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COMPETENCY MAPPING AND ANALYSIS OF STUDENTS COMPETENCY BASED ON ECONOMICS SUBJECT NATIONAL EXAMINATION AND ITS ALTERNATIVE SOLUTIONS IN STATE HIGH SCHOOLS AT PEKANBARU

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Abstract: *This research is aimed to; 1) Describe the education quality map in State High Schools (SMA) at Pekanbaru viewed from the factors causing success or failure of education; 2) Describe the competence map of state high school students in Pekanbaru of the basic competence of Economics Subject; and 3) Find the formulation for alternative solutions in order to improve the competence of Economics students of state high schools in Pekanbaru. The present research employed qualitative and quantitative approaches. The target population in this research was all state high schools in Pekanbaru. The sampling was conducted purposively, i.e. the samples were taken based on considerations of quality characteristics of a school. The data were collected by the instruments used as a data collection tool in the form of questionnaires, interview guidelines and observation sheets. Data analysis technique used in this research was qualitative descriptive analysis. The results indicate that the competency mastery map of high school students on each basic competence or discussion in Economics Subject being tested at the National Examination in Pekanbaru generally has weaknesses in material topic in the realms requiring comprehension, application, analysis, synthesis and evaluation. The factors that may hamper the achievement of basic competencies mastery or discussion of the subject being tested in the national examination is generally originated from the input and process aspects. On the input factor, it is dominantly influenced by factors coming from the students, the curriculum implementation, learning infrastructure, especially laboratories and libraries, as well as the culture or learning culture. Meanwhile, from process aspects, it is more dominantly influenced by how the teachers implement their teaching and learning activities as well as instructional media supports.*

Keywords*: Competence Mapping, Economics Students, Competency Analysis andAlternative Solution.*

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1. INTRODUCTION

The progress measurement of a country or nation partly can be viewed from the level of education development of the population. The better the education level, the more advanced the nations. We can take a look at several developed countries in the world with a level comparable with the advancement in the field of education, such as America. Some of the best universities are located there. Similarly, Indonesia expects that the progress in the field of education will bring impacts to the nation's progress.

In order to realize such progress, the government has made great efforts, one of which is by standardizing test scores for primary and secondary level schools, with the expectations that better results are gained for inputs, particularly for universities that will eventually produce best graduates, hence the education world in Indonesia will be more advanced and is capable of counterbalancing the progress in other countries. Measuring the progress of education requires a valid and tested measurement tool. Indonesia applies National Examination (UN) for the elementary and secondary level. According to Regulation of Minister of National Education Number 75 of 2009 Article 3, UN result is used as one of the considerations for the unit quality mapping and/ or educational program; admission selection for next education level; determining the graduation of students from the educational program and/ or units; and developing and the provision of assistance to the education units in an effort to improve education quality. This chapter shows that besides being categorized as a summative evaluation, UN may also be categorized as a diagnostic, selection, and placement. The UN is used as one of the considerations for quality mapping of educational unit and programs; admission selection for next education level; determining the graduation of students from an educational unit; accreditation of educational units; and coaching and the provision of assistance to the education unit in an effort to improve education. (*http://wulieokti.blogspot.com*). By the presence of National Examination, the government can measure and assess the competence of learners in the fields of science and technology. Furthermore, it can also be utilized for educational mapping, and UN is also used as and determinant instrument for graduation and bestowal of diplomas to the students.

The average score of the National Examination (UN) in the level of High School/ MA and Vocational School/ MK in 2014 decreased compared to the previous year. If in 2013, the average score of UN (net score) is 6.35, then in 2014, it only reaches 6.12. "For the highest average score of UN this year are 9.7, and the lowest being 1.08," said Minister of Education and Culture, Mohammad Nuh in a press conference related to UN outcome in 2013, at the Ministry of Education and Culture, Senayan on Monday (05/19/2014). The National Examination Result at provincial level, particularly in the Riau Province, the UN for High Schools and the equivalent, as announced from the result of 69,933 student participating National Examination of high school level and equivalent, in 2013 in Riau, 0.07 or 49 of them are declared to have failed.

Based on the average score, Pekanbaru topped the rank for Natural Science Class of High Schools/ MA with an average score of 7.88, followed by Siak (7.41), Dumai (7.37), Kampar (7.32) and RokanHilir (7.25). Pekanbaru still ranks the top for Social Science Class of High Schools/ MA with an average value of 7.33, followed by Siak (7.00), Kampar (6.96), RokanHilir (6.93) and Indragiri Hilir (6.89). "The Top Five for vocational schools are achieved by Indragiri Hilir, RokanHilir, RokanHulu, Siak and Pekanbaru (http://www.halloriau.com). With the UN, the government expects that the learners can be monitored for their ability level, and subsequently can be used as a reference to resume to a higher level.

From the data conveyed by relevant parties, with regard to the UN results that UN results in Pekanbaru is highly fluctuated (setbacks from previous years). It shows that there are weaknesses and errors in the implementation of education at high schools/ vocational schools, including the testing process; hence the UN is not necessarily believed to be the only means of admission to higher education. However, the weaknesses or errors are not always detected, mapped and understood; in which parts there are the students, teachers, the implementation of teaching and learning activities (KBM), school management, educational management in the area.

Facts in the field as released regarding UN in Riau and especially in Pekanbaru shows that various indicators of the educational quality has not achieved substantive improvement, judging from the outcome of high school national examination which is known to be low and has no significant increase. In terms of the students' daily behavior, there is also high amount of dissatisfaction within the community. In terms of businesses world, there are complains about the graduates who are entering the

Table 1
Integrity Index and Average Score of 2015National Examination
Per District / City in Riau Province

No	*District/City*	*IIUN*	*High School /MA*			*Vocational School*		
			Average Score		*Difference*	*Average Score*		*Difference*
			2014	*2015*		*2014*	*2015*	
01	Pekanbaru	68,28	73,10	71,58	-1,52	64,05	62,02	-2,03
02	Dumai	69,03	67,10	**63,86**	**-3,24**	63,65	**59,41**	-4,25
03	Kampar	61,38	69,00	**63,73**	**-5,27**	59,75	**52,91**	-6,85
04	Inhu	57,94	70,90	**62,25**	**-8,65**	60,93	**58,13**	-2,79
05	Inhil	52,75	61,80	**63,31**	**1,51**	75,73	**69,37**	-6,36
06	Bengkalis	58,90	62,60	**61,38**	**-1,22**	66,40	**58,64**	-7,76
07	Pelalawan	62,54	57,80	**60,93**	**3,13**	58,28	**57,41**	-0,87
08	Rohul	51,02	61,60	**65,76**	**4,16**	75,25	**72,36**	-2,89
09	Rohil	57,79	63,10	**58,41**	**-4,69**	74,80	**57,17**	-17,63
10	Siak	56,68	66,50	**64,08**	**-2,42**	70,38	**64,74**	-5,64
11	Kuansing	56,38	66,80	**63,44**	**-3,36**	58,33	**55,23**	-3,09
12	Meranti	49,41	44,40	**70,79**	**26,39**	59,40	**59,85**	0,45
	National	**63,28**	**61,00**	**61,29**	**0,29**	**65,35**	**62,14**	**-3,21**

Source: inistry of Education and Culture of Republic of Indonesia (2015)

workforce, that they do not have a good job readiness. The dissatisfaction among the college community is that they think high school graduates' preparation is not enough to attend university.

Based on these facts, the UN results need to be mapped and evaluated; hence the UN results should be able to produce information becoming the basis in decision-making and implementation of alternative measures to fix them with the relevant parties. Nonetheless, in reality, there has been no proper and planned follow-up as well as having innovative and strategic value that is able to touch the root of the problem, and positively affects the overall performance of the education system in order to address the problem, whether the mistakes lie in the learners, teachers or school authorities.

The national exam is frequently associated with indicators of educational quality. Quality is an important study materials as well as an approach in education world. Quality means a product's superiority, both in works or efforts, in the form of goods or services (Umaedi, 1999). Absolute educational quality improvement should be done continuously order to meet the demands above. Many factors influencing the quality of education, among others; teachers, condition of learners, the school management, the environment and curriculum. Research results by Mardapi et al (2010) also found that the determinant factors determining the quality of learning are educators, principals, and management. It indicates that educators have a very central role in improving the quality of education.

The results of national examination for the last few years is interesting to discern, a number of anomalies especially in Pekanbaru, with good results (high score), but it is negatively reported that results are obtained from cheating, or there are low results obtained without cheating. Therefore, the public is interested to uphold the value of honesty, for instance: despite low graduation rate, those with high graduation rate are not necessarily fair. Meanwhile, it is known that fraud practices, breach of procedure, and breach of the rules indeed happened. Eventually fairness index finally emerged in the implementation of national examinations, and this index identifies that white area means fair, and gray area means fraud. (Ali Muhson. 2011).

Several researches has been conducted related to the issue of learning outcomes with implications for UN results, including Wulan et al (2010) who conducted a study on students' learning difficulties map in secondary schools having medium and low UN results. The results show that the majority of students having difficulties in learning in most materials and essential competencies of the subjects. The learning difficulties endured resulted in the hampered students' achievement in Graduate Competency Standards (SKL) of National Examination. The research also reveals that the not optimal process of learning, assessment and remedial teaching in schools leads to learning difficulties in many students.

The fact that has been happening shows that the UN score is still low and uneven. It was also followed by the ability of the students who have not mastered the abilities

to attend the next level of education and to get involved in the society. For all this time, what happens in schools is that the teachers frequently repeat the lessons that should have been mastered by students in the previous education level. For example, high school teachers need to repeat the material that should have been taught in junior high school and even in elementary school. As a result, the material in high school cannot be mastered fully due to the lack of time and mastery of the materials. (Dwi Atmono; 2014).

This fact indicates efforts to provide solutions to the educational problems. The quality improvement of education that has been conducted so far has not been able to address the problem as stated above, therefore, it is necessary to conduct the analysis through research on the various components determining the education quality through a scientific study used in the context of national policy-making and regional policies in realizing quality education as expected by all parties.

2. Formulation of the Problems

Based on the background of the problems as described above, the problems that will be assessed in this research are formulated as follows:

1. What is the description of educational quality in State High Schools (SMA) at Pekanbaru City in terms of the factors causing the success or failure of education including: school management system, teachers, educational infrastructure and public culture?
2. What is the competence map of high schools students in Pekanbaru in the basic competence of Economics Subject?
3. What is the formulation of alternative solutions to improve the competence of the students?

2. LITERATURE REVIEW

2.1. National Examination

National Examination or commonly abbreviated UN an evaluation system is standard of primary and secondary education nationally, and quality equalization of education levels among regions conducted by the Education Assessment Center, Ministry of Education in Indonesia based on Law of the Republic of Indonesia number 20 of 2003, stating that in order to control the education quality, nationally, an evaluation is held as a form of accountability of education providers to the relevant parties. Furthermore, it is declared that the evaluation should be conducted by an independent agency on a regular basis, thoroughly, transparent, and systematic to assess the achievement of education national standards and the process of evaluation monitoring should be performed on an ongoing basis. (*http://id.wikipedia.org*). A person is said to have been passed/ competent they have passed the score limit value in the form of limit values

between learners who have mastered certain competencies and the students who have not mastered certain competencies. If it occurs to national or school examinations, the score limit serves to separate the learners who pass and those do not is called passing grade, and the activity of passing grade determination is called standard setting.

The implementation of National Examination (UN) is aimed to map the students' competencies in each region in Indonesia. It must have measurement; hence the UN serves as a diagnosis. Certain areas strongly mastered by the students must be recognized. For the UN results to view which ones need to be improved, which one is good, including the competency level per subject.The ability competency mapping is performed through questions in the UN per subject. "The improvement of the quality is better planned by knowing the mapping," he said. (Kompas.com, 2015).

2.2. The Mapping of Students' Competencies

Competence is a set of intelligent act with full responsibly that must be owned by an individual as a condition to be considered capable of performing tasks in a specific field (Majid, 2008). According to the National Education Minister Regulation No. 22 of 2006 on Content Standards (SI), it covers the material scope and level of competence to achieve graduate competence at certain level and type of education. Including in the SI is the basic framework and structure of the curriculum, Competency Standards (SK), and Basic Competence (KD) for each subject in each semester from each type as well as the level of elementary and secondary education. Graduates Competency Standards by National Education Minister Regulation No. 23 of 2006 is a qualification of graduates' abilities, including attitude, knowledge, and skills. (Supinah, 2008).Based on BSNP (2011), in order to obtain an overall and full depiction of all the competence standards, basic competence and indicator of various subjects, the mapping of basic competencies is conducted as it contains an overview of the overall competencies, the map of these competencies can be made into an reference for schools in order to improve the learning and education quality.

The competency mapping is usually described using a fishbone diagram. This diagram is first introduced by a Japanese national management expert who worked in a Kawasaki Company named Kaoru Ishikawa around early 1960. As the diagram is shaped like a fish bone, it is commonly called fishbone diagram. This diagram is frequently used to express all the possible factors that turn into problems, hence called as causal diagram. (Hadriana, 2012).

2.3. Competency Analysis

The term competence is defined as a set of knowledge, skills, attitudes, and values as a performance influential to roles, actions, achievements, and a person's job. Therefore, basic competence can be measured by a common standard, and can be improved through education and training. According to Spencer and Spencer (1993), the competence is a fundamental characteristic of an individual which is reciprocally

related to competency effective criteria or the best proficiency in an individual within the job or circumstance. Competency mapping is a term which is defined as information exploration on the resources competence owned by an organization. The competency mapping can identify the gap (GAP) of employees' ability within an organization. (Google.co.id, 2015).

The good presentation can be in the forms of thinking skills, work, and achievement in a person. In the preparation of competencies, changes in the emphasis of thinking and action of "What should a student learn into how to teach a student". Furthermore, adequate preparation is needed to prepare the Competencies.

3. RESEARCH METHODS

3.1. The Approach and Types of Research

This research used both qualitative and quantitative approaches. A qualitative approach is a research procedure that produces descriptive data in the form of written or spoken words of the people becoming the research subjects and observable behavior. This approach was said to be qualitative as the target of this research was to assess the problems of educational quality improvement in academic manner that had been carried out by institutions equal to High School. Based on both approaches, this research employed survey method and data collection technique through documentation study from National Examination results, questionnaires and observations.

3.2. Population and Sampling Techniques

The target population in this research was all high schools in Pekanbaru, amounted to 15 high schools. As the data sources were students and teachers of Economic Subject targeted as High School national examination, principals and other parties related to the education management.

3.3. Research Stages Chart

The activities in this research are shown in the chart or diagram as shown in Figure 1.

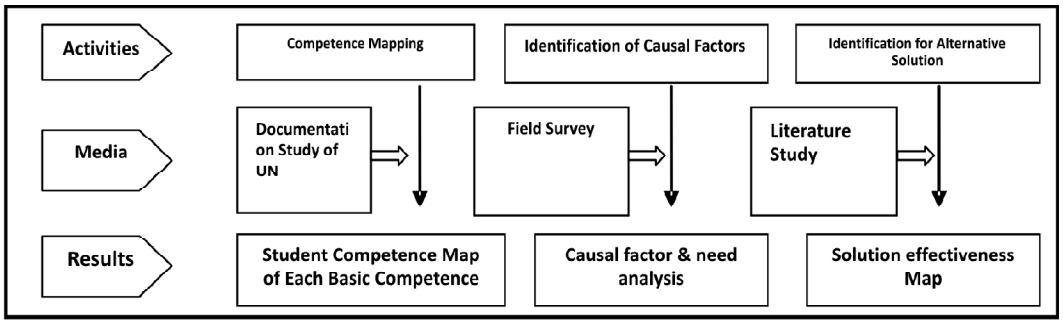

Figure 1: Research Stages Framework

3.4. Data Collection Instrument

In accordance with the survey method used in this study, the instrument used as a data collection tool is the result of examination of the data base in Ministry of Education and Culture 2015, questionnaires and observation sheets.

3.5. Data Analysis

The data analysis technique used in this research was qualitative descriptive. The analysis procedure was initiated from the collection of documentary studies, questionnaires responses, and subsequently the clarification and verification of quantitative analysis in the form of data tabulation, frequency distribution of competency mapping patterns of high school students in each basic competence, causal factors and alternative solutions were conducted. The analysis of Economics Subject Competencies Map of State High School students in Pekanbaru was done through the following activities: (1) analysis of the competence map of UN results through identification of Competency Standards and materials which were difficult to be mastered by the students in each subject; and (2) the analysis of the data profile of competence achievement map of graduates based on field of study, school, and region.

In order to analyze the profile mapping which was carried out by displaying the SKL profile based on schools, identification of the causal factors is through the following activities: 1) the selection of research site and research subjects in accordance with the results of competence map analysis; 2) preparation of research instruments, consisted of questionnaires and interview guidelines; 3) Need Assessment was implemented through the analysis of documents, and fulfillment of questionnaires to teacher respondents; 4) the processing of data by the research team; and 5) Identifying the factors that causal factor based on data processing and analysis results by the research team.

Identification of alternative solutions was carried out through the following activities: 1) Identification of problem solving based on the analysis result of causal factors and competence map analysis; 2) literature review on the development model of high school educational quality improvement in accordance with the identification of causal factors that had been obtained; 3) the preparation of solutions for improving of competence in high school's economics national examination results in Pekanbaru.

4. RESULTS

4.1. Map and Analysis of High Schools' Economic Material Competencies

Based on research data, several problems are obtained related to the basic competencies of High School's Economics Subject in Pekanbaru as shown in Table 2.

The problem of Economics Basic Competency (KD), especially state high schools in Pekanbaru in the academic year of 2014/2015, among other: posting to ledgers, recording closing entry, recording adjusting entry, recording to worksheets, recording in worksheets, determining the function of the state budget, determining to ledgers,

determining problems of modern economics, determining economic growth, determining one type of economic system, determining the sources of foreign exchange, calculating foreign exchange rates, calculating profit/ maximum profits earned, calculating profit/ loss of a service company, calculating the per capita income, explaining the methods to solve the problems of production factors, explaining how

Table2
Table of Mastery of Economics Item Materials State High School National Examination in Pekanbaru in the Academic Year of 2014-2015

No	The Abilities Tested	Public High School																Average
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	OR	Total	
1	Making adjusting entry of trading companies	91,86	88,66	92,48	97,73	96,05	90,78	92,50	93,94	97,22	94,74	92,25	94,59	73,33	98,48	84,21	1.378,82	91,92
2	Posting to ledgers	58,14	55,67	45,86	60,61	44,74	43,26	51,67	66,67	44,44	48,12	42,96	54,59	37,78	56,06	47,37	757,94	50,53
3	Recording to closing entry	59,30	74,23	73,68	58,33	76,97	68,79	68,33	96,97	71,30	73,68	71,13	53,51	62,22	60,61	50,00	1.019,05	67,94
4	Recording adjusting entry	46,51	52,58	41,35	43,18	44,08	39,72	45,83	75,76	37,96	36,09	38,73	37,30	37,78	39,39	36,84	653,10	43,54
5	Recording in worksheets	66,28	67,01	62,41	59,85	63,16	58,16	65,00	51,52	59,26	65,41	60,56	63,78	60,00	60,61	61,84	924,85	61,66
6	Recording to worksheets	40,70	41,24	52,63	29,55	54,61	48,94	36,67	63,64	58,33	34,59	47,18	29,19	26,67	21,21	31,58	616,73	41,12
7	Recording to accounting equation	81,40	82,47	77,44	83,33	86,84	77,30	77,50	100,00	80,56	71,43	76,06	83,24	64,44	78,79	69,74	1.190,54	79,37
8	Determining functions of state budget	33,72	30,93	28,57	34,09	19,74	23,40	28,33	24,24	23,15	23,31	19,72	34,59	31,11	34,85	30,26	420,01	28,00
9	Determining functions of management	88,37	72,16	79,70	71,97	82,24	77,30	78,33	90,91	68,52	78,95	77,46	70,81	80,00	80,30	75,00	1.172,02	78,13
10	Determining special journals	68,60	86,60	77,44	78,79	78,95	71,63	76,67	39,39	80,56	72,18	75,35	79,46	66,67	78,79	69,74	1.100,82	73,39
11	Determining the ledger	76,74	60,82	63,16	70,45	73,68	61,70	65,00	96,97	62,96	66,17	60,56	63,24	51,11	60,61	61,84	995,01	66,33
12	Determining demand/supply curves	83,72	72,16	77,44	71,97	78,29	78,72	75,00	78,79	71,30	76,69	77,46	70,27	66,67	77,27	71,05	1.126,80	75,12
13	Determining modern economic problems	65,12	62,89	56,39	62,88	65,13	59,57	60,83	84,85	61,11	63,91	60,56	65,41	62,22	62,12	65,79	958,78	63,92
14	Determining mechanism of debit and credit	97,67	85,57	96,99	93,94	98,03	94,33	92,50	87,88	98,15	99,25	96,48	95,68	93,33	98,48	89,47	1.417,75	94,52
15	Determining roles of consumers/ producers	86,05	75,26	80,45	80,30	79,61	81,56	77,50	78,79	71,30	78,95	76,76	72,43	77,78	80,30	80,26	1.177,30	78,49
16	Determining economic growth	34,88	35,05	39,85	34,85	38,82	41,84	39,17	27,27	31,48	42,86	41,55	37,84	31,11	39,39	43,42	559,38	37,29
17	Determining one type of economic system	56,98	61,86	60,90	56,82	58,55	58,16	56,67	96,97	62,96	60,90	57,04	61,62	64,44	57,58	48,68	920,13	61,34
18	Determining sources of foreign exchanges	45,35	31,96	51,88	43,18	57,24	48,23	40,83	75,76	37,96	49,62	50,70	45,41	44,44	45,45	32,89	700,90	46,73
19	Determining managerial elements	82,56	67,01	86,47	81,06	96,71	80,85	75,83	100,00	86,11	87,22	86,62	71,89	68,89	78,79	63,16	1.213,17	80,88
20	Calculating available items for sales	93,02	92,78	98,50	90,91	96,71	96,45	94,17	87,88	97,22	96,99	93,66	98,38	82,22	98,48	86,84	1.404,21	93,61
21	Calculating functions of consumption/savings	98,84	98,97	96,24	97,73	98,68	92,91	97,50	96,97	99,07	95,49	89,44	99,46	95,56	100,00	85,53	1.442,39	96,16
22	Calculating coefficients of demand/supply elasticity	88,37	89,69	94,74	92,42	98,68	96,45	85,83	84,85	96,30	96,99	96,48	94,59	86,67	98,48	80,26	1.380,80	92,05
23	Calculating foreign exchange rates	23,26	23,71	32,33	21,97	38,16	32,62	25,00	48,48	29,63	31,58	35,21	18,92	26,67	28,79	27,63	443,96	29,60
24	Calculating maximum profit/loss gained	90,70	61,86	78,95	95,45	75,66	81,56	81,67	3,03	66,67	84,96	77,46	94,05	77,78	95,45	73,68	1.138,93	75,93
25	Calculating profit/loss of a service company	30,23	23,71	24,81	27,27	18,42	21,28	31,67	42,42	22,22	19,55	21,83	32,43	20,00	34,85	23,68	394,37	26,29
26	Calculating Property Taxes	98,84	90,72	93,23	96,97	94,74	94,33	92,50	100,00	100,00	93,98	93,66	96,22	75,56	100,00	89,47	1.410,22	94,01
27	Calculating national income using one of…	97,67	96,91	93,98	97,73	99,34	95,04	96,67	100,00	99,07	94,74	95,77	81,08	93,33	98,48	97,37	1.437,18	95,81
28	Calculating per capita income	51,16	58,76	72,93	59,09	78,95	64,54	61,67	87,88	69,44	66,17	69,72	65,41	68,89	65,15	40,79	980,55	65,37
29	Explaining the method to address fiscal policy	96,51	97,94	97,74	99,24	97,37	97,16	100,00	87,88	89,81	98,50	96,48	97,84	97,78	100,00	96,05	1.450,30	96,69
30	Explaining method to solve production factors	58,14	56,70	58,65	54,55	54,61	54,61	50,00	39,39	61,11	59,40	57,75	60,00	37,78	60,61	48,68	811,98	54,13
31	Explaining method to solve problems in cooperatives	24,42	15,46	24,06	15,91	22,37	24,11	23,33	72,73	13,89	23,31	19,72	20,00	22,22	21,21	25,00	367,74	24,52
32	Explaining method to solve workforce problems	94,19	91,75	93,98	96,97	98,68	92,20	94,17	87,88	95,37	94,74	89,44	95,14	73,33	96,97	81,58	1.376,39	91,76
33	Explaining method to solve problems in entrepreneurship	67,44	63,92	63,16	62,88	75,66	64,54	58,33	93,94	64,81	60,90	59,86	62,16	60,00	59,09	56,58	973,27	64,88
34	Explaining impacts of scarcity	58,14	70,10	63,91	57,58	63,16	58,87	57,50	57,58	59,26	48,87	57,04	51,89	75,56	42,42	50,00	871,88	58,13
35	Explaining impacts occurring to economics	70,93	50,52	48,12	77,27	41,45	48,23	52,50	66,67	54,63	49,62	36,62	75,68	42,22	68,18	46,05	828,69	55,25
36	Explaining the loss of opportunity costs	95,35	96,91	96,24	97,73	98,68	95,74	90,00	100,00	93,52	94,74	95,77	96,76	84,44	98,48	75,00	1.409,36	93,96
37	Explaining the government policy taken to…..	40,70	26,80	38,35	39,39	38,82	39,01	33,33	27,27	29,63	37,59	36,62	38,92	26,67	37,88	35,53	526,51	35,10
38	Explaining capital market	81,40	84,54	99,25	76,52	99,34	90,78	94,17	60,61	94,44	88,72	95,07	78,38	82,22	80,30	90,79	1.296,53	86,44
39	Explaining roles of business entity	39,53	30,93	51,88	37,88	53,29	48,94	37,50	100,00	47,22	46,62	52,11	37,84	42,22	43,94	40,79	710,69	47,38
40	Explaining one of the flows of economic agents	95,35	100,00	97,74	95,45	97,37	98,58	97,50	57,58	97,22	99,25	97,89	96,76	100,00	98,48	96,05	1.425,22	95,01
Total		2758,14	2626,81	2763,88	2703,79	2833,58	2692,19	2659,17	2933,36	2685,16	2706,78	2676,73	2676,76	2471,11	2736,32	2460,49	40.384,27	
Average		68,95	65,67	69,10	67,59	70,84	67,30	66,48	73,33	67,13	67,67	66,92	66,92	61,78	68,41	61,51	67,31	

Source: Processing Results (2015)

to solve the problems in cooperative, explaining how to solve problems in entrepreneurship, explaining the impact of scarcity, explaining the impact occurring to the economy, explaining the government's policy taken to address the problems, and explaining the roles of a business entity. In overall, out of 22 basic competencies which are still troubled with average score of UN in high school economic subject throughout Pekanbaru in the year 2014 / 2015 are less than 67.31.

4.2. Alternative Solutions

Based on these results, it is necessary to find a solution for improving the UN in State High School's Economics Subjects in Pekanbaru in the future. There are several factors thought to be the causes of the poor basic competencies in question. The following are factors, the analysis and solutions that provided.

5. DISCUSSION

1) Management System

Efforts and the attempts made in improving and maintaining the quality of education, especially in high schools in the environment of Pekanbaru Department of Education as reflected in Table 3.Periodically, Education Department keeps evaluating the performance of school principals, conducting tour of duty among schools. For principals considered successful in building their school may be assigned to another school in the underdeveloped school quality development pattern.

Table 3
Aspects of School Quality Coaching in Pekanbaru

No.	*Aspect*	*Condition*
1	Ratio between supervisors and school	Already fulfilled, in accordance with subject groups
2	Monitoring process	Actively monitoring schools
3	Monitoring Results	Fit to the evidence on field
4	Selection of principals	Closed, gradual, with not many competitors selection process
5	The principals' works	Fit with duties set by education office
6	Principals' reports	Routine, and fit with reality in the field
7	Infrastructure Program	No special budget each year for addition of infrastructure, and submitted to command meeting for maximum limit determination
8	Students Parent Donation Program	The determination is given to school meeting, committee by giving maximum limit
9	Scholarship Program	20% - 50% of poor students each school
10	Professionalism Programof Teachers and Principals	There is a training / principals / teachers training but its implementation depends on the conditions, it is not always done each semester
11	School Quality Development Program	The office with principals to make school target development each year, no specific budget and closely monitored
12	School Library	A specially appointed administrator is present

Source: Research Results (2015).

For the principals with poor performance, the Education Office may retransfer them as teachers. The aspect of management at the level of Pekanbaru Education Office has run properly. There are several mutations that have been conducted by the Pekanbaru Education Office, i.e. principal of SMAN 11 is transferred to Principal of SMAN 2, whilst the principal of SMAN 8 is appointed as school supervisor, and Principal of SMAN 9 is appointed as school supervisor.

Table 4
Causal Factors of School Level in Pekanbaru

No	*Standard*	*Causal Factors*
1	Content	a) There is still a lack of ability of teachers to develop syllabus and lesson plans, usually made before the UN through MGMPs, KKM at 75%, hence students below SKM are given remedial / additional tasks and given KKM score (75%)
2	Process	a) The learning process has not been done in an innovative and creative manner
		b) The learning process simply refers to the lesson plan, but implementation is not in accordance with the scenario and more traditionally done
		c) The discussion activities by teachers rarely done as the subject teacher is only one in average
		d) Remedial activities are only during final examination
		e) The tutoring activities are only in twelfth grade, second semester, and students rarely participating in additional tutoring outside of schools.
3	Infrastructure	a) Internet access is only available in one room in multimedia and its use is still limited
		b) Supporting books are sufficient, but the reference books of teachers and students are insufficient
4	Financing	a) There is school improvement program, but specific budget is not present every year for school improvement especially infrastructure
5	Graduate Competencies	a) The students' UN score on average is good (66.52), but the creativity and mastery of ICT is still low.
6	Educators and TP	a) nearly 90% of teachers fit to educational background, but those already certified are less than 85%

Source: Research Results (2015)

2) Teacher Competencies

Although not all, most of high school teachers in Pekanbaru have obtained teaching certificates. From this aspect, the teachers in Pekanbaru have sufficient competence in the teaching and learning process. Various training is also frequently done, either programmatically or through MGMPs. Several lecturers in Economics Education Study Program have become Experts or Advisors, both in Economics MGMPs and Accounting MGMPs at Pekanbaru. However, there are still plenty of difficulties in the implementation of the teachers teaching model which is creative and innovative in the classroom. This difficulty is related to the time allocation of each subject that is considered too short whilst the subject materials are vast.

Table 5
Causal Factors of the Subject

No	*Standard*	*Causal Factors*
1	Social Science-Economics	a) Teachers have trouble in posting to ledgers, recording adjusting entries, recording to worksheets, determining management functions, recording to management worksheets, determining to ledgers, determining the problems of modern economics, Determining the one type of economic growth, determining one type of economic system, determining foreign exchange resources, calculating profit/ loss of a services company, calculating per capita income, Explaining how to solve the factors of production, Explaining how to resolve problems in cooperative, Explaining how to resolve the problem in entrepreneurship, Explaining the impact of scarcity, Explaining the impact happens to the economy, Explaining policy government taken to solve the problem, and Explaining the roles of enterprises. It can be seen from the lowest average score of high school national examination (67.31) in 2014/ 2015. b) Understanding and ability to implement innovative and contextual learning, as well as materials deepening through ICT is still inadequate due to limited facilities. Instructional media such as market miniature is not present, less internet access, supporting books and additional references are insufficient.
2	Social Science-Economics	a) Content Standard KD and SKL information is already accessible, for example through fellow teachers and MGMPs. b) Processing Standards Understanding of the innovative learning and constructivist is insufficient, the use of instructional media especially ICT is rarely implemented, and the material deepening through ICT is good. c) Competency Standards Graduates Students generally find difficulties to understand employment condition and the impact on economic development, state and local budgets, open economy, as well as recognizing capital markets, understanding management, business entities in the national economy, cooperative management, and entrepreneurship, and understanding the preparation of services company's accounting cycle.

Source: Research Results (2015).

Objectives and orientation of teachers learning who are included in MGMPs, especially for the twelfth grade students are the preparation the students' ability to complete national examination items, based on the items that have been tested in the previous year. There ishandful of materials that should be delivered in the second semester, whereas the time available is more frequently used for national examination trial, so hence the lesson materials are not delivered in the classroom.

3) Infrastructures

School facilities and infrastructure include; classrooms for student learning are generally in standard, in terms of room size, ventilation, lighting and noise. Both teachers and students are comfortable with the classroom atmosphere today. So as to

the school library, it is deemed to support the learning and teaching process as well as having considerable role to become a source of information and learning resources, and Pekanbaru also has a National- Class Library (PuswilSoeman HS), where high school students also use them as learning tools.

In order to support the learning process at each state high school in Pekanbaru, there are some things that need to be explained, including IT-based learning which is first easily accessible, but along with a reduction in budgetary by Pekanbaru local government, the bandwidth available is also affected, hence it will be difficult to implement as the internet access is very limited. Equipment such as general LCD projector for presentation is owned by school with several computers but still limited for few classes only. Presentations media are often hampered due to lack of electricity supply to schools, in addition to frequent blackouts from National electricity Company. This condition greatly affects the teachers' desire to develop the creativity in making the learning media, but the teachers still give motivation to the students to utilize IT through the existing facilities, such as mobile phone (HP).

4) Community Culture

Pekanbaru community highly concern education field are very concerned. It can be seen in the early academic year, almost all parents desire their children to be accepted in state schools in any way; including intensively supervise the learning of their children, for example, attending tutoring with the expectation their children can be accepted at state school or favorite school according to their choice. In general, students' motivation in Pekanbaru is considerably high. The learning motivation is to improve the learning outcomes to be better than ever.

5) Alternative Solutions

From the discussion above, several measures that can be performed by the school, especially in universities with economics background are:

a) Mentoring and assistance of curriculum preparation having the synergy among various subjects, especially prerequisite subjects, starting from class X, XI, and XII, in particular economic materials have been carried out in the Economic MGMPs at Pekanbaru.

b) The assistance activities are done in cooperation with teachers of various subjects and lecturers mastering the curriculum to reorganize interrelated materials among the subjects.

c) Mentoring and coaching in the development of innovative, contextual, learning tools and the media, particularly ICT as well as the implementation and evaluation.

d) The activities of the teachers in preparing learning instruments are guided by lecturers in an activity workshop. The making of the media or techniques in

searching learning media on the internet either in the form of photos, animation or videos.

e) Mentoring and coaching of MGMPs activities quality improvement. The lecturers must involve themselves in MGMPs for the teachers in order to build communication and exchange of information developing in schools and universities.

f) Material refreshment conveyed by teachers with assistance, (lecturers of Economics study), guidance in the development of market miniature, training and comprehension deepening of accounting subject based on the dimensions of knowledge, as well as improvement of the quality of MGMPs activities.

6. CONCLUSIONS

1. The competence mastery map for high school students in each basic competency or discussion in the subjects tested in the national examination in Pekanbaru generally still have weaknesses, particularly on the topic within the realms demanding comprehension, application, analysis, synthesis and evaluation.
2. The factors that may hamper the achievement of basic competencies mastery or discussion of the subject being tested in the national examination is generally originated from the input and process aspects. On the input factor, it is dominantly influenced by factors coming from the students, the curriculum implementation, learning infrastructure, especially laboratories and libraries, as well as the culture or learning culture. Meanwhile, from process aspects, it is more dominantly influenced by how the teachers implement their teaching and learning activities as well as instructional media supports.
3. The alternative solution model for improving the quality of high school education in Pekanbaru can be categorized into four (4) models. a) school assistance to develop the culture of learning society; b) coaching in improving the learning quality through developing MGMPs networks; c) teacher coaching in the review and analysis of daily tests items, semester tests, and UN for reflection and feedback for teaching and learning activities between the teachers and students through increased formative assessment effectiveness, and d) conducting assessment study on costs bearers for school operations for the parents, communities, schools and government to determine the ideal composition of cost bearers and unit price of educational costs.

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