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Development of a Standard Operating Procedure for Hand Care (Manicure) Services at the Universitas Negeri Jakarta Salon: a Link-and-Match Approach with the Martha Tilaar Industry

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ABSTRACT

The absence of a standardized Standard Operating Procedure (SOP) for manicure services at the Jakarta State University Salon has resulted in inconsistent service implementation, leading to variations in service procedures among student practitioners. This study aimed to develop a feasible Standard Operating Procedure (SOP) for manicure services at the Jakarta State University Salon by referring to the service standards implemented by Martha Tilaar. This research employed the Research and Development (R&D) method using the 4D development model, which consists of Define, Design, Develop, and Disseminate. The define stage was conducted through observations, interviews, and literature reviews. The design stage involved developing the SOP content, document structure, and layout based on the Regulation of the Minister of Manpower of the Republic of Indonesia Number 5 of 2017, the Indonesian National Work Competency Standards (SKKNI), observations at Martha Tilaar Salon, and manicure-related literature. The develop stage included validation by two material experts and one language expert, followed by practicality testing involving university students. The disseminate stage was carried out on a limited scale at the Jakarta State University Salon. The results indicated that the developed SOP was categorized as Highly Feasible, with validation scores of 98.33% from the first material expert, 100% from the second material expert, and 82% from the language expert. The practicality test showed that the SOP was Highly Practical, with scores of 93.9% in the one-to-one trial and 91.8% in the small-group trial. Therefore, the developed Standard Operating Procedure (SOP) for manicure services is considered feasible and practical as a service guideline at the Jakarta State University Salon.

1. Introduction

The beauty service industry in Indonesia has experienced significant growth in recent years. Increasing public awareness of the importance of appearance and self-care has encouraged the expansion of various beauty businesses, ranging from conventional salons to modern spas and beauty clinics. According to Statista (2025), Indonesia's cosmetics and personal care market is projected to generate revenue of US$294.4 million in 2025, with an average annual growth rate of 2.44%. The high level of public interest in professional beauty services indicates that salon visits are no longer regarded merely as occasional needs but have become part of a lifestyle, thereby increasing the demand for skilled, standardized, and work-ready professionals.

Among the various self-care services available, hand care or manicure has become one of the most popular services among people of different age groups. A manicure is not merely intended to improve the appearance of the nails but also represents a form of hand health care that provides therapeutic benefits, such as improving blood circulation through massage techniques and maintaining the cleanliness and moisture of the hand skin (Wahyuni, 2022). The high demand for this service has made manicure one of the essential procedures that every beauty professional must master according to measurable and accountable implementation standards.

Recognizing the increasing demand for skilled and competent beauty professionals, higher education institutions that offer cosmetology study programs have a significant responsibility to prepare work-ready graduates. Universitas Negeri Jakarta (UNJ), through the Cosmetology Education Study Program and the Cosmetics and Beauty Care Study Program, actively implements practice-based learning supported by the UNJ Salon facility. This salon serves a dual function as a practical laboratory for students and as a beauty service facility for the general public, including hand care or manicure services. In this context, the quality of services provided by the UNJ Salon directly reflects the quality of education delivered by the study programs.

However, in carrying out these dual functions, the UNJ Salon continues to face a fundamental challenge, namely the absence of a standardized and systematically structured Standard Operating Procedure (SOP) for hand care or manicure services. Based on the researcher's preliminary observations, several problems were identified, including the absence of uniform written guidelines regarding manicure stages and techniques, variations in the use of products and equipment among student practitioners, limited understanding of sanitation and equipment sterilization procedures according to industry standards, and the absence of a performance evaluation system based on professional beauty standards. These conditions have caused inconsistencies in the quality of services received by customers from one session to another.

This procedural gap ultimately has direct implications for the quality of services received by customers. Tjiptono and Chandra (2019) explain that reliability, which refers to the ability to provide accurate and consistent services, is one of the most crucial dimensions in determining customer satisfaction in the service sector. Service quality evaluation includes five principal dimensions known as the SERVQUAL model, namely tangibles, reliability, responsiveness, assurance, and empathy. When service procedures are not standardized, service reliability becomes difficult to maintain, and customers may receive different experiences even when requesting the same service. In the beauty salon industry, these five dimensions are strongly influenced by the availability of standardized working procedures. Without standardized procedures, service quality depends heavily on the individual providing the service rather than on an established system. At the UNJ Salon, which also represents the image of an educational institution, low service consistency may affect the overall reputation of the study programs.

The demand for consistent service and quality standards has continued to increase along with the rapid dissemination of information through social media. Contemporary customers have become more critical and knowledgeable about appropriate beauty service standards. Therefore, they no longer consider only price but also evaluate procedural quality, the safety of the materials used, equipment cleanliness, and the professionalism of service providers. Kasmir (2017) emphasizes that structured and consistent excellent service is a key factor in maintaining customer trust and loyalty in the service sector. This condition further reinforces the urgency for the UNJ Salon to immediately establish a standardized SOP that aligns with industry practices.

This inconsistency must be addressed because an SOP constitutes a crucial instrument in the service industry, including the beauty sector. Tambunan (2019) defines an SOP as a written document containing detailed, sequential, and systematic working procedures that are formulated according to the objectives to be achieved. Similarly, Nur'aini (2020) states that an SOP comprises a series of written instructions concerning various operational processes, including how, when, where, and by whom a particular task must be performed. In the context of beauty services, an SOP functions not only as a technical guideline but also as a guarantee of customer safety and comfort, a hygiene standard, and an indicator of the professionalism of beauty practitioners. Therefore, the absence of a standardized SOP at the UNJ Salon directly affects both service quality and educational quality.

In addition to its operational function, an SOP also possesses substantial educational value in the context of vocational education. An SOP can serve as a structured learning reference for students, enabling them to understand not only "what must be done" but also "how, why, and according to which standards" a particular procedure must be performed. Ermavianti and Susilowati (2021), in the textbook Perawatan Tangan, Kaki, Nail Art, dan Rias Wajah Khusus dan Kreatif untuk SMK, emphasize that hand care instruction must follow systematic standardized procedures, beginning with the initial consultation and ending with post-service recommendations. This principle aligns with the

requirements of the Indonesian National Work Competency Standards, or Standar Kompetensi Kerja Nasional Indonesia (SKKNI), in the field of Skin Beauty issued by Kementerian Tenaga Kerja RI (2021), which stipulate that every beauty program graduate must be able to perform hand care procedures in accordance with industry Standard Operating Procedures.

Nevertheless, actual conditions indicate that a gap remains between the expected competency standards and the practical readiness of vocational education graduates. To bridge this gap, the government, through the Directorate General of Vocational Education, introduced the link-and-match policy, which requires vocational education institutions to align their curricula, instructional methods, and graduate competency standards with the actual needs of industry (Direktorat Jenderal Pendidikan Vokasi, 2021). Sugiyono (2019) emphasizes that Research and Development studies in vocational education should focus on producing applicable products that are relevant to real-world contexts, particularly the context of the professional beauty industry.

One of Indonesia's leading beauty companies that can serve as a reference in developing the SOP is the Martha Tilaar Group. As a pioneer of the local-wisdom-based beauty industry that has operated for more than five decades, Martha Tilaar has developed comprehensive and tested SOPs for various beauty services, including hand care or manicure. The standards implemented by Martha Tilaar encompass the technical aspects of treatment procedures, equipment hygiene and sterilization, ethics and communication with customers, and comprehensive customer satisfaction evaluation. These standards also align with the Indonesian National Work Competency Standards, or Standar Kompetensi Kerja Nasional Indonesia (SKKNI), in the field of Skin Beauty established by Kementerian Ketenagakerjaan RI (2021) as a national competency reference for professional beauty practitioners in Indonesia.

The UNJ Cosmetology Education Study Program is also planning a collaboration with Martha Tilaar to develop the UNJ Salon into an industry-standard educational salon. Under this plan, the UNJ Salon is expected not only to function as a place for student practice but also to serve as a benchmark for service standards implemented in the professional beauty industry. Therefore, developing an SOP for manicure services at the UNJ Salon based on Martha Tilaar's operational standards represents a strategic step that can strengthen the quality of the educational salon while also implementing the link-and-match concept between education and industry in a practical manner (Kotler & Keller, 2016; Kemendikbud, 2021).

Relevant previous studies have demonstrated that the development and implementation of SOPs play an important role in establishing consistent working standards. Bella Adriana (2023) developed an SKKNI-based SOP for sweet bread production and produced an SOP that was considered feasible for use as a working guideline according to competency standards. Karlina (2021) designed an SOP for Bunda Umar Salon as an effort to improve the consistency and quality of salon services. Meanwhile, Tzabita (2023) found that implementing an excellent-service SOP could improve work effectiveness and maintain the quality of services delivered to customers. These findings indicate that SOPs can serve as important instruments for improving service quality, consistency, and professionalism, thereby supporting the development of an SOP for hand care or manicure services at the Universitas Negeri Jakarta Salon.

Although numerous studies have examined the development and implementation of SOPs in various fields, including manufacturing, health services, and beauty salons, no previous study has specifically developed an SOP for hand care or manicure services in an educational salon by referring to professional beauty industry standards. Furthermore, the Universitas Negeri Jakarta Salon has not yet established a manicure service SOP developed according to the link-and-match concept with the Martha Tilaar industry. Therefore, the novelty of this study lies in developing a manicure service SOP specifically designed for an educational salon by referring to industry standards as an effort to improve the quality of learning and services.

Based on the preceding discussion, the development of an SOP for hand care or manicure services at the UNJ Salon that adopts a link-and-match approach with Martha Tilaar industry standards represents an urgent and strategic need. The resulting SOP is expected to provide a uniform reference for all student practitioners, improve the quality and consistency of services provided to customers, and bridge the gap between educational practices and the requirements of

the beauty industry. On this basis, the researcher selected the title "Development of a Standard Operating Procedure for Hand Care (Manicure) Services at the Universitas Negeri Jakarta Salon: A Link-and-Match Approach with the Martha Tilaar Industry" as the primary focus of this study.

2. Research Design and Methodology

This study employed a Research and Development (R&D) approach to develop a digital Standard Operating Procedure (SOP) for hand care or manicure services at the Universitas Negeri Jakarta Salon. R&D is a systematic research method used to produce a specific product and assess its feasibility or effectiveness (Sugiyono, 2019). Sukmadinata (2016) further explains that development research involves a series of structured procedures for creating a new product or improving an existing one based on accountable empirical data. The study was conducted from March to July 2026 at the UNJ Salon, located in the SFD Building, Tower A, Universitas Negeri Jakarta.

The development process applied the Four-D model developed by Thiagarajan, Semmel, and Semmel (1974), which consists of Define, Design, Develop, and Disseminate stages. The model was selected because it provides systematic and sequential procedures for developing and evaluating an educational product. According to Trianto (2010), the Four-D model enables researchers to evaluate each stage of product development clearly and systematically. The product was designed primarily for students in the Cosmetology Education Study Program and the Cosmetics and Beauty Care Study Program who undertake practical assignments at the UNJ Salon.

The Define stage focused on identifying existing service conditions, user needs, task sequences, and conceptual foundations. In accordance with Thiagarajan et al. (1974), this stage included front-end analysis, user analysis, task analysis, concept analysis, and the formulation of development objectives. Data were obtained through observations of manicure services and semi-structured interviews with students working at the UNJ Salon. The task analysis mapped the entire service process, including customer reception, preparation of equipment and materials, client preparation, manicure procedures, service completion, and payment. The conceptual analysis referred to the Indonesian National Work Competency Standards for Skin Beauty, Minister of Manpower Regulation No. 5 of 2017, relevant manicure literature, and observations of professional practices at Martha Tilaar.

The Design stage involved determining the assessment criteria, product format, document structure, and initial prototype. Mulyatiningsih (2016) states that the design stage includes the formulation of criterion-referenced standards, media selection, format selection, and initial product design. The SOP was arranged in a flowchart format combined with detailed procedural descriptions. Its structure included the SOP identity, objectives, scope, definitions, practitioner qualifications, equipment and materials, quality standards, procedural descriptions, and the complete manicure service flow. The initial prototype was then prepared for expert evaluation and revision.

During the Develop stage, the SOP was evaluated by subject-matter and language experts before being tested with student users. The validators assessed content accuracy, procedural relevance, document completeness, language clarity, visual presentation, and ease of use. Data were collected using questionnaires based on a five-point Likert rating scale. Sugiyono (2023) explains that questionnaires allow researchers to obtain systematic responses from participants, while rating scales convert judgments regarding product quality into quantitative scores. After expert validation and revision, practicality testing was conducted to evaluate the SOP's readability, clarity, usefulness, and applicability in actual manicure service activities.

The collected data were analyzed using qualitative and quantitative approaches. Qualitative data from observations, interviews, and expert comments were reduced, organized, interpreted, and used as the basis for product improvement, following the descriptive analysis principles proposed by Sugiyono (2019). Quantitative scores from expert validation and practicality testing were converted into percentages and interpreted using feasibility criteria adapted from Arikunto (2019). The Disseminate stage was conducted on a limited scale by providing the final SOP to the UNJ Salon management and relevant lecturers. Wider dissemination was not conducted because of the limited scope and duration of the study, which is common in undergraduate development research (Mulyatiningsih, 2016).

Table 1. Product Feasibility Criteria

Rentang Hasil	Kualifikasi	Konversi
75% < X ≤ 100%	Sangat Baik	Sangat Layak
50% < X ≤ 74,99%	Baik	Layak
25% < X ≤ 49,99%	Cukup Baik	Tidak Layak
0% < X ≤ 24,99%	Kurang Baik	Sangat Tidak Layak

Source: Adapted from Arikunto (2019)

3. Findings and Discussion

a. Findings

Product Development Process

This study produced a printed Standard Operating Procedure (SOP) for hand care or manicure services at the Universitas Negeri Jakarta Salon. The document was designed for direct use by students undertaking practical assignments at the salon. The research was conducted from March to July 2026 and involved students from the Cosmetics and Beauty Care Study Program who were enrolled in the Beauty Industry Management course and carried out practical service activities at the UNJ Salon.

The SOP was developed using the Four-D model proposed by Thiagarajan, Semmel, and Semmel (1974), which comprises the Define, Design, Develop, and Disseminate stages. This model was selected because it offers a systematic development sequence that begins with identifying user needs and continues through product design, validation, revision, testing, and limited dissemination. The development process aimed to produce an SOP that met the operational needs of the UNJ Salon while remaining aligned with professional beauty industry standards.

Define Stage

The Define stage focused on identifying the existing conditions, user characteristics, operational problems, and product development needs. According to Thiagarajan, Semmel, and Semmel (1974), this stage requires a needs analysis to ensure that the resulting product responds appropriately to actual field conditions. In this study, the needs analysis involved observations at the UNJ Salon, interviews with students who had provided manicure services, a review of relevant literature, and direct observation at a Martha Tilaar salon as an industry partner.

The initial observation at the UNJ Salon showed that manicure services were performed at a designated manicure and nail-art workstation. Students directly served both walk-in customers and customers who made reservations through the salon's Instagram account. However, the salon did not yet have a specific written SOP for manicure services. The available documents were limited to general salon regulations and receptionist job descriptions. Consequently, students relied on their individual understanding, which resulted in variations in service sequences, product use, customer handling, administrative recording, and the consistent use of personal protective equipment.

These findings demonstrate the need for a standardized working guideline. Tambunan (2019) defines an SOP as a systematically organized working guideline that enables personnel to perform tasks consistently. Similarly, Nur'aini (2020) explains that an SOP functions as a reference for performing work so that each practitioner can achieve a uniform level of service quality. Therefore, the main requirement identified at the UNJ Salon was an SOP capable of standardizing service procedures, improving students' consistency, strengthening occupational safety practices, and completing the salon's administrative system.

Interviews with two students who had previously provided manicure services confirmed these findings. Although the students had experience serving customers, their limited practice frequency affected their confidence. They expressed uncertainty about the sequence of service procedures, particularly during cuticle removal, which requires precision to prevent injury. They also reported differences in product selection, service techniques, and estimated service duration among student practitioners. In addition, the salon had not provided customer data forms, service analysis sheets, or other administrative documents for recording customer service histories.

The students stated that they needed a systematic and accessible SOP containing detailed procedures, flowcharts, estimated service times, and supporting administrative forms. Such a

document was expected to improve procedural consistency and help students provide manicure services more confidently and professionally.

A literature review was then conducted to establish the conceptual and regulatory foundations of the product. The preparation and structure of the SOP referred to the Regulation of the Minister of Manpower of the Republic of Indonesia Number 5 of 2017, Nur'aini's (2020) *Panduan Lengkap Menyusun SOP dan KPI*, and Rifka's (2017) *Step by Step Lancar Membuat SOP*. These references guided the selection of document components, procedural organization, and flowchart presentation.

The technical content of the manicure service was developed based on the Indonesian National Work Competency Standards for Skin Beauty, Sulistyorini and Susilowati (2021), Rahmiati et al. (2025), and Herawati (2023). These references informed the sequence of manicure procedures, the selection of equipment and materials, sanitation and hygiene requirements, the use of personal protective equipment, service techniques, and customer aftercare education.

An industry observation was also conducted at the Martha Tilaar Salon in Depok to support the link-and-match concept between vocational education and the professional beauty industry. The researcher observed the complete customer service process, including customer reception, consultation, nail assessment, equipment preparation, manicure procedures, communication, sanitation practices, aftercare education, payment, and administrative recording.

The observation revealed that Martha Tilaar implemented a systematic and consistent service flow. Each service stage followed a clear sequence and included a defined time allocation. Beauticians actively explained the procedures, maintained customer comfort, implemented hygiene standards, and completed supporting administrative records. These practices differed from those at the UNJ Salon, where service implementation still depended largely on each student's understanding.

Several industry practices were subsequently adapted to the UNJ Salon context. These included the complete customer service sequence, structured procedural stages, service time estimates, service-excellence communication, sanitation standards, and supporting administrative documents. The adaptation considered the UNJ Salon's dual function as a learning laboratory and a public beauty service facility.

Design Stage

The Design stage involved developing the content, document structure, format, and visual layout of the SOP. The content was based on the needs analysis, the Indonesian National Work Competency Standards, observations at the Martha Tilaar Salon, manicure-related literature, and field findings from the UNJ Salon. The SOP was divided into three principal procedures: customer reception, hand care or manicure service, and service completion.

Table 2. Main Content of the Developed SOP

No.	SOP Procedure	Main Activities	Development Basis
1	Customer reception procedure	Welcoming customers, conducting an initial consultation, selecting the service, and preparing for the treatment	Observations at Martha Tilaar Salon, SKKNI Units S.96KEC00.017.1 and S.96KEC00.006.1, and observations at the UNJ Salon
2	Hand care or manicure procedure	Preparing tools and materials, applying sanitation and hygiene procedures, examining the hands and nails, performing the manicure, and providing aftercare	SKKNI for Skin Beauty, Sulistyorini and Susilowati (2021), Rahmiati et al. (2025), Herawati (2023), and observations at Martha Tilaar Salon
3	Service completion procedure	Completing administrative records and conducting payment transactions	Observations at Martha Tilaar Salon and SKKNI Unit S.96KEC00.035.1

Supporting administrative documents were also included, such as a customer administration book, customer data card, hand care analysis sheet, salon cashbook, payment receipt, and customer

satisfaction form. These components enabled the SOP to function not only as a technical guideline but also as a tool for organizing salon administration.

Each SOP contained a document header, scope, description, objectives, practitioner qualifications, warnings, references, required documents, equipment and materials, procedural steps, estimated completion time, and quality standards. The header contained the institution's logo and name, document number, preparation date, revision date, effective date, SOP title, and approval column. The quality standards specified the minimum requirements for equipment, duration, and expected outcomes at each service stage.

The SOP was presented in an A4 portrait format and combined written procedural descriptions with flowcharts. Flowcharts were used to clarify the service sequence, particularly when a procedural decision was required. This format was selected to help students understand the process more efficiently than through narrative explanations alone. The document was systematically organized into a cover page, preliminary section, introduction, three principal SOPs, and supporting administrative appendices.

Develop and Disseminate Stages

During the Develop stage, the initial SOP was validated by two subject-matter experts and one language expert. The first subject-matter expert was Dr. Sitti Nursetiawati, M.Si., a lecturer in the Cosmetology Education Study Program with expertise in hand and foot care. The second was Yati Tinuk, Supervisor of the Martha Tilaar Salon Cikini Branch. Language validation was conducted by Dr. Nurita Bayu Kusmayati, M.Pd., a lecturer in the Indonesian Language and Literature Education Study Program.

The experts evaluated the appropriateness of the content, procedural accuracy, SOP structure, visual presentation, and language. Their recommendations were used to revise the product before practicality testing. The revised SOP was then assessed through a one-to-one test involving three students with salon practice experience and a small-group test involving 20 students from the 2023 cohort of the Cosmetics and Beauty Care Study Program.

The Disseminate stage was conducted on a limited scale. The final SOP was submitted to the UNJ Salon for use as an operational guideline and as a reference for students undertaking manicure service practice. Broader dissemination was not conducted because the product was specifically developed to address the operational needs of the UNJ Salon.

Product Feasibility

The first subject-matter expert awarded a total score of 59 out of a maximum score of 60, resulting in a feasibility percentage of 98.33%. This result placed the product in the "Highly Feasible" category. The expert recommended increasing the font size, particularly in the appendices, adding several payment options to the service completion procedure, developing a clearer standardized digital payment format, and strengthening Occupational Safety and Health elements in the SOP.

The second subject-matter expert awarded the maximum score of 60, resulting in a feasibility percentage of 100%. The expert recommended adding a customer data-card completion stage, including customer identity and health history, adding the customer data-card format to the appendices, and incorporating a customer satisfaction form into the service completion procedure.

The language expert awarded a total score of 41 out of 50, resulting in a feasibility percentage of 82%. This score also placed the SOP in the "Highly Feasible" category. The language expert concluded that the document was suitable for use without revision.

Table 3. Summary of Expert Validation Results

Validator	Percentage	Category	Decision
Subject-Matter Expert I	98.33%	Highly Feasible	Feasible with revisions
Subject-Matter Expert II	100%	Highly Feasible	Feasible with revisions
Language Expert	82%	Highly Feasible	Feasible without revision

Overall, the two subject-matter validation results indicate that the SOP content met the requirements for manicure services and was suitable for use as a service guideline at the Universitas

Negeri Jakarta Salon. The revisions strengthened customer administration, occupational safety, payment procedures, readability, and customer satisfaction evaluation.

Product Practicality

The one-to-one practicality test involved three students who had previously completed service practice at the UNJ Salon. The respondents studied the SOP through a Google Drive link and completed an assessment questionnaire through Google Forms. The test produced a total score of 155 out of a maximum score of 165, equivalent to 93.9%. Based on the predetermined interpretation criteria, the SOP was categorized as "Highly Practical."

The small-group practicality test involved 20 students who had completed practical service activities at the UNJ Salon. The evaluation covered content, language, visual presentation, and usefulness. The total score was 1,010 out of a maximum score of 1,100, resulting in a practicality percentage of 91.8%. This result also placed the SOP in the "Highly Practical" category.

Table 4. Summary of Practicality Test Results

Test Stage	Number of Participants	Percentage	Category
One-to-one test	3 students	93.9%	Highly Practical
Small-group test	20 students	91.8%	Highly Practical

These results demonstrate that the SOP was easy to understand, accessible, useful, and applicable as a guideline for manicure services at the UNJ Salon. The consistently high scores from both testing stages indicate that the product met the practical needs of its intended users.

b. Discussion

The development of the manicure service SOP through the Four-D model provided a systematic route from needs identification to product dissemination. The Define stage established that the UNJ Salon did not have a standardized manicure guideline. This condition caused variations in work sequences, customer handling, sanitation practices, and administrative procedures. The Design stage transformed these needs into a structured document based on government regulations, national competency standards, academic literature, and professional practices observed at Martha Tilaar.

The involvement of Martha Tilaar strengthened the link-and-match dimension of the study. Although the company's internal SOP documents could not be accessed because of confidentiality restrictions, direct observation and validation by the Martha Tilaar Salon supervisor provided relevant industry-based input. This process enabled the researcher to integrate professional service standards while adjusting them to the educational and operational characteristics of the UNJ Salon.

The expert validation results showed that the developed SOP achieved a high level of feasibility. The scores of 98.33% and 100% from the subject-matter experts indicate that the content, service sequence, and document structure met the requirements of manicure services. The language validation score of 82% confirms that the document used clear and understandable language. Revisions concerning occupational safety, customer records, service satisfaction, payment procedures, and document readability further strengthened the quality of the final product.

The practicality scores of 93.9% in the one-to-one test and 91.8% in the small-group test demonstrate that students could understand and use the SOP effectively. The flowcharts, estimated service times, quality standards, and supporting administrative forms helped students follow the manicure service process in a more structured and consistent manner. These findings support the use of the SOP as both an operational guideline and a vocational learning resource.

Several factors supported the product development process. The researcher had direct access to the UNJ Salon, allowing the actual service conditions to be observed. Observation at the Martha Tilaar Salon also provided a valuable industry benchmark. In addition, constructive recommendations from the validators contributed substantially to product improvement.

However, the study encountered several limitations. At the time of practicality testing, the UNJ Salon was not operating, and the participating students had completed their salon practice. Therefore, the practicality questionnaires had to be administered online. Time constraints and the need to coordinate validation schedules also affected the development process.

The principal strength of the product lies in its position as the first manicure service SOP specifically developed for the UNJ Salon and aligned with Martha Tilaar's professional service

practices. The SOP provides systematic procedures, flowcharts, estimated completion times, quality standards, occupational safety provisions, and supporting administrative documents. As a result, it offers a more comprehensive guideline than the previously available salon documents.

Nevertheless, the product covers only hand care or manicure services and can't yet be applied to other beauty treatments. The SOP remains primarily a printed document, its effectiveness in improving actual service quality has not been experimentally tested, and its implementation has not been evaluated over an extended period. Future studies should develop SOPs for other salon services, transform the document into a more interactive digital format, and evaluate its long-term effectiveness in improving service consistency and customer satisfaction.

4. Conclusion

Based on the research and development process, this study produced a Standard Operating Procedure (SOP) document for hand care or manicure services at the Universitas Negeri Jakarta Salon through a link-and-match approach with the Martha Tilaar industry. The product was developed using the Four-D model, consisting of Define, Design, Develop, and Disseminate stages. The final document comprises an introductory section containing instructions for SOP use, a Customer Reception SOP, a Hand Care or Manicure Service SOP, a Service Completion SOP, and supporting administrative documents. These documents include a customer administration book, customer data cards, service analysis sheets, a cashbook, payment receipts, and customer satisfaction forms. The SOP was developed based on a needs analysis conducted at the Universitas Negeri Jakarta Salon and aligned with industry service standards through direct observation and validation by practitioners from Martha Tilaar Salon.

The feasibility test results indicated that the developed product was categorized as Highly Feasible. Subject-Matter Expert I awarded a score of 98.33%, Subject-Matter Expert II awarded 100%, and the language expert awarded 82%. In addition, the practicality tests produced scores of 93.9% in the one-to-one evaluation and 91.8% in the small-group evaluation, both of which were categorized as Highly Practical. These findings indicate that the SOP is easy to understand, easy to use, and appropriate for implementation as a guideline for hand care or manicure services at the Universitas Negeri Jakarta Salon.

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