

Sub Tema :

A) GLOBAL EDUCATION (GE)

- Technical Vocation Education and Training (TVET)/
* Pendidikan Kejuruan dan Pelatihan
- Knowledge Economy / Pendidikan Ekonomi
- Science, Technology, Engineering and Mathematics/
* Sains, Teknologi, Teknik dan Matematika
- Education Towards Innovation/Pendidikan Menuju Pembaharuan

B) COMMON WEALTH (CW)

- Free Education / Pendidikan Gratis
- Online Education / Pendidikan Online
- Education and Entrepreneurship Development
* Pendidikan dan Pengembangan Kewirausahaan
- Environmental Issues in Education
* Isu-isu Lingkungan dalam Pendidikan

C) CULTURAL DIVERSITY

- National Community Service/Pelayanan Masyarakat
- Cross Cultural Education / Pendidikan Lintas Budaya
- Education Towards National Building
* Pendidikan Menuju Pembangunan Nasional
- Culture of Innovation in Education
* Pengembangan Budaya dalam Pendidikan
- Tolerance in Religion and Cultural Diversity
* Toleransi Beragama dan Keragaman Budaya



Online Journal :
journal.unespdg.org

VOL.2

INTERNATIONAL CONFERENCE
ON GLOBAL EDUCATION V

PROCEEDING INTERNATIONAL CONFERENCE ON GLOBAL EDUCATION V

"GLOBAL EDUCATION, COMMON WEALTH AND CULTURAL DIVERSITY"

Organized By :

Ekasakti University, Padang-Indonesia
Universiti Kebangsaan Malaysia, Bangi-Malaysia



UNIVERSITAS
EKASAKTI
INDONESIA



UNIVERSITI
KEBANGSAAN
MALAYSIA



HATYAI
UNIVERSITY
THAILAND



UNIVERSITI
BRUNEI
DARUSSALAM



VIETNAM
NATIONAL
UNIVERSITY

VOLUME 2

COMMON WEALTH

10 - 11th April 2017

UNIVERSITAS EKASAKTI
PADANG - INDONESIA

Keynote Speakers:



Prof. Dr. Herri, S.E., MBA
Kordinator Kopertis Wil. X
Indonesia



Prof. Dato' Dr. Norazah Mohd Nordin
Universiti Kebangsaan Malaysia
Malaysia



Prof. Dr. Anan Thippayarat
Hanyai University Thailand
Thailand



Prof. Dr. Sallimah Hj. Mohd Saleh
Universiti Brunei Darussalam
Brunei Darussalam



Hoang Mai Khanh, Ph.D.
Vietnam National University
Vietnam

Indonesia-Malaysia-Thailand-Brunei Darussalam-Vietnam

No	Title	Page
28.	Development Of Teaching Material Based On Problem Based Learning (PBL) On Fraction At Elementary School <i>Refnywidialistuti</i>	1975-1986
29.	Effect Of Planting Location Altitude Of Coffee Arabica Coffee Flavor In South Tapanuli <i>Syafiruddin</i>	1987-1995
30.	An Analysis Of The Impact Of The Coal Mining Activities On The Condition Of Water Quality In The Coal Mining Areas In South Sumatra <i>Marhaini, Legiso, Mubin</i>	1996-2009
31.	Some Factors Affecting The Production And The Efficiency Of The Marketing Of The Oyster Mushrooms (<i>Pleorotus Ostreatus</i>) In The Subdistrict Of Sako Kenten, Palembang <i>Kuswantinah</i>	2010-2017
32.	Factor Analysis Affecting Tourism Tourists In Choosing (Case Studywater Boom Muaro Kalaban Kota Sawahlunto <i>Yulistia, Sunreni</i>	2018-2029
33.	Pre - University Students' Perceptions Toward Teacher Feedback In Writing <i>Fenella Annabel Petrus, Parilah Mohd. Sha</i>	2030-2045
34.	Crafting Effective Pbl Problems In Engineering Curricula <i>Dr. Wan Hamiza Wan Muhd Zin</i>	2046-2055
35.	Phytochemical Screening, Total Phenolic Content, Antioxidant Activity And Antibacterial Properties Of <i>Clerodendrum Serratum</i> Leaves <i>Fazura Binti Minhad, Helen Teh Bee Lean, Azizah Binti Mahmood, Azhary Bin Yahya Hasnoor Hafzan Binti Baharum</i>	2056-2065
36.	The Effect Of Fermentation Temperature On Lactic Acid Bacteria Growth In The Production Of Coconut Water Kefir Drink <i>Khairedza, Nordalilah, Munirah</i>	2066-2078
37.	Effect Of Different Ph On Solubility And Mineral Binding Capacity Of Alkaline Extracted Hemicelluloses From Oil Palm (<i>Elaeis Guineensis</i>) Frond <i>Zaleha Ismail, Azemi Mohd Nor</i>	2079-2085
38.	Nht Model To Enhancing Students' Scientific Skills And Learning Outcome <i>Erwinsyah Satria</i>	2086-2100
39.	Analysis Of Water Loss At Padang Pariaman Regional Water Company Batang Anai Area <i>Riko Ervil</i>	2101-2107
40.	Comparative Study Certified And Non-Certified Economic Teacher In Medan City <i>Muhammad Fitri Rahmadana</i>	2108-2123
41.	The Evaluation Of Infrastructures And Evacuation Routes In Padang City <i>Fitrarifwan, Rismaapdeni</i>	2124-2132

**COMPARATIVE STUDY CERTIFIED AND NON-CERTIFIED ECONOMIC
TEACHER IN MEDAN CITY**

Muhammad Fitri Rahmadana
Faculty of Economics – State University of Medan
Email: mufitra_140977@yahoo.co.id

ABSTRACT

Purpose in this study is to determine the competence of economic teachers in Medan based on the status of certification and non-certification. This study was conducted using secondary data. Data analysis technique used is descriptive statistics and inferential statistical analysis (independent sample t-test and ANOVA). In general, no significant differences were found in each competency test which includes pedagogical competence, professional competence and combined competence. Specifically for certified teachers who have found that there are differences in pedagogical, professional competence and combined competence based on the age of teachers.

Keywords: Teacher Competence, Certified and Non-Certified, t-test, ANOVA.

A. Introduction

In improving the quality of learning in the classroom, teacher competence in preparing and selecting appropriate methods in the learning process is an important key to the achievement of learning objectives. The learning process that will take place in accordance with what is expected of students and is expected by the teacher. Efforts to improve the quality of education by the government with the enactment of Law No. 20 Year 2003 on National Education System and supported by PP 19 Year 2005 on National Education Standards. The quality of education is determined by the integral improvement of all components of education, including teacher quality.

Teachers as agents of learning in Indonesia are required to meet the three requirements as described by Samani (2006), which is the minimum educational qualifications, competency, and certification of educators. These three requirements to become a teacher in accordance with the Law of the Republic of Indonesia Number 14 of 2005 on teachers and lecturers. To be a teacher when examined more deeply there are only two requirements, the minimum academic qualification (diploma D4 /S1) and minimum competency as indicated by the teacher educator certificate is a formal proof of the fulfillment of the two conditions above, the minimum academic qualification and a minimum competence as a teacher. In many cases, the quality of the educational system with regard to the quality of teachers (Beeby, 1969). Therefore, improving the

quality of education to be done through improving the quality of teachers. However, the reality shows that the quality of teachers in Indonesia is still relatively low. This is partly due to the non-fulfillment of minimum education quality. Picture of the number of teachers who do not have the minimum educational qualification will be even greater in percentage when we viewed from the requirements of minimum educational qualification of teachers required by Regulation No. 19/2005 on National Education Standards (*Standar Nasional Pendidikan/SNP*). In addition, Article 28 of the Government Regulation (*Peraturan Pemerintah/PP*), also requires a teacher must have minimum competency as agents of learning in early childhood education, elementary, and secondary. The competences of teaching agent includes pedagogical competence, personal competence, professional competence and social competence.

This current era of the Asean Economic Community (AEC) in 2015 is already underway. Forms of economic integration is forcing the ten ASEAN member countries to rush to prepare all its potential in order to improve competitiveness with major countries in the vicinity. Single market-based production of this highly competitive course requires competent human resources as well as professionals in order to compete with human resources from abroad.

The education sector is a key sector for generating human resource competitiveness. This of course requires also the quality of teachers in it, in order to produce human resources who are ready to compete in the era of MEA 2015. The amount we do not lack teachers. Compared with other developed countries the ratio between the number of teachers and students in Indonesia had reached 1:25. Unfortunately we are still stuck on issues of equity and quality of teachers.

Change or improved education governance needs to be an urgent agenda to be done on the new government. So that when the education system is well ordered, then the teacher can concentrate on providing the best service to their students. How any time they can make improvements to professionalism collectively or independently.

Furthermore, the problem of teacher quality at least focus on two things, namely external and internal, lack of training for teachers or the lack of willingness of teachers to improve themselves. Many of our teachers working without proper training, while some further reasoned that the increased competence of self-help is not easy. Given the number of teachers to meet the burden of their teaching obligations, as well as other administrative activities. Finally the teacher facing student with modest circumstances,

minimal or even no new innovations that make students become more enthusiastic in learning.

Education as a producer of high quality of human resources must continue to improve. The invitation to realize that investing in teachers is a key to success in education is a major theme promoted by the Organization for Education, Science, and Culture of the United Nations (UNESCO) relating to the Teachers' Day commemoration throughout the world, on October 5, 2014. UNESCO invites states to seriously invest in teachers.

Legal regulation for the agenda was clear. Article 75 of Law Number 14 Year 2005 on Teachers and Lecturers mandates that the profession of teachers / lecturers are required to obtain protection in the execution of their duties. That protection includes improving the quality and welfare of teachers, which should go hand in hand. With a budget adequate education, the government should be able to carry out the improvement agenda is more qualified teachers, sustainable and equitable in accordance with the needs of each teacher.

In addition, teachers should also be empowered to increase her self-help, especially for those who have received the professional allowance. That situation can be supported by the school to carry out trainings independently. Schools can design their own training programs the needs of teachers. Attitude, ability and willingness of teachers to make changes is a big capital to increase her.

Refer to a term from Maister (1997) in Tilaar (2006) who wrote about True Professionalism, that professionalism is not just knowledge of technology and management, but rather an attitude of professionalism (attitude). A teacher is not only highly skilled, but will be referred to a professional if he is also responsible, initiative, and demonstrate personal commitment to quality at work.

Colleges including LPTK it will also become the frontline in the formation of future teachers are professionals. So that these demands must be balanced with quality improvement should be able to make the intellectual capital of the students choice in it to produce a quality product.

Competition in the era of AEC 2015 is not just giving space to the experts, but also for those who have attitude. Skills can be taught quickly, but the formation of character will take much longer. Cycle formation of character have to keep going and concomitantly. Not only in school but also at home and in the neighborhood. These

conditions are now the demand for the next generation is ready to face future challenges.

B. LITERATURE REVIEW

1. Teacher Competence

Competence is a combination of knowledge, skills, values and attitudes are reflected in the habit of thinking and acting. McAshan (in Mulyasa, 2003) suggests that competence is knowledge, skills, and abilities controlled by someone who has been a part of himself so that he can perform behaviors cognitive, affective, and psychomotor as well as possible. In line with this further Finch and Crunkilton (in Mulyasa 2003) defines competence as mastery of an assignment, skills, attitudes, and appreciation necessary for the success. It shows that competence includes tasks, skills, attitudes, and appreciation necessary for the success. Competence, namely a set of knowledge, skills and behaviors that must be owned, internalized and mastered by teachers in implementing the tasks of professionalism.

Government Regulation No. 74 Year 2008 on Teachers stated that teachers are professional educators with the primary task of educating, teaching, guiding, directing, train, assess, and evaluate students on early childhood education, formal education, primary education and secondary education. Teacher competence is a set of knowledge, skills, and behaviors that must be owned, lived, ruled, and actualized by the professionalism of teachers in performing the task.

Furthermore, Law No. 14 Year 2005 on Teachers and Lecturers defines that professional is any work or activity carried out by someone and become a source of income of life that requires expertise, skills, or skills that meet quality standards or certain norms and require professional education. In Permendiknas No. 16 of 2007 the competence of teachers include pedagogical, professional, personal and social. These competencies will be integrated so as to realize the performance of teachers. Measuring the performance of teachers is not easily measured, therefore, can be traced through competence. Until now kompetensi measured through teacher competency test for teachers who have met the requirements, the opportunity to follow teacher certification, and competence in testing only professional competence and pedagogical. Government through Permendiknas No 18 of 2007 sees the need to provide certification for teachers. Certification for in-service teacher educators is the process of awarding certificates to the teachers in the office. This certification is given to teachers who are

civil servants and non-civil servants who have met the certification requirements. Certification for teachers in positions implemented through a competency test to obtain a teaching certificate.

Several research studies discuss the teacher's competence among undertaken by Murthado (2015) Relationship Between Values Competency Test Teacher (UKG) With the Average Value of National Examination Subjects Geography in 2013 at the high school in the city, showing the results that there is no positive relationship significantly between the Teacher Competency Test with an average value of National Examination geography subjects in high school in 2013 in the city of Semarang.

Studies conducted by Sofanuddi (2012) about Measuring Competency Islamic Education Teachers Certified and Certified yet. The results of such research; (1) There are differences between the MTs PAI teacher competence certified and who have not been certified in Pontianak district; (2) There are differences in the competence of teachers PAI MTs in terms of teacher tenure; (3) There is no interaction between factors and tenure status of teachers; (4) There are differences in learning outcomes PAI MTs students are educated by certified teachers and teachers who have not been certified; (5) There are differences in learning outcomes PAI educated participants MTs associated with tenure of teachers (6) There is no interaction between the factors of teachers' status and tenure factors seen from the results of student learning; and (7) The competence profile of teachers PAI MTs that includes pedagogical competence, personal, professional, social and Pontianak district as a whole meets both categories.

2. Teacher Certification

One of the messages the Law on Teachers and Lecturers is the Government implement teacher certification aims to standardize the competence of teachers and provide fresh air for teachers to earn additional income in the form of professional allowance 1 month salary. Teacher certification mandated by Law No. 20 of 2003 and Law No. 14 2005 was also an answer to the problems of the poor quality of teachers in Indonesia. The hope through certification, teacher quality is assured, because only professional teachers to obtain teaching certificate and be allowed to manage the learning process.

Teacher certification aims to determine the feasibility of a teacher in carrying out duties as agents of learning in school and provide teaching certificate for teachers who

have met the requirements and passed the certification test. The benefits of the certification test as follows; (1) protect the teaching profession of educational services practice incompetent and can damage the image of the teaching profession itself; (2) protect the public from educational practices that are not qualified and professionals which will hamper efforts to improve the quality of education and preparation of human resources in the country; (3) be a vehicle for quality assurance LPTK tasked with preparing prospective teachers and also serves as a quality control for users of educational services; and (4) maintain the institution of education providers from internal and external desires that can potentially deviate from the provisions in force. Through the certification is expected to separate those professional teachers which are not so entitled to receive professional allowances is characterized by a professional teacher bookish knowledge, to be fair, authoritative and master the field is practiced. Several research studies on teacher certification have been carried out including research conducted by Naufalin (2012) with the title of the performance of certified teachers on economic subjects obtained the teacher's performance of economic subjects certified in high school Jepara regency of Central Java province has not fully demonstrated change, because (1) in terms of pedagogical competence of teachers set learning goals based only on the syllabus without considering the needs and conditions of the students, besides eight teachers' teaching skills can not be done well. (2) in terms of the competence of the teacher's personality has become a role model for students and can set an example so that students have the promise to improve discipline in him. (3) in terms of professional competence of the methods used by teachers in teaching is focused on the lecture, there are many learning resources are underused by teachers such as libraries, school cooperatives, the market and the willingness of teachers to improve professionalism with training, workshops, seminars and lectures are still low. (4) in terms of social competence of teachers already have responsibility for the profession as a person who is deemed intelligent able to contribute ideas for the surrounding community. (5) the phenomenon underlying the performance of teachers of economic subjects certified in high school Jepara regency of Central Java province including teachers do not have good management in learning, teachers have a genuine intention to teach, facilities provided by the school is not conducive to perform the method to date, their socio-cultural factors that affect the appearance of the teacher in society.

Research studies about the comparison of teacher competence certification and non-certification is also performed by Mubarak (2013) in his study in 2013 on a comparative study pedagogical competence and professional certified teachers with teachers of non certified educators science subjects at Government Elementary School State in Kota Metro Lampung Province, indicates that the results of the study reveal that pedagogical competence and professional grade teacher pengampu science subjects certified educators in MIN in Metro City has been good, it is seen from the aspect of the learning plan, the implementation aspect of learning, evaluation aspects of learning, aspects of educational qualifications, and improving the competence of teachers generally. While teachers are not certified there are still weaknesses in several respects.

C. RESEARCH METHODOLOGY

The population in this research is all economics teacher who follows the Teacher Competency Testing (Uji Kompetensi Guru/UKG) in 2015 in the city of Medan. The sampling technique using total sampling, where the entire population of the research will be the sample. The data used in this research is secondary data UKG results in 2015 in the form of clusters or strata based on educational background, age, gender, tenure, especially certified and non-certified teacher. To mapping certification and non-certification teachers, performed by using descriptive statistics and data visualization using various charts and diagrams. To see the difference in competence of certified and non-certified teachers use comparative data analysis that is independent sample t-test and ANOVA. The use of this method of analysis adjusted for clustering data.

D. RESULTS AND DISCUSSION

1. Descriptive Statistics Distribution Master of Economics in Medan

This section presents the results of the calculation of the average value of the distribution for the six demographic indicators contained in the data of economic teacher competence certified and not certified in Medan with a total of (population) studies as many as 234 teachers. In detail, outlining Tabel.1 average value contained in the sixth demographic indicators include: the number of respondents, gender, employment status, educational background, age and duration of work.

Table 1. Distribution of Teachers Based on Demographic Indicators (N = 234)

Indicators	Certified	Non-certified
Respondent	151 (64.5%)	83 (35.5%)
Gender		
• Male	34 (23.2%)	19 (21.7%)
• Female	117 (76.8%)	64 (78.3%)
Employment Status		
• Government Employment	61 (47.0%)	33 (27.7%)
• Non-government Employment	90 (53.0%)	50 (72.3%)
Educational Background		
• Diploma/Bachelor (D3/D4/S1)	140 (91.4%)	77 (95.2%)
• Graduate (S2)	11 (8.6%)	6 (4.8%)
Age		
• < 30 Years	15 (1.3%)	8 (25.3%)
• 31-40 Years	54 (30.5%)	29 (44.6%)
• 41-50 Years	54 (45.7%)	30 (18.1%)
• > 50 Years	28 (22.5%)	16 (12.0%)
Duration of Work		
• < 10 Years	46 (17.9%)	25 (53.0%)
• 11-20 Years	74 (58.9%)	40 (30.1%)
• > 20 Years	32 (23.2%)	17 (16.9%)

Sources : Data processed

Of the total 234 Economics Teacher in Medan, 151 of which have been certified and 83 teachers are still not certified. Distribution Economics teacher in Medan City indicated that the majority of in Medan has certified. Associated with the distribution of Economics Teacher certified and are not yet certified in Medan based on gender, shows that the proportion of female teachers for the subjects of Economic relatively very high compared with male teachers, either by status has been certified or not certified. Furthermore, the distribution of Economics Teacher based on employment status that has been certified and not certified in Medan informed that the proportion of non-government employment teachers in both conditions (certified and not certified) relatively dominant than government employment teachers. Distribution Economics teacher that have not been certified and certified based on their educational background that the majority of economic teacher in Medan minimal educational background Diploma 3 / Diploma 4/ bachelor Degree with a wide range of courses. In the age of the subjects the economic teacher that has been certified and not certified in Medan city as a whole are in the productive age. Associated with indicators of long work, the information shown in explaining the condition is still sufficient number of economic teacher that have not been certified in Medan. The high number and percentage of teachers with long work under 10 years underlines the still relatively large number of teachers who have not been certified for the subjects of Economics in the city of Medan.

2. Descriptive Statistics Competence Master of Economics in Medan

This section provides a discussion of the descriptive statistics of Economics Teacher in Medan city in terms of its certification status. As shown in Table 2 below, with a focus on the criteria for graduation with a minimum value of 55 for all three categories of competences, namely pedagogy competency, professional competence and combined competency (pedagogical and professional competence); it can be concluded that the results UKG 2015 to subjects Economics at the high school level in Medan relatively satisfactory when compared with the achievements of the national average resulting in UKG in 2015.

Table 2. Description Value Competence Master of Economics in Medan
(N = 234, Criteria Pass Minimum Value = 55)

	Pedagogy Competency		Professional Competency		Combined Competency	
	Certified	Non-certified	Certified	Non-certified	Certified	Non-certified
N	151.00	83.00	151.00	83.00	151.00	83.00
Mean	51.02	49.87	66.08	64.04	61.56	59.79
Deviasi Std.	16.05	15.85	13.37	15.00	12.13	13.77
Range	83.33	78.70	65.48	73.41	63.89	65.28
Minimum	13.89	9.26	29.76	21.83	26.39	25.00
Maximum	97.22	87.96	95.24	95.24	90.28	90.28

Sources : Data processed

More specifically, the information presented in Table 3 below reflects the achievements of UKG 2015 significant for the subjects of Economics at the high school level by using national average values resulting from the implementation of the UKG 2012 as comparison.

Table 3. Teacher Competency Test (UKG) Result for Economic Subject
High School Level in Medan dan Indonesia

	Teacher Competency Test (UKG) Economic Subject 2015 (Medan Level)			Teacher Competency Test (UKG) Economic Subject 2015 (Nasional Level)		
	Pedagogy Competency	Professional Competency	Combined Competency	Pedagogy Competency	Professional Competency	Combined Competency
Certified	51,02	66,08	61,56	45,99	49,29	43,82
Non-certified	49,87	64,04	59,79			

Sources : Data processed

Achievement Economic teacher high school level in the city of Medan in UKG 2015 as shown well in Table 2 and Table 3 above relative showed significant progress when compared with the achievements of the national scope UKG in UKG 2012. However, progress contained in the UKG performance has not reflected picture of the competence of teachers of economic subjects at the high school level in more concrete Medan city. This is reflected in Table 4 below which maps UKG 2015 graduation profile for subjects Economy high school level based on a matrix of each competency, namely Competence Pedagogy, Association of Professional Competence and Competence.

Tabel 4. Profile of Passing Grade Teacher Competency Test 2015 for Economic Subject at High School Level in Medan City Base-On Competency matrix

Passing Grade Matrix	Sertified		Non-certified	
	f	%	f	%
Passed Pedagogy Competency	4	2.38	2	8.55
Passed Professional Competency	22	80.79	8	5.78
Passed Combined Competency	06	0.19	1	1.44
Passed Pedagogy Competency - Not Passed Professional Competency	6	3.97		3.61
Passed Professional Competency - Not Passed Pedagogy Competency	4	2.38	9	4.94

Sources : Data processed

Information that can be deduced from Table 4 above generally show a relatively high proportion of graduation achieved by economic teachers in the city of Medan on the implementation of the UKG 2015. For teachers who have been certified, 70.19% of the total 151 subjects certified economic teacher in Medan who passed UKG 2015 with performance standard exceed the minimum passing score in the aspect of Pedagogical Competence, Competence Professional Competence and Joint. On the other hand, 61.44% of the total 83 economic teacher has not certified in Medan who passed UKG, 2015.

In particular, the relatively high graduation rate economic teacher in Medan good for certified teachers who have not been certified and is supported by the high attainment professional competence of teachers who passed in the UKG 2015. Similar conditions can also be seen in the achievement of graduation Professional competence which individually covers 80.79% of the total certified teachers. This reflects that the certification has encouraged teachers to provide maximum performance according to the demands of their profession. In a different

scope, for economic teachers that has not been certified in Medan relative has had a good understanding in performing their duties in a professional educators. Thus, by being incorporated in the certification program in the future will further increase the performance of the professionalism of economic teachers in Medan more like again.

Positive implications as reflected in the achievement of professional competence over the relatively inversely proportional to the achievements of Competence Pedagogy found good for economic teachers that have been certified or not certified in Medan. Specifically, only 42.38% and 38.55% certified teachers are not certified teachers who reach the standard minimum value of graduation competency Pedagogy individually. More specifically, referring to the results obtained by economic teachers who achieve the standard minimum passing score for the Competence Pedagogy but did not pass the professional competence implies appalling conditions. Although small, but still found the proportion of teachers with specific conditions as much as 3.79% of the 151 certified teachers and as much as 3.61% of teachers who have not been certified that administer economic subjects at the high school level. So, it is unfortunate that there are still economic teacher at the high school level in Medan who do not have teaching skills. Furthermore, the feasibility of graduation certification is also questionable since been duly certified teachers have good teaching abilities supported by the experience and maturity of age as the two main criteria in the assessment of teacher certification.

Graphically, the graduation profile UKG 2015 to economic teachers in Medan visualized in Figure 5 below. Visualization is shown in Figure 6.4 shows a high proclivity professional competence as determinants of graduation economic teacher in Medan in the implementation of UKG, 2015.

3. Comparative Analysis Competency Test Subject Teacher of Economics at the high school level in Medan Based Implementation UKG 2015

As described previously, the purpose of comparative analysis of economic teacher in Medan based on the results UKG 2015 is to determine whether there are significant differences in the respective competence of pedagogy, professional competence and competence combined among teachers who have been certified and that has not been certified using independent samples t-test pairs (paired t-test of independent samples). In particular, this section also describes the degree of difference resulting from the analysis of differences in the competency of teachers certified and who have not been certified in terms of gender, employment status, educational background, age and length of work using the F-test generated from test analysis of variance Two-way (Two Ways ANOVA / Analysis of Variances test).

Table 5 below summarizes the results of testing; the competence of teachers in terms of the criteria set out in the preceding paragraph. In general, there were no significant differences

of each pedagogical competence, professional competence and competence among teachers pengampu joint economic subjects high school level who have been certified or not certified in Medan on the implementation of the UKG 2015.

Tabel 5. Results of Testing Criteria and Teacher Competence

	Certified		Non-Certified	
	t-value	Significance	t-value	Significance
Gender				
Pedagogy Competency	0.795	0.428	0.611	0.543
Professional Competency	0.247	0.805	0.880	0.382
Pedagogy Competency + Professional Competency	0.124	0.901	0.458	0.648
Employment Status				
Pedagogy Competency	0.348	0.729	0.022	0.310
Professional Competency	0.377	0.707	0.375	0.708
Pedagogy Competency + Professional Competency	0.429	0.669	0.638	0.525
Educational Background				
Pedagogy Competency	0.898	0.370	0.609	0.544
Professional Competency	0.388	0.698	0.412	0.681
Pedagogy Competency + Professional Competency	0.656	0.513	0.525	0.601
Age				
Pedagogy Competency	0.670	0.050**	0.050	0.114
Professional Competency	0.586	0.055*	0.638	0.187
Pedagogy Competency + Professional Competency	0.878	0.038**	0.066	0.111
Duration of Work				
Pedagogy Competency	0.595	0.206	0.741	0.182
Professional Competency	0.573	0.080	0.952	0.390
Pedagogy Competency + Professional Competency	0.349	0.263	0.367	0.261

* Signifikan pada level 0.10; ** Signifikan pada level 0.05

Judging the results of different test pedagogical competence, professionalism, and a total according to the characteristics of gender, employment status, educational background, age, duration of work between teacher certification and certification yet there is no difference in the level of 95% and 5% α . Only at the age of no difference if the significance level was lowered to 10% and 10% α . Describe conditions there is no difference competence of teachers who have passed the certification by a yet passed certification.

Economic teacher condition in Medan city are no better than the results of the study Hariri (2010) which states that certification only have a low impact on teacher performance. This is evident from the results of a comparative analysis of teacher performance before and after passing a certification where the average performance of teachers after certification actually declined compared to prior certification. Motivation of teachers to take certification are more likely to improve welfare. This can be evidenced by Hartoyo and Baedhowi (2009) that the motivation of teachers to quickly join sertifikasi not merely to determine the level of their competence, but more prominent is the financial motivation. The results of similar studies carried out by the Directorate General of Education Quality Improvement Personnel (PMPTK) in 2008 in Baedhowi (2009) to 2,600 teachers who have not participated in certification and 2,600 teachers who have followed the certification in 5 provinces (West Sumatra, East Java, Central Java, Sulawesi South and West Nusa Tenggara) the results also showed that nearly all the teachers stated their primary motivation for adding a certification board soon financially is to get the professional allowance.

Furthermore, teachers are civil servants in the city of Medan do not encourage teachers to improve their competence. This condition illustrates that civil servant teachers who are economically more established than the teachers did not encourage the non-civil servants to improve performance. The study results are in line Widyana (2015) states there is no difference in the performance of permanent employees with contract workers. In this case the same civil service teachers with permanent employees and non-civil servant teachers with teachers contract. PNS teachers different conditions with the attitude that employees working part-time or contract employees have a high level of commitment than permanent employees (Neil and Bob, 2002).

This foreshadowed serious enough for policy makers khususnya related to the implementation of teacher certification. Statistically, teachers of subjects Economic

pengampu high school level in Medan relative competence pedagogy, professional competence and competence combined relatively different or uneven either been certified or not certified. Thus, the eligibility criteria of selection and certification of graduation should be reviewed because it is relatively not have a significant impact in improving the pedagogical competence, professional competence and the competence of such a combination that should be initiated through the implementation of the certification program.

In particular, the above information confirms the existence of differences in achievement pedagogical competence, professional competence and competence combined among teachers who have not been certified by the certified administer economic subjects in high school in the city of Medan. These findings underscore the t-test results that have been discussed in the previous paragraph, where a re-review for the screening and eligibility / graduation of the certification program is relatively important to consider more carefully.

E. Conclusions and Recommendations

This study aimed to analyze the differences in teacher competence in Economic subjects in Medan City high school level among teachers who have been certified and not certified. The results of data analysis showed that in general there were no significant differences in the respective competence test which includes pedagogical competence, professional competence and combined competence. But specifically, the implementation of the UKG to teachers of Economic subjects in high school in the city of Medan underlines the important findings regarding the high contribution of professional competence in determining the graduation of UKG to field tested.

In a different aspect, parametric statistical tests indicate very interesting findings for further scrutiny, especially for policy makers. Although simultaneously there are no significant differences of each competency pedagogy, professional competence and competence combined between economic teacher subjects in high school level that have been certified or not certified in Medan on the implementation of the UKG 2015, these findings provide an indication as to the feasibility of selection and completion of the implementation of the teacher certification program. Implementation of teacher certification program should aim to produce teachers who have the competencies that the complex includes pedagogical competence and professional competence equitable

and sustainable. However, the results of the data analysis using t-test provides important implications for optimizing the availability and sustainability of teacher certification programs in the future, especially for teachers of Economic subjects in high school in the city of Medan.

The results of this study provide advice, especially for policy makers in the Ministry of Education to be Consider again about teacher competency test formats in Indonesia. As the implications of not finding significant differences of statistical tests among teachers who have been certified and not certified in different competencies tested. This revision can be realized through implementation of test both written / online and oral / observation with the use of instruments in more detail in the second measure this important competency.

On the other hand, administration of training that is capable of updating (updating and upgrading) pedagogy and professional competence of teachers on an ongoing basis. It is considered important not only in increasing the quantity and quality of teachers are able to pass the minimum value standard is expected in UKG. But more broadly, updating the teacher certification program and also UKG in the future will be able to create competitive advantage Indonesian teachers for the challenges of the ASEAN and global free market. The format and content of the program is also important for the competence tests are reviewed involving the Institute of Higher Education Personnel (LPTK), Department of Education, Professional Organizations in particular certain subjects.

REFERENCES

- Arikunto, Suharsimi. 2010. *Prosedur Penelitian Suatu Pendekatan Praktek*. Jakarta: Penerbit Rineka Cipta.
- Arini. 2011. *Kesenjangan Pendidikan Antar Daerah*. Makalah Seminar Pendidikan. Universitas Sebelas Maret Surakarta.
- Beeby, C.E. 1969. *Qualitative Aspect Of Educational Planning*. Paris : Unesco.
- Direktorat Jenderal Pendidikan Tinggi Kementerian Pendidikan dan Kebudayaan. 2012. *Panduan Peserta Program Sarjana Mendidik di Daerah 3T (SM-3T)*. Kemendikbud. Jakarta.
- Direktorat Kawasan Khusus dan Daerah Tertinggal. Kementerian Perencanaan Pembangunan Nasional (PPN). Surat no 2421/Dt.7.2/04/2015 tanggal 21 April 2015.
- Direktorat Pembinaan Pendidikan Tenaga Kependidikan dan Ketenagaan Perguruan Tinggi, Ditjen Dikti, Depdiknas R.I. 2004. *Standar Kompetensi Guru Pemula*. PGSMK. Jakarta.
- Hasan, Iqbal. 2002. *Metode Penelitian dan Aplikasi*. Bogor : Ghalia Indonesia.
<http://www.kemdiknasgo.id/kemdikbud/sites/default/files/Konpres2013.pdf>.
<http://www.sertifikasi-guru.com>

- Mulyasa. 2003. *Kurikulum Berbasis Kompetensi Konsep, Karakteristik dan Implementasi*. Rosda Karya. Bandung.
- Murtadho, Juhadi. Apik Budi Santoso. 2015. *Hubungan Antara Nilai Uji Kompetensi Guru (Ukg) Dengan Nilai Rata-Rata Ujian Nasional Mata Pelajaran Geografi Tahun 2013 Di Sma Se Kota Semarang*. Jurnal Edu Geography, Vol. 7, No. 3, 2015.
- Mubarok, Ahmad. 2013. *Studi komparasi kompetensi pedagogik dan profesional guru bersertifikasi dengan guru non sertifikasi pendidik mata pelajaran sains pada madrasah ibtidaiyah negeri di kota metro – lampung*. Tesis. Program Studi Pendidikan Guru Madrasah Ibtidaiyah (PGMI). Program Pascasarjana. UIN
- Naufalin, Lina Rifda. 2012. *Kinerja Guru Tersertifikasi Pada Mata Pelajaran Ekonomi*. Program Pascasarjana Program Studi Magister Pendidikan Ekonomi Universitas Sebelas Maret Surakarta.
- Peraturan Menteri Pendidikan Nasional Nomor 16 Tahun 2007 tentang Standar Kualifikasi Akademik dan Kompetensi Guru.
- Peraturan Menteri Pendidikan Nasional Nomor 18 Tahun 2007 tentang Sertifikasi Bagi Guru Dalam Jabatan.
- Peraturan Pemerintah Nomor. 19 Tahun 2005 tentang Standar Nasional Pendidikan.
- Peraturan Pemerintah Nomor 74 Tahun 2008 tentang Guru.
- Samani, Muchlas, dkk. 2006. *Mengenai Sertifikasi Guru di Indonesia*. Surabaya: SIC.
- Sofanudin, Aji. 2012. *Mengukur Kompetensi Guru Pendidikan Agama Islam Tersertifikasi Dan Belum Tersertifikasi*. Jurnal Pendidikan Agama Islam, Vol. IX, No. 2, Desember 2012.
- Undang-Undang Republik Indonesia Nomor 14 tahun 2005 Tentang Guru dan dosen.
- Undang-undang Nomor. 20 Tahun 2003 tentang Sistem Pendidikan Nasional.

