



# Policy of Uptd Information and Communication Technology Education And Culture (TIKPK) Banten Province in Improving the Quality of Human Resources: a Study in Pandeglang Regency

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## ABSTRACT

This study aims to analyze the policy of the Regional Technical Implementation Unit for Educational and Cultural Information and Communication Technology (UPTD TIKPK) of Banten Province in improving human resource quality in Pandeglang Regency. The research uses a qualitative descriptive approach to provide a comprehensive overview of policy implementation and its influencing factors. Data were collected through interviews with key informants, field observations, and documentation studies. The analysis was conducted based on Van Meter and Van Horn's (1975) policy implementation theory, which highlights six main factors: policy standards and objectives, resources, implementing agency characteristics, disposition of implementers, inter-organizational communication, and social, economic, and political conditions. The results show that the UPTD TIKPK policy has been fairly effective in enhancing human resource capacity, particularly through training programs and digital literacy development. However, several challenges remain, including limited infrastructure, insufficient budget support, and suboptimal inter-agency coordination. In conclusion, the success of human resource development through TIKPK policy depends largely on policy actor synergy, resource adequacy, and program sustainability in responding to technological advancement.

**Keywords:** *Public policy, UPTD TIKPK, human resource quality, policy implementation, Banten*

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## I. Introduction

Improving the quality of human resources (HR) is a key factor in the progress of the nation and regions. The quality of human resources cannot be separated from the quality of education, because education has a strategic role in fostering love for science, forming character, and fostering creativity, professionalism, and work ethics. In the era of globalization and digital transformation, the ability of human resources to be adaptive to information technology developments is an important prerequisite for regional development.

Banten Province, especially Pandeglang Regency, still faces challenges in improving the quality of human resources. Based on the 2021 Human Development Index (HDI) data, Pandeglang occupies the bottom three positions out of eight districts/cities in Banten with a score of 56.17. This condition illustrates that the quality of education, health, and the economy of the community is still relatively low. The average length of school is only about seven years, which means that most of the population has not completed nine years of basic education. In addition, economic factors and limited educational infrastructure are also significant obstacles.

The school participation rate in Pandeglang shows a considerable gap compared to urban areas in Banten. Data shows that the school participation rate (APS) at the junior high, high school, and university levels in Pandeglang Regency is still below the provincial and national averages. This inequality reflects the difference in access to education between urban and rural areas. People in remote areas often face distance constraints, education costs, and a lack of qualified educators. This condition strengthens the urgency of policies that are able to expand access and improve the quality of education in disadvantaged areas.

In this context, the role of the Regional Technical Implementation Unit of Information and Communication Technology Education and Culture (UPTD TIKPK) of Banten Province is very important. This institution has

a mandate to develop and utilize information technology in the fields of education and culture to improve the quality of educational services and strengthen the competence of human resources. The policies implemented by UPTD TIKPK are expected to reduce the digital divide, expand access to educational information, and increase technological literacy among educators and students.

However, the implementation of the policy faces various challenges, including limited technological facilities and infrastructure, low capacity of human resources managers, and suboptimal coordination between agencies. On the other hand, the potential for the success of the UPTD TIKPK policy is quite large if it is supported by synergy between local governments, educational institutions, and the community. A collaborative approach based on local needs is the key so that ICT development policies really have an impact on improving the quality of education and human resources.

This research focuses on the policy analysis of the Banten Province UPTD TIKPK in improving the quality of human resources in Pandeglang Regency. The study was conducted to understand the extent to which the policy was implemented, the factors that affect its success, and the obstacles faced in the field. The results of the research are expected to contribute to strengthening technology-based education policies at the regional level and become strategic inputs for improving HDI and human development in Banten Province.

## **Literature Review**

### **Public Policy and Policy**

Policy can generally be understood as a guideline or direction of action formulated to solve a specific problem in society. According to Noeng Muhadjir, policy is a systematic effort to solve social problems for the sake of justice and community welfare. Meanwhile, Koontz and Weihrich emphasized that policy serves as a thinking guide in strategic decision-making and organizational actions.

In the context of government, public policy is any form of decision taken by an authorized institution to achieve a common goal. Dye (1981) defines it as "whatever governments choose to do or not to do", emphasizing that the actions and inactions of the government both have an impact on the public. Public policy is generally directed at solving community problems through the process of policy formulation, implementation, and evaluation. Thus, public policy is an important instrument to ensure the achievement of the public interest and the improvement of social welfare.

### **Education Policy**

Education policy is an integral part of public policy that is oriented towards improving human quality through the education system. Arif Rohman stated that education policy is a political decision that regulates regulations, resource distribution, and behavior in the world of education. This policy not only serves as an administrative guideline, but also as a national development strategy in the field of education.

Education policies are expected to be able to ensure equal access, quality improvement, and relevance of education to regional development needs. In the context of regional autonomy, each local government has a great responsibility to adapt education policies to local potential, including the development of technology and human resource competencies in its region.

### **Policy Implementation**

Implementation is a crucial stage in the policy process because it determines the success or failure of a program. Van Meter and Van Horn (1975) developed a policy implementation model consisting of six main variables: (1) the size and objectives of the policy, (2) resources, (3) the characteristics of the implementing agency, (4) the disposition of the implementers, (5) communication between organizations, and (6) economic, social, and political conditions.

These six factors must run harmoniously so that policy implementation can be effective. For example, adequate human and financial resources will strengthen the ability of the implementers, while good inter-agency communication will facilitate coordination and synchronization of policies. In many cases, public policy failures are not caused by poor design, but by weak implementation on the ground.

### **Public Policy Analysis**

Public policy analysis according to Dunn (2003) is a multidisciplinary process designed to assess and improve policy through empirical, evaluative, and normative approaches. The process includes five stages: problem formulation, alternative forecasting, policy recommendations, monitoring, and evaluation.

The evaluation stage measures the extent to which the policy has met its objectives based on the criteria of effectiveness, efficiency, equity, and responsiveness. Through this analysis, policymakers can assess program performance and correct implementation weaknesses in the future.

### **Human Resource Development (HR)**

Human resources are the main asset in development. According to Gunawan A. Wardhana, human resources include all energy, skills, and potentials that can be used to achieve productive goals. In public organizations, competent and adaptive human resources are the key to successful policy implementation.

Human resource development is the process of improving individual abilities and competencies through education, training, and work experience. Uman (2008) emphasized that human resource development includes aspects of welfare, education, health, and employment opportunities. While Beebe (2001) stated that development is a continuous process that helps individuals and organizations to adapt to change and increase work effectiveness.

In the era of digital transformation, human resource development also includes technological literacy skills, innovation, and adaptation to new information systems. In the context of public policy, human resource development programs play an important role in creating a quality workforce and strengthening regional competitiveness.

### **ICT Policy in Education and Human Resources Improvement**

Information and communication technology (ICT) has a strategic role in strengthening the modern education system. The Banten Province Information and Communication Technology and Communication Unit (TIKPK) functions as a technical institution that supports the digitization of education and the improvement of the competence of apparatus and educators.

ICT development policies in the education sector include increasing access to digital learning resources, training educators, and strengthening digital literacy for students and the community. In its implementation, this policy requires adequate resource support, synergy between agencies, and conformity with regional needs.

Through the TIKPK policy, local governments strive to create superior human resources, are adaptive to technology, and are ready to face global challenges. Strengthening the role of ICT in education is also expected to reduce the digital divide, especially in areas such as Pandeglang which still have limited infrastructure and access to education.

### **Research Conceptual Framework**

Research on UPTD TIKPK policies in improving the quality of human resources in Pandeglang Regency is based on the implementation theory of Van Meter and Van Horn. The variables studied included the size and objectives of the policy, resources, characteristics of implementing agents, implementing disposition, communication between organizations, and the social, economic, and political environment. The relationship between these factors determines the success rate of policy implementation.

Conceptually, this study views that the effectiveness of UPTD TIKPK policies depends on the alignment between strategic planning, program implementation, and competent human resource support. The success of the policy is ultimately measured by the extent to which the ICT program is able to contribute to improving the quality of human resources and human development index in Pandeglang Regency.

## **II. Research Methods**

### **Approaches and Types of Research**

This study uses a qualitative method with a descriptive approach. This approach was chosen because it allows researchers to deeply understand the social phenomena that occur within the Banten Province Information and Communication Technology and Communication Unit (TIKPK), especially in an effort to improve the quality of human resources in Pandeglang Regency. According to Azwar (2020), descriptive research aims to systematically describe the facts and characteristics of the object or subject being researched factually and accurately. In this context, the researcher plays the role of the main instrument that conducts data exploration through the process of collecting, reducing, and interpreting the observed phenomena.

### **Data Sources and Types**

The data in this study was obtained from two main sources, namely primary data and secondary data. Primary data was collected through in-depth interviews with informants who had direct relevance to the research topic. Meanwhile, secondary data were obtained from official documents, activity reports, and other literature sources that supported the analysis. The main data sources are words, actions, and documents related to policies and the implementation of human resource quality improvement programs within the TIKPK.

The informants in this study are divided into three categories. Key informants consist of the Head of the Center and the Head of the Administration Subdivision who understand the organization's policies and strategic direction. The main informants include the Head of the Utilization Section and the Head of the Evaluation Section who are directly involved in the implementation of the program. Meanwhile, additional informants consist of school principals and vocational school teachers who are implementing partners in the field. The selection of informants is carried out purposively based on their involvement and knowledge of the TIKPK policy.

### **Research Instruments**

The main instrument in this study is the researcher himself. As stated by Moleong (2000), researchers play a key role as a key instrument that determines the validity and depth of data through adaptability and sensitivity to the social context being studied. To support data collection, researchers used tools in the form of interview guidelines, field notes, voice recorders, and documentation cameras. Field notes are used to record findings and reflections during the data collection process.

### **Data Collection Techniques**

Data was collected through three main techniques, namely in-depth interviews, direct observations, and literature studies.

- In-depth interviews were conducted with selected informants with a semi-structured question guide to keep the data obtained focused but allow for broader exploration of meaning.
- Direct observation was carried out to understand the work situation, communication patterns, and interaction between policy implementers within the TIKPK. This technique helps researchers gain a contextual understanding of policy implementation in the field.
- Literature studies are used to strengthen analysis through the review of documents, policy reports, and previous research results that are relevant to the topic.

### **Data Analysis Techniques**

Data analysis is carried out qualitatively through three main stages as described by Miles and Huberman (in Sugiyono, 2015): data reduction, data presentation, and conclusion drawn.

- Data reduction is carried out by summarizing and focusing important matters related to the research objectives.
- The presentation of data is carried out in the form of narrative descriptions and tables that describe patterns and relationships between findings.

- Drawing conclusions is done in stages by checking the consistency and relevance between empirical and theoretical data.

### **Data Validity Test**

To ensure the validity of the findings, this study uses a triangulation technique which includes triangulation of sources, techniques, and time. Source triangulation is carried out by comparing data obtained from various informants. The triangulation technique is carried out by checking the suitability between the results of interviews, observations, and documentation. Meanwhile, time triangulation is carried out by repeating the data collection process at different times to test the consistency of information. Data is declared valid if there is a match of information between sources and between data collection times.

### **Research Location and Time**

The research was carried out at the Information and Communication Technology of Education and Culture (TIKPK) of Banten Province, with a focus on Pandeglang Regency as the location for the implementation of policies to improve the quality of human resources. The selection of the location is based on the strategic role of TIKPK as an institution responsible for the development and utilization of information technology in the field of education. The research was carried out from March to August 2022, including the stages of preparation, data collection, analysis, and report preparation.

## **III. Results and Discussion**

This study aims to describe the implementation of the Banten Province Information and Communication Technology (TIKPK) Policy in improving the quality of human resources (HR) in Pandeglang Regency. The analysis was conducted using Van Meter and Van Horn's policy implementation theory, which emphasizes six main dimensions: policy standards and objectives, resources, interorganizational communication, implementing characteristics, implementer disposition, and social, political, and economic environmental conditions.

### **Policy Standards and Objectives**

The successful implementation of policies depends heavily on the clarity of standards and goals set. Based on the results of the interviews, all informants stated that the main indicator of the success of the TIKPK policy is measured through the achievement of performance targets and compliance with standard operating procedures (SOPs). SOPs function as the main guideline for the implementation of tasks so that there is no overlap of authority and administrative errors. This finding is in line with the view of Edward III (in Winarno, 2005) who stated that clarity of standards and procedures is an important prerequisite in the implementation of public policies. In the context of TIKPK, SOPs are actually a supporting factor because they help synchronize between fields of work and ensure that policies are implemented according to the target.

### **Resources**

The resource aspect includes the quality of human resources and financial support. The results of the study show that UPTD TIKPK has quite competent employees, but the number is not proportional to the workload. Some informants assessed that the limited number of apparatus personnel was still balanced by the existence of freelance daily workers (THL), although the quality still needed to be improved. In addition, budget limitations are considered to affect the ability of institutions to conduct employee capacity building training. This reinforces Edward III's theory that the availability of competent staff and adequate financial support are key factors in the successful implementation of policies. The quality of good human resources is a prerequisite for policies to be implemented effectively and sustainably.

### **Interorganizational Communication**

Effective communication between implementing organizations plays an important role in ensuring uniformity of understanding and action on policies. The results of the interviews showed that the coordination between TIKPK and partner educational institutions was running quite well, characterized by the implementation of

regular meetings and the dissemination of information to school officials. However, the dissemination of information to the public is considered uneven because some communication is still top-down and has not fully reached the public directly. However, socialization activities and inter-agency coordination forums are able to maintain the consistency of program implementation. Based on Edward III's theory, the aspects of transmission, clarity, and consistency of communication have been quite effective, although there is a need for improvement in the transparency of public information.

### **Characteristics of Implementing Agents**

A clear organizational structure and participatory leadership also influence the effectiveness of policy implementation. Field findings show that UPTD TIKPK has a relatively solid bureaucracy, with a clear division of tasks and an organized supervision system. Superiors are considered fair in providing direction and evaluation of the performance of subordinates, although some informants indicate differences in leadership styles between departments. In general, the characteristics of the implementing organization reflect a disciplined and collaborative work culture. These findings reinforce Grindle's theory that affirms the importance of adherence to organizational norms and harmonious working relationships in supporting successful policy implementation.

### **Disposition of the Implementer**

The attitude, commitment, and understanding of the implementer towards the policy are important elements in the implementation process. Based on the interview results, most of the employees have a positive attitude and support the TIKPK policy because it is considered to facilitate work and improve the efficiency of public services. However, there is a tendency for some employees to be less proactive due to the ease of the available digital systems. However, the application of the "5S" public service principle (smile, greeting, greeting, politeness, manners) shows that the general disposition of employees already reflects professionalism and good work ethic. These findings are in line with Van Meter and Van Horn's theory that the positive response of implementers to policies is the main determinant of successful implementation.

### **Social, Political, and Economic Environmental Conditions**

External conditions also determine the effectiveness of policy implementation. The social and political environment in Pandeglang Regency is considered to support the successful implementation of policies, characterized by the active participation of the community and educational institutions in various ICT-based training programs. However, the limited facilities and economic facilities in some regions are a challenge in equal access. The support of the local government and the community for TIKPK activities is a social capital that strengthens the implementation of policies in the field. This is in accordance with the view of Weimer and Vining that the success of public policy depends largely on the compatibility between policy and the character of the socio-political environment in which it is implemented.

### **Discussion Synthesis**

Overall, the implementation of the Banten Province TIKPK policy shows positive synergy between dimensions, although there is still room for improvement in terms of public communication and human resource capacity building. The relationship between the six dimensions of policy implementation is interrelated: clarity of standards and objectives is the basis for implementation, adequate resources are the basis for support, communication strengthens coordination, organizational characteristics form the stability of implementation, the disposition of the implementer determines commitment, and the socio-economic environment are external factors that strengthen the success of the policy. Thus, the success of policy implementation at UPTD TIKPK does not only depend on one factor, but is the result of the integration of all implementation elements that run in harmony.

## **IV. Conclusions and Suggestions**

### **Conclusion**

Based on the results of the research on the implementation of the Banten Province Information and Communication Technology (TIKPK) policy in improving the quality of human resources in Pandeglang

Regency, it can be concluded that this policy has run quite well, although there are still several aspects that need improvement. In general, policies have a clear direction and objectives and have received support from implementers and the public, but their effectiveness has not been optimal in all dimensions of implementation.

First, the standards and policy objectives have been understood by the implementers, but they have not been accompanied by measurable success indicators. The absence of evaluative measures leads to difficulties in assessing the extent to which policies achieve the expected results. Second, human and financial resources are considered adequate, but time constraints and suboptimal employee training are obstacles in the implementation of the program. Third, the characteristics of the implementing organization show a fairly good performance with a clear division of tasks and relatively solid coordination, although they are not entirely formally documented in the bureaucratic structure.

Fourth, the disposition of policy implementers is relatively positive. Employees show commitment and active participation in supporting policy implementation, although some still need to improve professionalism in order to carry out tasks more effectively. Fifth, communication between organizations is the most crucial aspect because not all information related to the program has been conveyed evenly to all related parties. Finally, the social and political environment in Pandeglang Regency supports the success of the policy, but the economic aspect is still an obstacle, especially in the provision of facilities and infrastructure to support ICT activities.

Overall, the implementation of the TIKPK policy has shown positive synergy between the policy dimensions, resources, and implementers. However, increasing human resource capacity and strengthening inter-organizational communication systems is still an urgent need so that policies can run more effectively and sustainably.

### **Suggestions**

Based on these findings, it is recommended that:

- 1) The local government and UPTD TIKPK have compiled clear and measurable performance indicators as a tool to evaluate the effectiveness of policies to improve the quality of human resources.
- 2) Increasing the capacity of human resources needs to be done through regular training and providing opportunities for competency development so that implementers have better technical and managerial skills.
- 3) Optimizing public communication needs to be done by utilizing digital technology and social media to expand the reach of policy information. The use of online platforms such as official websites or interactive communication groups will facilitate coordination between implementers, education partners, and the community.
- 4) The increase in budget support is expected to strengthen operational aspects and the provision of facilities, especially those that support information technology-based activities in the education sector.

With these steps, it is hoped that the implementation of the TIKPK policy can take place more efficiently, be adaptive to technological developments, and make a real contribution to improving the quality of human resources in Banten Province.

### **Bibliography**

Agus, S. (2008). *Human resource management*. Jakarta: IPWI Publishing Agency.

Arikunto, S. (2010). *Research management*. Jakarta: Rineka Cipta.

Armstrong, M. (1997). *Employee work productivity*. Yogyakarta: Andi Offset.

Burhan, B. (2001). *Social research methods*. Yogyakarta: Andi Offset.

Gibson, J. L., & Ivancevich, J. M. (2007). *Organizational management*. Jakarta: Ghalia Utama.

- Handoko, T. H. (1996). *Human resource management*. Jakarta: Ghalia Utama.
- Hasibuan, M. S. P. (2008). *Human resource management*. Jakarta: PT Bumi Aksara.
- Manullang, M., & Manullang, M. (2001). *Human resource management*. Yogyakarta: BPFE.
- Mangkunegara, A. A. A. P. (2000). *The process of short-term education in Indonesia*. Yogyakarta: No.
- Mathis, R. L., & Jackson, J. H. (2006). *Human resource management*. Jakarta: Salemba Four.
- McLagan, P., & Suhadolnik, R. (1999). *Training effectiveness*. Jakarta: Erlangga.
- Mobley, W. H. (1986). *Employee turnover: Causes, consequences and control*. Jakarta: PT Pustaka Binaman Pressindo.
- Mondy, R. W. (2008). *Human resource management*. Jakarta: Erlangga.
- Nadler, L. (2001). *Human resource development*. Bandung: Alfabeta.
- Nasirun. (2014). *Human resource development*. Jakarta: Ghalia Utama.
- Nitish, A. S. (1996). *Personnel management*. Jakarta: Erlangga.
- Notoadmodjo, S. (1992). *Education and training for organizations*. Yogyakarta: No.
- Notoadmodjo, S. (2003). *The concept and application of human resources*. Yogyakarta: No.
- Rivai, V., & Sagala, E. J. (2009). *Human resource management for companies: From theory to practice*. Jakarta: Rajawali Press.
- Sastradipoera, K. (2002). *Training theory and practice*. Jakarta: Ghalia Utama.
- Sastrohadiwiryo, B. S. (2002). *Indonesian workforce management*. Jakarta: PT Bumi Aksara.
- Schuler, R. S. (1992). *Work effectiveness*. Yogyakarta: Andi Offset.
- Serendipity. (2001). *Human Resources and Work Productivity*. Jakarta: Ghalia Utama.
- Siagian, S. P. (2010). *Human resource management*. Jakarta: Bumi Aksara.
- Sihombing, M. (2011). *Human resource development*. Jakarta: Bumi Aksara.
- Situmorang, S. H., et al. (2010). *Human resource management*. Jakarta: Bumi Aksara.
- Soekanto, S. (1984). *Organizational management*. Yogyakarta: Andi Offset.
- Stephen, W. (1997). *Public policy process*. Jakarta: Ghalia Utama.
- Suharsimi, A. (2010). *Research management*. Jakarta: Rineka Cipta.
- Sulistiyani, A. T., & Rosidah. (2003). *The concept of training*. Yogyakarta: Andi Offset.
- Swasono, Y. (1993). *Human resource development*. Jakarta: Ghalia Utama.
- Syarief, H. (n.d.). *Human resource management*. Jakarta: Bumi Aksara.
- Tegeh, I. M., et al. (2013). *Educational seminars*. Jakarta: Ganesha Press.
- Sincerely. (1994). *Human Resource Management*. Bandung: Alfabeta.