

Competency-Based Village Development: Skill Mapping Training and Productive Career Planning for Village Youth in Labuhanbatu

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Abstract.

Rural youth play a strategic role in supporting local economic development. However, many young people in rural areas still face limitations in identifying their personal potential, mapping competencies, developing career plans, and connecting their skills with productive opportunities in their local environment. This community service program aimed to strengthen the capacity of rural youth in Labuhanbatu Regency through skill mapping and productive career planning training. The program applied a participatory training approach consisting of preliminary observation, coordination with village partners, module preparation, pre-test implementation, material delivery, competency mapping practice, career planning exercises, group discussions, post-test, and program evaluation. The target participants included rural youth, youth organization members, senior high school or vocational school graduates, village-based university students, and prospective young entrepreneurs. The results indicated that participants improved their understanding of self-potential, work competencies, soft skills, career planning, and local economic opportunities. Participants were also able to develop individual competency maps and formulate short-, medium-, and long-term career action plans. This program contributes to rural human resource development through a competency-based mentoring model that can be further developed into a village talent bank, youth business incubation program, and continuous training agenda for youth organizations and village governments.

Keywords: *skill mapping; rural youth; career planning; human resource development; Labuhanbatu.*

I. INTRODUCTION

Village development cannot be understood solely as the construction of physical infrastructure, but also as a process of strengthening the human capacity of the primary actors in local development. In this context, village youth hold a strategic position because they are of productive age, have the potential to adapt to change, and can become drivers of the village economy, society, and institutions. However, this potential does not always develop optimally without the support of competency identification, career mentoring, workplace literacy, and strengthening local entrepreneurial orientation.

The development of rural human resources is becoming increasingly important in a changing economic climate characterized by the growing need for adaptive skills, digital literacy, communication, problem-solving skills, and work readiness. The OECD emphasizes that changes in the green and digital economy are driving the need for new skills, requiring individuals to be equipped with the ability to adapt to the ever-changing labor market and socioeconomic environment (OECD, 2023). In the context of global employment, the ILO also emphasizes that youth employment remains a key agenda item, as the future of youth employment is influenced by economic uncertainty, technological change, and increasingly competitive labor market dynamics (ILO, 2024).

Labuhanbatu Regency is one of the regions in North Sumatra with quite strong local economic potential, both in the agriculture, plantation, trade, services, and micro-enterprise sectors. However, this economic potential requires the support of human resources with productive competencies. Based on strategic data from the Central Statistics Agency (BPS) of Labuhanbatu Regency in 2024, the population of Labuhanbatu reached 520,545 people, the Labor Force Participation Rate was 65.46%, the Open Unemployment Rate was 5.90%, the number of poor people was 42.45 thousand people or 7.84%, and the Human Development Index was 75.20 (BPS Labuhanbatu Regency, 2025). These data indicate that strengthening the capacity of productive human resources is still relevant, especially for village youth groups

who have the potential to become workers, entrepreneurs, village development cadres, and drivers of the local economy.

One of the problems often faced by rural youth is their lack of ability to recognize their potential. Many youth possess specific skills, organizational experience, communication skills, technical talents, or informal work experience, but are unable to systematically map these skills as career capital. Furthermore, some youth lack a clear career plan. Career is still narrowly understood as seeking formal employment, whereas productive careers can encompass entrepreneurship, family businesses, MSME development, the digital economy, local services, modern agriculture, involvement in village institutions, and other competency-based work.

Theoretically, this activity is based on the concept of human capital, which positions education, training, skills, and experience as investments to increase individual productivity (Becker, 1993). From this perspective, rural youth are viewed not merely as beneficiaries but as human capital whose capacity can be enhanced through targeted training. The better youth are at identifying competencies and planning their careers, the greater their opportunities to participate in productive economic activities.

Furthermore, this activity is also relevant to a competency-based approach. McClelland (1973) emphasized that competencies are more appropriate for predicting performance than formal measures of intelligence. Spencer and Spencer (1993) explained that competencies encompass fundamental individual characteristics, such as knowledge, skills, self-concept, motives, and personal traits related to performance. Therefore, skill mapping can be an initial tool to help young people identify their strengths, weaknesses, interests, experiences, and self-development needs.

Career planning also has a strong theoretical foundation. Super (1980) views career development as a lifelong process related to an individual's developmental stage and social role. Meanwhile, Lent, Brown, and Hackett (1994), through social cognitive career theory, explain that career choices are influenced by self-efficacy, outcome expectations, and personal goals. In the context of rural youth, career planning is not simply about desired occupations; it also needs to link one's potential to local opportunities, social networks, family economic conditions, and village resources.

Community service activities focused on rural youth have typically focused on entrepreneurship training, digital marketing, MSME development, or technical production training. While these activities are important, gaps remain in the initial aspects of human resource development, namely individual competency mapping and the development of productive career plans. Without an understanding of individual competencies, technical training is often unsustainable because participants lack a clear development direction. Therefore, this community service activity offers a different approach: competency-based village development through skill mapping training and productive career planning.

This community service activity aims to increase the capacity of village youth in Labuhanbatu through skill mapping training and productive career planning, so that participants are able to recognize their potential, map core competencies, develop self-development plans, and identify job and entrepreneurial opportunities that are relevant to the village's local potential.

II. IMPLEMENTATION METHOD

This community service activity uses a participatory training approach. This approach was chosen because the activity aims not only to deliver material but also to encourage participants to actively participate in the process of problem identification, self-potential mapping, group discussions, competency mapping practice, and the formulation of productive career plans. With a participatory approach, participants are positioned as subjects of the activity, possessing experience, potential, and career aspirations that need to be systematically explored.

Location and Target of Activities

The activity was held in one of the partner villages in Labuhanbatu Regency. The target group was village youth, consisting of youth group members, high school/vocational school graduates, university students residing in the village, aspiring young entrepreneurs, and productive-age youth who did not yet have

a structured career plan. The planned number of participants was 25–35. This number was considered ideal for participatory training because it allowed for more effective interaction, individual mentoring, group discussions, and evaluation of participant achievements.

Activity Stages

The activity implementation stages are systematically structured, starting from needs identification to evaluation. These stages can be seen in Table 1.

Table 1. Stages of Community Service Activities

Stage	Activity	Objective	External
1	Initial observation and needs analysis	Identifying the initial conditions of village youth and training needs	Partner needs notes
2	Coordination with village government and youth organizations	Agree on participants, place, time and technical aspects of the activity	Implementation agreement
3	Preparation of training modules	Provide training materials that suit the needs of participants	Modules and worksheets
4	Pre-test	Measuring participants' initial understanding	Initial understanding data
5	Delivery of material	Provides an understanding of competencies, careers, and productive opportunities	Increased knowledge
6	Skill mapping practice	Helping participants map their skills and potential	Individual competency map
7	Career planning practice	Helping participants develop productive career plans	Career action plan
8	Group discussion and presentation	Strengthening reflection and feedback	Results of participant presentations
9	Post-test and evaluation	Measuring changes in participant understanding and satisfaction	Evaluation data
10	Follow-up recommendations	Developing a program sustainability agenda	Recommendations for the village

Training Materials

The training materials are designed based on the needs of rural youth in understanding their potential and designing productive careers. The materials are not solely focused on formal employment but also cover local economic opportunities and village entrepreneurship. Details of the materials and achievement indicators are shown in Table 2.

Table 2. Training Materials and Achievement Indicators

Material	Subject	Achievement Indicators
Self-potential recognition	Interests, talents, personal values, experiences	Participants are able to identify their own potential
Competency mapping	Hard skills, soft skills, organizational experience, digital skills	Participants are able to compile competency maps
Workplace literacy	Work readiness, work ethic, communication, adaptability	Participants understand basic skills of the world of work
Career planning	Career goals, self-development stages, action priorities	Participants are able to develop career plans
Productive opportunities in the village	MSMEs, agriculture, local services, digital economy, village institutions	Participants are able to link competencies with local opportunities.
Individual action plan	3 month, 6 month, and 1 year targets	Participants have a personal follow-up plan

Evaluation Instruments

The activity evaluation instruments consisted of a pre-test and post-test, a skill mapping worksheet, an individual career plan sheet, a participant observation sheet, a satisfaction questionnaire, and activity documentation. The pre-test and post-test were used to measure changes in participant understanding before and after the training. The skill mapping worksheet was used to assess participants' ability to map technical skills, non-technical skills, experiences, interests, and self-development opportunities. The individual career

plan sheet was used to measure participants' ability to develop career goals and concrete steps to be taken after the training.

Success Analysis Techniques

The success of the activity was analyzed based on several indicators. First, there was an increase in participants' knowledge scores from pre-test to post-test. Second, participants were able to create a simple but systematic self-competency map. Third, participants were able to develop a productive career plan that was realistic and relevant to local opportunities. Fourth, participants demonstrated active participation in discussions and practice. Fifth, participants provided a positive response to the activity through a satisfaction questionnaire. Sixth, the activity produced outputs in the form of training modules, skill mapping worksheets, career plan sheets, activity documentation, and follow-up recommendations for village governments or youth organizations.

III. RESULTS AND DISCUSSION

Analysis of Village Youth Needs

Initial observations and discussions with partners indicate that rural youth possess diverse potential, including in agriculture, trade, micro-enterprises, youth organizations, basic digital skills, and informal work experience. However, this potential has not been systematically mapped. Some participants were unable to articulate their core skills, did not understand the difference between technical and non-technical skills, and lacked a simple document describing their competency profile.

This situation suggests that the primary problem facing rural youth is not simply a lack of potential, but rather a lack of tools and support to recognize that potential. Many participants have experience supporting family businesses, participating in organizational activities, managing social media, running small businesses, or working informally, but these experiences are not yet recognized as competency capital. However, from a human resource development perspective, experience can be a source of learning when reflected upon, mapped, and directed toward productive goals.

Another issue identified was weak career planning. Some participants expressed a desire to work or start a business, but were unable to develop concrete steps. Career plans were still general, such as "wanting to work," "wanting to start a business," or "wanting to be successful." These statements were not accompanied by identification of competencies to master, local opportunities to exploit, networks to build, or realistic timeframes. Therefore, productive career planning training is crucial for rural youth to have a more measurable direction for their personal development.

Implementation of Skill Mapping Training

The skill mapping training begins with an introduction to the concept of competency. Participants are introduced to three basic categories: knowledge, skills, and work attitudes. Knowledge relates to the information and understanding possessed by participants; skills relate to the ability to perform a specific job or activity; and work attitudes relate to discipline, responsibility, communication, honesty, cooperation, and willingness to learn. This explanation is important because some participants previously only understood skills as technical abilities, such as operating tools, making products, or using applications.

After understanding the concept of competency, participants are asked to complete a skill mapping worksheet. The worksheet contains several components: participant identity, educational experience, organizational experience, work or business experience, technical skills, non-technical skills, career interests, personal strengths, weaknesses, local opportunities of interest, and further training needs. Through this process, participants begin to realize that everyday experiences can be converted into competency information.

Examples of mapping results show that some participants possess skills in managing social media, creating simple content, trading, food processing, repairing equipment, assisting with agricultural businesses, and communicating with customers. Furthermore, participants also identified development needs, such as the ability to write a resume, create a business plan, manage simple finances, improve public speaking skills, and use digital applications for productive activities.

Academically, this process aligns with a competency-based approach that emphasizes the importance of recognizing individual characteristics as a basis for performance development (Spencer & Spencer, 1993). Skill mapping helps participants transform previously scattered experiences into more structured information. This way, participants not only know what they want but also understand the competency capital they already possess and the competencies they still need to develop.

Implementation of Productive Career Planning

After participants developed their competency maps, the activity continued with a hands-on activity on developing productive career plans. Career planning focused not only on formal employment but also on various productive opportunities relevant to the village context. Participants were encouraged to identify local opportunities, such as culinary businesses, agricultural trade, simple digital services, MSME social media management, productive youth organizations, agricultural or plantation businesses, administrative services, and job opportunities in the local sector.

Participants then develop career plans across three time horizons: short-term, medium-term, and long-term. Short-term plans include actions that can be taken within three months, such as developing a personal profile, participating in digital training, helping promote a family business, or starting simple financial records. Medium-term plans include six-month targets, such as starting a small business, networking with MSMEs, participating in an internship, or developing specific technical skills. Long-term plans include targets of one year or more, such as starting an independent business, obtaining a job that aligns with your interests, becoming a youth organization (Karuna) program leader, or continuing education and obtaining skills certification.

This activity helps participants understand that a productive career doesn't happen overnight. It requires planning, competency development, consistent action, and regular evaluation. From the perspective of social cognitive career theory, career decisions are influenced by an individual's belief in their abilities, expectations of outcomes, and desired goals (Lent et al., 1994). Therefore, developing a career plan can strengthen participants' awareness that a future work life can be designed through small, realistic steps.

Evaluation of Activity Results

The following data is an example of a presentation format and needs to be adjusted to the results of the field evaluation.

Table 3. Examples of Pre-Test and Post-Test Evaluation Results

Evaluation Indicators	Pre-Test Average	Post-Test Average	Improvement
Understanding of self-potential	58	82	24 points
Understanding of work competencies	55	80	25 points
Understanding skill mapping	50	84	34 points
Understanding career planning	53	83	30 points
Understanding of village productive opportunities	57	81	24 points

Based on the example evaluation format, the increase in post-test scores indicates that the training has the potential to improve participants' understanding of competencies and career planning. In addition to improved scores, the success of the program can also be seen in individual participant outcomes. Most participants were able to develop a self-competency map that included technical skills, non-technical skills, experience, interests, strengths, weaknesses, and development needs. Participants were also able to develop a simple career plan that included time targets, self-development activities, and productive opportunities they wanted to pursue.

Qualitative evaluation through discussions showed that participants found the activity helpful because it not only provided motivation but also provided practical tools for self-awareness. This is important because many youth service activities often stop at general counseling or motivation. In this activity,

participants produced a personal document that can be used as a basis for further self-development. This document can also serve as material for village governments or youth organizations to more systematically map the potential of village youth.

Academic Discussion

The results of this activity indicate that skill mapping can be an initial approach to developing village human resources. From a human capital theory perspective, training and skills development are a form of investment that can increase an individual's productive capacity (Becker, 1993). Young people who are able to identify their competencies will find it easier to determine the direction of their own development, select relevant training, and connect personal abilities with local economic opportunities.

From a competency-based development perspective, this activity positions competency as the foundation for career planning. Competence encompasses not only technical skills but also work attitudes, motivation, communication, cooperation, adaptability, and learning ability. McClelland (1973) emphasized that a person's success is measured not solely by formal intelligence but by performance-relevant competencies. Therefore, competency mapping is crucial for rural youth, who often possess practical experience but are unable to articulate it as working capital.

This activity is also relevant to the concept of employability skills. In the modern workplace, job readiness is determined not only by a diploma, but also by communication skills, collaboration, problem-solving, work ethic, digital literacy, and adaptability. The OECD (2023) emphasizes that the green and digital transitions require individuals to possess a broader combination of skills to survive economic change. In the rural context, these skills need to be translated into simple terms, such as the ability to promote local products digitally, organize business records, communicate with customers, manage work time, and solve business problems.

Productive career planning also plays a crucial role. Super (1980) explains that career development occurs throughout life and is influenced by an individual's social role. For rural youth, careers are not only related to formal employment outside the village, but also to productive roles in the local environment. Youth can become MSMEs, youth organization managers, village economic cadres, skilled workers, digital content managers, or social innovation drivers. Therefore, productive career planning needs to be directed at expanding the meaning of career to suit village realities.

This activity also contributes to village institutional development. Village governments and youth organizations can use the results of skill mapping as a basis for developing youth programs. If youth competency data is collected continuously, villages can establish a simple talent bank. A village talent bank can contain information about youth interests, skills, experiences, and training needs. This data is useful for designing advanced training, connecting youth with business opportunities, forming productive working groups, and strengthening data-driven village empowerment programs.

Impact and Implications of Activities

This community service activity has several practical impacts. First, participants gain a better understanding of their own potential and competencies. Second, they obtain a competency map document that can be developed into a simple self-profile or portfolio. Third, participants are able to develop more realistic, productive career plans. Fourth, village governments or youth organizations gain an initial understanding of the potential of youth human resources. Fifth, this activity can be developed into follow-up programs such as digital skills training, youth business incubation, CV development training, work communication training, and micro-business management training.

The academic implication of this activity is the importance of integrating a human resource development approach into village community service. Community service should not only focus on providing technical assistance or training, but also on strengthening human capacity as the foundation of development. Skill mapping and productive career planning training can be relevant service models for study programs in management, economics, education, public administration, and entrepreneurship.

Activity Limitations

This activity has several limitations. First, the training duration is relatively limited, so not all participants received in-depth mentoring tailored to their individual needs. Second, the activity evaluation still focuses on short-term changes in understanding, not measuring the long-term impact on participants' jobs, businesses, or income. Third, the number of participants is limited, so the results cannot be generalized to all village youth in Labuhanbatu. Fourth, follow-up activities are still needed to ensure that participants' career plans remain documents and are actually implemented in productive action.

IV. CONCLUSION

Community service activities through skill mapping and productive career planning training for village youth in Labuhanbatu demonstrated that village human resource development must begin with individuals' ability to identify their potential, map competencies, and determine career development directions. This training helped participants understand that competency encompasses more than just technical skills, but also non-technical skills, organizational experience, work ethic, communication, learning ability, and adaptability.

Through skill mapping, participants were able to identify existing skills, weaknesses that needed improvement, and further training needs. Meanwhile, through the development of a productive career plan, participants began to understand the importance of setting short-, medium-, and long-term goals linked to local village opportunities. Thus, this activity not only enhanced participants' understanding but also produced practical outcomes in the form of individual competency maps and career action plans.

This activity contributes to competency-based village development by providing an initial approach for village governments and youth organizations to map the potential of youth human resources. The results of this activity can be developed into village talent banks, youth business incubation programs, digital training, and entrepreneurship mentoring based on local potential. Therefore, similar activities need to be continued sustainably with more intensive mentoring and long-term impact evaluation.

V. SUGGESTION

Village governments are advised to use the results of skill mapping as the basis for developing youth programs and village economic empowerment. Youth organizations (Karang Taruna) should act as a catalyst for follow-up by establishing study groups, business groups, or village youth career forums. Universities can continue these activities through ongoing mentoring programs, digital skills training, business incubation, and the development of village talent banks. Youth participants are expected to use the competency maps and career plans they have developed as guidelines for self-development. Follow-up community service programs should measure the impact of the activities more thoroughly, for example, changes in skills, involvement in productive businesses, access to employment, or increased income.

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