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An Investigation of How Basic Education Level Explains the Phenomena of Unemployment Differently in Urban and Rural Areas

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Abstract

This study aims to determine the effect of basic education level on unemployment and poverty rate based on the classification of urban and rural areas. The data were taken from Wonosobo Regency as the poorest district in Central Java, Indonesia, with the percentage of poor population of 20.32%. Using descriptive quantitative and linear regressions with dummy variable, we analyzed the distinguished effect of basic education level towards unemployment and poverty rate between urban and rural areas. The results show that, generally, basic education level affected unemployment and poverty rate. The basic education level affected unemployment rate in both urban and rural areas. However, the basic education level in urban area did not have an effect as significant as that in rural area in affecting poverty rate. Urban people faced more competitive workforce market that made them need more than just the basic education. Therefore, even most of them had finished their primary and secondary school; it did not mean they are not going to be trapped in poverty. Meanwhile, the basic education of rural people affected the poverty rate as the more people did not finish their basic studies; the more people had no eligibility in doing proper jobs to achieve the wealth.

Keywords: basic education level, poverty, rural area, unemployment, urban area

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1. Introduction

Poverty is one of the problems that usually happen in a country. Indonesia as one of the countries in the developing category considers the problem of poverty and seeks a way out to be implemented in government policies. These policies aim to alleviate poverty. However, poverty is an extremely complicated problem because many factors can cause poverty. It can also raise other economic development problems. Therefore, it is often called as a vicious circle that has no end.

Poverty has described in many dimensions and definitions. Generally, the dimensions that are often used as poverty assessment are from the economic dimension. The

standards used in the poverty assessment criteria in BPS and the World Bank generally highlight the conditions of population whose lives are below average. Indicators of living below average can be shown in the form of low levels of education, health, access to clean water sanitation, security, and etc (*World Bank*, 2006: 11).

The percentage of poor people in Indonesia is concentrated in Java in 2017 at 55.73%. The Java island is divided into 6 provinces, where the Special Region of Yogyakarta has the highest percentage of poor people, namely 13.02%, followed by Central Java 13.01%, East Java 11.77%, West Java 8, 71, DKI Jakarta 3.77%, and Banten 5.45%. Central Java is a province with the second highest percentage of absolute poverty after DIY with a difference of 0.1% at the rate of 13.01% where it is still classified as the Hard Core Poverty (> 10%) which is classified at a high rate of poverty (Figure 1.).

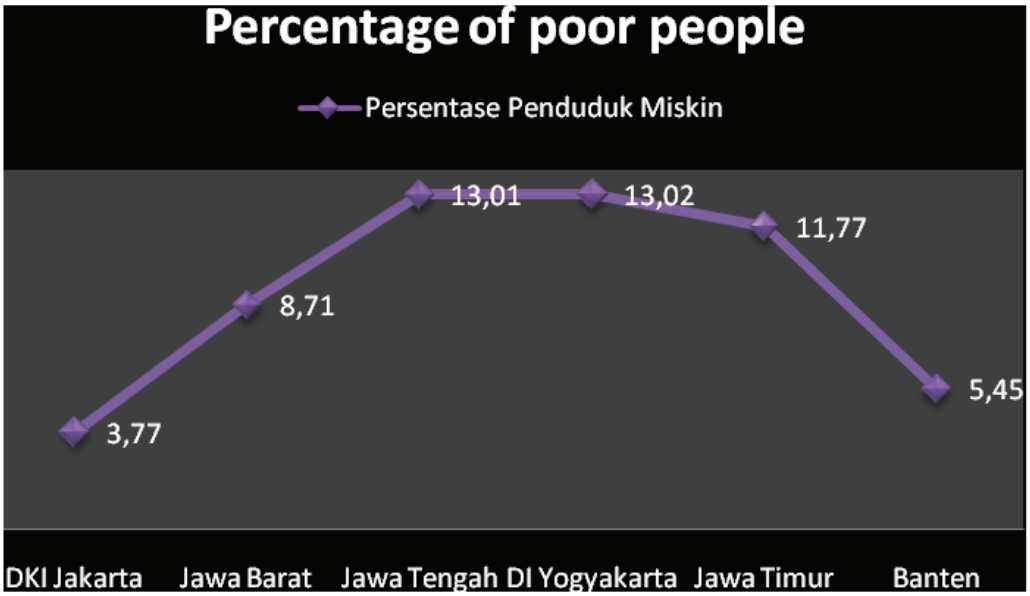

Figure 1: Percentage of poor population in Java Island (BPS, 2017).

Based on the publication of the Central Bureau of Statistics (BPS), almost 50% of districts in Central Java still have an absolute poverty rate of more than 10% and there are even 15 districts in Central Java which are included in the red zone of poverty. The 15 districts included in the red zone of poverty, consisting of: Wonosobo, Kebumen, Brebes, Purbalingga, Rembang, Pemalang, Banjarnegara, Banyumas, Klaten, Sragen, Cilacap, Demak, Purworejo, Grobogan, and Demak. Central Java consists of 35 regencies/cities with Wonosobo Regency as the poorest district in Central Java with a percentage of poor population of 20.32%, this percentage is higher than the percentage of poor people in Kulon Progo Regency which is equal to 20.03%. Kulon Progro is the poorest district in

DIY and the city with the lowest percentage of poor people in Central Java Province is Semarang City with a percentage of poor population of 4.62% (Figure 2).

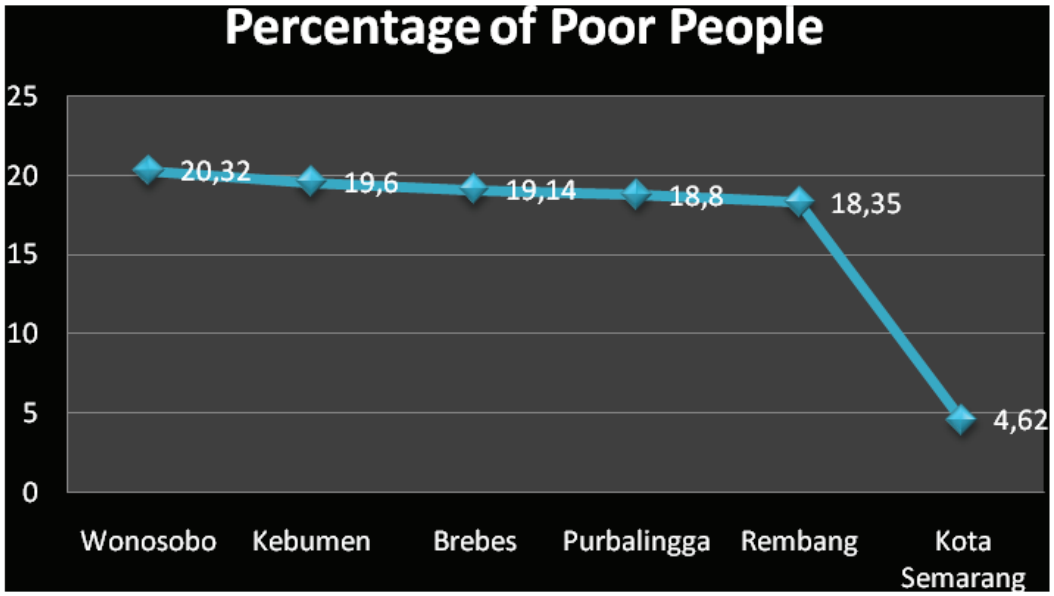

Figure 2: Percentage of poor population in Central Java Province (BPS, 2017).

Poverty is always associated with inability to achieve a higher education. The previous research has a wide variety of results. According to research conducted by Wahyudi and Rejekiningsih (2013: 12), the result shows education had a significant negative effect on poverty levels in Central Java. Whereas the research conducted by Amalia (2012: 167) shows there is a positive and significant effect of education on poverty in Eastern Indonesia. Furthermore, the research conducted by Elfassy (2017: 1242-1243) shows that the average age at the beginning of 1990 in USA was 30 years, 54.9% were women, and 50.6% were the black. Poverty experienced by the American population between 1990 and 2015 was more likely to be experienced by black women because having a lower average education due to their parents' education was also low.

The Nurkse's theory of poverty vicious cycle (1953) illustrates that backwardness and underdevelopment is two aspects that must be cut from the chain to overcome the poverty problem. The backwardness and underdevelopment can be overcome by the education for citizens to obtain knowledge which can reduce the level of backwardness and underdevelopment of an area.

Based on research conducted by Mayo (2000: 521) about the role of employee development in the growth of intellectual capital, it explains that human capital is a key driver in the growth of a company. Most companies know intuitively that the future of the company lies in the strength of the intellectual resources of employees;

hence the company will strive to get a quality workforce to increase the growth of the company. Education is a human capital investment because basically the costs incurred for education can be classified as an investment. The higher the level of education of a person, the knowledge and expertise will also increase so that it can encourage an increase in work productivity. The education represented by the percentage of population aged 10 years and over who have graduated from elementary and junior high school. At the elementary and junior high school level, a person has basic knowledge and expertise to avoid retardation and ignorance (Wahyudi&Rejekiningsih, 2013:8).

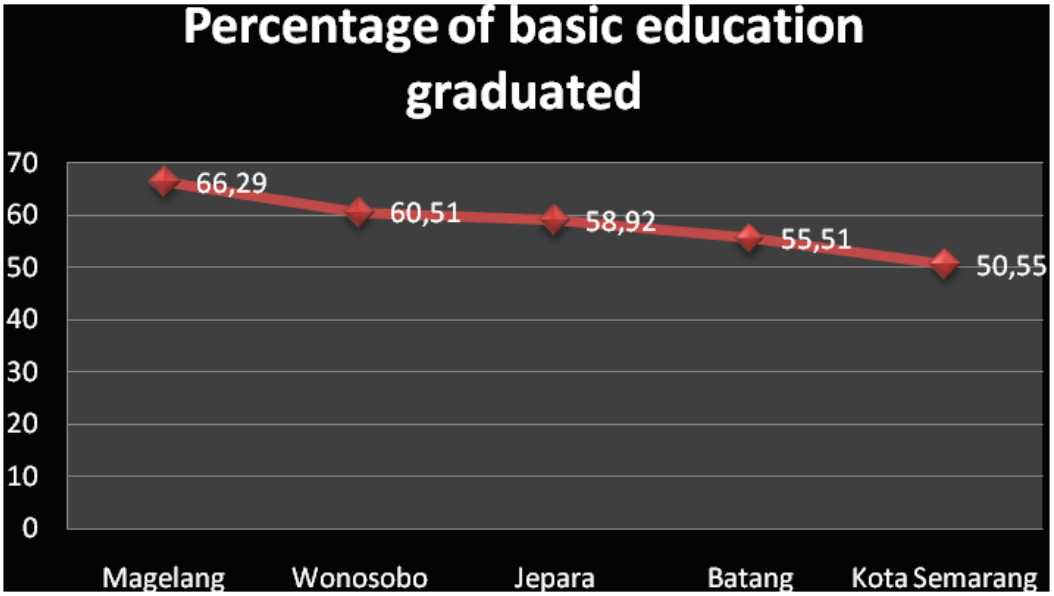

Figure 3: Percentage of Basic Education Graduate by Regency/City in Central Java Province in 2017 (BPS, 2017).

The root of other problems related to the number of poor people is unemployment. Unemployment is the number of workforce who actively seek employment but have not yet obtained it (Sukirno, 2013: 355). According to research conducted by Amalia (2012: 167), the unemployment has no significant effect on poverty in Eastern Indonesia. Whereas the research conducted by Wahyudi and Rejekiningsih (2013: 13) shows the unemployment has a positive and significant effect on the poverty level. Furthermore, the results of Irhamni's research (2017: 76-77) explain that population and unemployment have a positive effect on poverty, while government expenditure has a negative effect on poverty in Indonesia. If it is associated with the Nurkse's vicious circles theory (1953), productivity is one of the causes of poverty. Unemployment is defined as a low level productivity of a person. This is because unemployed people do not have a job to

generate wages or salaries. Unemployment is more common in low income groups so they have to live below the poverty line.

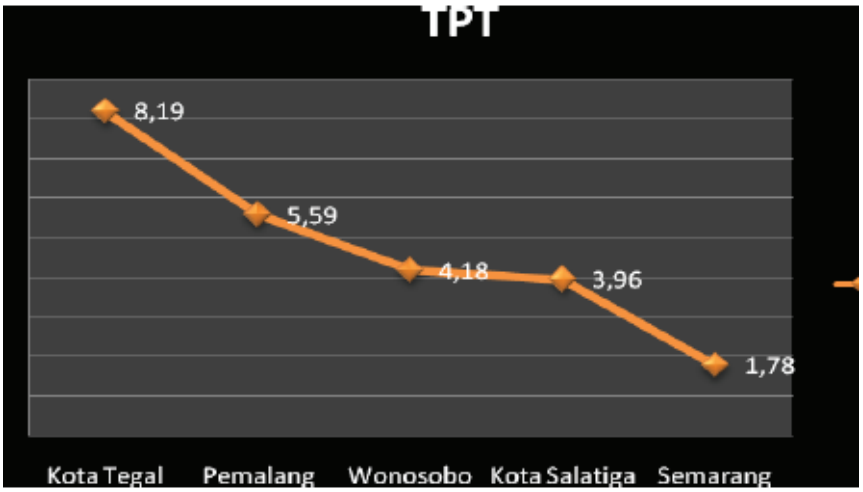

Figure 4: Percentage of Open Unemployment Rate by Regency City in Central Java Province in 2017 (BPS, 2017).

Wonosobo Regency is the poorest district in Central Java. The basic education level in Wonosobo Regency is in the high category (Figure 3), while the open unemployment rate is in the moderate category (Figure 4) but this does not change the status of Wonosobo Regency as the poorest district in Central Java. Based on this background, the objectives of this study are (1) to describe the effect of the basic education level on the unemployment rate in urban and rural area of Wonosobo Regency; (2) to describe the effect of basic education level on poverty rate in urban and rural area of Wonosobo Regency

2. Literature Review

The grand theory in this study is human capital theory. Human Capital is a combination of knowledge, skills, innovation, and a person's ability to carry out their duties so that they can create a value to achieve goals. The formation of added value contributed by human capital in carrying out its duties and work will provide sustainable revenue in the future for an organization (Malhotra 2003 & Bontis in Rackhmawati, dkk 2008: 13).

Human capital is an added value for the company. It leads workers to have better motivation, commitment, compensation, and the effectiveness of team work, adds value that can be contributed by workers in the form of development of competencies owned by companies, transfers the knowledge from workers and manages culture changes (Mayo, 2000: 526). It can be concluded that human capital is everything about humans

with all their capacities to continue developing through education and training to create an added value in individuals.

According to Mayo (2000: 526-530), the human capital has five components with different roles to determine the value of a company. The five values of human capital are individual capability, individual motivation, the organization climate, workgroup effectiveness dan leadership. Individual capability have five criteria, they are: 1) personal capabilities, including appearance, thoughts, actions, and feelings, 2) professional and technical knowledge, namely the ability to be professional in every situation and condition and the willingness to transfer knowledge from the senior to the junior, 3) experience, namely someone who is competent and has considerable experience in the field and has an open attitude to experience, 4) the network and range of personal contacts, namely someone who is said to be competent if you have a wide network or connection with anyone, especially people related to their profession, 5) the values and attitudes that affect actions, namely values and attitudes will affect their actions in the work environment such as having emotional stability, being friendly, being able to socialize, and firm.

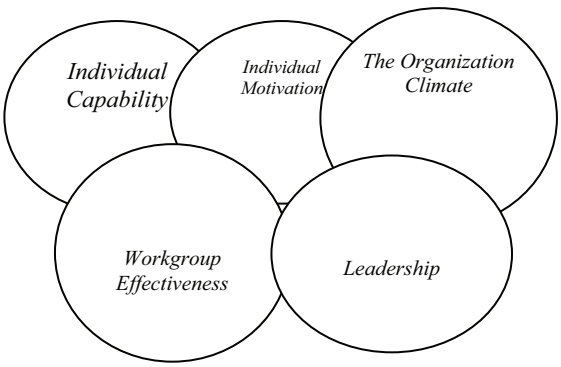

Figure 5: Human Capital Components (Mayo, 2000).

The research variables in this study are poverty, basic education level, and open unemployment rate. According to Kuncoro (2006: 112), he states that poverty is defined as the inability of a person to meet minimum basic needs while according to the National Population and Family Planning Agency (BAPPENAS) defines poverty based on a family approach, namely dividing family criteria into five stages: poor family (KPS), welfare family I (KS-I), welfare family II (KS-II), welfare family III (KS-III), and welfare family III plus (KS-III plus). welfare family I is a group of people included in the classification capable of meeting basic needs. Classification of the welfare family II, namely the ability of groups of people to fulfill their psychological needs, and classification of the welfare family III is the ability of groups of people to meet developmental needs. The issue of poverty and discussion of the causes of poverty are still a debate in the academic environment

and at the level of development policy makers (Suryawati, 2005). One such debate is defining a person or group of people called poor.

Based on Law No. 25 of 2000, poverty is a socio-economic condition of a person or group of people whose basic rights are not fulfilled to maintain and develop a dignified life. Basic needs that are the rights of a person or group of people include food needs, health, education, employment, housing, clean water, land, natural resources, the environment, a sense of security from treatment or threats of violence, and the right to participate in the implementation of social life and politics. The report on the People's Welfare issued by the Ministry of Welfare (Kesra) in 2004 also explained that the conditions referred as poor also apply to those who work but their income is insufficient to meet basic needs (Rumahorbo, 2014: 10). Poverty in this study was measured in accordance with the formula for calculating poverty rate using the data obtained, namely the number of poor people according to the BAPPENAS indicator and the total population.

Basic education is the level of education that underlies the level of secondary education. Education in the broadest sense means a process to develop all aspects of the human personality, which includes: knowledge, values and attitudes, and skills. Education in essence will include the activities of educating, teaching and training. The activity, carried out as an effort to transform values. So in the explanation, the three activities must run simultaneously and be integrated, sustainable, and harmonious with the development of students and their environment. Education carries the task of producing a good generation, more cultured humans, and humans as individuals who have better personalities. Values that exist and develop in a society or country describe education in a very broad context, concerning the lives of all humanity, which is envisioned that the purpose of education is to achieve a better life (Munib, 2010: 32).

The purpose of basic education is to lay the basis for intelligence, knowledge, personality, noble character, and skills to live independently and follow further education. To achieve the educational objectives of the elementary education unit level, the teacher's role is required in the learning process so that students have a balance between cognitive, affective, and psychomotor. The role of the teacher in providing and giving meaningful learning experiences is needed by students so that they can increase basic knowledge and expertise to avoid ignorance and retardation. Efforts to realize the achievement of national education goals, education activities are carried out through three paths as stated in Law No. 20 of 2003, the education path consists of formal education, non-formal and informal education.

The problem of unemployment that causes the level of national income and the level of prosperity of the community does not reach the maximum potential, namely the main macroeconomic problem (Todaro, 2006: 441). Unemployment means lower global demand and lower human capital investment. As a consequence of the erosion of human capital, long-term unemployed people lose their qualifications in part or in full, while their skills become obsolete in times of rapid technological progress (Nagel, 2015: 65).

3. Method

This type of research is quantitative research. According to Sugiyono (2004: 14), quantitative research is a research method in the form of numbers and analysis using statistics. The population used in this study is 15 sub-districts in Wonosobo Regency with samples being all members of the population into the study sample; this is because the data used is secondary data. Sampling technique is a sampling technique. The sampling technique in this study is using non probability sampling with a saturation sampling technique. Saturation sampling is a sampling technique if all members of the population are used as samples. Another term of saturation sampling is a census, where all members of the population are sampled (Sugiyono, 2015: 124).

Research variables are the object of research, or what is the focus of research (Arikunto, 2006: 10). The independent variable in this study is the level of education using the calculation of the participation rate of schools aged 7-12 years; the unemployment rate uses the calculation of the open unemployment rate. The dependent variable in this study is the poverty rate. This study adds a dummy variable contribution. The dummy variable is dummy as a slope (a variable that always attaches to an independent variable). The dummy variable used in this study is the variable of urban and rural areas.

Data collection technique in this study is secondary data with secondary data collection methods, namely the documentation method. The documentation method is to find data in the form of notes, transcripts, books, newspapers, magazines, inscriptions, minutes of meetings, legends, agendas and so on (Arikunto, 2006: 231). Then the results of the documentation study received were then processed and then checked with actual conditions in the field through interviews with staff of the Youth and Sports Education Office, Bapak Firman as the Head of the UPTD BLK of the Manpower Office, and Ms. Verlia as the statistical service staff of the Central Bureau of Statistics in Wonosobo Regency.

The data analysis technique in this study is quantitative descriptive analysis and inferential analysis of multiple regressions with the analysis prerequisite test, namely the test for normality and linearity. Classical assumption test used is multicollinearity test, heteroscedasticity test, and autocorrelation test, and hypothesis testing consisting of: partial test (t test), simultaneous test (F test), and test coefficient of determination R2.

4. Result and Discussion

Wonosobo Regency is geographically located between 7° 11 'to 7° 36' South Latitude and 109° 43 'to 110' 04 'East Longitude. Wonosobo Regency belongs to the Central Java Province. Wonosobo Regency is 120 km from the capital city of Central Java Province and 520 km from the national capital (Jakarta). Wonosobo Regency is a mountainous area with an altitude ranging from 275 meters to 2,250 meters above sea level. The area of Wonosobo Regency is 98,468 ha. Administratively, Wonosobo Regency is divided into 15 sub-districts, including: Wadaslintang, Kepil, Sapuran, Kalibawang, Kaliwiro, Leksono, Sukoharjo, Selomerto, Kalikajar, Kertek, Wonosobo, Watumalang, Mojotengah, Garung, Kejajar.

As described in the previous chapter, this study aims to analyze poverty rate per sub-district in Wonosobo District in 2017, to achieve these objectives this study uses multiple linear regression with the least squares method (OLS) using EViews Version 9. Regression results are obtained as following:

Table 1: Results of Multiple Linear Regression Analysis.

Independent Variable	coefficient	t-statisic	Prob
Constants	0,207302	0,688346	0,5043
The level of basic education in urban areas to the unemployment rate in urban areas	0.334861	6.994742	0.0000
The level of basic education in rural areas against the unemployment rate in rural areas	0.247537	9.054791	0.0000
Level of basic education in urban areas to poverty rate	2.405204	2.042829	0.0683
The level of basic education in rural areas to poverty rate	7.635752	6.896260	0.0000

Source: Processed data, 2019.

The multiple regression results in Table 1. It is known that the factors that significantly affect the level of education in Wonosobo Regency are the open unemployment rate which is divided into urban and rural areas as well as the poverty rate. The analysis

prerequisite test carried out in this study consisted of: normality test and linearity test. The normality test is used by using the histogram normality test through the probability value JB. JB Probability value shows the value of 0.599075. This means that the JB probability value> 0.05, it can be concluded that the residual is normally distributed.

Linearity test aims to determine whether two or more variables have a relationship that is linear or not significant. Linearity test is performed on each independent variable and is bound by the results of the Prob. F count can be seen in the F-line probability column statistics. In this study the value of 0.5856 is greater than 0.05 so it can be concluded that the independent variable is linear with the dependent variable. After the analysis prerequisite test was carried out the classical assumption test consisted of: multicollinearity test, heteroscedasticity test, and autocorrelation test. Based on the three classic assumption tests, it was concluded that the data were free from interference with multicollinearity tests, heteroscedasticity tests, and autocorrelation tests.

The t-test basically shows how far the effect of one explanatory variable individually explains the variation of the dependent variable (Kuncoro, 2009: 120). Hypothesis test results are based on the results of the partial test (t test) in Table 1. The results of statistical testing on basic education level variables which are divided into urban and rural areas on the open unemployment rate are obtained probability of 0.0000 <0.05, then H1 is accepted. This means that there is an effect of the level of basic education on the level of open unemployment both in urban and rural areas. Variable level of primary education in urban areas with a probability of 0.0683> 0.05, then H2 is rejected. This means that there is no effect on the level of basic education in urban areas on the level of poverty. Variables in the level of basic education in rural areas have a probability of 0.0000 <0.05, then H3 is accepted. This means that there is an effect of the level of basic education in rural areas on poverty levels.

The F test aims to find out whether the overall independent variables have a simultaneous effect on the dependent variable (Kuncoro, 2009: 120). Based on the simultaneous test, it shows that the probability value of F-statistics is 0.000035 with a significant 5%. Then H0 is rejected and H4 is accepted. The third hypothesis test is testing the coefficient of determination R2. Based on the R-squared test, it is known that the R-squared value is 0.908557. This means that 90.86% of the variation in poverty is explained by the independent variables of the level of basic education in both urban and rural areas and the open unemployment rate in both urban and rural areas while the remaining 9.14% is explained by other factors outside of research.

Based on the statistical and econometric results described above, it can be concluded that the regression equation carried out is able to explain changes in poverty in

Wonosobo District. Of all the variables included in the model, it turns out that there is one independent variable that is not significant, namely the level of primary education in urban areas.

4.1. Effect of Basic Education Levels in Urban and Rural Areas on the Open Unemployment Rate

The new growth theory emphasizes the importance of the role of government, especially in increasing the development of human capital and encouraging research and development to increase human productivity. The reality can be seen by investing in education. Investing in education will be able to improve the quality of human resources that are considered by increasing the knowledge and skills possessed by individuals. The higher the level of education, the knowledge and skills will also increase so that it will encourage an increase in work productivity. The company will get more results by hiring workers with high productivity, so the company is also willing to provide higher salaries for those concerned. Based on the results of the t-test on the relationship between the level of basic education in urban and rural areas which has a probability value of 0.0000, it shows that the level of basic education in urban and rural areas significantly affected the open unemployment rate because the probability value is less than α 5%. So it can be concluded that open unemployment in Wonosobo Regency was affected by the variable level of primary education both in urban and rural areas.

4.2. Effect of Basic Education Levels in Urbanl Areas on Poverty Rate

Based on this case, the relationship between education and poverty is not always in accordance with existing economic theory assumptions, and has an inverse relationship, this is in accordance with the results of the t-test on the relationship of basic education level in urban area which can be explained by a coefficient of 2.405204 which shows a positive relationship to poverty rate. Based on Table 1, the probability value is 0.0683 at the level of basic education in urban areas. It shows that the level of basic education in urban areas did not significantly affect the level of poverty in Wonosobo Regency because the probability value is more than α 5%. So it can be concluded that the poverty rate in Wonosobo Regency was not affected by the variable level of basic education in urban areas. This phenomenon can explain that urban people faced a more competitive labor market that made these people need more than basic education therefore, even

most of them had completed primary and secondary education, this did not mean they will not be trapped in poverty.

4.3. Effect of Basic Education Levels in Rural Areas on Poverty Rate

Theoretically, the poverty rate will move inversely with the level of education. In this case when the education level increases, the poverty rate will automatically decrease. But it is different in this case, based on the results of the t-test on the relationship of the level of basic education in rural areas with a coefficient of 7.635752 so that it shows a positive relationship to the poverty rate.

This phenomenon can explain that the more people in rural areas did not complete their basic education, the more people did not have the eligibility in preparing work to achieve wealth.

Based on Table 1, the probability value is 0.0000 at the level of primary education in rural areas. it shows that the level of basic education in rural areas significantly affected the poverty level in Wonosobo Regency because the probability value is less than α 5%. So it can be concluded that the poverty rate in Wonosobo Regency was affected by the variable level of primary education in rural areas.

5. Conclusion

Development is carried out to realize the prosperity of the community through economic development in overcoming various development and social problems such as unemployment and poverty. Poverty is one of the problems that always arise in people's lives, which can be described as a lack of income to meet minimum living needs, namely clothing, shelter, food, education and health. The development of human resources is considered as a fundamental competitive problem in reducing poverty that occurs in a particular region. The form of manifestation of human resource development that is focused by the government, both central and regional, is through education which is expected that all people can take education as a provision to enter the workforce. Education is still a problem in a number of regions in Indonesia, for example in Wonosobo District; the problem is caused by environmental factors which are divided into urban and rural areas. Most people in urban areas have taken primary and secondary education while most of the people in rural areas only take basic education. There needs to be a new policy by the government in dealing with education problems. The learning level must be equal to or greater than the level of environmental change, all these concepts

are united in an understanding of how intellectual capital is visualized, measured, and grown so that capital can reduce poverty.

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