ISSN : 2548 - 4613
Vol. 5. Desember 2020

Proceedings

The 5th Annual
INTERNATIONAL SEMINAR on Transformative Education and Educational Leadership

Theme : Education Innovation in Globalization Practice

22 September 2020
Postgraduate School - Universitas Negeri Medan

Supported by :

Committee

Advisors

Dr. Syamsul Gultom, S.KM.,M.Kes (Rector of Unimed)
Prof. Dr. Bornok Sinaga, M.Pd (Director of Postgraduate Program of Unimed)
Prof. Dr. Sahyar, MS.,MM (Vice Director 1 of Postgraduate School of Unimed)
Dr. Darwin, M.Pd (Vice Director 2 of Postgraduate Program of Unimed)

Conference Chair : Dr. Rahmad Husein, M.Ed
Secretary : Dr. Juniastel Rajagukguk, M.Si
Trasurer : Dedi Agus Syahputra, SE
Secretariat : Vivi Emilawati, SE.,M.Si
1. Erika, S.Pd.,M.Pd
2. Amir Husin Sitompul, S.Pd.I
3. Azizi Apri Indaya, S.Pd
4. Agus Harriyanto

Papers and Proceedings :
1. Dr. R. Mursid, ST.,M.Pd
2. Dr. Anni Holila Pulungan, M.Pd
3. Dr. Saronom Silaban, M.Pd
4. Dr. Tumiur Gultom, M.Si
5. Mangaratua Simanjorang, M.Pd.,Ph.D

Program/Event :
1. Dr. E. Elvis Napitupulu, M.Si
2. Dr. Rachmat Mulyana, M.Si
3. Dr. Elmanani Simamora, M.Si

Plenary Session :
1. Prof. Amrin Saragih, M.A.,Ph.D
2. Prof. Dr. Abinus Silalahi, M.S
3. Prof. Dr. Abdul Hasan Saragih, M.Pd

Parallel Sessions:
1. Prof. Dr. Edi Syahputra, M.Pd
2. Prof. Dr. Anita Yus, M.Pd
3. Prof. Dr. Nasrun,MS
4. Dr. Edy Surya, M.Si
5. Dr. Ashar Hasairin, M.Si.
6. Dr. Rahmatsyah, M.Si
7. Dr. Arif Rahman, M.Pd
8. Dr. Ir. Nurfajriani, M.Si
9. Dr. Hidayat, M.Si
10. Dr. Fitrawaty, SP.,M.Si
11. Dr. Albadi Sinulingga, M.Pd
12. Dr. Wisman Hadi, M.Hum
13. Dr. Rahma Dewi, M.Pd.
14. Dr. Arfan Ikhsan, M.Si
15. Dr. Saidun Hutasuhut, M.Si
16. Dr. Jubliana Sitompul, M.Hum

Evaluator :
1. Dr. Anni Holila Pulungan, M.Hum
2. Dr. Syamsidar Tanjung, M.Pd
3. Dr. Yuniarto, M.Pd
4. Dr. Ajat Sudrajat, M.Si
5. Dr. Ratih Baiduri, M.Si
6. Dr. Muhammad Fitri Ramadhana, M.Si
7. Dr. Mulyono, S.Si.,M.Si

8. Dr. Daulat Saragi, M.Hum
9. Dr. Tumiur Gultom, SP.,MP
10. Dr. Derlina, M.Si
11. Dr. Elly Prihasti Wuriyani, M.Pd.
12. Dr. Nurhayati Simatupang, M.Kes
13. Dr. Amir Supriadi, M.Pd
14. Anggriyani, SE., M.Si.
15. Dr. Thamrin, M.Si
16. Dr. Junita Friska, S.Pd.,M.Pd

Public relations :
1. Muhammad Surip, S.Pd.,M.Si
2. Jihan Siska

Accommodation :
1. Ater Budiman Sinaga, M.Si
2. Hendry Dalimunthe, MA
3. Reza Destya, S.Pd
4. Jasmi Assayuti, SHi

Equipment :
1. Nur Kholila Harahap, M.Pd
2. Sofianto Gultom
3. Suhana Nasution
4. Farid Ma'ruf Harahap
5. Isachar Adry Utomo
6. Diky Arisandi
7. Herianto Samosir, S.Pd
8. Hizrah Saputra Harahap, S.Pd
9. Muhammad Isnaini, M.Pd
10. Nasiruddin, S.Pd

IT & ICT :
1. Jerry S. Pauned, S.Si
2. Mulyanto Duha

Transportation :
1. Hisar P. Sianturi, SH
2. Sari Purnamawati Siregar, M.Hum
3. Yutia Hafwenny, S.KM

Consumption :
1. Susiani, S.Sos
2. Siti Rohana, M.Pd
3. Yutia Hafweny, S.KM
4. Tiarma Nova, M.Pd.

Receptions :
1. Nisa Ansyari Gultom, S.Pd
2. Desi Yulian, S.Pd
3. Siti Rohana, S.Pd.,M.Pd

Schedule of The 5th Annual Internatioanal Seminar on Transformative Education and Educational Leadership (AISTEEL) 2020
Postgraduate School, Universitas Negeri Medan

22 September 2020

(Indonesian time)	Activities	PIC/Moderator
07.00 – 08.30 (am)	Preliminaries	committee
08.30 - 08.45 (am)	**Opening Ceremony** 1. MC Speech 2. Indonesian National Anthem 3. Pray 4. Chairperson Report 5. Welcoming speech of Director of Postgraduate School 6. Welcoming speech and official opening of Rector of Universitas Negeri Medan 7. Photo session	MC (Dr. Anni Holila Pulungan, M.Hum & Sofianto Gultom, S.Pd)
08.45 – 09.25 (am)	Keynote Speech 1: **Prof. Dr. Syawal Gultom, M.Pd** (Universitas Negeri Medan– Indonesia)	Dr. Rahmad Husein, M.Ed
09.25 – 10.05 (am)	Keynote Speech 2 **Prof. Emmanuel Manalo** (Graduate School of Education, Kyoto University, Japan)	Prof. Amrin Saragih, PhD
10.05 – 10.45 (am)	Keynote Speech 3 **Dr. Susan Ledger** (Head of Education, Murdoch University - Australia)	
10.45 – 11.25 (am)	Keynote Speech 4 **Prof. Dr. Ekkarin Sungtong** (Dean of Faculty of Education Prince of Songkla University - Thailand)	Mangara Simanjorang, PhD
11.25 – 12.05 (am)	Keynote Speech 5 **Assoc. Prof. Yuri Uesaka** **(**The University of Tokyo - Japan)	
12.05 – 13.30	**Break**	
13.30 – 15.30 (pm)	**Parallel Session 1** **(divided to 19 parallel rooms)**	Moderator/Operator
15.30 – 15.35 (pm)	Break	
15.35 – 17.00 (pm)	**Parallel Session 2** **(divide to 19 parallel rooms)**	Moderator/Operator
17.00 – 17.10 (pm)	Cloossing	committee

Proceedings of the 5th Annual International Seminar on Transformative Education and Educational Leadership (AISTEEL 2020)

Preface

The fifth Annual International Seminar on Transformative Education and Educational Leadership (AISTEEL 2020) was held by virtual seminar on 22 September 2020. This seminar is organized by Postgraduate School, Univesitas Negeri Medan and become a routine agenda at Postgraduate program of Unimed now.

The AISTEEL is realized this year with various presenters, lecturers, researchers and students from universities both in and out of Indonesia participating in, the seminar with theme "Educational Innovation in Globalization Practice".

The fifth AISTEEL presents 4 distinguished keynote speakers from Universitas Negeri Medan - Indonesia, Kyoto University - Japan, Murdoch University – Australia, Prince of Songkla University – Thailand and from The University of Tokyo - Japan. In addition, presenters of parallel sessions come from various Government and Private Universities, Institutions, Academy, and Schools. Some of them are those who have sat and will sit in the oral defence examination. The plenary speakers have been present topics covering multi disciplines. They have contributed many inspiring inputs on current trending educational research topics all over the world. The expectation is that all potential lecturers and students have shared their research findings for improving their teaching process and quality, and leadership.

There are 180 articles submitted to committee, some of which are presented orally in parallel sessions, and others are presented through posters. The articles have been reviewed by double blind reviewer and 104 of them were accepted for published by Atlantis Press indexed by International Indexation, while 54 papers are published by digital library indexed by google scholar..
The Committees of AISTEEL invest great efforts in reviewing the papers submitted to the conference and organizing the sessions to enable the participants to gain maximum benefit.

Grateful thanks to all of members of The 5th Annual International Seminar on Transformative Education and Educational Leadership (AISTEEL 2020) for their outstanding contributions. Thanks also given to Atlantis Press for producing this volume.

The Editors

Bornok Sinaga
Rahmad Husein
Juniastel Rajagukguk

Table of Content

Title And Authors	Page
The Effect of Learning Models and Motion Ability on Learning Outcomes of Volleyball Passing Skills for Class VIII Students of Junior High School 6, Academic Year 2019-2020 *Ihsan Azhari Hasugian; Julaga Situmorang; Abdul Hasan Saragih*	1-5
The Effect of Everyone is a Teacher Here Learning Model and Learning Style on The Economic Learning Outcomes *Swara Kasih Kartini Putri; Saidun Hutasuhut; M. Nasir*	6-10
The Effect of Learning and Creativity Models on the Economic Learning Outcomes of Grade XI Berastagi High School Students *Wisnu Saputra Sembiring*	11-16
The Effect of Learning Methods and Courage Towards The Outcomes of Learning Physical Education Students Class V Public Elementary School in Sub-District Tanah Jawa *Dewi Hamda M. Sirait; Albadi Sinulingga; Agung Sunarno*	17-22
Development of Exercise Variations Race After Lay Up Basketball *M.Anas Surimeirian; Tarsyad Nugraha; Rahma Dewi*	23-25
Development of Dribble Training Variations in The Basketball Extracurricular Club in State High Schools of Medan City 2020 *Riski Iman Siregar; Ardi Nusri; Agung Sunarno*	26-29
Development of Interactive Learning Media Basketball Games in Subjects Physical and Sports Health Education *Andes Martua Harahap; Imran Akhmad; Hariadi*	30-37
Speech Function in The News Broadcast of the Radio Kardopa Medan *Syukur Selamat Gulo; Amrin Saragih ; Sumarsih*	38-44
External and Internal Conjunctions in the News Story Text of the Jakarta Post *Novita Sari; Amrin Saragih; Anni Holila Pulungan*	45-49
Analysis of Chemical Practicum Guides for Learning Evaluation Based on the National Education Standards *Arfiena Fitria Berutu; Iis Siti Jahro; Marham Sitorus*	50-53
An Analysis of Students' Scientific Attitude on the Topic of Bryophytes in State High Schools of the Langkat Regency *Muhammad Syukri; Ashar Hasairin; Fauziyah Harahap*	54-57
Karonese Language Shift of Young Generation *Tita Nirmaliya Ginting ;Siti Aisyah Ginting; Anni Holila Pulungan*	58-62
Interruption in the Conversation on Corbuzier Youtube	63-66

Devi Rahmawyta Sitompul; Sri Minda Murni; Anni Holila Pulungan	
Analysis of the Determinan of North Sumatra Cofffe Exports to the United States Error Correctional Model Approach *Rimelda Rona Sar; M. Nasir; Muhammad Fitri*	67-70
The Implementation of Deception Strategy Used by Fahri Hamzah as an Indonesian People's Representative Council in the Political Debate *Astari Rara Sandy; Sumarsih; Meisuri*	71-73
The Flouting Maxim in Social Interaction Expressed by The Characters in Zakeut Edition of Eumpang Breuh Movie *Asmaul Husna; Sumarsih; I Wayan Dirgeyasa*	74-77
How Children Acquire Lexical Acquisition *Dwi Astarini*	78-81
Translation Method in Web-Toon: True Beauty as Digital Comic by Yaongyi *Fitri Anisah Sitorus; Rahmad Husein; Sri Minda Murni*	82-86
Naturalization in Translation of English Accounting Terms into Indonesian *Anita Basrah; Anni Holila Pulungan; Rahmad Husein*	87-90
Types of Rudeness in the Classroom Context *Siti Sahuri; Sri Minda Murni; Rahmad Husein*	91-95
The Influence of Agriculture and Industry Sectorson GRPDin Serdang Bedagai Regency *Zuhari; M. Fitri Rahmadana; Arwansyah*	96-100
Analysis of Input Production of Rice *Hazlansyah Ramelan; Arwansyah; Rachmat Mulyana*	101-104
The Effect of Functional Training and Balanced Nutrition on Increasing Vo2max and Reduction of Percent Body Fat in Women Members of New Life Gym *Fery Juanda; Hariadi; Ardi Nusri*	105-107
The Translation of Cultural Words in Novel the Associate *Farah Frayenisari Sutara; Anni Holila Pulungan; Syahron Lubis*	108-112
Analysis of the Effect of Macroeconomic Variables to Joint Stock Price Index with Monetary Policy as Moderating Variables in Indonesia *A. Mahendra; Dede Ruslan; Sirojuzilam; Irsad*	113-118
Students' Multilanguages Acquisition *Wikiaprian Pinim; Rahmad Husein; Siti Aisyah Ginting*	119-126
Pastap Game Development for Learning Badminton of the Mild Mental Retardation *Mulia Romadi Harahap; Sanusi Hasibuan; Isa Hidayati; Hariadi; Friska Indria Nora Harahap*	127-130

Types of Elicitation on Students' Engagement in Learning English *Wilda Novri Anisah; Rahmad Husein; Masitowarni Siregar*	131-133
Flouting Maxim of Humor in Digidoy Comic Strips *Yanti Hidayani Hasibuan; T. Silvana Sinar; Rahmad Husein*	134-136
Improvement of Mathematical Communication Skills and Student Learning Motivation Through Realistic Mathematics Education Approaches *Sari Arta Simanjuntak, Waminton Rajagukguk, Yulita Molliq Rangkuti*	137-140
Taboo Words in Rap Song Lyrics *Nurul Khoiriyah Hasibuan; Amrin Saragih; Rahmad Husein*	141-143
The Technique of Montessori Method to Investigate Reading Achievement at Preschool *Sofiah Rahmah Nst; Rahmad Husein; Masitowarni Siregar*	144-146
Analysis of Academic Supervision of Principal to Improve Teachers' Basic Teaching Skills at SMK Swasta Harapan Mekar 2 Medan *Fahmi, Prof. Dr. Zainuddin, M.Pd, Dr. Irwandy, M.Pd*	147-150
Ritual Ngumbah Keris in Javanese Society (Study on the Javanese community in the Kuala Silo Bestari sub-district, North Tanjungbalai district, Tanjungbalai City) *Syuhady Witana; Ichwan Azhari; Pujiati Chalid*	151-153
The Effect of Literature Circle and Students' Interest on Students' Reading Comprehension Achievement *Siti Soleha; Rahmad Husein; Zainuddin*	154-158
The Development of Game Based on Basic Motion Learning Model in SD Brigjend Katamso Medan *Iswanta Ginting, Haradi, Sanusi Hasibuan*	159-162
Types of Intertextuality in Opposite Editorials Related to the Vice Presidential Candidates Debate Topics 2019 *Elsi Revita Hasibuan; Anni Holila Pulungan; Sri Minda Murni*	163-168
Lexical Metaphor Used in Awaken the Giant Within for Transforming Lives of Students *Henri Dunant Biha; Rahmad Husein; Anni Hollila Pulungan*	169-171
Analysis of Factors Affecting Rice Imports in North Sumatera *Adiguna Dwirusandi; Dr. Arwansyah, M.Si.; Dr. Fitrawaty, M.Si.*	172-175
Types and Functions of Fillers Used by Indonesian Celebrities in Seleb English Youtube Videos *Ella Marissa Pardede; Amrin Saragih; Anni Holila Pulungan*	176-180
Analysis of Labor Demand and Supply in North Sumatra *Muhammad Alhasymi Matondang; Dede Ruslan; Indra Maipita*	181-185

Culturally Loaded Words and Phrases in Nevermoor Translated into Bahasa Indonesia *Noni Indani*	186-189
The Effect of Word Wall Strategy and Students' Interest on English Vocabulary Mastery *Siti Fadhilah Siregar; Anni Holila Pulungan; Sri Minda Murni*	190-195
Analysis of Regional Financial Independence, Economicgrowth Rate of Human Development Index in 34 Provinces in Indonesia *Tiur Roida Simbolon; Fitrawaty; Indra Maipita*	196-201
Development of Thematic Learning Media For Comics for Beatiful Themes of Diversity My Country to Improve Results Student Learning in Fourth Grade of Public Elementary School 028071 Binjai City *Indra Maulana Harahap; Hidayat; Ratih Baiduri*	202-213
Expressive Speech Acts in Up in the Air Movie *Gusti Rahayu Manik*	214-217
Development of Android-Based Learning Media Subject for Class X Drug Matters in 1st Besitang State Senior High School *Andi Akbar Suparto; Tarsyad Nugraha; Sanusi Hasibuan*	218-220
The Influence of Teaching Style and Student Perception on the Outcomes of Passing Learning in The Volly Ball Game in SMP Negeri 4 Laguboti *Martin Edward Manik; Rahma Dewi; Budi Valianto*	221-223
The Effect of Teaching Approaches and Linguistic Intelligence on the Students Achievement in Reading Comprehension *Muhammad Ilham Adha; Berlin Sibarani; Didik Santoso*	224-228
Development of Interactive Learning Media in Character Formation Kindergarten *Natalia Noveri Tarigan; Hamonangan Tambunan; Samsidar Tanjung*	229-234
Analysis of the Ability of Metacognition of Students of SMAK Country Samosir in Solving Problems Apply Learning Guided Discovery *Siita Tamba, Bornok Sinaga, Syafari*	235-240
The Influence of PAIKEM Strategy on Reading Interests of VII Grade of SMP Negeri 2 Siberut Selatan *Eirene Siagian; Abdurahman Adisahputera; Wisman Hadi*	241-246
Development of Local Characteristics Learning Text Learning Media in Indonesian Language Learning in Kartika I-2 SMA Private Vocational School *Herza Alwanny; M. Oky Fardian Gafari; Abdurrahman Adisahputera*	247-256

Analysis of Input Production of Rice

Hazlansyah Ramelan
Department of Economy, Postgraduate Faculty
State University of Medan
Medan City, Indonesia
hazlansyahramelan77@gmail.com

Arwansyah
Department of Economy, Postgraduate Faculty
State University of Medan
Medan City, Indonesia
arwan.ibnu12@gmail.com

Rachmat Mulyana
Department of Economy, Postgraduate Faculty
State University of Medan
Medan City, Indonesia
rachmat.mulyana10@gmail.com

***Abstract*— The problem in this study is to determine the factors of rice production in Asahan Regency, This study aims to determine the effect of land area, labor, fertilizer and pesticides on the production of lowland rice in Asahan Regency, The tool used to process the data is the Eviews 8.0 program. Data analysis techniques in this study used the OLS (Ordinary Least Square) method, The results showed that land area, pesticides, fertilizer had a positive effect and labor had a negative effect on rice production.This means that the input of rice production in Asahan District is the area of land for pesticides and fertilizers** .

Keywords*— Land Area, Labor, Fertilizer , Pesticide Prices and Rice Production

I. INTRODUCTION

The agricultural sector is a very important sector its role in the economy in most developing countries. This can be seen clearly from the role of the agricultural sector in accommodating the population and providing employment opportunities to the population. Indonesian agriculture is tropical agriculture because most of its area is in the tropics which is directly influenced by the equator, which cuts Indonesia almost in half. Indonesia is still a country that plays an important role in the overall national economy. One of the food crop commodities in Indonesia is rice whose production is still a staple food. Rice is an agricultural crop and is the main crop in the world (Danim, 2004).

A production function can give us an idea of technically efficient production, meaning that all the use of inputs in all-round production is minimal or all-efficient. To increase production can be done by (Soekartawi, 2003), increasing the number of one of the inputs used and adding several inputs (more than the inputs used).

One area that has the potential in developing rice farming is in the Province of North Sumatra, precisely in Asahan Regency which also has the potential for rice plants. This can be proven from the increase in planting area and production of rice field from year to year has increased, in 2012 amounted to 18,281 Ha and production of rice was 93,913 tons, while in 2013 it had increased by 18,781 and production 103, 881. And in in 2014 19,874 and 111,887.

Asahan Regency is one of the centers of rice production in North Sumatra which has an area of 9,445 ha, of which 3,275 ha are the area of rice field. In 2012 the production of lowland rice in Asahan increased by 93,173. Whereas in 2015 it decreased by 100,349 compared to 2014 which amounted to 104646.

Realizing that the need for rice will continue to grow in line with the rate of population growth each year, while on the one hand farmers experience constraints such as production costs (farming production) at relatively high, although on the other hand it appears that the basic price for rice itself has not provided a maximum profit for farmers so that it can be seen in one of the indicators of the welfare of farmers through the exchange rate of farmers is still below 100 (BPS, 2014).

II. THEORY FRAMEWORK

Production theory is a theory that studies various kinds of inputs at a certain technological level that produce a certain number of outputs (Sudarman in Sisno, 2002). The goal of production theory is to determine the optimal level of production with available resources. According to Aziz N. (2003), the theory of production can be divided into two parts, namely the first, a short-term production theory where if a producer uses a factor of production then there is a variable and permanent nature. Second, the theory of long-term production if all inputs used are variable inputs and there are no fixed inputs, so it can be assumed that there are two types of factors of production namely labor and capital.

The Cobb-Douglas production function is one of the production functions that is often used. The Cobb-Douglas production function became famous after it was introduced by Cobb, C. W. and Douglas, P. H. in 1928 through an article entitled A Theory of Production. Since then the Cobb Douglas function has been developed by researchers so that its name is not only the production function, but also the Cobb-Douglas cost function and Cobb Douglas profit function. This shows an indication that the Cobb-Douglas function is indeed considered important. Mathematically the Cobb-Douglas function is formulated (Soekartawi, 2011).

$$y = a + x1b1 + x2 + b2 + eu \quad (1)$$

To simplify estimation, the equation is transformed into a multiple liner form by logifying the equation. The logarithm of the Cobb-Douglas function is (Soekartawi, 2011).

$$\log\ y = \log a + b1\ logx1 + b2logx2 + u \quad (2)$$

Cost is the sacrifice of economic resources, measured in units of money that have occurred or are likely to occur to achieve certain goals. Economic sources mean that a source is an economic source if it has the nature of scarcity.

Soekartawi (2011) states that farming science is the study of how a person allocates available resources effectively and efficiently for the purpose of obtaining high profits at a certain time. It is said to be effective if farmers can allocate the resources they have as well as possible and said to be efficient if the use of these resources produce outputs that exceed the inputs.

Income can be divided into two, namely farm income and household income. Revenue is a reduction from revenue with a total cost. Household income is income derived from farming activities plus income derived from activities other than farming. Farming income is the difference between gross income (output) and production costs (input) which is calculated in the period of month, year, and planting season. Non-farm income is income that is obtained as a result of doing activities outside the farm such as trading, being a market coolie..

III. METHODOLOGY

The scope of this study was carried out in the region of North Sumatra Province Asahan using observational data from 1993 to 2018. The type of data used is secondary data obtained from CSA (Central Statistics Agency), Ministry of Agriculture, Ministry of Trade, Department of Agriculture of Food Crops Regency and Province of North Sumatra and other institutions related to the object of research.

To answer the problem in this study, several methods of analysis are used, namely:

1. OLS (Ordinary Least Square) Method.
2. Test classic assumptions namely normality, heteroscedasticity, multicollinearity, heteroscedasticity and autocorrelation.
3. The statistical test consists of the R2 test, the t test, and the F test.

IV. RESULTS AND DISCUSSION

Regression models must also meet the classical assumptions of linear regression models often referred to as normality tests or normality tests. Normality test with Fallow Jargue Test (J-B). When is the model considered normal distribution when the calculated J-B probability value is greater than $\propto = 0.05$.

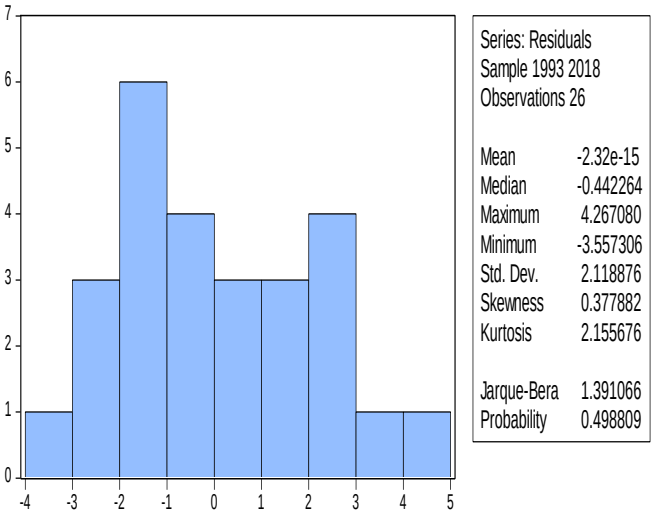

Fig. 1. Normality Test Results on the Rice Production Model

The results of the normality test showed that the calculated Jarque-Bera value for rice production in Asahan Regency, North Sumatra Province was 1,391. Jarque – Bera probability value is greater than α = 0.10, meaning that the data is normally distributed, so in this study it can be used for further research analysis.

Furthermore, the multicollinearity test aims to test whether in the regression model that is formed there is a high or perfect correlation between independent variables or not. If in the regression model formed there is a high or perfect correlation between the independent variables, then the regression model is stated to contain multicollinear symptoms (Gujarati, 2003).

TABLE I.FREE VARIEABLE CORRELATION MATRIX

Variable	LL	TK	PU	PS
LL	1	-0.585386	0.337549	-0.495830
TK	-0.585386	1	-0.110105	0.235475
PU	0.337549	-0.110105	1	-0.288618
PS	-0.495830	0.235475	-0.288618	1

Furthermore, heterokedasticity if the independent variable is not statistically significant influencing the dependent variable (probability level> 10%), and vice versa if the independent variable is statistically significant affecting the dependent variable (probability level <10%), then there will be an indication of heterokedasticity.

TABLE II .HETEROKEDASTICITY TEST RESULT

Heteroskedasticity Test: White			
F-statistic	1.285840	Prob. F(14,11)	0.3421
Obs*R-squared	16.13853	Prob. Chi-Square(14)	0.3050
Scaled explained SS	12.09805	Prob. Chi-Square(14)	0.5984

Source: Eviews Data Processing 8.0

Based on the results of the heteroscedasticity test concluded that there is no Heterocedasticity problem, this is

evidenced by the probability or significance value of 0.3050 greater than 0.01 (10% significance level).

Then the autocorrelation test is used to find out whether or not there is a deviation from the classic assumption of autocorrelation, which is the correlation that occurs between residuals in one other observation in the regression model.

With a DW value of 1.775683 which is located in the area can not be concluded, so the model used is expected to not necessarily occur autocorrelation.

The results of the regression analysis of the estimation model with the Ordinary Least Square (OLS) model used in this study can be seen in the Table III.

The results of estimation of rice production (PP), independent variables Land area (LL), and Pesticides (PS) significantly affect rice production in Asahan Regency at α = 5%, while labor (TK) is not related or negatively affects rice production (PP)) and Fertilizer (PU) are not related and have a positive effect on rice production (PP) in Asahan Regency at α = 0.05.

From the estimation results for rice production, R2 is 0.709. This means that 29.1% of the rice production variable can be explained by the area of land (LL), Labor (TK), Fertilizer (PU) and Pesticides (PS) while the remaining 39.03% is explained by other variables outside the model.

TABLE III. RESULT ESTIMATED

Dependent Variable: PP				
Method: Least Squares				
Date: 03/26/20 Time: 12:14				
Sample: 1993 2018				
Included observations: 26				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	-74180.03	117547.1	-0.631066	0.5348
LL	3.180554	0.752761	4.225184	0.0004
TK	-0.452051	0.260018	-1.738536	0.0968
PU	29.22535	18.56087	1.574567	0.1303
PS	58.50731	17.63829	3.317062	0.0033
R-squared	0.709109	Mean dependent var		186014.8
Adjusted	0.653701	S.D. dependent var		101448.9
S.E. of	59699.78	Akaike info criterion		25.00309
Sum	7.48E+10	Schwarz criterion		25.24503
Log	-320.0401	Hannan-Quinn criter.		25.07276
F-statistic	12.79799	Durbin-Watson stat		1.775683
Prob(F-	0.000020			

The results of the partial significance test (t-test), namely:

- LL t-value is equal to 4.225184 with a probability of 0.0004, the t-value is greater than the probability value with dfa = 0.05 which means that H0 is rejected and Hi is accepted and partially the land area variable has significant effect and has a positive coefficient on rice production in Asahan District at an error rate of 5 percent.
- Labor (TK) with a t-statistic value of -1.738536 and with a probability of 0.0968, the t-statistic value is smaller than the probability with dfa = 0.05, meaning this means that H0 is accepted and Hi is rejected and partially the variable Labor has no effect significant and negative coefficient on rice production in Asahan Regency at an error rate of 5 percent.
- For the Fertilizer variable (PU) with a t-statistic value of 1.574567 and with a probability of 0.1303, the t-calculated value is greater than the probability value with dfa = 0.05, this means that H0 is accepted and Hi is rejected and partially the Fertilizer variable (PU) not significant effect and positive coefficient on rice production in Asahan Regency at an error rate of 5 percent.

- For pesticide variables (PS) t-value of 3.317062 with a probability of 0.0033, the t-value value is greater than the probability value with dfa = 0.05 which means that H0 is rejected and Hi is accepted and partially the pesticide variable has a significant and positive coefficient effect on rice production in Asahan Regency at an error rate of 5 percent.

From the estimation results for rice production (PP), the F-count value is 12.79799. This shows that the independent variables for land area, labor, fertilizer and pesticides simultaneously and together affect rice production in Asahan Regency. Estimation results have met the suitability of the model for concurrent test, so the estimation results can be used for analysis.

V. CONCLUSION, IMPLICATION AND LIMITATION

Based on the results of data analysis and discussion that has been stated in the previous chapter, the following conclusions can be drawn:

1. Land area variable has a significant effect and has a positive coefficient on rice production in Asahan Regency at an error rate of 5 percent.
2. For the labor variable, the effect is not significant and has a negative coefficient on rice production in Asahan Regency at an error rate of 5 percent.
3. For fertilizer variable (PU) the effect is not significant and has a positive coefficient on rice production in Asahan Regency at an error rate of 5 percent.
4. For the variable pesticides (PS) have a significant effect and a positive coefficient on rice production in Asahan Regency at an error rate of 5 percent.

The suggestions that can be given related to the results of the study are as follows:

1. Efforts to increase rice production, by applying a mechanization program that can excite the spirit of the young generation to work in the agricultural sector.
2. Asahan Regency Government in developing rice production in the form of processing which involves several things such as the addition of rice planted area, land management in the form of land revitalization or the use of idle land.
3. Asahan Regency Government in increasing rice production should provide training and education to farmers to improve technical skills and knowledge through the use of agricultural technology.

ACKNOWLEDGMENT

Alhamdulilah, praise and thanksgiving to Allah Almighty. I thank Dr arwanyah as supervisor 1 who has provided input and suggestions for this research and thanks also to supervisor 2 Dr. Rachmat Mulyana who has perfected this research.

REFERENCES

[1] Aziz N. 2003. *Pengantar Mikro Ekonomi*. Malang: Bayumedia.

[2] Badan Pusat Statistik. Sumatera Utara, 2014.

[3] Danim, Sudarman. 2004. Motivasi Kepemimpinan dan Efektivitas Kelompok. Jakarta: Penerbit Rineka Cipta.

[4] Sisno. 2002. *Efisiensi Usaha Tani Tembakau Berdasarkan Perbedaan Luas Lahan Garapan*. Tesis, Universitas Gajah Mada, Yogyakarta, Tidak dipublikasikan.

[5] Soekartawi. 2003. *Agribisnis Teori dan Aplikasinya, Cetakan ke 6*. Jakarta: PT Raja Grafindo Persada.


UNIVERSITAS NEGERI MEDAN
PASCASARJANA
AISTEEL