THE EFFECT OF THE NUMBER OF POPULATION OF EDUCATIONAL AGE AND UNLESS OF EDUCATION ON POVERTY IN GORONTALO PROVINCE

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INTRODUCTION

The problem of poverty talks about the welfare of the people, namely as a state of being sufficient or not lacking. The problem of poverty quantitatively is a condition of human life that is completely deprived or does not have property, while qualitatively it is a condition of human life that is not feasible. The productive age population is believed to have a good influence on economic growth which can reduce the amount of poverty. Based on the data presented by BPS, the productive age population is the population in the age range between 15 years and over who is considered to be able to work and produce goods and services. Education is a factor of basic human needs in an effort to improve people's welfare. Where the level of education has a very important role to get a job. The higher a person's education, the higher his job and income. Similarly, in productive periods, in general, as you age, your income will increase, and 15 years and over is the ideal age for workers. And where a large workforce will be formed from a high population. According to Cahyono 1998's view (In Arya and Nyoman 2013: 175) Education and age are factors that affect income where the higher a person's income, the level of prosperity improves and can reduce poverty. if these factors can reduce the poverty rate, it is possible that poverty can fall well where these factors greatly affect the poverty level

Judging from the economy of Gorontalo Province in the national economy it is quite small where Gorontalo Province is only able to contribute 0.25% and ranks second lowest after North Maluku Province, but seen from the rate of economic growth, the economy of Gorontalo Province is quite brilliant. Where seen from the last 10 years, the rate of growth in Gorontalo Province was in the top 10 ranks out of 34 provinces in Indonesia. (BPS Gorontalo Province, 2020). In Gorontalo province, the results of the 2019 population census recorded a population of 1,202,631 of that population, 876,735 of whom were of productive age, between 15 and 64 years. Gorontalo is in a period of demographic bonus, the productive age population has increased to 876,735 people compared to the 2011 population census of 754. 367. In addition, Gorontalo Province is seen from the level of unemployment at the education level, the percentage of unemployment is actually the highest at the SMA/SMK and University education levels. And for the problem of poverty

in Gorontalo Province, when viewed from 2017 to 2020, it fluctuated but the poverty rate in Gorontalo Province was still high, which was still above 10%.

The purpose of this research can be formulated as follows:

1. To determine the effect of the Number of Working Age Population on the Poverty Level in the Province of Gorontalo.
2. This study aims to determine the effect of educated unemployment at the elementary and junior high school levels on the poverty level in Gorontalo Province.
3. To determine the effect of educated unemployment at the high school level/vocational school level on the poverty level in Gorontalo Province.
4. To determine the effect of Unemployment at the University Level on Poverty Levels in Gorontalo Province.

LITERATURE REVIEW
Poverty

Ali Khomsan (2015:1) quoting Sholeh's opinion 2010 poverty is a problem in development that is multidimensional because in overcoming the problems faced are not only limited to matters relating to the causal relationship between poverty but also involve preferences, values and politics. Meanwhile, in other studies poverty is a multidimensional and complex problem, so that the definition of poverty varies according to the evolution of science and social sciences (Srituan and Adi Sasono 1981). And in Chirswardani 2005 multidimensional consists of: (a) Poverty in the economic dimension, (b) Poverty in the health dimension, (c) Poverty in the social and cultural dimensions, (d) Poverty in the dimensions of education, religion and character, (e) Poverty in the dimension of world peace. And according to the National Development Planning Agency (BAPPENAS) in 2004 defines it as a condition of a person or group who is unable to fulfill their basic rights to maintain and develop a dignified life. Basic rights include: (1) Fulfillment of food needs. (2) Health, education, employment, housing, clean water, defense, natural resources and the environment. (3) A sense of security from treatment and threats of violence. (4) The right to participate in daily life housing, clean water, defense, natural resources and the environment. (3) A sense of security from treatment and threats of violence. (4) The right to participate in daily life housing, clean water, defense, natural resources and the environment. (3) A sense of security from treatment and threats of violence. (4) The right to participate in daily life

Shrap, et.al in Kuncoro (2003:131) identified three causes of poverty from an economic perspective, namely:

a.   On a macro level, poverty arises because of the inequality in the ownership of resources, resulting   in   an unequal distribution of income.

b.   Poverty arises due to differences in the quality of human resources.

c.   Poverty arises due to differences in access and capital.

These three causes of poverty lead to the theory of the vicious circle of poverty, namely the existence of backwardness, market imperfections, and lack of capital which causes low productivity resulting in low income they receive. Low investment leads to underdevelopment and so on.

Productive Age Population

The productive age population is the age that produces goods and services. BPS takes the age of 10 years and over as working age. However, from 1998, they began to use the age of 15 years or older than the working age limit in the previous year (Subri, 2003). The working age population/labor is the population aged 15-64 years. We can also divide the non-working age population into two groups, namely the labor force group and the non-work force group. The workforce is all people who are ready to work in a country. This group is usually referred to as the productive age group. Of the entire workforce in a country, not all of them have the opportunity to work. Some of them are not working. They are called unemployed.

Educated unemployment

According to Sukirno (2004: 28) unemployment is the number of workers in the economy who are actively looking for work but have not yet obtained it. Another study in Irawan and Suparmoko (2002) formulates unemployment as those who are in the labor force age who are looking for work at the prevailing wage level. Meanwhile, according to Suparmoko (2007) unemployment is the inability of the workforce to obtain jobs in accordance with what they need or want. skills and education, but due to limited employment opportunities they have not gotten the job they wanted. From the three opinions above, it can be concluded that unemployment is a group of workers who are actively looking for jobs that match what they want.

Human capital theory. The basic assumption of human capital is that a person can increase his income through increased education. Based on this theory it can be explained that, every additional year of schooling, it means increasing one's work ability and income level, but other groups delay receiving income for one year to attend the school and hope to increase income by increasing education (Mankiw 2006:57). Education has an influence on economic growth because education plays a role in increasing labor productivity. This theory assumes the growth of society is determined by individual productivity, if everyone has a higher income because of higher education,

RESEARCH METHODS

The method used in this study is multiple linear regression analysis using panel data. This research was conducted in Gorontalo Province which consists of 5 districts 1 city, which is divided into several areas, namely Boalemo

Regency, Gorontalo Regency, Pohuwato Regency, Bone Bolango Regency, Regency of Gorontalo. North Gorontalo and Gorontalo City. And the main data source used in the research is secondary data obtained through data on the publication of the official website of the Central Statistics Agency (BPS). The variables used in this study are the dependent variable and the independent variable where the dependent variable (bound) is influenced or caused by the presence of the independent variable, while the independent variable (free) is the variable that influences or causes the dependent variable to arise. The independent and dependent variables in this study are:

1. Independent variable (X_1) number of productive age population
2. Independent variable (X_2) Unemployed elementary and junior high school educated
3. Independent variable (X_3) Unemployed high school level/vocational school
4. Independent variable (X_4) University Educated Unemployment
5. While the dependent variable is Poverty (Y)

Model selection when regressing panel data begins with defining the output equation. What determines the initial equation depends on how the researcher sees the subject. When a researcher chooses or decides on a topic, the first equation is the fixed effects model (FEM). The model selection tests carried out are Chow-test Estimation and Hausman-test Estimation tests. There are several assumptions to consider when performing multiple regression analysis. Common assumptions include normality testing, multi-model testing, heterogeneity testing, and correlation testing.

RESULTS AND DISCUSSION

The result of the research is the process of organizing and gathering information into fact-based activities through research-focused efforts to develop and analyze research topics or topics in a systematic manner. The goal is to form a general theory by solving problems or testing hypotheses. Keep in mind that search results can prove nothing when generating research results. However, the process of disclosing results helps researchers understand the problem internally, group it into different components, and see the problem from a different angle.

Table 1.1 Chow-test (Test cross-section fixed effects)

Effects Test	Statistics	df	Prob.
Cross-section F	61.942857	(5,13)	0.0000***

Note: ***) significant at 1% and **) significant at 5% *) significant at 10%
Source: Eviews 10 Processing Output, 2021

Table 1.2 Correlated Random Effects - Hausman Test

Test Summary	Chi-Sq. Statistics	Chi-Sq. df	Prob.
Random cross-section	36.394553	4	0.0000***

Note: ***) significant at 1% and **) significant at 5% *) significant at 10%
Source: Eviews 10 Processing Output, 2021

Based on the results in Tables 1.1 and 1.2 above, the chi-square probability is the alpha level of the Chow test step, so the modality used in this study is comparable to the fixed effect model. The fixed effects model was used for this determination because it was at 1% significant, while the Hausman test was below the 1% confidence level, which means that the fixed effects model was chosen.

In the classical assumption test in this study, namely: a) Normality of data where the value of the Jarque Bera probability is greater than the entire alpha level (Significant) used in the study, so that the data in this study can be categorized as normally distributed. b) Multicollinearity where the research uses a VIF (Vactor Inflation Factors) test with a VIF value of less than 10 (VIF <10). so that in the model there is no symptom of multicollinearity between the independent variables. c) Autocorrelation where the number of observation data or the value of N = 23 and the number of confounding variables or the value of K = 4. So in the DW table the value of Du = 1.78 and the value of DL = 0.98, while the value of DW in the Fixed Effect model estimation is 1.80. This means that it can be explained that the regression estimation of the previous model does not have symptoms of autocorrelation, because the value of DW is still greater than the value of DU. d) Heterogeneity that the independent variables in the study provide a value greater than alpha or the level of confidence used in the study (10%, 5% and 1%). This means that it can be explained that in the estimation of the research model there is no heteroscedasticity problem.

Table 1.3 Estimated Output of Fixed Effect Model

Dependent Variable: POV?
Sample (adjusted): 2017 2020

Variable	Coefficient	Std. Error	t-Statistics	Prob.
C	99732.70	24926.76	4.001029	0.0015***
X^1	-0.486108	0.178700	-2.720246	0.0175**
X^2	-2.426425	1.119385	-2.167641	0.0493**
X^3	0.528123	1.023327	0.516085	0.6145[ns]
X^4	0.541334	1.675957	0.323000	0.7518 [ns]
Fixed Effects (Cross)				
BOALEMO--C	-11706.32			

KABGOR --C	95789.63		
POHUWATO --C	-17317.88		
BONBOL --C	-19115.13		
GORUT --C	-41171.31		
KOTGOR --C	-10808.46		
R-squared	0.994303	F-statistics	252.1218
Adjusted R-squared	0.990360	Prob(F-statistic)	0.00000000***
		Durbin-Watson stat	1.802121

Note: ***) significant at 1% and **) significant at 5% *) significant at 10% ^{ns}) non-significant
Source: Eviews 10 Processing Output, 2021

The estimation model obtained above can be interpreted as follows:

1. Poverty without being influenced by any independent variables in the research model will be worth 99732.70 souls.
2. The number of working age population has a negative effect on poverty. This means that every increase in the population of 1 person will reduce poverty by 0.486108 people.
3. The number of educated unemployed at the elementary and junior high school levels has a negative effect on poverty. This means that every increase in the number of unemployed at the elementary and junior high school level of 1 person will reduce poverty by 2,426425 people.
4. The number of educated unemployed at the SMA/SMK level has a positive effect on poverty. This means that every increase in the number of educated unemployed at the high school level/vocational school level of 1 person will increase poverty by 0.528123 people.
5. The number of university-level educated unemployment has a positive effect on poverty. This means that every increase in the number of educated unemployed at the university level of 1 person will increase poverty by 0.541334 people.
6. Based on the estimation of the fixed effect model, of the six regencies/cities in Gorontalo Province, the regions that experienced positive growth were Gorontalo Regency. Meanwhile, districts/cities that have a negative influence on poverty are North Gorontalo Regency, Bone Bolango Regency, Pohuwato Regency, Boalemo Regency and Gorontalo City.

Known the value of the coefficient of Adjusted R$_{Square}$ of 0.990360, if presented it becomes 99.04%. This means that changes in the poverty variable observed during the 2017-2020 period are influenced by the number of productive age population, the number of educated unemployed at the elementary and junior high levels, the number of educated unemployment at the high school level/vocational school level and the number of educated unemployed at the university level of 99.04%. While the rest (0.86%) is influenced by other variables outside the estimation model.

In this study, the method used is to compare the value of the probability of the f statistic with the level of significance used. If the value of the statistical probability f is greater than the significant level, then the independent variable does not have a simultaneous effect on the dependent variable, and vice versa. The value of the statistical probability f is 0.0000, meaning that simultaneously the independent variables have a joint effect on the dependent variable

DISCUSSION
The Effect of the Number of Working Age Population on Poverty

From the results of the regression analysis, the equation states that the number of working age population has a negative effect and can be explained significantly on poverty during the 2017-2020 period. This means that every increase in the productive age population will reduce poverty in Gorontalo province. Thus, it can be concluded that the increase in the working age population has a major impact on reducing poverty in Gorontalo Province by district/city, for example in Gorontalo City which can reduce poverty rates with the number of productive age population due to the availability of jobs that can absorb productive age workers. The results of this study are in line with research conducted by Fitri et al, (2021) which states that the productive age population is able to reduce poverty.

The Influence of the Number of Educated Unemployed Elementary and Junior High School Levels on Poverty

From the results of the regression analysis, the equation states that the number of educated unemployment at the elementary and junior high school levels has a negative effect and can clearly explain poverty during the 2017-2020 period. This means that every increase in the number of educated unemployed at the elementary and junior high levels will reduce poverty in the province of Gorontalo. This is due to the fact that educated unemployment at the elementary and junior high school levels has more opportunities for employment in the agricultural sector, this is because this sector does not have special requirements in production activities. The results of this study are in line with research conducted by Yacoub (2013) which states the level of unemployment has a negative and significant effect on poverty.

The Influence of the Number of Educated Unemployment at the high school level/vocational school Level on Poverty

From the results of the regression analysis, the equation states that the number of unemployed at the high school level/vocational school level has a positive and insignificant effect on poverty during the 2017-2020 period. This

means that every increase in the Number of Unemployment at the high school level/vocational school level, but cannot clearly explain every increase in poverty in the province of Gorontalo. This is because a lot of unemployment at the high school level/vocational school level still depends on the number of working people. For example, one person who works for one family is able to meet the needs of one unemployed person. However, if the greater the number of dependents given to one person who works, then of course they will not be able to meet the needs of life, so this will reduce the welfare of the household, what happens is that poverty increases. The results of this study are in line with research conducted by Amalia (2012) which states that unemployment has a positive and insignificant effect on poverty levels, this is due to higher family income, for example being able to cover the living costs of family members who are still unemployed. Furthermore, this research also contradicts research conducted by Nagara (2021) which states that unemployment has a negative effect on poverty, this is because unemployment with an adequate level of education creates a more efficient and competitive workforce. So more guaranteed high income. As income increases, the chances of falling into poverty decrease.

The Influence of the Number of Unemployed University Level Educated on Poverty

From the results of the regression analysis, the equation states that the University Level Unemployment has a positive and insignificant effect on poverty during the 2017-2020 period. This means that every increase in the Number of Unemployment at the University Level, but cannot clearly explain every increase in poverty in the province of Gorontalo. In the context of the influence of the University Level Unemployment, it has a positive and insignificant effect on poverty, namely due to the large number of educated unemployed inhabiting an area, this is exacerbated by the absence of knowledge or job vacancies in accordance with transfer competencies. According to Kurniawan (2018) which states that although their level of education is relatively high, they cannot always work due to lack of skills and knowledge that are not aligned, so they are unemployed and poor because of the lack of learning received during lectures. The results of this study are in line with research conducted by Agustina et al (2018) which states that unemployment has a positive effect on poverty, firstly because people are still very dependent on agriculture and unemployment increases along with decreasing activity in the agricultural sector. Second, the large number of highly educated people who enter the labor market may not be able to absorb jobs. Third, there are still very few job opportunities, both in the informal sector and in the manufacturing sector. As a result,

CONCLUSION

Based on the results of previous studies and discussions regarding the effect of the number of productive age, the unemployment rate of elementary and junior high school, vocational / high school and university levels on poverty in Gorontalo province during the 2017-2020 period so that researchers can draw the following conclusions: 1) The number of productive age population has an effect negative for poverty. This means that every increase in the population of productive age will reduce the poverty rate. 2) The number of educated unemployed at the elementary and junior high school levels has a negative and significant effect on poverty. This means that every increase in the number of educated unemployed at the elementary and junior high school levels will reduce the poverty rate. 3) The number of educated unemployed at the high school level/vocational school level has a positive and insignificant effect on poverty. This means that any increase in the number of educated unemployment at the high school level/vocational school level does not significantly increase the poverty rate. 4) The number of educated unemployed at the University level has a positive and insignificant effect on poverty. This means that any increase in the number of educated unemployed at the university level does not significantly increase the poverty rate.

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