

## Needs Assessment in Quality Improvement Management in Vocational Education (Case Study in Southwest Sumba, Indonesia)

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### Abstract

**Purpose:** The existing vocational education resources in Southwest Sumba do not yet have the appropriate quality, both from the aspect of collaboration to the output produced, in terms of graduates from related vocational education. Therefore, an approach related to needs assessment is needed to obtain input related to the quality development of vocational education from all stakeholders involved.

**Research Methodology:** To provide improvement suggestions to enhance the quality of vocational education, this study conducted a needs assessment which was carried out using desk reviews, focus group discussions, interviews, and field observations and involved various stakeholders come from regulators, implementers, and vocational education graduates' users.

**Results:** Based on the needs assessment that has been conducted, four main problems were found, including the number of irrelevant vocational education institutions with the needs, a limited number of local industries as graduates' users, less government commitment as a regulator, and less quality of graduated. Several solutions can be applied, such as creating a partnership forum with industries, enabling the internship opportunity, developing a skill development center, and implementing a teaching factory at existing vocational education.

**Limitations:** In this study, the involved stakeholders in the assessment tend to be incomplete, where students' perspectives as a product of vocational education cannot be accommodated and concluded properly.

**Contribution:** This research hopefully can be a reference in quality improvement management, especially in vocational education, and beneficial for vocational education development and, in a broad sense, education.

**Keywords:** *Vocational Education, Quality Improvement Management, Needs Assessment.*

### 1. INTRODUCTION

Based on data from the Central Statistics Agency (BPS), the open unemployment rate in Indonesia reached 7.01 million people and continues to increase. The open unemployment rate for the Vocational High School (SMK) education group is the highest among other education graduates at 9.27 percent, followed by High School (SMA) at 7.03 percent and diploma I/II/III at 6.35. percent (Perwita, 2017). The data on the highest unemployment rate above at least becomes the basis of this research in proving this. On the other hand, the issue of the quality of Vocational High School (SMK) education still needs to be improved, linked to the Job Training

Center (BLK) to build technical skills and competencies that are in line with the needs of today's business and industry.

The Job Training Center (BLK) is a forum for conducting training activities for participants who take part in the training so that participants are able to master a certain work competency that can be used as a provision for themselves to enter the job market (Yulzain & Jumiati, 2020). The specificity of learning in Vocational High Schools is not only with the learning of competency skills that are able to equip students to be ready to work in the business and industrial world (DUDI) but with the relevance of Vocational Schools with DUDI in order to achieve the goal of creating quality SMK graduates that are in accordance with DUDI needs. One of the right solutions to increase the relevance between SMK and DUDI is the Industrial Job Training Program (Prakerin) (Edi, Suharno, & Widiastuti, 2017). Training and development activities are equally important for both workers and employers. One of the keys to success in developing training programs within the organization lies in planning and training strategies, in this case planning and managing a training strategy involving four steps, *need assessment* (needs assessment), *the establishment of objectives and measures* (creating goals and measures), *design and delivery of the training* (designing and conducting training), and *evaluation* (evaluation) (Daud & Mobonggi, 2019).

The *needs assessment* for vocational education and training which includes Vocational High Schools (SMK) and Job Training Centers (BLK) in Southwest Sumba is the first step in efforts to improve the quality of vocational education and training, output of graduates, as well as linkage with the business and industrial world. (DUDI). Vocational High School is secondary education that prepares students to be ready to work in a particular field. Through Government Regulation Number 41 of 2015 concerning the development of industrial resources, a *teaching factory* and technopark program was launched in SMK.

The teaching factory program is a learning concept in production/service-based vocational schools that refers to the standards and procedures applicable in the business/industrial world and is carried out in an atmosphere like what happened in the Business and Industry World (Maulida, Widodo, & Sunarto, 2017). The framework for SMK includes at least 4 (four) output groups, namely: First, analysis related to policies at the national and local (provincial and district) levels including road-maps for developing SMK that will be or have been implemented in Southwest Sumba. Second, an analysis of the management of Vocational Schools in Southwest Sumba, especially how Vocational High Schools implement a link and match strategy with the business world and the industrial world. Third, an analysis of the capacity of educators in SMK in Southwest Sumba. Fourth, an analysis of the learning methods applied in SMK in Southwest Sumba.

Meanwhile, the framework for BLK includes 6 (six) output groups, namely: First, analysis related to policies at the national and local levels and the implementation of these policies in Southwest Sumba. Second, analysis of the role of central and local governments to develop and provide support for BLK in Southwest Sumba. Third, the list of BLK in Southwest Sumba and an analysis of the fulfillment of BLK to the business world and industry in Southwest Sumba. Fourth, analysis of BLK management including the training curriculum and BLK operational costs. Fifth, an analysis of the instructor capacity of the BLK. Sixth, an analysis of the training methods implemented at BLK in Southwest Sumba. Another reason for combining the needs assessment is because in its philosophy, Technical and Vocational Education and Training (TVET) does not try to separate formal and non-formal vocational education. UNESCO defines TVET as education and training that provides scientific insight and skills aimed at fulfilling the workforce using formal and non-formal approaches.

Furthermore, the approach taken by the Indonesian government to advance vocational education in Indonesia also encourages collaboration between vocational education (SMK) and vocational training (BLK). Meanwhile on the other hand, the Vocational Training Center (BLK) is one solution to improve the quality of the workforce, especially for people who only have an education level equivalent to SMA or SMK, who usually have low skills and are unable to continue to higher education levels. higher. BLK is an instrument of human resource development which is expected to transfer knowledge, skills and productive work ethic, with various existing curricula and programs (Amalia, Djumena, & Suherman, 2018). BLK is an alternative in improving the competence of the workforce, but in order to achieve the objectives of BLK, it is necessary to improve the BLK so that the initial objectives of the BLK can be achieved. Not all BLKs have been properly accredited, from the BNSP data recap that since 2014 there have been 102 accredited BLKs, or only 33% of the total existing BLKs. To maximize the role of the BLK, it is necessary to make changes to the existing system (Chairus Sakinah, 2021).

From the described background, it can be seen that the vocational education resources in Southwest Sumba do not yet have the appropriate quality, both from the aspect of cooperation to the output produced, in this case graduates from related vocational education. So it takes a needs assessment approach to be able to get input related to the needs needed in the management of quality

## **2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT**

Vocational education is one part of the education scheme and system in Indonesia, education focuses on strengthening performance, abilities, which certainly affect the output of every job done by everyone who gets education (Bagheri, Shamsaei, Ghourchian, & Jafari, 2021). In the world of education, quality improvement is centered on learning, thinking skills, and actions in a continuous and progressive cycle (Wong & Headrick, 2021). In a quality improvement management in the world of education there are several aspects that can be improved, starting from the people who run the education system (Manalili et al., 2022), collaboration with related stakeholders (Gonzalo et al., 2021), and the operational system of education that is run (Moran & Baghranian, 1994).

Studies related to quality improvement management are carried out with various approaches, ranging from making adjustments to the applicable regulations (Ismail, Daeng Pawero, & Umar, 2021), digitizing the education system, grouping certain education systems so that improvements are more focused and easy to do (Akhmedov, 2021), to analyzing the various needs needed by all stakeholders involved in an education system (Fajrussalam, H., Ruswandi, U., & Arifin, 2021). Of the various literatures that use several approaches, analysis of various needs or so-called needs assessment is considered the most general and can represent all stakeholders to regulate the operation of the operational system that occurs in the education system. So this study will conduct a needs assessment to find out the obstacles that occur and provide suggestions for improvement as a managerial strategy in improving the quality of vocational education, especially in Southwest Sumba.

## **3. RESEARCH METHODOLOGY**

To obtain data, several methods were used, including: desk study, interviews, observations, and focus group discussions (FGD). In conducting the needs assessment, several data collection methods will be carried out, namely interviews with key informants at the central level, interviews with key informants at the provincial level, interviews with key informants at the district level (SBD), focused discussions (FGD) at the district level, and observation. directly in SMK and BLK. Another method that is carried out but does not require

specific tools is literature review and expert review, where the researcher interprets these tools as semi-structured guidance so that the interviews and FGDs conducted are also semi-structured. This tool will only provide burning questions which the researcher uses the snowball method, which is to follow up on the answers of the informants with more in-depth and relevant questions. With this method, the information obtained will be richer and varied. The circuit designed in this study went through several stages as shown in Figure 1 below.

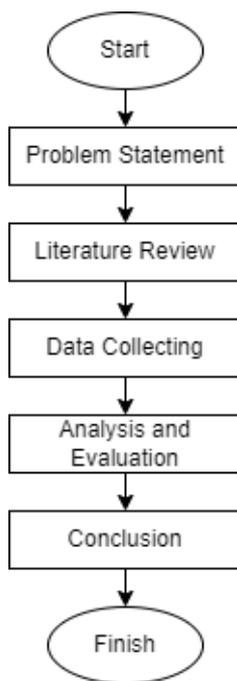


Figure 1. Research Flowchart

The desk study focuses on finding data related to regulations, literature reviews, other research related to vocations that have been carried out, as well as news from sources that can be trusted and verified. Interviews were conducted using a semi-structured questionnaire to obtain more in-depth information from key respondents. These key respondents come from stakeholders in Jakarta (national), the province, and also the SBD Regency. Resource persons in Jakarta included the Minister of Manpower of the Republic of Indonesia, Directorate of Institutional Development for Training of the Indonesian Ministry of Manpower, Expert Staff of the Indonesian Ministry of Manpower, Director of Vocational Development at the Ministry of Education and Culture of the Republic of Indonesia, Head of the National Education Standards Agency (BSNP), Head and Deputy Head of the National Professional Certification Agency (BNSP), and Director of Salesian Don Bosco Foundation. Observations were carried out in 12 SMKs which included 4 State Vocational High Schools and 8 Private Vocational Schools. The vocational schools are Pancasila Vocational School, Harapan Bangsa Vocational School, Don Bosco Vocational School, Tambolaka 1 Vocational School, Agriculture and Animal Husbandry Vocational School, Health Vocational School, Mawodana Vocational School, West Wewewa Vocational High School 2, Rada Pamba Vocational School, North Kodi Vocational High School 1, Kodi Vocational High School, and Ekapata High School. Meanwhile, the BLK/LPK that we observed were the BLK belonging to the district government in Lete Konda, the LPK Don

Bosco2, the Santa Maria Computer Course LPK, and the Women's Skills Education LPK at St. Maria. The existing data were then analyzed and cross-triangulated to verify the validity of one data with another. The FGD is also a very important forum to verify information as well as to get more in-depth information about a finding. The data collection method can be shown in the following figure below.

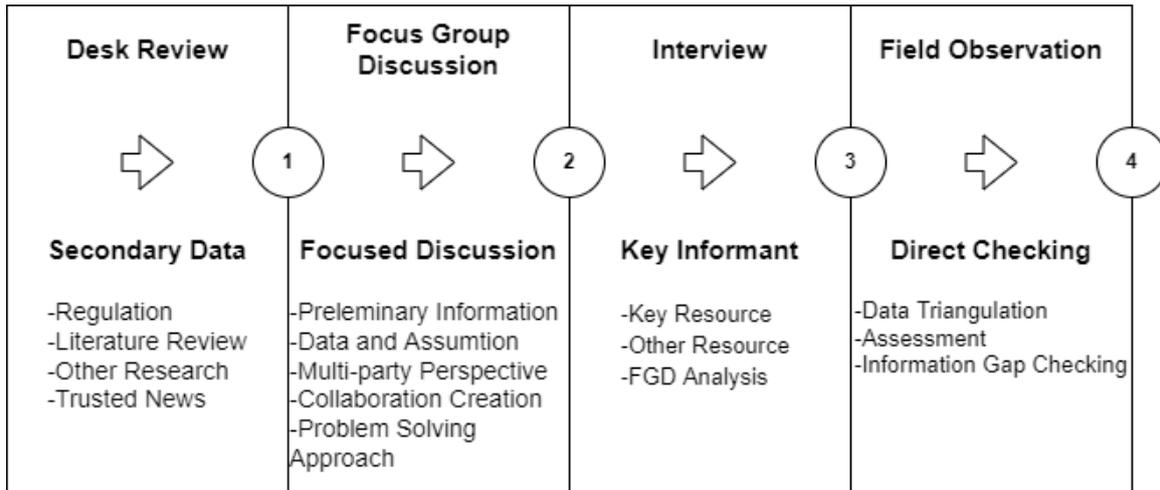


Figure 2. Data Collection Method

4. RESULTS AND DISCUSSIONS

The relationship between DUDI and SMK/BLK nationally shows enough commitment to strategic development efforts, however the results of the study show that this synergy has not yet been developed optimally. The efforts that have been made are more karicative and incidental, and not a mechanism for a stakeholder forum between BLK/SMK and the industrial world that was built based on a mutual agreement. The absence of a link and match between business and industry and BLK/SMK for the context of East Nusa Tenggara (especially Southwest Sumba)

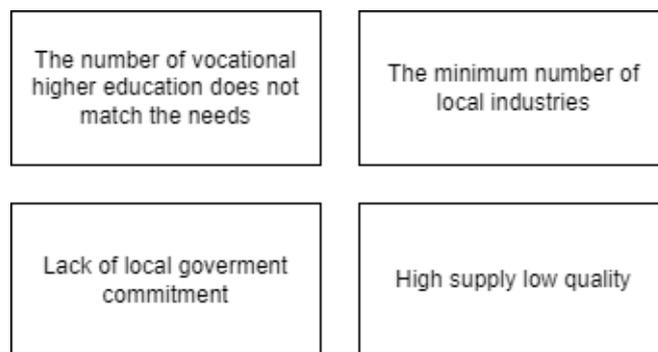


Figure 3. Bottleneck of Cooperation between SMK/BLK and DUDI

**First**, the existing departments are "saturated" majors that do not suit local needs or industry in the region. The establishment of majors so far has not carried out a needs assessment or feasibility study first and has tended to fulfill the formalities of the existence of a SMK/BLK. **Second**, Southwest Sumba barely has a large industry capable of absorbing labor.

Third, the local government's lack of commitment in advancing BLK. Fourth, the link and match between SMK and DUDI has not been well established, because every year SMK graduates do not have the qualifications or technical knowledge properly so that the graduates are not ready to work (high supply, low quality).

**5. CONCLUSION**

There are many patterns and models of cooperation/synergy between SMK, BLK and the industrial world. there are at least 4 (four) patterns in building this collaboration.

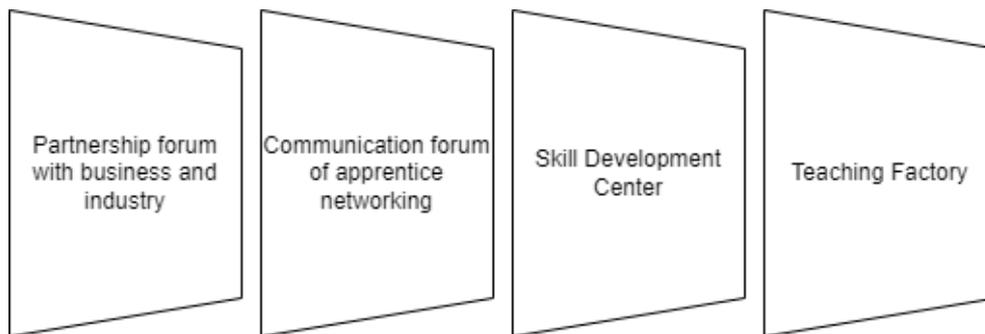


Figure 4. The Partnership Model for SMK/BLK and DUDI

**First**, at the central level, in this case the Ministry of Manpower, the mechanism used is to build stakeholder forums through vocational partnership networks (SMK/BLK) with DUDI. **Second**, in the form of a program, the central government in this case the Ministry of Manpower and the Ministry of Industry seeks to develop cooperation between BLK/SMK and DUDI through the SDC (Skill Development Center) program. **Third**, a more applicable partnership pattern, namely through the FKJP (Apprenticeship Network Communication Forum) program, this is a program of the Ministry of Manpower which is operationally carried out in the regions and implemented by the Provincial APINDO (Indonesian Employers Association). **Fourth**, the teaching factory model as developed by Yaman, Honda and Suzuki in collaboration with SMKs in Indonesia, this collaboration model allows the industry to directly intervene in the learning process and industrial internships/internships.

**LIMITATION AND STUDY FORWARD**

In this study, of course, there are still many shortcomings due to all the limitations caused by the limitations that exist in the researcher, the available resources, and the conditions and situations that occur during data collection. In this study, stakeholders and external parties involved in the assessment still tend to be incomplete, where the perspective of students as a product of vocational education cannot be accommodated and concluded properly. In future research, it is hoped that there will be improvements from the methods that have been implemented in this research, especially by adding students as stakeholders whose needs will be assessed for the existing vocational education system, in order to achieve good quality and outcomes in vocational education.

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