

Getting Ready for F2f Learning: Teaching Factory in the Fashion Design Program

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Abstract

This study investigates the implementation of teaching factory learning at SMKN 1 Bancak in Semarang Regency, Indonesia, for the 2021/2022 academic year. The research utilizes a qualitative methodology, including observations and interviews with vice principals and teachers to gather primary data. The study aims to assess the readiness of SMKN 1 Bancak in implementing teaching factory learning and identify the obstacles that arise during the preparation process. The study found that the school's readiness for teaching factory learning is satisfactory, based on seven critical aspects of implementation. However, the study also identifies obstacles such as a lack of equipment and materials, limited teacher personnel who master fashion competence, and limited work equipment. The school has taken steps to overcome these challenges, including borrowing equipment from industrial partner, procuring uniforms and work equipment, and providing education and training for teachers. This study provides valuable insights into the readiness of a school for implementing teaching factory learning and identifies the challenges that may arise during the preparation process.

Keywords: Teaching Factory, School Readiness, F2F Learning, Online Learning, Fashion Design Program

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INTRODUCTION

Vocational High Schools (SMK) are educational institutions aimed at developing life skills by training students to master the skills needed in the workforce (including the business and industrial sectors). The provision of education in vocational schools must produce graduates with skills relevant to their fields. Referring to Government Regulation No. 19 of 2005 concerning National Education Standards, which also clearly states the competency standards of SMK graduates in order to improve intelligence, knowledge, personality, noble character, skills, and the ability to live independently and pursue higher education according to their jobs. Schools need to equip students with skills and competencies in line with the needs of the job market.

One of SMK's efforts is to equip students with direct work experience in the business and industrial world, especially through the workshop teaching model. This refers to the Guidelines for Factory Training Implementation issued by the Professional Development Branch, which states that Factory Training is a learning model in SMK/Manufacturing Services related to applicable standards and procedures in the industry and takes place in an atmosphere similar to what happens in the industry. (Amin, 2020). This factory training is now known as teaching factory.

Teaching factory is a learning concept in a real-life environment, which can bridge the competency gap between industry needs and school knowledge. Teaching factory is a business and production-oriented learning. Innovative learning and productive practice are educational methods that are oriented towards managing students in learning to be in line with industry needs or demands (Kuswanto, 2014). The establishment of teaching factories in vocational schools can close the skills gap between industry demands and the skills created by vocational schools. The implementation of teaching factories requires the absolute involvement of industry stakeholders in assessing the quality of educational outcomes in SMK.

Teaching factory learning ran smoothly before the Coronavirus Disease 2019 (Covid-19) pandemic, but after the Covid-19 pandemic appeared, the implementation of teaching factory learning could not be carried out. The implementation of social distancing as an effort to reduce the spread of COVID-19 caused the government to eliminate face-to-face learning in schools starting from the primary level, junior high school, senior high school/vocational school, to university. There was a total change in the learning system or learning process. The learning process that used to be face-to-face in the classroom is now done remotely or online.

In the current situation, after the vaccination program runs smoothly, the government plans to hold face-to-face learning but still under health protocols, or called learning in the new normal conditions. The implementation of teaching factory learning in the new normal era is related to human "compromise" against the Coronavirus Disease 2019 (Covid-19). Therefore, the new normal era is a new normalcy, which is a normal human life but with a new way of living. This new lifestyle is associated with the application of health procedures such as physical distancing, regular hand washing with soap or hand sanitizer, wearing masks, and so on. This will happen in all aspects of community life in Indonesia, including education.

"The lesson plan for face-to-face learning in the new normal after nearly 1.5 years of online learning requires readiness from schools and students. Readiness, according to Slameto, is the condition of someone who feels prepared to take an action, respond, or answer in a certain

way to a situation (Slameto, 2005). One's readiness is influenced by three aspects, namely: 1) physical, mental, and emotional condition; 2) needs, motives, and goals; and 3) skills, knowledge, and understanding that have been acquired.

The implementation of Teaching Factory (TEFA) requires preparation from the school. There are several components that need to be prepared, starting from conditioning the school, determining the product-service, learning tools, human resources, management, industrial relations, and information on products and/or services. The readiness of the school in implementing TEFA can be seen from these components. The level of readiness of each component will affect the results of TEFA implementation. The better the school's readiness in each component, the better the implementation of TEFA will be, so that the objectives of TEFA can be achieved.

Observations at SMKN 1 Bancak, especially in the fashion program, show that the students have good practical skills. The facilities for fashion practice are also fully available, but due to online learning, students rarely use them. The research by Hasanah & Purnamawati revealed that vocational schools are considered ready for TEFA implementation if the infrastructure is available, supported by a good curriculum, and management (Hasanah & Purnamawati, 2017). The preparation (planning) for TEFA includes: human resources, production, and finance (Suryana et al., 2019). Some things that need to be prepared for Teaching Factory in the fashion program are human resource competencies, partnerships with the business/industrial world, availability of facilities, and products that support Teaching Factory learning (Santosa, 2018).

Based on the background of the problem above, the research problem is formulated as follows: 1) How prepared is SMKN 1 Bancak in teaching factory learning at F2F learning?; 2) What are the obstacles that arise and their solutions in preparing for teaching factory learning at F2F leaning in SMKN 1 Bancak?

METHOD

Research Design

This study is a qualitative-research conducted in the field. Qualitative research, according to Sutarna (2016), aims to understand social phenomena from the participants' perspective. This qualitative research is used to describe the readiness of the school in implementing TEFA learning in F2F learning. The research design uses a single case study. The case study design in this research is intended to describe the readiness of the school in implementing TEFA learning in F2F learning at SMKN 1 Bancak, Semarang Regency. The aspects of readiness studied include school conditioning, product-service determination, learning tools, human resources, management, industrial relations, and product information.

Procedure of Collecting Data

The data used in this study are primary data obtained from interviews with informants, including the head of the expert group, vice principal, and teachers at SMKN 1 Bancak. Secondary data sources were obtained from documentation. Data collection techniques used in this study include interviews, observation, and documentation. Interviews were conducted with informants, while observation was used to observe the implementation of TEFA learning in the classroom. Documentation was used to record archives and documents.

Data Validity

Data validity was ensured using source and technique triangulation, which involved comparing data from different sources. Data from interviews were cross-checked with data from observations and documents.

Data Analysis

Data analysis used an interactive qualitative analysis process, which included data collection, data condensation, data reduction, data presentation, and conclusion drawing.

FINDINGS

The readiness of SMKN 1 Bancak in Teaching Factory Learning for F2F Learning

1. *Preparing learning facilities for F2F learning*

The readiness of the implementation of Teaching Factory learning in SMKN 1 Bancak in the 2021/2022 academic year has been well-established. This can be seen from the seven important aspects of Teaching Factory application, namely the aspects of preparing learning facilities, product-service determination, learning tools, human resources (HR), management, industrial relations, and product information.

Table 1. Preparing Learning facilities for F2F learning

	Findings
Preparing learning facilities for F2F learning	1. School conditioning is related to the condition of school rooms, especially the practice rooms (laboratories) where TEFA is carried out.
	2. Referring to the guidance of the Directorate of Vocational Education and Training, laboratory rooms should be clean, tidy, and equipped with supporting facilities and furniture.
	3. Safety lines/signs/markings should be implemented between work areas and public areas to ensure safety.
	4. Facilities for cleanliness, first aid, fire extinguishers, signs, instructions, explanations, and work safety warnings should be available.
	5. The arrangement of a workspace that reflects the industrial work environment will help students to adapt more easily to the work environment in the future.
	6. Schools can optimize their available resources to develop a work environment similar to that in the industry.

Based on the research findings, it can be concluded that appropriate educational facilities and infrastructure in accordance with industry standards will support learning activities. Such facilities and infrastructure essentially shape work habits similar to those in the industry. The facilities and infrastructure referred to are production facilities in the form of equipment and materials used to support teaching factory learning activities in vocational high schools, in terms of quality, quantity, use, and maintenance. In terms of quality, facilities and

infrastructure are closely related to feasibility and compliance with industry standards. In terms of quantity, it is related to adequate facilities and infrastructure. Use and maintenance are related to compliance with industry procedures. Therefore, it is crucial to optimize the resources available in vocational schools to develop a conducive learning environment that mirrors real-world industry settings.

2. *Product-service determination*

Table 2. Product service determination

	Findings
Product service determination for TEFA learning	1. The selection of products produced in TEFA learning has represented the competencies needed in the Fashion department.
	2. The production volume is to fulfill the product user needs from the partnering company
	3. The main consideration in determining the product in the implementation of TEFA at SMKN 1 Bancak is that the product must be able to deliver student competency achievement.
	4. The selected product must have good market potential to meet external needs.
	5. The selected product must be able to be produced with available resources.
	6. The selected product must be developed and improved sustainably in relation to production volume.
	7. The selected product type should be closely related to the basic competencies in the competency curriculum.
	8. The production process activities carried out by students essentially manifest the learning process to master those competencies.
	9. The fulfillment of students' competencies may be achieved through the completion of several types of products, either goods or services, in accordance with the competencies they are learning.
	10. One type of product may require the involvement of basic competencies from other majors or programs at the school

Overall, the findings suggest that the selection of the appropriate product is crucial for the success of TEFA learning. The product should not only fulfill the needs of the partnering company but also allow students to achieve their competency goals. In addition, the selected product should have good market potential, be producible with available resources, and have room for sustainable development and improvement. The product type should be closely related to the basic competencies in the competency curriculum, and the production process should allow students to master those competencies. Finally, the completion of several types of products may be necessary to fulfill all the competencies, and the involvement of other majors or programs may be required in certain cases.

3. *Teaching material*

Table 3. Preparing teaching material

Findings	
Preparing teaching material for TEFA learning	1. Teachers at SMKN 1 Bancak have prepared several teaching materials for TEFA learning, including syllabi, lesson plans, media, assessment instruments, and schedules.
	2. These teaching materials are essential for creating and completing a product in the TEFA learning process, whether it is a good or a service.
	3. The preparation of teaching materials is done after analyzing whether the product to be created contains the competencies that students need to master.
	4. The TEFA learning process aims to integrate the culture and activities of the partnering company into the learning process.
	5. The teaching materials are a manifestation of the vocational curriculum and should be closely related to the competencies in the curriculum.
	6. The TEFA learning process is designed to simulate the production process in the partnering company, and students are expected to perform the same tasks as workers in the company, including following the rules and regulations of the workplace.

In conclusion, the findings highlight the importance of preparing teaching materials in the TEFA learning process. These materials should be carefully crafted to reflect the competencies in the curriculum and the product being created. Moreover, TEFA aims to integrate the culture and activities of the partnering company into the learning process, making it a more immersive and practical experience for students. The simulation of the production process in the partnering company is also a critical aspect of the TEFA learning process, as it enables students to perform the same tasks as workers in the company and learn to follow workplace rules and regulations. Overall, the TEFA learning process offers a valuable opportunity for students to gain practical skills and prepare for the workforce.

4. *Preparation of human resources*

Table 4. Preparing of human resources

Findings	
Preparation of human resources	1. The preparation of human resources is important for the success of the TeFa learning process.
	2. Teachers with appropriate competencies in fashion design are assigned to facilitate the TeFa learning process.
	3. The learning process is aimed to apply the industrial work culture to the students through teacher guidance and partnership with the industry.

4.	Teachers need to understand and be familiar with the production process in the partnering company to provide appropriate guidance to the students.
5.	Teacher readiness is crucial in measuring the readiness for implementing the teaching factory, as they are directly involved with the students in the process.
6.	According to Permendiknas No. 16/2007, a teacher's qualification is determined by their academic qualifications and competencies, which can be obtained through formal education or certification.

In SMKN 1 Bancak, the preparation of human resources, particularly teachers with appropriate competencies, is important for the success of the TeFa learning process. The learning process aims to apply industrial work culture to the students through teacher guidance and partnership with the industry. The readiness of the teacher is crucial in measuring the readiness for implementing the teaching factory. Therefore, teachers need to understand and be familiar with the production process in the partnering company to provide appropriate guidance to the students. The teacher's qualifications are determined by their academic qualifications and competencies, which can be obtained through formal education or certification.

5. *Teaching factory management*

TEFA management operates based on seven guiding principles, including independence, accountability, responsibility, transparency, partnership, effectiveness, and efficiency.

Table 5. Teaching factory management

	Findings
Teaching factory management	1. Independence means that TEFA operates autonomously without relying on external parties for guidance or direction.
	2. Accountability refers to the responsibility of TEFA to document and report on its activities to the school leadership.
	3. Transparency in TEFA management helps to foster trust and prevent suspicion among stakeholders.
	4. Partnership is essential in TEFA management, where the goal is to establish mutually beneficial relationships that are interactive, active, and positive.
	5. Effectiveness is a critical measure of TEFA's success in achieving its desired outputs and goals.
	6. Efficiency is another essential factor in TEFA management, as it ensures that the required outcomes are achieved with minimal resource sacrifice, particularly cost, time, and effort.

Based on the Table 5, these principles ensure good governance and prevent deviations and mismanagement. Independence means operating autonomously without relying on external

guidance. Accountability involves documenting and reporting activities to school leadership, while transparency fosters trust among stakeholders. Partnership aims to establish mutually beneficial relationships, and effectiveness measures TEFA's success in achieving its goals. Efficiency ensures achieving outcomes with minimal resource sacrifice.

The study shows that SMKN 1 Bancak's preparation for implementing cooperation with industrial partners has been successful. This success can be attributed to the use of TEFA, which requires a link and match between the school's learning patterns and the industry's needs. This link and match are established through the development of an industry relationship or industrial partnership. Here are some further explanations about industrial partners in preparing TEFA learning.

Table 6. Industrial partners

	Findings
Industrial partners in preparing TEFA learning	1. The implementation of TEFA requires the school to align its curriculum and teaching methods with the needs of the industry to provide relevant training and practical experience to students.
	2. Industrial partnership or relationship is crucial in TEFA implementation, as it provides students with exposure to real-world situations and enhances their employability.
	3. An effective partnership between the school and industry requires a clear understanding of each other's needs, goals, and expectations to ensure mutual benefit.
	4. TEFA's success in developing an industry relationship depends on the school's ability to establish trust, maintain transparency, and communicate effectively with the industry.
	5. The link and match between the school's learning patterns and the industry's needs facilitate the transfer of knowledge and skills, making students more job-ready and competitive.
	6. Industrial partnership or relationship in TEFA implementation provides a platform for collaboration between the school and the industry, promoting innovation, and sharing best practices.
	7. The implementation of TEFA in schools can contribute to the development of a skilled and competent workforce that can support the growth of the industry and the economy.

6. *Product information*

The research shows that SMKN 1 Bancak has made efforts to inform the public about its products. However, it is stated that the responsibility for marketing the products belong to the industrial partner. The school is only helping with the marketing process and is not fully involved in it. The school's focus is on production, and marketing has not been fully integrated into its operations. In conclusion, the findings suggest that SMKN 1 Bancak needs to improve its marketing efforts and work more closely with its partner company to promote

its products effectively. The school should also consider integrating marketing into its operations to ensure that it meets its goals for product promotion and sales.

Barriers to TEFA Learning through F2F (face-to-face) Learning

The research findings indicate that the preparation for TEFA learning in the Fashion Department of SMKN 1 Bancak has been carried out optimally, but some obstacles have been identified, including constraints in the areas of infrastructure and human resources.

Table 7. Barriers to TEFA Learning through F2F (face-to-face) Learning

Constraints	Explanation	Solutions
Facilities and equipments	Lack of equipment, materials, and work equipment.	The school borrows equipment and materials from their industrial partner
	Facilities and infrastructure were incomplete and non-uniform work equipment, with many students not using gloves and masks.	SOP has been established for students to comply with the use of masks and gloves
Human resources	The lack of teachers with appropriate competencies in the Fashion Department.	Several teachers will be assigned to assist in TEFA learning and will be provided with education and training on fashion competencies before the implementation
	The supervising and technical implementing teachers from the partner DUDI company only consist of one person each	assign additional teachers from the school to assist with the implementation of the TEFA program. Beforehand, these teachers should receive education and training on the competencies required in the field of fashion. This education and training can take the form of a training program provided by the partner DUDI company. By increasing the number of supervising and technical implementing teachers, the school can ensure that the TEFA program is adequately supported and implemented effectively.

DISCUSSION

The excerpt discusses the importance of educational facilities, infrastructure, and industrial relations in vocational education. According to Barnawi & Arifin (2012), educational facilities are all equipment, materials, and furniture used directly in the educational process,

while infrastructure refers to all school equipment that indirectly supports the learning process. In accordance with the National Education Ministry Regulation No. 40 of 2008 on the Standards of Education Infrastructure for Vocational High Schools (SMK), an SMK must have infrastructure categorized into general learning spaces, support spaces, and special learning spaces, along with equipment in each room.

The excerpt also emphasizes the importance of industrial relations in vocational education. As stated by ATMI Biz-Dec (2015), a school-industry relationship can support practical activities that apply industrial culture, such as quality standards, target times, production process efficiency, shift work, clear work procedures, practical results as a source of income, clear functions and responsibilities for each accountable person, a safe and comfortable working environment, and smooth learning activities. Through collaboration with industries, schools can benefit from training and facilities that will create an industrial culture within the school. This collaboration will provide schools with a standardization of production-based learning activities similar to those in the industrial world.

In line with TEFA Learning Guide issued by the SMK Development Directorate (2020), the work uniform worn by students during TEFA learning must comply with safety and health requirements as a standard work procedure. Gloves are required for production activities. The requirement for safety and health compliance in TVET programs is mandated by government regulations and guidelines. In Indonesia, for example, the Directorate of Vocational High School Development released a guide for TVET learning in 2020, which stipulates the use of appropriate personal protective equipment, including gloves, during practical activities (Direktorat Pembinaan SMK, 2020). This emphasizes the importance of creating a safe and healthy learning environment for students (Al-Dhafiri, A. A., Al-Shammari, N. M., Al-Jabri, M. M., & Al-Atawi, A. M., 2021; Oyewale, O. S., & Olowolaju, T. O., 2019; Nwaru, J. C., & Adogu, P. O. U., 2021).

The goal of the school-industry internship program (teaching factory) in vocational schools, according to Amin (2020), is to support work readiness, combine skills, and enhance the professional character of SMK graduates according to the needs of the business world and companies. This is achieved through product/service-based learning activities that take place in an environment, atmosphere, governance, and actual business/ company standards. Wahjusaputri & Bunyamin (2021) also state that teacher and student competencies can be enhanced through training such as the TF-6M program tailored to industry needs, online learning through the KCSI (Creative Camp for Indonesian Vocational Schools), and facilities such as laboratories or workshops that must comply with industry standards.

CONCLUSION

In conclusion, the readiness of implementing the teaching factory in SMKN 1 Bancak for the academic year 2021/2022 has been running well. This can be seen from seven important aspects of teaching factory implementation, including school conditioning, determination of product-services, learning tools, human resources (HR), management, industrial relations, and product information. However, there are some obstacles found in the preparation of TEFA learning in SMKN 1 Bancak, such as the lack of equipment, materials, work equipment, and limited personnel who master the competency of fashion. Efforts to overcome the lack of equipment include borrowing equipment and materials from DUDI partners, providing uniforms and work equipment, and conducting education and training for teachers.

These efforts can improve the quality of the teaching factory and provide a better learning experience for the students.

Based on the conclusions drawn, it is suggested that the school should plan more carefully for the implementation of TEFA, particularly in terms of the school's human resources. The school should conduct training for the fashion teachers before implementing TEFA. Moreover, the school should improve its ability to allocate budget for the implementation of TEFA to avoid the shortage of equipment and materials.

Following the TEFA guidelines from the Directorate of SMK Development, the school needs to evaluate the implementation of Teaching Factory in terms of target clarity, market segments, market reach, and adjust methods and actors in promotional activities. The school should develop a plan for Teaching Factory product information and its implementation in accordance with the predetermined product targets. Communication media for Teaching Factory include brochures, leaflets, online media, and other forms of media that the school can use to provide information on the Teaching Factory's product.

The school needs to have various ways to provide information about the Teaching Factory's products, such as brochures, leaflets, websites, and other forms of media. The product information aspect is essential to develop marketing skills in students. The school needs to manage the marketing media that can be utilized while minimizing expenses, considering that the school's funding structure does not accommodate the needs of funding for promotional activities.

Based on the conclusions drawn, here are some suggestions for teachers and students to improve the implementation of TEFA. Suggestions for teachers: 1) Conduct an evaluation of the TEFA implementation and identify areas of improvement; 2) Provide training to teachers who need to improve their competencies in the area of fashion design; 3) Plan and allocate the budget for the TEFA implementation more effectively, to avoid a shortage of equipment and materials; 4) Implement regular monitoring and evaluation to ensure that the quality of TEFA implementation is improving. Suggestions for students; 1) Increase motivation and enthusiasm for learning and participating in TEFA activities; 2) Identify and maximize their talents in fashion design, so that they can contribute to the success of the program; 3) Take advantage of the learning opportunities offered by TEFA to develop entrepreneurship skills and prepare for future careers in the fashion industry.

Overall, the success of the TEFA program depends on the collective efforts of all stakeholders involved, including the school, teachers, and students. By working together and taking these suggestions into consideration, the quality of TEFA implementation can be improved and the program can better achieve its goal of producing quality and skilled entrepreneurs in the fashion industry.

References

- Al-Dhafiri, A. A., Al-Shammari, N. M., Al-Jabri, M. M., & Al-Atawi, A. M. (2021). The Importance of Safe and Healthy Learning Environments for Students: An Analytical Study. *Journal of Education and Learning*, 10(3), 295-304.
- Amin, M. (2020). *Panduan pelaksanaan Teaching Factory*. Jakarta: Direktorat Pembinaan Sekolah Menengah Kejuruan, Direktorat Jenderal Pendidikan Dasar dan Menengah, Kementerian Pendidikan dan Kebudayaan.
- Amin, M. (2020). The Effect of Factory Teaching Program on the Work Readiness of Vocational School Students. *Journal of Education and Vocational Research*, 11(1), 1-10.
- ATMI-BizDec. (2015). *Teaching Factory Coaching Programme*. Jakarta: Kemendikbud.
- Barnawi, B., & Arifin, A. (2012). *Prinsip Dasar Pendidikan Teknologi dan Kejuruan*. Jakarta: Kencana Prenada Media Group.
- Direktorat Jenderal Pendidikan Dasar dan Menengah Kementerian Pendidikan dan Kebudayaan. (2019). *Panduan Pengembangan Teaching Factory*. Jakarta: Direktorat Pembinaan SMK Direktorat Jenderal Pendidikan Dasar dan Menengah Kementerian Pendidikan dan Kebudayaan.
- Direktorat Pembinaan SMK. (2020). *Panduan Pembelajaran TEFA*. Retrieved from https://simpuh.kemdikbud.go.id/portal/upload/dokumen/Dokumen_1599057929.pdf
- Fitrihana, N. (2018). Rancangan Pembelajaran Teaching Factory di SMK Tata Busana. *HEJ (Home Economics Journal)*, 2(2).
- Hasanah, & Purnamawati. (2017). Kesiapan Unit Produksi Dalam Pelaksanaan Pembelajaran Kewirausahaan Berbasis Teaching Factory di Sekolah Menengah Kejuruan Kota Makassar. *Jurnal Universitas Negeri Makassar*, 3(1). <https://ojs.unm.ac.id/semnaslemlit/article/view/4101>
- Jatmika, S. (2018). Pelaksanaan Kemitraan Antara Sekolah, Keluarga, Dan Masyarakat Pada Smk Bisnis Manajemen Kota Surakarta. *Jurnal Pendidikan Ilmu Sosial*, Vol 28, No.2.
- Kemendikbud. (2018). Permendikbud No. 34/2018 tentang Standar Nasional Pendidikan SMK/MAK. *Kementrian Pendidikan Dan Kebudayaan RI*.
- Kuswanto, A. (2014). *Teaching Factory Rencana dan Nilai Enterpreneurship*. Yogyakarta: Graha Ilmu.
- National Education Ministry Regulation No. 40 of 2008 on the Standards of Education Infrastructure for Vocational High Schools (SMK).
- Nwaru, J. C., & Adogu, P. O. U. (2021). School Environment and Students' Health: A Systematic Review of Literature. *Journal of Education and Practice*, 12(8), 25-33.

- Oyewale, O. S., & Olowolaju, T. O. (2019). The Role of Safety and Health in Enhancing Learning in Educational Institutions. *Journal of Educational and Social Research*, 9(2), 88-95.
- Saldana, & Huberman. M. (2017). *Qualitative Data Analysis*. America. SAGE Publications.
- Santosa, H. (2018). *Pengelolaan Pembelajaran Berbasis Teaching Factory Program Kompetensi Busana Butik di SMK Muhammadiyah Susukan Kabupaten Semarang. Naskah Publikasi Tesis. Program Studi Magister Administrasi Pendidikan Sekolah Pascasarjana Universitas Muhammadiyah Surakarta.*
- Sugiyono. (2018). *Metode Penelitian Kuantitatif dan Kualitatif, R & D*. Bandung: Alfabeta.
- Sutama. (2016). *Metode Penelitian Kuantitatif, Kualitatif, PTK, R&D*. Surakarta: Fairuz Media.
- Suryana, S., Dirawan, G. D., Saludung, J., & Widodo, S. (2019). *Pengelolaan Sanggar Busana Berbasis Teaching Factory Pada Jurusan Tata Busana SMK Negeri 6 Makassar. Prosiding Seminar Nasional Sinergitas Multidisiplin Ilmu Pengetahuan Dan Teknologi (SMIPT), 2(1).*
- Suyatmini, Rohmah, W., Hasanah, U.U., & Setiyana, B.E. (2021). Pola Pembelajaran Akuntansi Sekolah Menengah Kejuruan Dengan Mengadopsi Teaching Factory. *Jurnal Pendidikan Ilmu Sosial*, Vol. 31, No.2.
- Syafaruddin. (2015). *Manajemen Lembaga Pendidikan Islam*. Jakarta: Ciputat Press.
- TEFA Learning Guide issued by the SMK Development Directorate (2020).
- Wahjusaputri, S., & Bunyamin, M. A. (2021). Challenge of Teaching Factory Based on School's Potentials In West Java During Covid-19 Pandemic. *Turkish Journal of Computer and Mathematics Education*, 12(7).
- Wahjusaputri, S., & Bunyamin, M. A. (2021). Enhancement of Teacher Competence in Vocational School through Creative Camp for Indonesian Vocational Schools. *Journal of Technical Education and Training*, 13(1), 44-58.

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