



## The Development of Non-Formal Technological and Vocational Education in Village Communities

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### ABSTRACT

This article presents a preliminary study which was done through a literature review of various scientific references on the development of human resources through non-formal technological and vocational education. Current issues and problems in developing countries are related to the low quality of human resources in villages due to the low education and skills (technological and vocational skills). The development of non-formal technological and vocational education for village communities becomes an alternative solution, particularly when formal education does not provide solutions. With the concept of life-long learning, non-formal technological and vocational education is based on practical knowledge and skills. Non-formal education allows a learning model which addresses individuals' learning needs. Thus, it becomes one of solutions to overcome unemployment.

### 1. Introduction

Historically, the Indonesian society is known as an agricultural society; most of Indonesians live in villages and work as farmers. However, modernization has socially changed the structure of the society. The limited availability of land and the rapid increase of population growth influence the life aspects of the community, especially economic and employment aspects.

Modernization and the growth of the population are not followed by the improvement of quality and access for village people to further continue their study to higher levels. The development of infrastructures in villages and cities, including education infrastructures, is not even. Such a condition results in the decrease of the village communities' welfare as not many job opportunities are available for members of the communities. Thus, the issue of people migration (urbanization) has been a problem since the 1970s. Based on the 2010 national census, the population of villages and cities are still considerably equal, 50.21% in villages and 49.79% in cities. Based on the population analysis, this condition will change if the development of infrastructures and technological transformation are not implemented in villages. In 2015, it is estimated that the population of cities will be larger than the population of villages, with a composition of 56% to 44%

(Indonesian Population Projection, the Central Bureau of Statistics, 2010 – 2035). The uneven distribution of population in villages and cities will result in various gaps in various life aspects.

This article addresses the low quality of human resources in villages. It focuses on the development of villages to improve the quality of human resources through technological and vocational education. Thus far, the technological and vocational education model has only been implemented in formal education. It has not been developed for people in villages. Sustainable technological and vocational education is increasingly needed by village communities to improve the quality and welfare of human resources.

## **2. Village Human Resources**

The paradigm of policy makers, which is also common in local communities, still focuses on physical development. Infrastructures are regarded as the main indicator of successful development. In fact, infrastructure development without non-physical/infrastructure development, such as education, will result in substantial gaps, including the gap of human resources. The low quality of human resources in villages is closely related to the low level of formal education, which affects the productivity of the village communities in improving their welfare. Most villages in Indonesia have abundant natural resources. However, because the current paradigm gives more benefits to mid-income consumers living in cities, known as 'production-centered development' (Nasdian, 2014:20), it marginalizes village communities as producers who manage natural resources. Villagers, who generally have low skills, often do not have the ability to improve/develop the available natural resources, particularly for improving their welfare or the quality of their life.

The change of the development paradigm, focusing more on the development of human resources, is an urgent thing to do; it should be a national agenda. Development should include human resources, infrastructures, institutions which can support villagers, and the implementation of continuous education and training (Palmer, 2009). The improvement policy to achieve better life quality can be implemented if each individual has five aspects of essential freedom: economic opportunity, political freedom, social facilities, transparency, and security (Blaak, Openjuru, & Zeelen, 2013). Furthermore, the most important aspect of the improvement of human resources is education. Not only does education give individuals the ability to make a living, it allows them to criticize and reflect on their lives so that they can make social, political, and economic changes.

The education for improving the quality of human resources in villages is not limited to formal education. It also includes the implementation of life-long education which supports individuals to develop basic skills for their lives. Not only does life-long learning cover education provided by schools or formal institutions, it also includes all life aspects and individuals' interactions with their environments (Kocak & Baskan, 2012). The principle of life-long education is to provide education opportunities so that individuals can improve their skills in science, technology, economy, and socio-culture; it also encourages individuals to acquire various skills in many fields through the improvement of their knowledge and skills (Kocak & Baskan, 2012).

Life-long learning is a policy framework to improve technological and vocational education. Technological and vocational education should be able develop innovations with an open structure, flexible in complementing education, vocational training and counseling through formal and non-formal education (Maclean & Pavlova, 2010). The policy related to human resources which has been formulated by OECD (Organization for Economic Cooperation and Development Strategy) Skill Strategy (OSS) focuses on technological and vocational education to prepare innovative individuals who have active roles at international level and are able to fulfil the market demand (Valiente, 2014).

## **3. Non-formal Vocational Education and Training**

Generally, villagers only finish elementary school or senior high school. This is due to the minimum availability of education facilities and their economic ability. It becomes a problem which should be solved. One of the ways is that policy makers and NGOs can provide education or non-formal trainings for improving the skills of villagers. Non-formal education is different from formal education which is managed by education institutions or trainings which have particular competency standards and give competency certificates to

individuals. In non-formal education, learning activities are more flexible, based on individuals' needs, and are not formalized in the form of a certificate (Beddie & Halliday-Wynes, 2010).

One of important agendas and challenges of education and training in developing countries post-2015 refers to the 3 education frameworks: post-MDG (Millenium Development Goals), post-EFA, and SDGs (Sustainable Development Goals). From the review of post-2015 education targets, developing countries should establish education policies which focus on skill specifications integrated with 21st century education. The 21st century education does not focus on cognitive ability; it covers life skills, improves social skills (including self-control), and increases knowledge which is relevant to vocational technical tasks (King & Palmer, 2013; Palmer, 2014).

In some developing countries, the policy and approach of technological-vocational education and training (VET) becomes the development priority in various sectors (Maclean & Pavlova, 2010), (Oketch, 2007), (King, 2012), (Cheng, 2015). The concern for improving the quality of villagers and marginalized communities can be realized through non-formal technological and vocational education as the form of education and training after the formal education (Tukundane, Minnaert, Zeelen, & Kanyandago, 2015), (Sugiharto & Kusumandari, 2016), (Beddie & Halliday-Wynes, 2010). The non-formal technological and vocational education for villagers generates outcomes which are different from the outcomes of formal education, because non-formal education prioritizes the process of empowerment based on required knowledge and practical skills (Blaak et al., 2013). Non-formal education allows the model of learning which emphasizes individual needs; this becomes an alternative solution for the problem of youth unemployment (Tripon, 2014).

Different from developing countries, non-formal technological and vocational education developed in Europe aims to create job opportunities and increase economic growth through learning opportunities which are not limited to conventional classroom learning. In non-formal education, individuals can acquire competency and skills not only in traditional settings, such as classrooms, but also outside the classrooms (Tripon, 2014). Non-formal technological and vocational education in Europe develops more distance learning systems by using information technology.

#### **4. Village Institutions**

Village institution refers to the concept of social institution which has the following main characteristics (Soekarno, 1990): (1) organising ideas and behaviours reflected by community activities and their products, (2) having particular purposes, (3) having symbols which represent the purposes, (4) having instruments to achieve the purposes, (5) having written or non-written tradition. Legally, village institutions are regulated by particle 94, law no.6 year 2014 which has a role to support the functions of village governments, the development of villages, and empowerment of villagers or village communities (Huda, 2015: 244).

The roles of village institutions in non-formal technological and vocational education are very important because they can function as supporting facilities for education activities and development. So far, empowerment programs to improve the skills of villagers have not solved the actual problems. Education and training programs are often given to communities considered homogeneous. Thus, there is homogenization of communities. The empowerment of village institutions is needed to optimize the local functions in decision making and empowering autonomy for developing village potentials and solving problems in order to realize better living quality in a transformative way (Surahman, n.d.).

Indonesia formulated the concept of vocational villages to empower human resources in the village spectrum by employing the area approach, that is the village area based on cultural values by involving local potentials. The developed programs are based on the need of functional literacy education to overcome the problems of education in the villages. Functional literacy is not limited to the target that villageers should be able to read, write, and do calculation. It also deals with the stage where villagers are able to analyse and solve problems in order to improve their life quality (Sugiharto & Kusumandari, 2016). This second stage has not given significant impacts on the effort to improve the autonomy of villages by using technological and vocational skills based on practical needs.

Developing countries optimizes their village institutions, such as Turkey where the role of village institutes has a significant effect on the education of village communities. The concept of 'village institutes' developed in Turkey is an implementation of life-long learning. The education focuses on the education of potential/talented children living in villages, so that they can be teachers in their own villages. The education

and training given covers life skills to improve the welfare of village communities, both individually and socially, and to increase/develop knowledge useful for their daily life (Kocak & Baskan, 2012).

The concept of village institutes implemented by the Government of Turkey to villages has a significant contribution to education, such as training individuals to be revolute, democratic, secular, and scientific in all situations. One of the learned lessons from Turkey is that autonomous management and alternative education can empower individuals (Erdal, 2014). Although village institutes are not used anymore in Turkey, the concept has been considered an ideal model of education which is efficient in providing equal education opportunities, participative and able to integrate village areas into the power structure of Turkey (Kucuktamer & Uzunboylu, 2015).

## 5. Conclusion

The problem of the low quality of village human resources is closely related to the formal education level; most villagers only complete elementary school (SD). The limited availability of education facilities and low economic power become key factors which cause difficulties for villagers in accessing education of higher levels. The low formal education level of villagers is a problem which should be solved. One of the solutions is that policy makers or NGOs can provide non-formal education and training to develop the vocational skills of the villagers. Non-formal education is different from formal education provided by education or training institutions, shown by the availability of competency standards and certificates which indicate that individuals have achieved particular academic qualifications. In non-formal education, learning activities are implemented in relatively flexible programs, suited to the needs of learners and generally not formalized in the form of certificates (Beddie & Halliday-Wynes, 2010). By understanding the condition of villages and village communities, including villagers, non-formal education and training can be developed based on the specific needs of the village communities. Vocational skills can be given through practices involving individuals who have certain competency (experts/trainers, etc.) according to the skills needed. For example, the program of vocational villages developed by the Ministry of Education and Culture can be effectively implemented and encourage the development of autonomous/independent villages.

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