

## Evaluation of Information Technology-Based Inclusive Education's Policies in DIY for the 2017/2018 Academic Year

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### Abstrak

This study aims to reveal and explain the results of the evaluation of information technology-based inclusive education policies in DIY for the 2017/2018 academic year conducted by researchers in 16 high school inclusion schools in DIY. In this study the authors use two major concepts in evaluating this policy, namely: Policy Design and Policy Implementation. The method used in this research is Mix-Method, which combines two qualitative and quantitative research methods, so that more comprehensive, valid, reliable, and objective data are obtained. The results of this study are the policy design obtained a value of 3.12 and was included in the fairly good category, the implementation of the policy obtained a score of 2.77 and was included in the good enough category so that the results of the evaluation of information technology-based inclusive education policies in DIY for the 2017/2018 academic year were in the fairly good category.

Keywords: Evaluation, Inclusive Education, Information and Technology, Policy Evaluation,

### INTRODUCTION

Education is one of the most important aspects of life and has become a primary need for most people because it is able to improve the degree of life through changing one's mindset and perspective for the better. Any country makes education as an important aspect in determining the progress of a nation, including Indonesia, so that the state must guarantee the right to education for every citizen without exception including children with disabilities to be able to go to school. The obligation of the Indonesian government in

fighting for the education rights of Indonesian citizens is stated in the 1945 Constitution article 31.

The large number of cases of refusal of students with disabilities to attend public schools is also a problem for the government to provide schools that are friendly to children with disabilities. So that inclusive education is realized as it is currently being held. The nature of inclusive education is one of the efforts to improve the quality of educational services for children with disabilities and without discriminating between children with disabilities and normal children in general, so that in 2009 the Indonesian government ordered educational institutions at all levels to implement inclusive education, and the logical consequence that must be accepted is that all implementers in educational institutions must accept all students without exception, including students who experience physical, psychological, behavioral and social barriers in regular schools which are usually attended by non-disabled or regular children (Ormrod, 2008 : 2).

Governments can be said to be responsible if they are considered to have high responsiveness (responsiveness) to what are the problems, needs, complaints, and aspirations of the people they represent, they quickly understand what the public demands and try their best to fulfill them, they can catch problems faced by the public and trying to find solutions, they do not like to procrastinate, extend service lines or prioritize procedures but ignore substance.

Responsiveness can be shown by the sensitivity and ability of the government in dealing with problems that arise, especially problems in the field of education for children with disabilities ( Nurani dkk, 2015 : 5). The state's efforts in educating all citizens through inclusive education need to be supported by all parties, including the Special Region of Yogyakarta which is part of the Unitary State of the Republic of Indonesia, the responsibility of the DIY government is stated in the DIY Governor Regulation No. 21 of 2013 concerning the Implementation of Inclusive Education. The latest data (2017/2018) shows that the Special Region of Yogyakarta has as many as:

No	Inclusive educational level	Bantul Regency		Gn. Kidul Regency		Kln Progo Regency		Sleman Regency		Yogyakarta City	
		Number of School	pers on	Number of School	per son	Number of School	pers on	Number of School	pers on	Number of School	pers on
1	Kindergarten	1	2	-	-	-	-	-	-	1	2
2	Elementary School	34	694	39	449	16	210	22	422	7	251
3	Junior High School	6	142	5	91	4	17	3	30	2	28
4	Senior High School	5	26	1	3	1	13	2	14	6	31
5	Vocational School	2	12	-	-	-	-	1	36	8	131

Source: Data from the Department of Education, Youth, and Sports DIY Year.

The implementation of inclusive education cannot be separated from the increasingly rapid development of information technology in this era of globalization, and its influence on the world of education cannot be avoided, because information technology in education can be understood as a complex and integrated process involving people, ideas, equipment, , and organizations to analyze problems, find ways to solve problems, implement, assess, and manage solutions to those problems that cover all aspects of human learning (Sukadi, 2008 : 16).

In its implementation, the implementation of inclusive system education has differences with general education (regular). General education has normal students so that the teaching staff (teachers), curriculum, facilities and infrastructure, learning environment and learning process are designed for normal children, with the underlying assumption that students have homogeneous abilities.

While inclusive education, students are students who have disabilities and or have the potential for intelligence and special talents that exist in regular schools, so that teaching staff (teachers), curriculum modifications, infrastructure suggestions, learning environments and learning processes are specially designed to allow all students can develop their potential (Sudarto, 2016 : 2). Inclusive education can be interpreted as education for all, and

is a form of reform in the world of education that emphasizes anti-discrimination, the struggle for equal rights and opportunities, justice, and expanding access to education for all, improving the quality of education, strategic efforts in completing compulsory education. years, as well as efforts to change public attitudes towards children with special needs.

The use of technology in the inclusive education system must be taken seriously because the demands of today's life cannot be separated from technology, so that students with disabilities are not in a cycle of ignorance that leads to a cycle of poverty, can achieve independence and have skills that are in accordance with the needs of the times. The DIY government is trying to realize the ideals of education through several policies, but these policies are not balanced with the readiness of teachers and teachers are still passive in collaborating with technology in learning and the availability of special technology which is considered lacking.

During the implementation of information technology-based inclusive education in the 2017/2018 academic year, according to researchers, there are still many problems faced by the school, both from the aspect of teacher readiness, the learning process, infrastructure facilities, including IT readiness needed by children with disabilities, because certain types of disabled students do not can operate ordinary IT, it must be specially designed, and not all schools and inclusive students have this unique technology. However, some of them have specially designed technology, but they are still passive to use IT in the classroom, there are still many other problems.

Based on the problems described above, this problem is interesting to study because it contains several issues, ranging from the lack of ability of students with disabilities to operate IT due to their limitations even though it is a demand, lack of particular IT readiness in schools, to the learning process which is considered inadequate. Effectively, this policy is a challenge for schools, especially teachers, because applying information technology into the learning process and dealing with students with disabilities is not easy and requires specific understanding and skills in teaching.

## METHODS

The type of research used in this study is mix-method research (combination method). According to Jhonson and Cristensen (2013: 20) a combination research method is an approach in research that combines qualitative and quantitative research methods to obtain more comprehensive, valid, reliable, and objective data. Quantitative research is a process of finding knowledge that uses data in the form of numbers as a tool to analyze information about what you want to know (Kasiram, 2008 : 149). Quantitative research emphasizes more on numbers that can produce data obtained from the results of distributing questionnaires to respondents.

This research was conducted at the Department of Education, Youth, and Sports, and 16 schools providing inclusive education at the high school level (Senior High School 3 Yogyakarta, Senior High School PGRI 1 Kasihan, Vocational School 3 Kasihan, Vocational School 6 Yogyakarta, Senior High School 6 Yogyakarta, Senior High School Taman Madya Ibu Pawiyatan Tamansiswa, Vocational High School Muhammadiyah 3 Yogyakarta, Vocational High School Muhammadiyah BOPKRI 2 Yogyakarta, Senior High School 1 Sewon, Senior High School Muhammadiyah 4 Yogyakarta, Vocational High School Muhammadiyah 2 Yogyakarta, Senior High School Gajah Mada Yogyakarta, Vocational School Pembangunan, Senior High School Muhammadiyah 7 Yogyakarta, Vocational School Pembangunan Muhammadiyah 4 Yogyakarta).

The research period is four months, starting from November 2018 to February 2019. The population is all subjects or objects of research targets. There are various forms of the issue: humans, animals, plants, goods, and verbal forms or verbal expressions (words, phrases, sentences, paragraphs, texts), or documents and printed materials. (Ibnu, 2003: 60). The population in this study were all teachers who teach inclusive classes in 16 high school level schools in Daerah Istimewa Yogyakarta.

The sample is the part of the population that is the center of our research attention within the scope and time we specify. A representative sample is a sample that genuinely reflects the population (Winarno, 2013: 91). In this research, the researcher will take the Non-

Probability Sampling method; that is, each member of the population does not have the same opportunity or opportunity as the sample. Considering that the number of teachers who teach in each inclusive class is minimal, not more than 30 teachers, the researchers took all of them as samples from 16 inclusive schools with 307 respondents.

**Primary Data:** Primary data is data that comes from the original or first source. (Moleong, 2010: 157). The primary data in this study are: Interviews, Questionnaires, Observations. While **Secondary Data** Data is data that is not collected by researchers themselves, for example from statistical bureaus, magazines, information or other publications as quoted from various sources of legislation, books, journals, newspapers, and previous research related to the problem. studied (Silalahi, 2010: 291). In this study the secondary data is Disdikpora data, legislation, books and articles. Data collection techniques in this study are interviews, questionnaires, observation and documentation. Interviews are conversations with a specific purpose. The conversation is carried out by two parties, namely the interviewer and the interviewee. Interviews with respondents to confirm the data, in addition to obtaining information for research purposes. Wide flexibility is needed with regard to attitude, structure and language when the interviewer does his job (Marzuki, 2002: 66). In this case, the researcher conducted interviews with the Head of PLB Disdikpora DIY and one of the teachers who taught inclusive classes in 16 inclusive schools.

Questionnaire is a tool in data collection which is done by giving a set of written questions to respondents to answer. Data collection techniques using questionnaires are efficient techniques if the researcher knows for sure the variables to be measured and knows what can be expected from the respondents (Iskandar, 2008: 77). In this study, researchers distributed questionnaires to all teachers who teach in inclusive classes, data collection techniques were carried out by giving a set of questions, and written statements to respondents with alternative answers: Strongly Agree (SS), Agree (S), Disagree (KS). ), Disagree (TS), Strongly Disagree (STS). Measurement using the Likert scale is used to measure attitudes, opinions, and perceptions of a person or group of people about social phenomena.

Observation or observation is to look attentively (Suyanto, 2005: 81). The function of this observation is to obtain additional information that has not been covered in interviews, questionnaires, and documentation. In this case, the researcher observes the teaching and learning process in the inclusive class. In this research, the process of qualitative data analysis techniques are data collection, data reduction, data presentation, and drawing conclusions while quantitative data uses an index scale. For more details, the researcher uses the index formula as follows (Suranto, 2006: 45-46):

$$\text{Index Formula: } I = \frac{F1+2.F2+3.F3+4.F4+5.F5}{N}$$

Information: I : Index

F : Frequency of sample/sub sample N : Number of Samples

1 : Very Poor Category

2 : Less Category

3 : Quite Category

4 : Good Category

5 : Very Good F1 : Very Less

F2 : Not Enough

F3 : Enough

F4 : Good

F5 : Very Good

For the calculation of the interval of the index values are as follows:

$$\begin{aligned} \text{Interval} &= \frac{\text{High Value} - \text{Lowest Score}}{\text{Many Criteria}} \\ &= \frac{5-1}{5} \\ &= 0,80 \end{aligned}$$

Information :

1,00 – 1,80: Very less

1,81 – 2,60: Less

2,61 – 3,40: Enough

3,41 – 4,20: Good

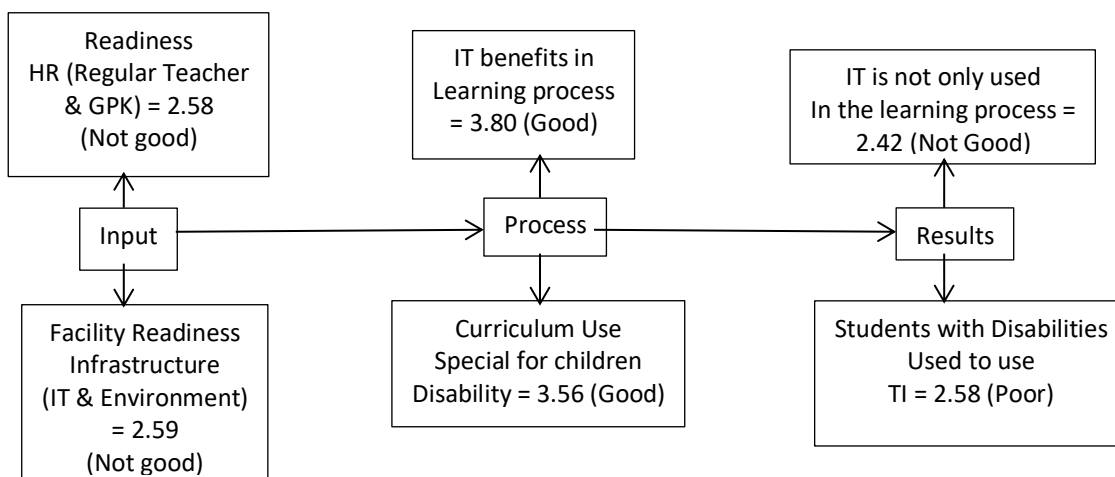
4,21 – 5,00: Very Good

## DISCUSSION

In this study to evaluate IT-based inclusive education policies, researchers used 2 major concepts, namely policy design and policy implementation. The findings obtained from research in 16 inclusive schools, most of the students with special needs are slow learners. To evaluate this policy, the researcher uses several indicators. To design the policy, the researcher uses indicators, inputs (teacher's readiness and GPK), process (IT use in inclusive classrooms), and the results obtained. Meanwhile, policy implementation uses input implementation indicators, implementation processes, and benefits derived from the use of IT. In this study, the author also uses Jody Zall Kusek's evaluation where the evaluation is described in 4 quadrants.

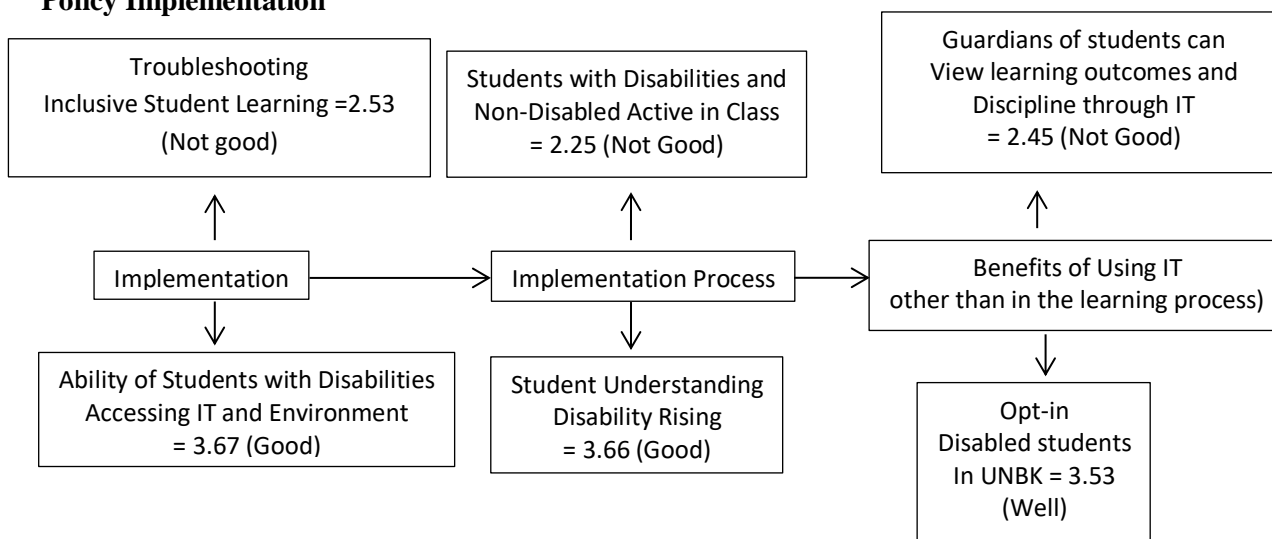
		Strength of design	
		High	Low
Strength of implementation	High	1.	2.
	Low	3.	4.

## Policy Design



Source: Data processed by researchers

## Policy Implementation



Source: Data obtained by researchers

## Policy Design Average

$$\text{Total Average Index} = \frac{\text{Total Index}}{\text{Number of Criteria}}$$

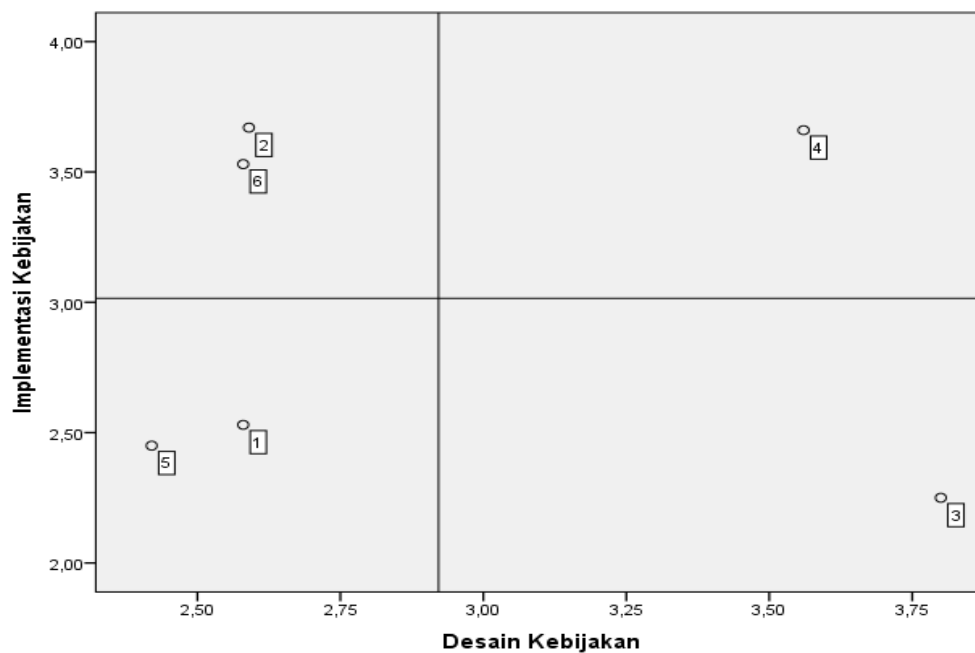
$$= \frac{18,73}{6}$$

= 3,12 with category Good enough

## Average Policy Implementation

$$\begin{aligned}\text{Total Average Index} &= \frac{\text{Total Index}}{\text{Number of Criteria}} \\ &= \frac{16,63}{6} \\ &= 2,77 \text{ with category Good enough}\end{aligned}$$

IT-Based Inclusive Education Policy Evaluation Scheme in DIY 2017/2018



Notes: Number 1: Input, 2: Process, 3: Outcome, 4: Input Implementation, 5: Implementation Process, 6: Implementation Benefits.

Based on the above scheme, it can be seen that:

Quadrant I is filled in by: numbers 2 and 6, namely the Process of Using IT, and the Benefits of Using IT. Quadrant I indicates that a strong design has a strong implementation, meaning that the process of using IT and IT benefits is in accordance with the plans and goals to be achieved.

Quadrant II is filled by: number 4, namely Input Implementation. Quadrant II shows that the designs made are weak but the implementation is strong, meaning that even though

the available designs are weak, these weaknesses can still be overcome so that their implementation can help.

Quadrant III is filled by: numbers 1 and 5, namely input and implementation process. Quadrant III shows that the design made is strong but the implementation is weak. In this case a well-crafted design that does not match the implementation is achieved.

Quadrant IV is filled by: number 3, namely: results. Quadrant IV shows that the design made is weak, so the implementation is weak. In this study, it shows that the lack of IT willingness makes students with disabilities not accustomed to using IT.

The picture above shows that most of the indicators used to evaluate policies show a poor category, although most of them show a good category, but have not been able to answer problems in inclusive education.

### **Supporting and Inhibiting Factors of Inclusive IT-Based Education Policy**

#### **a. Supporting factors**

Supporting Factors: are factors that support the success of a program, in this case the supporting factors of the IT-based inclusive education policy in DIY for the 2017/2018 academic year are the availability of IT and learning methods used by teachers in schools, positive attitudes of regular students and teachers towards the existence of students with disabilities, and the ability of students with disabilities themselves.

#### **b. Obstacle factor**

Inhibiting Factors: are factors that hinder or slow down the achievement of the objectives of a program, in this case the inhibiting factors are: the lack of regular teacher abilities in teaching students with disabilities, the number of special assistant teachers (GPK) is not in accordance with the number of students with disabilities, the government does not provide training for regular teachers, inadequate infrastructure, and the condition of the students themselves.

### **CONCLUSION**

To evaluate, the researcher uses 2 major concepts, namely policy design and policy implementation. In the policy design, the researcher looks at how the inputs (readiness of human resources and infrastructure in inclusive schools), processes, and results obtained from the policy are obtained, so that the results obtained are 3.12 and enter quite well with the following details:

### **Policy Design**

The average input of 2.57 is in the poor category due to the lack of readiness of teachers, special assistant teachers, IT infrastructure, the average process of 3.67 is in the good category because the education process in most inclusive schools is already IT-based, the average result of 3.11 is in the poor category because IT is only used in the learning process, not for other school support activities

### **Policy Implementation**

The average input implementation of 2.97 is in the poor category because the lack of teachers and GPK causes the problems of students with disabilities to not be resolved, the average implementation process is 2.36 in the poor category, this is because of the existence of IT in the learning process does not make students with disabilities active in class, the average implementation benefit is 2.98 and is in the poor category because the existence of IT in schools is still not able to activate guardians at home to participate through IT.

So overall the policy design got a score of 3.12 and policy implementation got a score of 2.77 so that the evaluation of IT-based inclusive education policies in DIY for the 2017/2018 school year scored Good Enough, meaning that the policy was able to solve public problems to provide education services without there is discrimination between regular and disabled students but, in its implementation, it is still not optimal, this is because there is still a lot that needs to be improved, starting from the quality of regular teachers, the number of children with disabilities to supporting infrastructure to achieve educational goals. Although the implementation of inclusive education has many problems, so far the school has been able to overcome these problems only to the extent of their abilities, for example

the lack of friendly facilities for children with disabilities, teachers or classmates willing to help to be able to access the school environment, or children with disabilities who do not understand lessons, teachers are ready to give extra hours and friends are ready to explain, and other things that can still cover the shortcomings of the IT-based inclusive education policy in DIY. However, these shortcomings cannot be ignored forever because they will have an impact on the quality of education in the future, so the government must immediately find solutions to problems related to inclusive education.

Factors supporting and inhibiting IT-based inclusive education policies in DIY for the 2017/2018 academic year. Supporting Factors are factors that support the success of a program, in this case the supporting factors of the IT-based inclusive education policy in DIY for the 2017/2018 academic year are the availability of IT and learning methods used by teachers in schools, positive attitudes of regular students and teachers towards the existence of students with disabilities, and the ability of students with disabilities themselves. Inhibiting Factors are factors that hinder or slow down the achievement of the objectives of a program, in this case the inhibiting factors are: the lack of regular teacher abilities in teaching students with disabilities, the number of special assistant teachers (GPK) is not in accordance with the number of students with disabilities, the government does not provide training for regular teachers, inadequate infrastructure, and the condition of the students themselves.

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