning in real industry settings, such as internships and on-the-job training, are also programs that *Pusat Keunggulan* SMKs can implement.

Global evidence shows that **internship programs in tertiary and secondary education improve early labor market outcomes, primarily due to the workplace skills and enhanced networking opportunities from the program**. However, other studies also highlight **potential long-term drawbacks of internship programs, such as reduced time for foundational learning** and the risk of outdated skills due to rapid technological changes in industries. Evidence also emphasizes creating industry-driven vocational schools should also still include the development of strong foundational skills of vocational school students as these foundational skills are critical for students to remain competitive in the labor market.

**PSKP studies found that the majority of SMK-PK sample schools are able to implement work-based learning programs for their teachers and students through internship programs, guest teachers' visitation from industry partners, and the establishment of Teaching Factory (TeFa)**. However, for the implementation of internships for students, some SMK-PK are still struggling to find industry partners with the capacity to provide 6-month-long internship programs. Moreover, limited funding and compatible industry partners also limit the capacity of some of the SMK-PK sample schools to establish Teaching Factory facilities that are aligned with expected industry standards.

### Recommendation:

- For future studies, include an **assessment of the quality of work-based learning (WBL) programs** by assessing the perception of students about their skill and knowledge gain before and after WBL, pre-post assessment of teachers' technical skills after internship program at industries, and assessment of short to long term impact of these programs towards employability of students.