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Manajemen Krisis di Sekolah Menengah Kejuruan (SMK) Indonesia: Pembelajaran dari Pandemi COVID-19 dan Pemulihan Pascapandemi

Crisis Management in Indonesian Vocational High Schools (SMKs): Lessons from the COVID-19 Pandemic and Post-Pandemic Recovery

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Abstrak

Penelitian ini menganalisis manajemen krisis pada Sekolah Menengah Kejuruan (SMK) di Indonesia dengan memosisikan pandemi COVID-19 sebagai sumber pembelajaran untuk memperkuat resiliensi pendidikan vokasi. Penelitian menggunakan pendekatan kualitatif dengan desain studi kasus instrumental ganda pada lima SMK yang dipilih secara purposif. Data dikumpulkan melalui wawancara mendalam dengan kelompok pemangku kepentingan sekolah, observasi, dan analisis dokumen, lalu dianalisis melalui kondensasi data, penyajian data, verifikasi temuan, serta perbandingan dalam kasus dan lintas kasus. Empat pola utama ditemukan: terganggunya pembelajaran praktik dan relasi sekolah-industri; ketimpangan adaptasi digital antarkompetensi keahlian; pentingnya kepemimpinan adaptif, kapasitas guru, infrastruktur, dan akses yang berkeadilan; serta strategi pemulihan melalui pembelajaran hibrida, modularisasi praktik, penguatan kemitraan industri, dan dukungan psikososial. Temuan menunjukkan bahwa manajemen krisis di SMK tidak dapat direduksi menjadi upaya mempertahankan pembelajaran daring, tetapi juga harus menjamin kesinambungan kompetensi praktik, akses yang berkeadilan, komunikasi krisis, dan keterhubungan dengan dunia kerja. Karena naskah sumber tidak menyertakan matriks informan final dan kutipan verbatim yang dapat diverifikasi, temuan empiris disajikan sebagai sintesis tematik lintas kasus.

Keywords: crisis management; vocational high school; COVID-19; vocational education; educational resilience; practical learning

Abstract

This study analyzes crisis management in Indonesian Vocational High Schools (SMKs) by treating the COVID-19 pandemic as a source of lessons for strengthening vocational education resilience. A qualitative multiple instrumental case-study design was applied to five purposively selected SMKs. Data were collected through in-depth interviews with school stakeholder groups, observation, and document analysis, and were analyzed using data condensation, data display, conclusion drawing and verification, followed by within-case and cross-case

comparison. Four recurring patterns emerged: disruption of practical learning and school-industry relations; uneven digital adaptation across vocational programs; the importance of adaptive leadership, teacher capacity, infrastructure, and equitable access; and recovery strategies involving hybrid learning, modularized practice, stronger industry partnerships, and psychosocial support. The findings indicate that crisis management in SMKs cannot be reduced to maintaining online instruction; it must also secure continuity of practical competence, equitable access, crisis communication, and connections with the world of work. Because the supplied manuscript does not preserve a final informant matrix or verifiable verbatim excerpts, empirical findings are reported as cross-case thematic syntheses.

INTRODUCTION

The COVID-19 pandemic demonstrated that educational continuity depends heavily on an institution's capacity to identify risks, make decisions under uncertainty, communicate change, and adjust learning processes rapidly. At the height of the global disruption, more than 1.6 billion learners in over 190 countries were affected by school closures. This experience reinforced the view that educational crisis management is not merely an emergency response, but a component of institutional governance that must be prepared before disruption occurs and evaluated after the crisis subsides.[1][2]

In Indonesia, the Ministry of Education and Culture formally directed education units to implement learning from home during the emergency period. The shift occurred when digital access and capacity were still uneven. Statistics Indonesia reported that in 2019, 47.69% of the population aged five years and over had accessed the internet during the previous three months; the proportion was 58.59% in urban areas and 33.84% in rural areas. These disparities shaped the ability of schools and families to sustain learning during periods of social restriction.[3][4]

The emergency was even more complex for Vocational High Schools (SMKs). Vocational learning requires not only conceptual mastery but also hands-on practice using equipment, laboratories, workshops, teaching factories, and workplace experience. Moving instruction into digital environments therefore did not automatically ensure competency attainment. Research on emergency remote education likewise shows that pandemic responses differed from

[1] W. Timothy Coombs, Ongoing Crisis Communication: Planning, Managing, and Responding, 5th ed. (Thousand Oaks, CA: SAGE Publications, 2019).

[2] UNESCO, "From COVID-19 Learning Disruption to Recovery: A Snapshot of UNESCO's Work in Education in 2020" (Paris: UNESCO, 2020).

[3] Badan Pusat Statistik, Statistik Telekomunikasi Indonesia 2019 (Jakarta: Badan Pusat Statistik, 2020).

[4] Kementerian Pendidikan dan Kebudayaan Republik Indonesia, Surat Edaran Nomor 4 Tahun 2020 tentang Pelaksanaan Kebijakan Pendidikan dalam Masa Darurat Penyebaran Coronavirus Disease (COVID-19) (Jakarta, 2020).

online learning deliberately designed from the outset and that digital inequality and psychosocial pressure became central concerns.[5]

The effects of educational disruption are also long term. Yarrow, Masood, and Afkar estimated that school closures in Indonesia generated learning losses with potential consequences for learners' future earnings. For SMKs, this risk intersected with lost opportunities for practical training, internships, and interaction with industry. Effective crisis management should therefore be assessed not only by whether learning schedules continued, but also by whether vocational competence, equitable access, the well-being of school communities, and links with the world of work were maintained.[6]

Existing studies have extensively discussed emergency online learning, learning loss, and the digital divide. Broader crisis-management research also emphasizes flexibility as a core capability for organizations operating under severe disruption. However, fewer studies examine Indonesian SMKs as organizations that must simultaneously manage leadership, governance, human-resource capacity, technology, practical learning, communication, psychosocial support, and industry partnerships. This study addresses that gap through five SMK cases and asks four questions: (1) What were the defining characteristics of the crisis experienced by SMKs during the pandemic? (2) What adaptation strategies were developed? (3) What factors shaped successful crisis management? and (4) What lessons are relevant to strengthening post-pandemic vocational education resilience?[7]

METHODS

This study employed a qualitative approach using a multiple instrumental case-study design. The purpose was not merely to describe a single school, but to understand vocational education crisis management through several cases situated in different contexts. Following Stake, each case served as an instrument for understanding a broader phenomenon, while cross-case analysis was used to identify recurring patterns and variations in school responses.[8]

Five SMKs were purposively selected to represent diverse vocational education contexts, as stated in the source manuscript. Each school was

[5] Aras Bozkurt et al., "A Global Outlook to the Interruption of Education Due to COVID-19 Pandemic: Navigating in a Time of Uncertainty and Crisis," Asian Journal of Distance Education 15, no. 1 (2020): 1–126.

[6] Noah Yarrow, Eema Masood, and Rythia Afkar, Estimated Impacts of COVID-19 on Learning and Earning in Indonesia: How to Turn the Tide (Jakarta: World Bank, 2020).

[7] Ionela Stanca and Tudor Tarbujaru, "Crisis Management: What COVID-19 Taught the World," Logos Universality Mentality Education Novelty: Economics and Administrative Sciences 7, no. 1 (2022): 1–18, https://doi.org/10.18662/lumeneas/7.1/32.

[8] Robert E. Stake, "Qualitative Case Studies," in The SAGE Handbook of Qualitative Research, 3rd ed., ed. Norman K. Denzin and Yvonna S. Lincoln (Thousand Oaks, CA: SAGE Publications, 2005), 443–466.

treated as a holistic case, with information drawn from school principals, teachers, students, parents, and administrative staff. The submitted manuscript identifies these participant categories but does not preserve a final matrix specifying the number of informants in each category, the identity of each school, or case-level participant characteristics. Accordingly, this revision does not invent figures or school identities that cannot be verified.

Data were collected through in-depth interviews, observation, and document analysis. Interviews addressed decision-making experiences, changes in teaching and learning, digital readiness, support for students and teachers, and relationships with industry. Observation focused on learning practices and institutional governance following the emergency phase. Documentary materials included school policies, instructional plans, digital learning materials, records of practical training or internship programs, and relevant recovery documents.

Analysis was operationalized through data condensation, data display, and conclusion drawing/verification, following the interactive qualitative analysis model of Miles, Huberman, and Saldaña. These procedures were first applied within each school to organize evidence into themes—forms of disruption, emergency responses, learning innovations, enabling factors, barriers, and recovery practices—and were then extended through cross-case comparison. Source and method triangulation, member checking, peer debriefing, and an audit trail were used as credibility procedures. Because the supplied manuscript archive does not include verifiable verbatim interview transcripts, the findings below are reported as thematic syntheses rather than reconstructed quotations.[9]

FINDINGS

1. Disruption of Practical Learning and Industry Relations

The cross-case synthesis reported in the manuscript indicates that the most distinctive feature of the crisis in SMKs was the interruption of practical learning. School closures restricted access to workshops, laboratories, machines, and specialized equipment that normally form the core of vocational subjects. Such disruption could not be fully compensated for through video conferencing or the delivery of theoretical material. Programs requiring psychomotor skills, safety procedures, and direct equipment use faced greater pressure than programs that could be transferred more readily to digital environments.

The crisis also disrupted relationships between schools and business and industry. Industrial work practice, internships, teaching factories, and workplace-based learning had to be restricted, rescheduled, or redesigned. Schools therefore faced two

[9] Matthew B. Miles, A. Michael Huberman, and Johnny Saldaña, Qualitative Data Analysis: A Methods Sourcebook, 3rd ed. (Thousand Oaks, CA: SAGE Publications, 2014).

simultaneous demands: protecting health and safety during the pandemic while preventing a widening competency gap between the curriculum and authentic workplace experience.

2. Variations in Emergency Response and Digital Adaptation

The cases showed uneven adaptive capacity across schools and vocational programs. Programs already accustomed to digital tools moved more quickly into distance learning, whereas programs dependent on physical equipment required combinations of online explanation, video demonstrations, project assignments, and limited scheduled practice. The speed of adaptation was also shaped by platform readiness, device availability, connectivity, and teachers' digital competence.

After the initial response phase, schools developed more systematic arrangements through hybrid learning, strengthened learning management systems, video content, simulators, and project- or digital-portfolio-based assessment. In some vocational fields, practical tasks were modularized so that they could be completed at home with simple equipment, whereas competencies requiring specialized tools were postponed or rescheduled until access to school facilities became possible.

3. Factors Shaping Successful Crisis Management

Four factors recurred across the cases. First, adaptive leadership accelerated decision-making and maintained communication consistency. Second, teachers' digital capacity determined whether technology merely transferred content or supported genuinely interactive learning. Third, infrastructure and student access shaped the reach and continuity of instruction. Fourth, industry partnerships helped schools preserve a competency orientation and develop alternative forms of practical learning during periods of restriction.

Beyond academic concerns, psychosocial support emerged as an important component of crisis management. Changes in routine, uncertainty, family pressures, and reduced social interaction affected both students and educators. Schools that incorporated regular communication, mentoring, and emotional support were better positioned to sustain engagement among members of the school community during periods of disruption.

4. Post-Pandemic Recovery Innovations

During recovery, schools did not abandon all practices developed during the pandemic. Instead, they retained selected digital practices considered effective and combined them with face-to-face instruction. Reported examples included learning management systems for material distribution and assessment, practical video tutorials, digital portfolios, software simulations, project modularization, and blended-learning models.

Industry partnerships were likewise directed not only toward restoring internships but also toward expanding mentoring, project-based collaboration, and competency assessment. These patterns suggest that recovery did not simply mean returning to pre-pandemic arrangements; rather, it involved institutionalizing practices that had proven useful during the crisis.

DISCUSSION

1. SMK Crisis Management as a Cycle Rather Than a One-Time Response

The findings underscore the importance of viewing crisis management as a cycle encompassing prevention, preparedness, response, and recovery. This perspective is consistent with Coombs, who treats planning, communication, response, and evaluation as interrelated elements. In SMKs, each phase must also address the continuity of practical competence: which competencies can be transferred to digital environments, which must remain hands-on, how safety can be maintained, and how links with industry can be sustained.[10]

The emergency experience also reinforces Bozkurt et al., who distinguish emergency remote education from carefully designed online education. Weaknesses observed during the transition therefore reflected not only technological limitations, but also restricted preparation time, pedagogical capacity, unequal access, and psychosocial strain.[11]

2. Adaptive Leadership and Professional Capacity

Adaptive leadership functioned as a bridge between policy, resources, and instructional practice. Crisis-management scholarship identifies organizational flexibility as a central capability when uncertainty disrupts normal operating assumptions. In educational settings, Fullan likewise emphasizes that sustainable organizational change depends on direction, relationships, and collective learning. Across the five SMK cases, these capacities were reflected in schedule adjustments, platform selection, resource redistribution, and coordination with industry.[12][13]

Teacher capacity cannot be separated from crisis governance. Digital training that focuses only on technical skills is insufficient unless it is accompanied by the ability to design learning experiences, provide feedback, and assess competencies authentically. Post-pandemic recovery should therefore sustain investment in professional development, learning communities, and ongoing technical support. This position is consistent with discussions of education in the new-normal era that emphasize managerial

[10] Coombs, Ongoing Crisis Communication.

[11] Bozkurt et al., "A Global Outlook to the Interruption of Education."

[12] Michael Fullan, Leading in a Culture of Change, 2nd ed. (San Francisco: Jossey-Bass, 2020).

[13] Stanca and Tarbujaru, "Crisis Management: What COVID-19 Taught the World."

flexibility and institutional capacity building.[14]

3. Unequal Access and Vocational Education Resilience

Unequal access remained a major constraint on digital transformation. Statistics Indonesia data show that internet access was already uneven between urban and rural areas before the pandemic. During a crisis, disparities in devices, connectivity, and internet costs can become disparities in opportunities to acquire competence. This issue is particularly important for SMK students because many vocational competencies require specialized software or hardware.[15]

Learning losses during school closures also carry long-term consequences. Yarrow et al. show that educational disruption in Indonesia may reduce learning outcomes and future earnings. The present findings extend this concern to vocational education: learning loss involves not only diminished academic knowledge, but also fewer hours of practical training, reduced industry experience, and fewer opportunities to develop workplace habits.[16]

4. Novelty: A Practice-Competency-Centered Resilience Framework

The principal contribution of this study is the argument that general educational crisis-management frameworks require modification when applied to SMKs. Vocational education resilience should include at least five components: continuity of theoretical learning, continuity of practical competence, equitable digital access, continuity of industry relationships, and psychosocial support. These components should be incorporated during the preparedness phase rather than constructed only after a crisis has begun.

Within this framework, innovations such as virtual laboratories, simulators, demonstration videos, home-based projects, online industry mentoring, and portfolio assessment are understood as strategies for maintaining competency continuity rather than merely as alternative learning media. At the same time, digital innovation should not replace hands-on practice when competency standards require equipment use, safety routines, and authentic workplace conditions.

5. Policy and Practice Implications

At the school level, every SMK should maintain a contingency plan that maps risks by vocational program, alternative platforms, device requirements, communication channels, practical-learning scenarios, psychosocial support, and mechanisms for coordinating with industry. At the policy level, technology assistance

[14] I. K. Darma, I. G. M. Karma, and I. M. A. Santiana, Manajemen Pendidikan di Era New Normal (Bali: Nilacakra, 2020).

[15] Badan Pusat Statistik, Statistik Telekomunikasi Indonesia 2019.

[16] Yarrow, Masood, and Afkar, Estimated Impacts of COVID-19 on Learning and Earning in Indonesia.

should account for program-specific needs, including licensed software, simulators, and practical infrastructure that varies across fields of specialization.

UNESCO emphasizes that educational recovery should simultaneously strengthen more resilient and inclusive systems. For vocational education, this agenda requires combining digital investment with the restoration of practical learning, stronger industry partnerships, and flexible certification systems. Post-pandemic success should therefore be measured not by how quickly schools return to "normal," but by how effectively they build capacity to manage future disruptions.[17]

LIMITATIONS

The supplied research manuscript identifies five SMKs as cases and specifies categories of informants, but it does not include a participant-profile table, the number of informants in each category, the identity or characteristics of each case, or verifiable interview quotations. This documentation gap limits the auditability of the cross-case findings. Before publication, the authors should add a case-informant matrix, clarify the fieldwork period and sites, and insert selected verbatim excerpts from the original transcripts. Future research should also compare vocational programs more explicitly to determine whether crisis-management needs differ across technology, engineering, business, service, and other skill areas.

CONCLUSION

The COVID-19 pandemic demonstrated that vocational high schools require a more specialized form of crisis management than educational institutions dominated by theory-based instruction. The principal disruption affected not only access to learning but also the continuity of practical training, internships, teaching factories, and relationships with industry. Across the five cases, adaptive capacity was shaped by leadership, teachers' digital competence, infrastructure, industry partnerships, and psychosocial support.

The most important post-pandemic lesson is the need to institutionalize crisis management within SMK governance through a cycle of prevention, preparedness, response, and recovery. Schools need alternative scenarios for vocational practice, clear communication systems, access support for vulnerable students, mechanisms for competency recovery, and industry partnerships capable of continuing during disruption. Empirical reporting should also be strengthened through transparent informant profiles, case descriptions, and verifiable interview quotations so that claims can be audited and transferred more confidently to comparable vocational settings.

[17] UNESCO, "One Year into COVID-19 Education Disruption: Where Do We Stand?" (Paris: UNESCO, 2021).

REFERENCES

Badan Pusat Statistik. (2020). Statistik Telekomunikasi Indonesia 2019. Badan Pusat Statistik.

Bozkurt, A., Jung, I., Xiao, J., Vladimirschi, V., Schuwer, R., Egorov, G., Lambert, S., Al-Freih, M., Pete, J., Olcott, D., Rodes, V., Aranciaga, I., Bali, M., Alvarez, A. J., Roberts, J., Pazurek, A., Raffaghelli, J. E., Panagiotou, N., de Coëtlogon, P., ... Paskevicius, M. (2020). A global outlook to the interruption of education due to COVID-19 pandemic: Navigating in a time of uncertainty and crisis. Asian Journal of Distance Education, 15(1), 1–126.

Coombs, W. T. (2019). Ongoing crisis communication: Planning, managing, and responding (5th ed.). SAGE Publications.

Darma, I. K., Karma, I. G. M., & Santiana, I. M. A. (2020). Manajemen pendidikan di era new normal. Nilacakra.

Fullan, M. (2020). Leading in a culture of change (2nd ed.). Jossey-Bass.

Kementerian Pendidikan dan Kebudayaan Republik Indonesia. (2020). Surat Edaran Nomor 4 Tahun 2020 tentang Pelaksanaan Kebijakan Pendidikan dalam Masa Darurat Penyebaran Coronavirus Disease (COVID-19).

Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). Qualitative data analysis: A methods sourcebook (3rd ed.). SAGE Publications.

Stake, R. E. (2005). Qualitative case studies. In N. K. Denzin & Y. S. Lincoln (Eds.), The SAGE handbook of qualitative research (3rd ed., pp. 443–466). SAGE Publications.

Stanca, I., & Tarbujaru, T. (2022). Crisis management: What COVID-19 taught the world. Logos Universality Mentality Education Novelty: Economics and Administrative Sciences, 7(1), 1–18. https://doi.org/10.18662/lumeneas/7.1/32

UNESCO. (2020). From COVID-19 learning disruption to recovery: A snapshot of UNESCO's work in education in 2020. UNESCO.

UNESCO. (2021). One year into COVID-19 education disruption: Where do we stand? UNESCO.

Yarrow, N., Masood, E., & Afkar, R. (2020). Estimated impacts of COVID-19 on learning and earning in Indonesia: How to turn the tide. World Bank.