

## **Model Digital Needs Assessment Program of Community Empowerment**

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### ***Abstract***

*The model needs assessment developed is the development of an information and communication technology (ICT) approach as a strategy in determining the needs of effective community empowerment programs in accordance with the abilities of KB family cadres, the majority of whom are aged 40 years and over. This study uses a research and development approach, with data collection techniques of observation, interviews, and group discussions. It is expected that the model needs assessment can improve the competence of KB Village cadres in designing community empowerment programs with the principles of collaborative, participatory, relevance, efficiency and effectiveness. Implementation models digital needs assessment for program empowerment will take place on an ongoing basis, and is not completed or stopped on the implementation of the specific activities, guided to continue to discuss other issues of her.*

***Keywords:*** *Digital Model, Needs Assessment, Community Empowerment*

### **I. Introduction**

The current 4.0 industrial revolution has entered its era, demanding changes in individuals for joint work to be digitalized. Likewise, Technology of Information and Communication (ICT) continues to evolve has changed the pattern of interaction moving towards the digital society. In fact, the development of Information and Communication Technology serves as the foundation of modern life in today's society. This is what supports various aspects of life by utilizing technology.

Synthesis of the industrial revolution 4.0 will give birth to a prosperous society in development, while the mental revolution breeds qualified and superior humans (Suwardana, 2018) . Facing the 4.0 era requires adaptive capabilities to the needs of millennial era people, especially aspects of education and community empowerment that are more *accessible* and contextual without having to sacrifice their original character as guardians of traditions and culture that are distinctive in Indonesia (Gazali, 2018).

Community empowerment is an approach to help the community obtain power to collect information, make decisions, and form actions that will be linked to the development and delivery of their own. The community empowerment program is loved in every institution / institution. Hopefully with this community can empower and be independent. (Narayan, D., 2002); (Hanika, IM, & Lituhayu, D., 2012).

Community Empowerment is said to be fast developing if the program implemented matches the potential and needs of each of its environments. This *needs* to be further *clarified* through the *Needs assessment* activity. *Needs assessment* is the initial stage in planning community empowerment programs. The process is a step to collect data and information regarding program planning to be implemented. The process of identifying needs requires meticulousness in collecting and processing data.

The process of identifying needs needs to apply appropriate methods so that all information can be obtained completely. Minzey and Le Tarte (Brookfield, 1983: 79) emphasize that "the ultimate goal of community empowerment in community education is to develop a process where community members work together to identify problems and to find solutions to those problems". Therefore, the technology approach in the process of identifying needs will help the analyst in gathering information and mapping the needs of the community accordingly.

The methods and techniques in identifying the ideal needs are carried out, as a basis for organizing community education programs. Several cases of community education projects / programs, both those carried out by the *Government* and private sector / NGOs (*Non-Governmental Organizations*), have taken many approaches in determining community needs. Implementation of analysis and approaches in determining learning needs is carried out systematically, in order to obtain *valid* and *reliable* data.

BKKBN is one of the countries that have the authority to carry out community empowerment programs in the problem of occupation. The National Development Program which is carried out by BKKBN through the KB program is directed towards democratic democrat and decentralization , which is by encouraging community participation and community involvement in supporting independent communities. So, it is better if the data processing *needs assessment process* by assisting the computer is an effective step if it is supported by an optimal database program.

Hufad, A, et al (2019) describe in their research that the digital use of cards plays a role that is highly required in terms of tasks and functions in facilitating their communities to learn and to display. The digital model can facilitate analyzing existing data. KB Village cadres as the spearhead of the empowerment program in each village must have the ability to operate the database optimally so that the expected results are all successful with conditions in the field.

However, the reality on the ground is that the capabilities are not yet optimal. Therefore, this study will examine the model needs assessment that was developed using the information and communication technology (ICT) approach as a strategy in

determining the needs of effective learning programs in accordance with the capabilities of KB family cadres, the majority aged 40 years and over.

## II. RESEARCH METHOD

Research using a *research and development* approach is research that is used to design new products and procedures that must be systematically tested in the field, evaluated, improved until they find certain effectiveness criteria. (Borg and Gall, 2003)

Research and development of community empowerment programs, including study groups in the field of community education, specifically the model of applying digital needs assessment analysis conducted in KB Village. The first research was conducted with a preliminary study, literature study, and documentation study. Then, the stage of the implementation of this research is *True Experimental*. With this technique, researchers can control all external variables that influence the way the experiment is carried out. Thus, the internal validity (the quality of the research design) can be high.

In general, in the development of this model that included participants agreed criteria, including: technology namely smartphones and / or computers; Residing in the area concerned, knowing social and environmental conditions ; and have enough time to collect data. Data collection techniques used were observation, interviews, documentation studies and group discussions.

## III. RESULTS AND DISCUSSION

The model *needs assessment* is revealed through: (1) planning , namely identifying real problems in the field, analyzing problem solving strategies, and guiding KB village cadre participants in planning; (2) implementation, including: guiding KB village cadre participants to complete the tasks that had been designed in the previous stage, guiding participants in collecting data and information related to the needs of the KB village program; and (3) evaluation, which is an evaluation of the process and results of managing the *needs assessment* that has been done.

### Rational Development of Digital Needs Assessment Model

The application of digital-based *needs assessment* for KB village cadres is based on choices as knowledge and skills or competence of KB village cadres in utilizing information and communication technology, to collect data on the needs of the KB Village program, so that it becomes a reference for data houses. In his opinion, this model is an option to be tested on KB village cadres with criteria above 40 years of age, this is based on the average user of cadres in the age range of 40 - 60 years.

KB cadres are present on the basis of environmental awareness and existing social conditions. In addition, findings in the field illustrate empowerment cadres in the age range. Because individuals who are productive age, because they are more focused on other occupations with higher wages. In addition, education is another factor in understanding the duties and functions or its role as community empowerment cadres.

They are not familiar with specific concepts or scholarships, but they are fostered through training or brief mentoring by KB counselors or officers from the District Level Implementation Unit (UPTD).

So far, understanding of *needs assessment* has only been gathering information based on ideas or ideas from the cadres themselves, based on visual analysis that they see and feel. The format has been provided by the UPTD, so the cadres only need to fill in the format based on field findings. Of course, the database is hardcopy, the process is quite complicated because it requires analysis of components that are more specific than general requirements with manual processes. This process requires a long time, the analysis is general to specific, not based on the immediate needs of the community or specific to the public.

Information and Communication Technology in the Industrial Revolution 4.0 trend invites effective and efficient human activities. Likewise with the *needs assessment* method can be facilitated by using a certain computer system or software. The use of information technology in the social field, opens up opportunities for everyone to access information, as well as in processing the diversity of community needs. Utilization of technology in collecting data and information needs of the community, aims to save time and costs. This is because there is a human job that is replaced by a machine, more accuracy is guaranteed, so humans are only in the position of controlling and decision-making. P expected technology development programs to empower individuals / groups in accordance with the potential and condition of the society. (Clutterbuck and Kernaghan, 2003); (Arias, EG, Eden, H., Fischer, G., Gorman, A., & Scharff, E. (1999) ; (Sugiyarti, SR, & Wijayati, H., 2020).

The steps taken by researchers to develop this model are:

- a) analyzing the participants' needs and real conditions to the cadre's digital literacy abilities;
- b) determine the elements specified in supporting the system of the digital needs needs assessment;
- c) develop training models that will be conducted for cadres with relevant digital literacy levels ;
- d) carry out data collection using program or *software needs assessment* ;
- e) validate the development of the model with community fish education experts / practitioners , colleagues;
- f) compile the final model.

Meanwhile, the characteristics of the model developed include: 1) using web-based software with an internet connection; 2) simple use can make use of mobile phones to collect data 3) decisions of community leaders become important in determining the initial assumptions of needs; 4) the involvement of the government especially the

UPTD becomes important in determining the budget assumptions needed (specifically for government subsidy programs); 5) the involvement of the core KB village management becomes important in determining the budget required (specifically for the self-subsistent program ); 6) discussion of problems or program needs is carried out cooperatively and participation; 7) priority needs become joint agreements based on considerations such as cost, time, infrastructure, location, resource persons and other facilities.

In fact, in the field of cadres who have not yet used technology. The certainty is that there is an oversight of the organizers in order to be able to carry out the guidance first. Purba, AS, et al (2020) explained that without guidance during exploration using multimedia, it can cause misperceptions and performance that is not beneficial for some who still fail technology. However, this will take place early, in the future with a simple digital model that will be mastered by cadres.

The development of a digital *needs assessment* model that is developed is expected that the operators involved can be more initiative and creative in determining what programs are needed in their environment. Hufad, A. and Wamaungo Juma Abdu (2018) add to his conviction in Uganda that the bottom up program contributes to the development of education, specifically, non- formal adult education which in turn is believed to contribute to national growth and development. Therefore, this digital model development initiative might be able to cover the needs of the community with more effective and efficient empowerment of the community.

### **Objectives and Principles of Digital Needs Assessment Model**

In general, the model *needs assessment* that was developed, aims to improve the ability of cadres in utilizing digital technology in collecting data or information on the needs of community empowerment programs through the KB Village program. In particular, this model aims to: 1) Introducing some program ideas result and tifikation community needs to stakeholders or the government; 2) Identifying the needs of community empowerment programs based on priority needs; 3) Implement a participatory approach in developing community empowerment program planning ; 4) make it easier for the KB family cadres who are dominant Housewives aged 40 years and over, to be adaptive to technological developments ; 5) t erbentuknya cadres who can assist and advocate to the target communities KB village.

The perspective of the digital-based *needs assessment* model in improving the competence of KB family cadres follows the following principles :

#### 1) Collaborative

Data and information are obtained on the basis of shared needs and decision making on the basis of joint decisions, between the organizer, community leaders and the community

#### 2) Participatory

Community participation and community leaders formulate empowerment program planning.

3) Relevance

Arrangement of program planning that is measured based on the goals or needs of the community.

4) Effectiveness and efficiency

Compilation of community empowerment program planning that is able to reduce time and cost

The model needs assessment was developed by prioritizing group communication that was built in a participatory and collaborative manner. KB family cadres in conducting *needs assessment* work as a facilitator, motivator, in gathering information and data. This participatory approach provides the widest possible opportunity or freedom for the resource persons or respondents identified, the principles carried out by KB family cadres in conducting *needs assessment* include:

- 1) Cadres have the ability to collect data and information with a good communication process
- 2) The cadre helps clarify the desire to improve the ability / competence or improve the condition of the community through an empowerment program.
- 3) Cadres diagnose the gap between expectations and reality
- 4) Cadres identify environmental and community life problems
- 5) Cadres are able to create pleasant conditions
- 6) The cadre accepts the community as someone who actually has potential or competence
- 7) Cadres build a ballic relationship in trust and help each other cooperatively
- 8) Cadres are ready to become partners in solving community problems
- 9) Cadres involve the community and stakeholders in developing needs
- 10) Cadres help think about designing learning experiences and choosing materials and methods that are right for the community.
- 11) Cadres help organize the community to be responsible for program participation .

The principles mentioned above are a reference for getting an assessment. Wahyudin, Sarbaini, and Achmad Hufad (2016) revealed that the assessment of the situation and condition of the community is very important as an input for decision making on planning, sustainability, expansion, termination of employment, and program modification, as well as the use and development of the scientific basis that underlies the assessment process. Thus, the assessment is carried out systematically to obtain the data or information needed as feedback to improve and develop the program.

The assessment can be easier with the use of digital technology. ICTs in the Industrial Revolution 4.0 trend will help the identification process more effectively and efficiently. The method *needs assessment* can be facilitated by using a certain computer system or software. The use of information technology in the social field, opens up

opportunities for everyone to access information, as well as in processing the diversity of community needs.

Results processors A n the data In Village KB, will be assessed jointly by the stakeholders, together cadre take decisions together in determining people's empowerment. Effective communication and collaboration will create a good program. (Nawangwulan, ST, Hufad, A. diwinata, JS, & Saripah, I., 2020).

### **Implementation of the Digital Needs Assessment Model in the Preparation of Community Empowerment Programs in the KB Village**

Population Control Office of Family Planning for Women's Empowerment and Child Protection (DP2KB3A) element of government control field of population and family planning and government affairs field women and child protection. Implementation of large programs implemented to date by P2KB3A the village family planning, with the aim of improve the quality of community life at the village level or equivalent through population programs, family planning and family development and related sector development in order to realize small families of reality (BK KBN West Java Province, 2017). *Needs assessment* done through process input, process and output. Input is by considering the community with three criteria used, namely the main criteria, regional criteria, and special criteria. The three criteria are the objectives of the KB Village program. As for the indicators whose needs are measured, which is the 8th family function component of the BKKBN version , is determined through a process of discussion with community leaders / stakeholders (*key person method*). The output of the discussion results in the form of programs that are important if implemented based on various considerations, such as cost, location, resource persons and others.

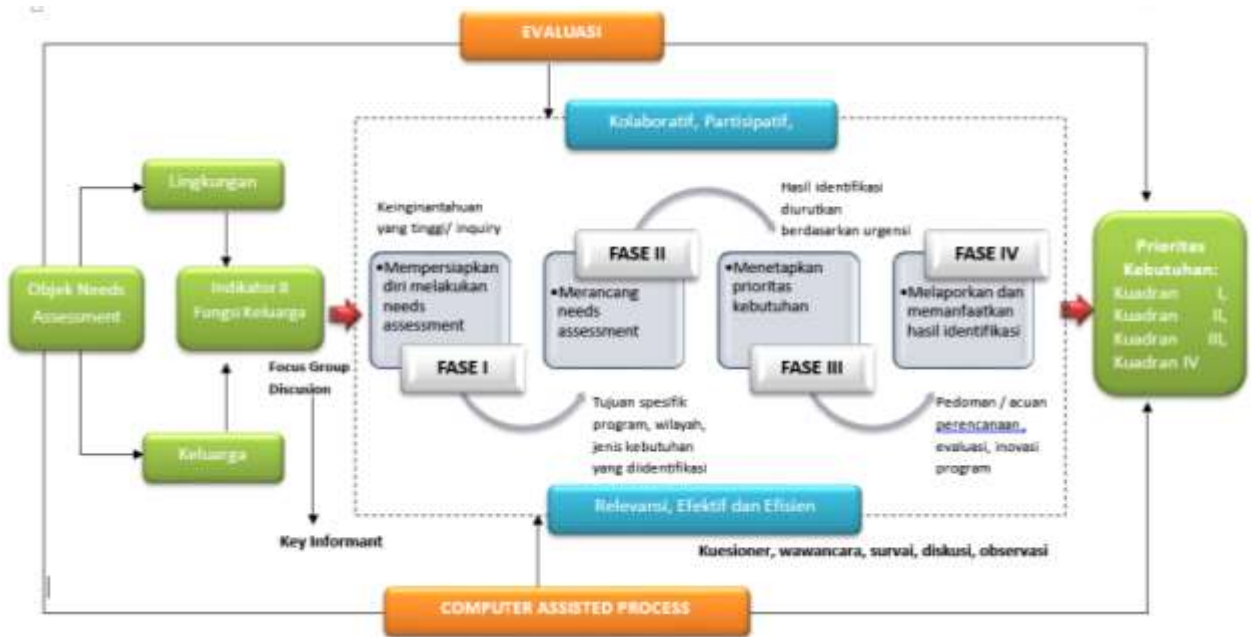
There are various strategies that demonstrate the ability of facilitators to carry out needs assessments, including: First, prepare themselves to conduct *need assessments*. As is done with the *inquiry* method , it is necessary to prepare yourself with various in-depth questions. Curiosity will lead the program makers to the actual needs of the community. In addition, according to Suar ez (in Khumalo, 1999: 141) "due to educational needs based on the values of the institution or society, procedures must be integrated into the process to ensure they can represent these values.

Secondly, to design *need assessment*. Preparation of design *needs assessment* begins with in-depth study preliminary studies, the clarity of the assessment / needs who want revealed. This stage includes activities describing the specific objectives of the program, areas with needs that must be met and the types of needs identified. According to Suar ez (1994) in (Khumalo, 1999: 141) explains that the completeness of the design included in it is a procedure for analyzing data and reporting the results.

Third, set priority needs. Studies *need assessment* through identification will produce a variety of needs. In order to obtain maximum results, the results of identification of needs must be sorted by their immediate nature / urgency / importance. This priority setting process is a complex analysis.

Finally, report and utilize identification results. The specific purpose of *need assessment* is to take advantage of the results that have been prepared. These results can be used in planning, solving problems, setting criteria as references (guidelines) for evaluating, improving the educational process, as well as finding or innovating in education.

The following illustrates the scheme of digitizing *needs assessment* models in order to prepare the needs of community empowerment programs.



**Figure 1.** Digital *Needs Assessment* Model



From the chart above, we can know that the four processes will produce a *needs assessment* report with several levels of urgency as follows.

Quadrant I : Important and urgent needs to be met immediately.

Quadrant II : An important but less urgent need to be met

Quadrant III : Needs that are less important but urgent to be met

Quadrant IV : Unimportant and less urgent needs to be met

Quadrant I as an important and urgent need for full fulfillment can be the first reference in developing an empowerment program. Empowerment programs are community development concepts that emphasize active participation by their own community to improve their lives. Thus , empowerment programs with careful planning will be in line with what is needed by the community, with the results of *needs assessment activities*. (Sulaeman, ES, & Murti, B., 2015); (Ashwell HES and Barclay L., 2009); (Nafiah, R., 2013); (Crosby, R., & Noar, SM, 2011).

The mechanism of conducting *needs assessment* is based on the principle of convenience that can be utilized by KB village cadres. The process of *needs assessment* in community empowerment programs, as a first step before the formulation of community empowerment program planning is prepared. The process of disclosing data and information is carried out in a communicative manner and in informal language carried out by officers.

Assumptions from the application of the digital-based *needs assessment* model will affect the competence of KB family cadres, especially in processing data or information resulting from the identification of program needs. The application of this model is carried out cooperatively, which encourages the participation of community leaders, KB village cadres and the community in designing the KB village program. Collaboration as a social communication effort built to create a participatory program atmosphere or climate. The output of the application of this model is the achievement of the competencies of KB family cadres in designing community empowerment programs with the principles of collaborative, participatory, relevance, efficiency and effectiveness.

The community is stimulated to recognize their abilities, so they are willing and able; (1) choose and determine their own resources appropriately for self-improvement and their environment in an effort to improve their quality of life, (2) take advantage of opportunities to increase productivity so that it impacts on his income or income in the economic sector, (3) utilizes opportunities and rights of obligations as citizens countries in the political sector, (4 ) based on people's lives by utilizing access to education, (5) building healthy lives and environments in the health sector and (6) collaboration with other parties that can expedite their entire business.

Cycle implementation model of digital *needs assessment* for the program's empowerment is an empowerment process that takes place on an ongoing basis, and is

not completed or stopped on the implementation of specific activities. But guided to continue to discuss other issues that empower or vice versa, because of problems does not mean there is no more in life and the life of the group and members yes, even these groups be encouraged to establish relationships with sources of external power that can help overcome the problems existing, in addition to group members can explore the potential that exists in the environment itself to be integrated in designing and implementing activities again. That is, that the empowerment process is an *on-going process* as long as they exist and require a cycle of empowerment stages, by preparing infrastructure and applying group strengths .

#### IV. CONCLUSION

Application of the model *needs assessment* based on digital work to improve the competence of cadres of the village family planning, especially in processing of data or information resulting identification program needs. The application of this model is carried out cooperatively, which encourages the participation of community leaders, KB village cadres and the community in designing the KB village program. Collaboration as a social communication effort built to create a participatory program atmosphere or climate. The output of the application of this model is the achievement of the competencies of KB family cadres in designing community empowerment programs with the principles of collaborative, participatory, relevance, efficiency and effectiveness.

It is expected that competent cadres who like to support the empowerment process will always be *on-going process* as long as they are there and need to go through a cycle of empowerment stages, by preparing infrastructure and applying group forces towards independence .

This, of course, is the responsibility of various parties, both institutions and state institutions, NGOs, and their own community. People who are objects and subjects from the development of their own sites.

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