Construction of Community Empowerment Models in the Era of Digital Transformation in Forming Community Based Learning in Non-formal Education Units in Malang Regency

Kukuh Miroso Raharjo¹*, M. Ishom¹, Sucipto¹, Zulkarnain¹, Soaib Bin Asimiran², Decky Avriliana¹

¹ Department of Nonformal Education, Faculty of Education, Universitas Negeri Malang, Malang 65145, Indonesia
² Faculty of Educational Studies Universiti Putra Malaysia, Kuala Lumpur, Malaysia

* Corresponding author. Email: kukuh.raharjo@fip.unm.ac.id

Abstract: The purpose of this research is to reveal about the implementation of community empowerment models in PNF units in learning activities, community empowerment innovations in learning in the digital transformation era, and community empowerment models in the digital era that can create community based learning in programs in PNF units. This research is important to do in order to provide an understanding of the construction of community empowerment models to form a learning community in the community as a form of implementing lifelong education. In accordance with the study in the field of Out-of-school Education which is oriented to the potential of the environment and local wisdom of the community as a vehicle for learning for the community. The research method used is a quantitative, correlational and qualitative Mixed Method approach with the type of case study research. The target of this research is managers and tutors in nonformal education units, namely the Community Learning Activity Center (PKBM) in Malang Regency. Data collection was carried out in two stages, namely (1) distributing questionnaires for interview reinforcement data, and (2) collecting individually with in-depth interviews.

Keywords: community empowerment, digital transformation, community based learning

1. INTRODUCTION

Development education is also future-oriented by prioritizing the improvement and preparation of dynamic community learning needs, so as to be able to create a learning community. This condition can be created if all institutions in society can carry out their functions as providers of education, not only as the main guarantor of education. The community must play an active role in taking the learning opportunities provided in the learning community. An indication of a complete learning community is marked by the involvement of all citizens in getting education throughout their life. Structured, planned, and purposeful learning is the main goal of the learning community. According to (Turturean, 2015) the task of the government and society is to create an educated atmosphere, especially for adults, because the more open their horizons, then they will also change their environment for the better and educated. Each individual has learning goals and achieves these goals through various activities that exist through the institutions provided by the learning community. It is hoped that with this activity, people living in the ex-localization area will be more aware of the importance of education to improve their quality of life.

The non-formal education unit (PNF) that is currently developing offers a variety of services and options that the community needs in meeting their learning needs. If non-formal education is seen as public education, the forms, objectives, and activities of non-formal education should touch all dimensions of community life, as the concept of lifelong education which emphasizes that all life activities can be interpreted as learning or educational activities. According to Caron (1991) in particular the way in which NFE (Nonformal Education) activities are described by reference to what is (not) being provided in the school system. In essence, the appellation 'non-formal' is simply a device for labeling those activities outside the control or regulation of the bureaucratic school system. Empowering learning models become collaborations that are a necessity in order to provide inspiring education services which are an urgent need for PKBM managers in the digital era. In this context, learning is
treated as a learning process and effort that is self-learning and self-change by optimizing self-capacity and environmental resources. (Novak, JD & Gowin, 2010) said that learning is not just a transfer of knowledge, but also a transfer of learning that is able to produce changes in mindset and action patterns that can be implemented in real life. The development of developmental programs by (Boyle, 2015) has changed the perception and movement of education development.

Non-formal education units in Malang Regency consist of various units, such as Community Learning Activity Centers (PKBM), Learning Activity Centers (SKB), Study Groups (KB), Taklim Councils, Courses and Training Institutions (LKP), and other educational institutions. Similar institution. Each non-formal education unit has a program and agenda according to the needs of the community. The purpose of the non-formal education unit is as a forum to meet the needs of the community in the field of education and skills to improve the quality of life. In the process of its implementation, non-formal education units also implement various educational programs, including equality programs, package pursuit programs (A, B, C), courses and training, pre-marital education programs, and preschool education programs. Based on the initial data mining, carried out in non-formal education units in Malang Regency are programs based on community needs that aim to improve the quality of human resources in the economic and education sectors. A flexible non-formal education system is one of the factors to attract people's interest in learning.

Based on previous research by Utomo, HJN (2020) Community empowerment, which is meant in transformational leadership, is to encourage people to develop digitally to meet the needs of the community itself and to raise awareness from people who can manage businesses to help other communities develop their businesses. The transformational leadership strategy will influence and impact the process of changing the manual business to a comprehensive digital platform, in the long term. Research conducted by Mooney, LA (2001) Despite increased popularity and a strong pedagogical tradition, the literature on community-based learning (CBL) initiatives and service learning evidences a certain conceptual impression. In the hopes of clarifying definitional ambiguities, we critically review the CBL literature, identifying six distinct types of CBL options and their characteristics. The result is a hierarchy of community-based learning, which while not proposed as a definitive conceptualization, is likely to be useful in terms of curricular development. Using a hypothetical sociology class, the community-based learning options identified (i.e., out-of-class activities, volunteering, service add-ons, internships, service learning, and service learning advocacy) are discussed in terms of their pedagogical differences and associated curricular benefits.

Based on the above problems, it is interesting to analyze the construction of community empowerment models in the era of digital transformation in forming community based learning in non-formal education units. It should also be emphasized that indeed the concept of community-oriented non-formal education learning with diverse characteristics requires a study in analyzing empowerment models in the implementation of learning in non-formal education units and will result in the development of community empowerment models.

2. METHOD

The research method is a scientific way to obtain data with a specific purpose and use. The scientific method in question is that research activities are based on scientific characteristics, namely: rational, empirical and systematic. The data obtained through the research is called empirical data or observed data which has valid, reliable, and objective criteria. Valis indicates the degree of accuracy between the data that can be collected by the researcher. To find out the validity of a data is very difficult, but the first thing to do is test the reliability and objectivity of a data, because valid data must be reliable and objective data.

The type of research used in this study is the Mixed Method by distributing questionnaires and then describing them through the results of interviews. According to Kitazume, M. (2013) Mixed Method Research is a research method that is applied when researchers have questions that need to be tested in terms of outcomes and processes, and involve a combination of quantitative and qualitative methods in one study.

The combined method combines quantitative and qualitative research. Sometimes quantitative research is first followed by qualitative research, or vice versa. We first look at the characteristics of the data in the field. In the quantitative method, the nature of reality is single, classified, concrete, observable, measurable. Qualitative methods: multiple, holistic, dynamic nature of reality, the result of construction and understanding. While the combined method: the nature of multiple realities, can be classified, observed and the result of meaning construction.

According to Sugiyono (2014) related to the characteristics of mixed methods: 1) Design: for sequential explanatory models, the proposal is clearer; 2) Objectives: for sequential explanatory models the objectives are to find patterns and test hypotheses found in qualitative research; 3) Data collection techniques: test, participant observation questionnaire, in depth interview, documentation, triangulation; 4) Research instruments: Tests, questionnaires, standard instruments, researchers themselves, notebooks, tape recorders, cameras, camcorders, and others; 5) Data: quantitative data from measurement results and qualitative data from observations; 6) Sample: for sequential explanatory models, the sample can be large and representative; 7) Analysis: quantitative and qualitative data analysis; 8) Relationship with the respondent: the relationship between the researcher and the researched can be distant, can be familiar, the position can be higher and equal to the respondent, short term and long term, the hypothesis is proven supported by qualitative data; 9) Design proposal: for sequential explanatory model combination research, the design proposal can be temporary but for sequential explanatory model the design proposal is detailed.

Conducting quantitative research first, namely determining the variables. the independent variable is the Community Empowerment Model Construction in the Digital Transformation Era, then the dependent variable is
Establishing Community Based Learning. The data used in this study is primary data. The data was obtained by distributing questionnaires to tutors and PKBM managers in Malang Regency. The questionnaires distributed were related to the Construction of Community Empowerment Models in the Digital Transformation Era and about Community Based Learning. The sample in this study amounted to 82 people. Samples were taken from a population of 101 respondents from the number of managers and tutors spread across PKBM Malang Regency using the Slovin formula.

Research that measures variables using a questionnaire instrument must be tested for the quality of the data obtained. This test aims to determine whether the instrument used is valid and reliable because the truth of the processed data will determine the quality of the research results. The validity test in this study is to test the instruments that have been made. Meanwhile, validity is a measurement that shows the level of accuracy (validity) of the size of an instrument against the concept under study. The validity test in this study uses the product moment correlation formula, namely:

$$r_{xy} = \frac{N\sum xy - (\sum x)(\sum y)}{\sqrt{(N\sum x^2 - (\sum x)^2)(N\sum y^2 - (\sum y)^2)}}$$

Information:
X: the score obtained by the subject from all items
Y: total score obtained from all items
X: sum of scores in X distribution
Y: sum of scores in Y distribution
X2: sum of squares and distribution of X scores
Y2: sum of squares and distribution of Y scores
N: the number of respondents

Reliability test using Cronbach's Alpha with the formula:

$$r_{ii} = \left[ \frac{k}{k-1} \right] \left[ 1 - \frac{\sum \delta^2}{\sum \delta^2} \right]$$

Information:
rii: instrument reliability
k: the number of questions
$\sum \delta^2$: number of question items
$\delta^2$: total variance

From the validity and reliability test of questions related to the construction of community empowerment models in the era of digital transformation and about community based learning which consists of 15 independent variables and 15 dependent variable questions, all valid and reliable, it is proven > 0.60. Or the error value is smaller than the 5% significance level, so it can be concluded that the question items are valid and Cronbach’s Alpha values are 0.935 and 0.938 or Cronbach’s Alpha values are greater than 0.60 so it can be concluded that they are reliable. The correlation coefficient can be divided into 5 categories as follows:

**Table 1.1 Correlation Coefficient Guidelines**

<table>
<thead>
<tr>
<th>No</th>
<th>Coefficient Interval</th>
<th>Relationship Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>0</td>
<td>No correlation</td>
</tr>
<tr>
<td>2.</td>
<td>&gt;0-0.25</td>
<td>Very weak correlation</td>
</tr>
<tr>
<td>3.</td>
<td>&gt;0.25-0.5</td>
<td>Enough correlation</td>
</tr>
<tr>
<td>4.</td>
<td>&gt;0.5-0.75</td>
<td>Strong correlation</td>
</tr>
<tr>
<td>5.</td>
<td>&gt;0.75-0.99</td>
<td>Very strong correlation</td>
</tr>
<tr>
<td>6.</td>
<td>1</td>
<td>Perfect correlation</td>
</tr>
</tbody>
</table>

1. **Correlation Direction Criteria**
The direction of the correlation as the level of correlation strength. The value of the correlation coefficient lies between +1 to -1. If the correlation coefficient is positive, then the relationship between the two variables is said to be unidirectional. The purpose of this unidirectional relationship is that if the variable x increases, the variable y will also increase. Conversely, if the correlation coefficient is negative, the relationship between the two variables is not unidirectional. Not in the same direction means that if the variable x increases then the variable y will decrease.

2. **Correlation Significance Criteria**
The strength and direction of the correlation (relationship) will have meaning if the relationship between these variables is significant. It is said that there is a significant relationship, if the value of Sig. (2-tailed) the calculation result is smaller than the value of 0.05. Meanwhile, if the value of Sig. (2-tailed) is greater than 0.05, then the relationship between these variables can be said to be insignificant. After finding the results of the existence or absence of correlation, then it is strengthened by the results of interviews with qualitative case study methods. This research process involves important efforts, such as asking questions and procedures for collecting specific data from participants, analyzing data inductively starting from general themes, and interpreting data points. In this study the data collection techniques were: interviews, observation, and documentation studies. Data were obtained from tutors and PKBM managers. Data analysis was carried out using interactive analysis techniques from the start of data collection to the end of research activities. The data analysis in question is data reduction/surgery/data sorting/data selection, data display/data title, data verification/data accuracy checking, and data inference/conclusion (Huberman, MA & Miles, 1994). This interactive analysis process is carried out simultaneously systematically for any information received from the subject and other supporting informants. At the same time, data validation/validity tests were also carried out by triangulation, both sources, libraries, adequacy of data collection time and confirmation to other sources. Schematically, the interactive analysis flow according to Huberman & Miles can be described as follows:
Figure 1.1 Huberman & Miles. Data Analysis

The validity of the data was tested using triangulation techniques, comparison of the results of the literature review, extension of the research, academic feasibility audits through experts, and confirmation to data sources about the accuracy of the meaning of information.

3. RESULTS AND DISCUSSION

Based on the data exposure of each variable, the next step is to calculate the technical correlation analysis using Spearman Rank with the help of SPSS for Windows version 26.0. The hypothesis of the frequency of community empowerment model construction in the era of digital transformation by forming community based learning is as follows:

H0: there is no relationship between the construction of community empowerment models in the era of digital transformation and forming community based learning

Ha: there is a relationship between the construction of community empowerment models in the era of digital transformation by forming community based learning.

Table 1.2 Correlation Test Results of Community Empowerment Model Construction in the Era of Digital Transformation by Establishing Community Based Learning

<table>
<thead>
<tr>
<th>Spearman's rho</th>
<th>Model Construct on</th>
<th>Correlation Coeffi cient</th>
<th>Competence</th>
<th>Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.361&quot;</td>
<td>1.000</td>
<td>-</td>
<td>.001</td>
<td>82</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>82</td>
<td>82</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed)**

Spearman Rank Correlation Analysis Output Interpretation

1. Strength Level

From the output above, the correlation coefficient is 0.361. That is, the level of strength of the relationship (correlation) between the variables of community empowerment model construction in the digital transformation era is 0.361 or it can be interpreted that the relationship (correlation) between variables is quite

2. Correlation Direction

The correlation coefficient number in the calculation results above, is positive, namely 0.361, so that the relationship between the two variables is unidirectional (type of unidirectional relationship), thus it can be interpreted that the construction of community empowerment models in the era of digital transformation will also increase the formation of community based learning.

3. Significance of the Two Variables

Based on the results of SPSS calculations, it is known that the significance value or Sig. (2-tailed) of 0.001. Because the value of Sig (2-tailed) is 0.001 or less than 0.05, it means that H0 is rejected and H1 is accepted, which means that there is a relationship between the construction of community empowerment models in the era of digital transformation by forming community based learning.

After conducting a quantitative correlational research, then strengthening the observations through qualitative case studies, the following are the results: Based on the information of one informant stated that non-formal learning is preferred by the community compared to formal education because it has a flexible learning system in terms of time and place. One example is that people who already have jobs will choose non-formal education because the study schedule does not interfere with their work. In addition, non-formal education is also an alternative for people who have problems in taking formal education. People who do not pass or have problems in formal education can continue their education in non-formal education units.

In implementation of learning, managers or facilitators of non-formal education units have a very important role in society. The facilitator not only teaches knowledge and skills to the community but also has to be a motivator so that the community is confident and aware of the importance of education. The facilitator must have skills in empowering the community such as increasing the level of participation, then as a means to strengthen access that is difficult to access by the general public, and as an agent to carry out and develop renewable innovations in the digital era that can be used as a means of improving the quality of life in society. The implementation of this managers and facilitators of non-formal education units in Malang Regency have coordinated and collaborated with parties who can support and encourage the achievement of adaptive education with technological sophistication. The collaboration was carried out, among others, by bringing in experts from the camouflage in Malang City. In addition, continuous coordination is also carried out between education units at the district, provincial and national levels.

There are several programs that have been and are being implemented by non-formal education units in Malang Regency, including: (1) Employment skills programs, (2) entrepreneurial skills programs, (3) Training, (4) Internships and (5) equality programs. Each program has its own system and implementation rules. Even though they are both training, if the program is different, the system is also different.

Based on the information of one informant stated that non-formal learning is preferred by the community compared to formal education because it has a flexible learning system in terms of time and place. One example is that people who already have jobs will choose non-formal education because the study schedule does not interfere with their work. In addition, non-formal education is also an alternative for
people who have problems in taking formal education. People who do not pass or have problems in formal education can continue their education in non-formal education units.

In the implementation of learning, managers or facilitators of non-formal education units have a very important role in the community. The facilitator not only teaches knowledge and skills to the community but also has to be a motivator so that the community is confident and aware of the importance of education. The facilitator must have skills in empowering the community such as increasing the level of participation, then as a means to strengthen access that is difficult to access by the general public, and as an agent to carry out and develop renewable innovations in the digital era that can be used as a means of improving the quality of life in society. The implementation of this managers and facilitators of non-formal education units in Malang Regency have coordinated and collaborated with parties who can support and encourage the achievement of adaptive education with technological sophistication. The collaboration was carried out, among others, by bringing in experts from the camouflage in Malang City. In addition, continuous coordination is also carried out between education units at the district, provincial, and national levels.

There are several programs that have been and are being implemented by non-formal education units in Malang Regency, including: (1) Employment skills programs, (2) entrepreneurial skills programs, (3) Training, (4) Internships and (5) equality programs. Each program has its own system and implementation rules. Even though they are both training, if the program is different, the system is also different.

Community empowerment is designed as a solution to problems that develop in society. Various kinds of complex and complicated problems certainly become a challenge for community empowerment agents to encourage the community to solve their problems. In the community empowerment process, the most important thing is the identification of deep needs. After identification, an inventory of problems can then be carried out according to their category. Based on the results of the inventory, program preparation and technical steps for its implementation are carried out. Next is the implementation of the program. Then no less important is monitoring and evaluation to measure the success of the program.

Based on initial observations, what was done by the education unit in Malang Regency in community empowerment in the era of digital transformation was providing stimulation to increase community participation, being adaptive to follow technological developments and familiarizing people with digital literacy. In addition, the establishment of community based learning is also the first step to create community independence. The existence of community based learning is one solution to empower the community so that they can identify, take an inventory, and develop technical steps to empower themselves.

The most important principle in community empowerment is sustainability. What is often a problem in the community in the formation of community based learning is the community's dependence on agents who become empowering agents. Usually the programs that have been prepared and planned do not run if there is no empowering agent. Therefore, non-formal education units in Malang Regency have a role to release the dependence of the community by carrying out innovations to empower the community. One way to do this is to develop sustainable and digital-based programs. For example, there are equality education programs that are conducted online, training programs that can be done digitally, such as watching video tutorials. Then if the community encounters obstacles, they are given ways to find solutions with available digital access. So with these things people can find solutions to the difficulties they are experiencing.

4. CONCLUSION

Based on the results of the correlation analysis, it can be concluded that there is a fairly positive relationship between the implementation of the community empowerment model in the era of digital transformation by forming community based learning for tutors and PKBM managers in Malang Regency. The relationship in a positive direction means that there is a unidirectional relationship, it can be said that there is a relationship between the construction of community empowerment models in the era of digital transformation, which is increasing, the formation of community based learning will also increase.

Then reinforced by the findings of the interview that the implementation of the community empowerment model in the PNF unit in learning activities, especially those carried out by tutors and PKBM managers, has been going well, as well as in empowering the community, several innovations have been made for the creation of community based learning.

From this, it can be found using mixed methods that the construction of community empowerment models in the digital transformation era by forming community based learning for tutors and PKBM managers in Malang Regency is going well and has been applied continuously.

REFERENCES

Building The Lifelong Learning Society. Romania: Stefan Cel Mare University of Suceava.