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Compliance of Higher Education National Standard in Field of Learning: Case Study on Postgraduate School Universitas Negeri Medan

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Abstract—**The National Standard for Higher Education (SNPT) is a minimum criterion that must be carried out by the operator of higher education to carry out learning, research and community service. This study is ex post de facto research which aims to describe the fulfillment of national standards of higher education, especially the standards of learning and research as the implementation of education in the Postgraduate of Medan State University (Unimed). The subjects of this research are managers, lecturers, students, and graduated student of the Unimed Postgraduate School. The research instruments are questionnaire, and observation sheet. From the results, it can be found that the implementation of education at the Unimed Postgraduate School has fulfilled 8 (eight) learning standards. The development policies and programs needed to improve the quality of learning includes: (a) increasing the capacity of lecturers to produce innovative works (b) increasing the capacity of study program on quality assurance of learning and sustainably research (c) improving the quality of academic services and administration based on IT/ICT uses; and (d) improving the academic atmosphere and pedagogical culture through scientific seminars, book operations.**

Keywords—Higher Education Standard, Postgraduate, learning management)

I. INTRODUCTION

According to Slee [1-3], standard may be defined conceptually as a formulation of predetermined parameter of performances or values, which are expected to be achieved. Meanwhile, education may be defined as an activity or a process of developing or improving particular competence so that the educational goal may be achieved [4-6]. Based on these definitions, educational standard may be defined as a formulation of problem about educational values in instructional concept which are determined based on predetermined parameters in order to develop and improve the existing educational system [7]. In Indonesia, educational standard is applied and used to many educational service provider, especially higher education [8-11], that refers to Peraturan Menteri Riset dan Teknologi Pendidikan Tinggi

Nomor 44 tahun 2015 (the Act of Higher Educational Research and Technology number 44 of year 2015) about National Standard of Higher Education (Standar Nasional Pendidikan Tinggi - SNPT). SNPT is a minimal criteria of higher education system which covers all jurisdictions of the Republic of Indonesia [13]. In other words, each educational institution is required to fulfill this minimal criteria in order to achieve the educational equity purpose in the jurisdictions of the Republic of Indonesia. Further, this National Educational Standard will become a foundation in planning, implementing and monitoring educational practices in order to actualize a quality national education [14-16]. In this case, the government will do evaluation, accreditation and certification which will be done to determine the properness of an educational institution that embraces a national standard.

Postgraduate School of Universitas Negeri Medan (Unimed) is one of Indonesian important assets, which has grown and developed on the trust and priceless investment of Indonesian people. Developing Indonesian human resources who own character, culture, and adaptive to the development of sciences, technology and arts is the aspiration and responsibility of Unimed as one of higher educations in North Sumatera Province [14]. Challenges faced by the Postgraduate Programme of Unimed in this era of knowledge are truly complex and risky. Hence, Postgraduate Programme of Unimed needs a management system and a quality standard that are capable of synergizing all available components, resources, and potentials in order to actualize the vision, carry out the mission, and achieving the goal of Postgraduate Programme of Unimed.

Postgraduate School of Unimed has a 'great' but 'limited' resources. This great resources may refer to the integration of all human resources expertise, integrated and sustainable planning, realiable programme, effectiveness and efficiency of utilization of facilities, and integrated information system [15-16]. Limited resources may refer to the fact that the Postgraduate Programme of Unimed needs an effective performance of leadership in managing available

resources. Overall Unimed needs the synergy of all resources in order to actualize its vision, carry out its mission and achieve its goal [17-19].

Improvement of educational quality is greatly determined by teachers or lecturers condition [20]. Republic of Indonesian Act Number 12 of year 2012 about higher education said that lecturers are professional educators and scientists whose primary task is transforming, developing, and disseminating science and technology through education, research, and community service. Lecturer as a scientist has a task to develop a branch of science and/or technology through reasoning and scientific research along with its dissemination [16-18].

In order to actualize their roles and functions, lecturers have to have minimal academic qualification and professional educator certificate in accordance with their level of teaching authority. This mandate clearly was written in article 46 paragraph 2 of Republic of Indonesian Act Number 14 of the year 2005 [19] about teacher and lecturer, that lecturer has to have minimum academic qualification: (a) graduated from magister programme for diploma or graduate level; and (b) graduate from doctoral programme for postgraduate level [21-23].

A. National Standard for Education and Instruction

National Standard for Education and Instruction consists of (a) graduates' competencies standard; (b). Instructional content standard; (c) instructional process standard; (d). Instructional assesment standard; (e). Lecturer and educator standard; (f). Instructional facilities and infrastructures standard; (g). Instructional management standard; and (h). Instructional financing standard.

Each of those standards may be described as follow:

1) *graduates' competencies standard*
Graduates' competencies standard is a minimum criteria of graduates' qualification that covers attitude, knowledge, and skill, which is stated in the formulation of learning outcomes. Graduates' competencies standard is used as the main reference for developing other standards. The formulation of these learning outcomes should refer to:

1. the description of learning outcomes described in KKNI (KerangkaKualifikasiNasional Indonesia = Indonesian National Qualification Framework); and

2. equality to the qualification level described in KKNI.

2) *Instructional content standard*
Instructional content standard is a minimum criteria of the deepness and broadness of learning material. The deepness and broadness of this content refer to the formulation of learning outcome. the deepness and broadness of learning material in a professional, specialist, magistrate, applied magistrate, doctoral, and applied doctoral programme should utilize the result from research funding and community service.

3) *Instructional process standard*
Instructional process standard is a minimum criteria for instructional performance in a study programme study in

order to achieve the graduates learning outcomes formula.

4) *Instructional assessment standard*
Instructional assessment standard is a minimum criteria about students' learning process and outcome in order to fulfill the graduates learning outcomes.

5) *Lecturer and educator standard*
Lecturer and educator standard is a minimum criteria about qualification and competencies of lecturers and educators to perform an educational practice to fulfill the graduates learning outcomes.

6) *Instructional facilities and infrastructures standard*
Instructional facilities and infrastructures standard are minimum criteria about necessary facilities and infrastructures based on instructional content and process in order to fulfill the graduates learning outcomes.

7) *Instructional management standard*
Instructional management standard is a minimum criteria about planning, implementing, controlling, monitoring and evaluating, along with reporting instructional activity in study program level.

8) *Instructional financing standard*
Instructional financing standard is a minimum criteria about component and amount of funds for investment and operational cost necessary for the fulfillment of graduates learning outcome.

II. DISCUSSION

Presidential Decree number 8 of year 2012 about KKNI (Indonesian National Qualification Framework) provide the description of competencies for each educational level in Indonesia [19]. The description of competencies for level 8 (magister) and level 9 (Doctor) are presented in Table-1

TABLE I.   DESCRIPTION OF KKNI QUALIFICATION LEVEL FOR POSTGRADUATE PROGRAMME

Level of KKNI	Description of competencies
Level 8 (Magister)	Competent in developing science, technology and or arts in his/her scientific field or professional practice through research, thus generate an innovative and proven work.
	Competent in solving problems of science, technology and or arts in his/her scientific field through inter- or multidiscipline approach.
	Competent in managing researches and developments that are useful for community and science, and also able to get national or international recognition.
Level 9 (Doctor)	Competent in developing a new science, technology and or arts in his/her scientific field or professional practice through research, thus generate innovative and proven work.
	Competent in solving problem of science, technology and or arts in his/her scientific field through inter- or multi- or trans-discipline approach.
	Competent in managing researches and developments that are useful for science and the benefit of mankind, and also able to get national or international recognition.

By analyzing the qualification of magistrate and doctoral level as shown by table-1 graduates competencies and profile may be elaborated into learning outcomes in affective, cognitive and psychomotor domain [25]. Ministerial Order of Research and Technology and Higher Education Minister Number 44 of year 2015 about National Standard of Higher Education has provided the description of competencies for each educational level in Indonesia. The description of competencies for level 8 (magister) and level 9 (Doctor) each are shown by Table-2.

TABLE II.   GENERAL COMPETENCIES FORMULA FOR MASTER PROGRAMME

MASTER	DOCTOR
Graduates of Master Programme should have general competencies as follow:	Graduates of Doctoral Programme should have general skill as follow:
Competent in developing logical, critical, systematic, and creative thinking through scientific research, creating artworks or designs in science and technology field that concern about and implement humanist values in accordance with his/her field of expertise	Competent in inventing or developing theory/concept/new scientific idea, contributing to the development and implementation of science and/or technology that concern about and implement humanist value in his/her field of expertise, by doing research based on scientific methodology, logical, critical, systematic, and creative thinking;
Competent in doing academic validation or study in accordance to his/her field of expertise in solving a community or industrial relevant problem that through the development of his/her knowledge or skills;	Competent in composing interdisciplinary, multidisciplinary transdisciplinary research, including theoretical and/or experimental study in his/her field of expertise, technology, arts and innovation in form of a dissertation, and article published in a reputable international journal;
Competent in composing idea, though, and scientific argument responsibly and based on academic ethics, and also disseminating them through media to the academic community and the wider community;	Competent in choosing a proper research that appropriate, up to date, advanced, and providing benefits to humanity through interdisciplinary, multidisciplinary, or transdisciplinary approach, in order to develop and/or produce problem-solving in science, technology, art field or community based on a study about internal or external resources availability;
Competent in identifying scientific field that becomes the object of his/her research and put it into a research map that is developed through an interdisciplinary or multidisciplinary approach;	Competent in developing research roadmap through interdisciplinary, multidisciplinary, or transdisciplinary approach, based on a study about the main objective of the research and its constellation on broader goals;
Competent in making a decision in the context of solving a problem in developing science and technology that concern about and implement humanist value based on analytical study or experimental on information and data;	Competent in composing argument and scientific solution, technology or arts based on critical view on facts, concept, principle, or theory that can be accounted for scientifically and academically ethically, and communicate it through mass media or directly to the public;
Competent in managing, developing and maintaining a working network with colleague or peer in an institution	Competent in showing academicals leadership in managing, developing and cultivating resources and organization belong to his/her responsibility;
Competent in improving the individual learning capacity; and	Competent in managing, including saving, auditing, securing, and recovering data and information from research that belong to his/her responsibility
Competent in documenting, saving, securing, and recovering data of a	Competent in developing and maintaining a collegial relationship in

MASTER	DOCTOR
study in order to guarantee the validity and preventing plagiarism.	one own environment or through cooperation network with researchers community beyond the institution.

By analyzing the general skills of those master and doctoral program graduates, the graduates' competencies of those two level can be formulated in the learning outcomes that are derived from scientific vision, scientific fields of study programs, fields of work, and analysis of stakeholder needs. Attitudes, knowledge, and skills possessed by graduates are built through a set of learning outcomes [25]. Graduates of the master programme are able to master, apply, develop their knowledge so that they can produce innovative works that are useful for professional practice, meet the needs and welfare of the community and are published in national or international journals. Graduates of the doctoral program profoundly master their fields of expertise and become true problem solvers, thinking critically, creative, participating in professional association membership, capable of managing and leading a research, and having publications in reputable international journals.

The comparison of graduates competencies at the global, national, work field, and postgraduate of level are presented in the following Table-3.

TABLE III.   GRADUATES' COMPETENCIES COMPARISON ON DIFFERENT LEVEL

IBE UNESCO	21st century competencies	Work field	KKNI and SNPT (Indonesian national level)	Postgraduate School of Unimed
learning to know	Literacy (basic, information, network, and global)	**Knowledge and skill mastery**: applying, analyzing, evaluating and creating in accordance to one's field of expertise mastering IT/ICT managed ambiguity communicating in 2nd language	Competent in mastering, developing science, technology, and/or new arts in one's field of expertise or professional practice through research, which result in creative, original and proven works	Mastering knowledge through the support of 6 types of tasks (Routine tasks, Critical Book Report, Critical Journal Report, Mini Research, Modification of Idea, and Project) in each group of subject matter (fulfilling 42 or up to 52 credits including thesis and dissertation)
learning to do	Critical Thinker in solving problem	**Attitude :** possessing work ethics leadership team working	Problem solving based on logical, critical, creative, and intellectual	Able to apply various concepts and scientific

IBE UNESCO	21st century competencies	Work field	*KKNI and SNPT (Indonesian national level)*	Postgraduate School of *Unimed*
		can work cross culturally	thinking through inter, multi, and transdisciplinary approaches.	principles in problem solving proactively, creatively and wisely.
learning to be	Communicator (understanding and communicating ideas)	**Recognizing work nature related to**: understanding the meaning of globalization Flexible on works choices Entrepreneurship	Mastery of IT / ICT in storing, auditing, securing, and rediscovering data and information on research results under one's responsibility	Able to explore values and internalize values in applying and developing science and research.
learning to live together	Collaborator (working with others)		Able to develop and maintain collegial relations in their own environment or through a network of collaboration with research communities beyond the institution	Able to collaborate in scientific associations with mastery of international languages (English) in presenting ideas through scientific seminars and publications in national journals and reputable international journals
	Creator (Producing high quality work)		Research developers and leaders in order to produce innovative works with inter, multi and scientific transdisciplinary approaches	Able to produce innovative research-based products with inter, multi and scientific transdisciplinary approaches

A. Instructional Content Standard

The Postgraduate Programme of Unimed has made several improvements to the curriculum in the last five years, ranging from the National Curriculum to the Competency Based Curriculum in 2005, then renewed in 2008 with the name of the KBK block system curriculum. Furthermore, the development of the Indonesian National Qualifications Framework (KKNI) based curriculum is integrated with the Learning Revolution and Soft Skill. The curriculum change aims to improve the quality of Postgraduate Programme graduates. Changes in the National Curriculum to the Competency-Based Curriculum based on changes in the educational direction that was initially outcomes based were transferred to competence based curriculum so that changes took place not only in terms of concepts but overall competence, content, learning process, assessment, and means of learning [25].

Furthermore, after three years, in 2008 KBK was updated with the name of the Block Curriculum, the basic and advanced courses in Block based on time and material, by replacing the learning approach using Learning Revolution and incorporating soft skills in it, the learning strategy was built based on Student Centered principle. The learning principles in the block system curriculum are applied to the KKNI-based curriculum and to be applied in all study programs in the Postgraduate Programme of Unimed in the 2016/2017 academic year.

In order to improve the quality of its graduates, the Postgraduate Programme develops curriculum in each study program referring to Presidential Decree No. 08 of 2010 concerning the Indonesian National Qualification Framework (Kerangka Kualifikasi Nasional Indonesia - KKNI) and Ministerial Order of Education and Cultural Ministry No. 73 of 2012 concerning the implementation of KKNI which is a reference in the preparation of learning outcomes of graduates from every level of education nationally [26]. Postgraduate Programme of Unimed also referred to Ministerial Order of Education and Research and Technology Higher Education Ministry Number 44 of 2015 concerning National Standards of Higher Education which became a reference in the implementation of the process of education, research, and community service.

The Master Program Management Unit facilitates curriculum development by providing a budget for PO DIPA (according to Rector's Approval Letter Number 000487 / UN33 / KU / 2016 concerning DaftarIsianPelaksanaanAnggaran – DIPA (=Budget Implementation Registration List) of Postgraduate Programme of Unimed) for workshop activities on KKNI-Based Curriculum Development at Postgraduate Programme management level and followed up by activities workshop on developing curriculum tools by study programs. From the results of the curriculum development workshops produced a KKNI-based curriculum implementation guidebook, 5 (five) curriculum support based on KKNI and SNPT, namely (1) academic textbooks, (2) content books and curriculum structure, (3) learning process books and authentic assessment, (4) supporting system books (Semester Learning Plan and Lecture Contracts, Student Worksheets and authentic assessment instruments / rubrics, (5) study program quality assurance books containing quality manuals, Operational Standards Procedures, Work Instruction, and monitoring and evaluation instruments [27]. Besides that, Postgraduate Programme of Unimed managers also provide facilities and infrastructure to support lectures, such as materials and tools in the laboratory for the practicum of physics, chemistry, and biology, focusing on the learning process in classes, books and journals in the Postgraduate Programme library, Unimed's digital library to obtain various IT / ICT-based learning resources, reading rooms and thesis / dissertation guidance for students and lecturers, language laboratories for LTBI (Applied English Linguistics)study programs and Indonesian Language Study Programs.

The curriculum structure of the Study Program in the Postgraduate Program ofUnimedis presented in the Table-4.

TABLE IV. THE DISTRIBUTION OF POSTGRADUATE PROGRAM OF UNIMED STUDY PROGRAM CURRICULUM GROUPS

Subject Group	Master Programme Curriculum			Doctoral Programme Curriculum		
	Study Progra mme	*Postg radu ate*	*Univ ersity*	*Study Progra mme*	*Postg radu ate*	*Univ ersity*
Personality Development (MPK)	60% - 80% (40 credits)	10% – 15% (8 credi ts)	5% - 10% (4 credi ts)	40% - 60% (22 credits)	20% – 35% (14 credi ts)	5% - 10% (4 credi ts)
Knowledge and Skills (MKK)						
Work Skills (MKB)						
Working Behavior (MPB)						
Community Life (MBB)						

Description:

Study Programme: Science and Skills Courses

Postgraduate : Philosophy and Thesis / Dissertation

University   : English, Leadership 1 dan 2

Scientific social competence is built through the achievement of group learning courses in scientific behaviour (philosophy and leadership). Professional competence is built through the achievement of group learning in knowledge and skill courses (MKK). Pedagogic competence is built through the achievement of group learning work skills courses (MKB).
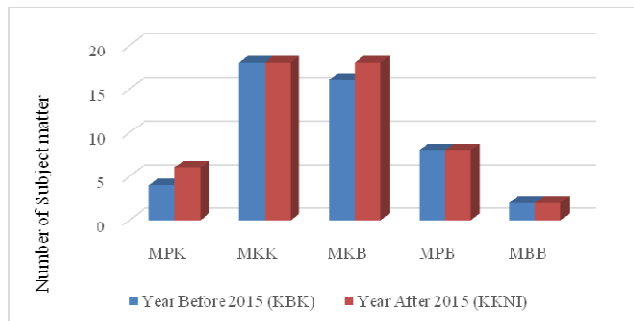

Fig. 1. Distribution of Magister subjects group on Postgraduate School Unimed

Graduates of master and doctoral programs are able to master information technology and find innovative works, prototypes, innovative learning models, learning software, renewal of theories based on thesis research and dissertation through the learning achievement of groups of work behavior courses (MPB). Graduates of the master program are also able to master English, participate in scientific association membership, be able to present research results at national and international seminars, and must have research publications in accredited national journals and reputable international journals.

B. Instructional Process Standards

The instructional process in each study program in the Postgraduate programme ofUnimedfollows the academic calendar provided by the Vice Chancellor for academic and student affairs and the Deputy Director for academic and student affairs. The number of effective weeks in one semester is 16 weeks, so there are 16 lessons in one semester.

The learning system is built based on planning that is relevant to the goals, learning domain and hierarchy. Learning is carried out using a variety of challenging strategies and techniques, encouraging students to think critically, explore, create and experiment by utilizing various learning resources (textbook, national/ international journal, field (school, business, and industry (DUDI), and relevant departments). The implementation of learning has a mechanism to monitor, review and periodically improve lecture activities (the presence of lecturers and students), preparation of lecture materials, and learning outcomes assessment.
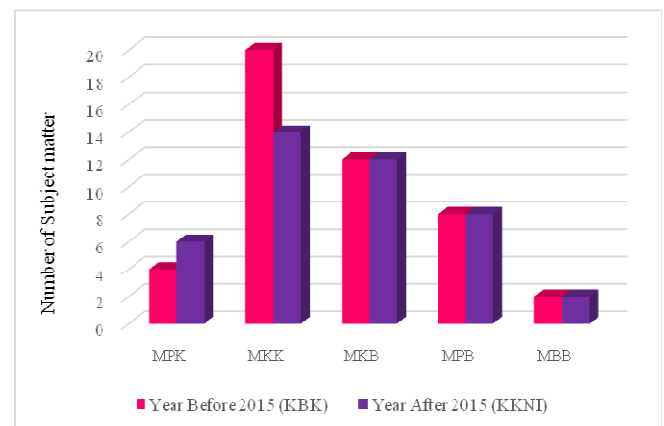

Fig. 2. Distribution of Doctoral subjects group on Postgraduate School Unimed

The learning process in Postgraduate programme ofUnimed refers to the curriculum implementation guidelines based on KKNI, Book 3 and Book 4 which are available in each study program. Book 3 contains authentic learning and assessment processes and Book 4 contains lecture support systems, such as Semester Learning Plans, Lecture Contracts, and Authentic Assessment Instruments / Rubrics. In the learning process, lecturers apply various learning models (Problem Based Learning model, Project Based Learning, Group Investigation, Discovery Learning, etc.) that center on active activities of students by giving 6 types of tasks (Routine Tasks, Critical Book Review, Critical Journal / Research Review, Mini Research, Modification of Idea and Project Tasks) in each subject. Various authentic assessment instruments and rubrics were developed to assess student learning outcomes in each subject.

1) Student attendance limit

For each subject, students must attend at least 75% of the required 16 lessons. This means that students must attend lectures at least six times in the first half of the semester and six times in the second half of the semester, including if there are exams in class. Students whose attendance is less than 75% lessons have their right to take the examinations or evaluations that held by the related lecturer, to be cancelled. Student attendance evidence for each lecture is documented in each study program.

2) Evidence of Student and Lecturer Attendance

a. Study program recapitulates the attendance of students and lecturers every month. The student attendance is given to lecturers and lecturer attendance is given to vice director.

b. Study program prepares attendance lists for students and lecturers for each subject and class,

c. Students and lecturers sign the attendance lists for each lesson,

d. The lecturer checks the attendance of students on each lesson and signs it,

e. The attendance list of students and lecturers is returned to the Study Program on the same day or no later than the next lecture day,

f. The study program recapitulates the attendance of students and lecturers every month. Recapitulation of student attendance is given to lecturers. Recapitulation of lecturer attendance is given to Vice Director I and Vice Director II.

TABLE V. THE SUMMARY OF THE LECTURERS' QUANTITY, STUDENTS AND RATIOS OF BOTH FOR EACH STUDY PROGRAM AT POSTGRADUATE SCHOOL OF UNIMED

No	Study Program	Students	Lecturer	Ratio (S/L)
1	Applied Linguistics of English (LTBI)	69	14	4,93
2	Education Technology (TP)	32	16	2,00
3	Administration Education (AP)	20	29	0,69
4	Chemistry Education (PK)	28	18	1,56
5	Social Anthropology (AS)	12	11	1,09
6	Economics (IE)	15	11	1,36
7	Mathematics Education (PM)	72	29	2,48
8	Primary Education (PD)	67	47	1,43
9	Biology Education (PB)	28	14	2,00
10	Physics Education (PF)	39	18	2,17
11	Indonesian Language Education (PBSI)	47	20	2,35
12	Sports Education (PO)	23	13	1,77
13	Sports Science (IK)	10	13	0,77
14	Accounting (Ak)	5	8	0,63
15	Economic Education (PE)	15	10	1,50
16	France Language Education	0	5	0,00
17	S3 Management of Education (S3MP)	14	17	0,82
18	S3 Chemistry Education (S3 PK)	3	17	0,18
19	S3 Education Technology (S3TP)	10	12	0,83
20	S3 Applied Linguistic of English (S3LTBI)	12	8	1,50
21	S3 Primary Education (S3PD)	6	14	0,43

a) Lecture Rules

1. Student attendance of at least 75% of 16 lessons (16 effective weeks)

2. Students who are late more than 15 minutes are not allowed to attend the lectures;

3. During the lecture, students are not allowed to activate their cell phones;

4. Students must sign a lecture contract with the lecturer of the subject.

b) Lecture Venue

Lectures are held in the old Postgraduate building which includes 33 classrooms and the new building covering 25 classrooms. Practicum activities are carried out in the laboratory (Biology, Chemistry, Physics Faculty of Mathematics and Natural Sciences, Language, Computers) and other places according to the needs of the course (eg, field lectures). The implementation of lectures or seminars at recreational sites, hotels, or other places that are not intended for lectures is not justified.
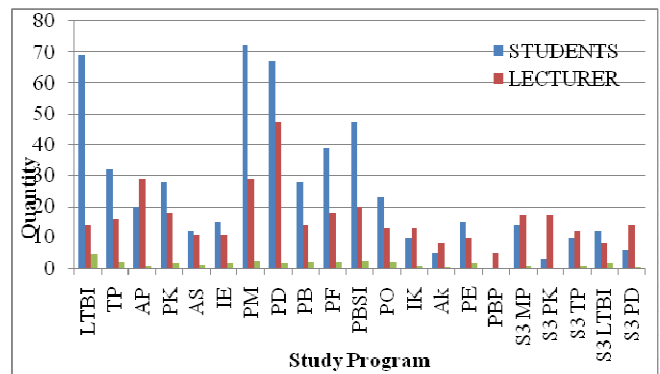

Fig. 3. The ratio of students with lecturers in Postgraduate School of Unimed

3) The Lecturers' Attendance

a. The implementation of lectures should not be delayed, except for public holidays or postgraduate activities which must involve lecturers and/ or students

b. If a lecturer is unable to attend to carry out lectures, the partner lecturer from the lecturers' team must replace the lecture

c. If none of the lecturers from one subject conducts lectures, the subject lecturer must inform the Study Program the day before and the Study Program should take over the implementation of the lecture.

d. If the Study Program does not take over the vacuum lectures, the implementation of lectures is taken over by the Vice Director of Academic Affairs

e. If the lecturer attendance is not full, the subject lecturer is still responsible for the achievement of the curriculum

f. The absence of lecturers in carrying out lectures means that the honorarium for the relevant lecturer is transferred to a substitute lecturer, Study Program or Vice Director for Academic Affairs.

C. Assessment Standards

The evaluation of learning outcomes aims to measure the success of students in the achievement of the competencies that have been set. For this purpose, various types of evaluation are carried out.

Evaluation for one subject includes: Formative score (NF) which can consist of 4 NFs. NF may come from routine assignments, critical book reviews, critical research/ review journals, mini research, ideas modification, and projects that are reported in the form of individual papers or group papers, practical reports or fieldwork reports, or midterm or final exams semester.

The final score in related semester is the sum of Mid Semester Examination score, Assignments and the Final Test score.NF1 is the score of 3 (three) first assignments, NF2 is the score of mid-semester test, NF3 is the score of 3 (three) other assignments, and NF4 is the final test score. The calculation is formulated as follow [21]:

$$\text{Final Score (SA)} = 0.1\ F1 + 0.1\ F2 + 0.15\ F3 + 0.65\ F4$$

$$\text{or}\ \frac{NF1 + NF2 + NF3 + NF4}{4}$$

The criteria used are referring to the following score interval

Score A, if $90 \leq SA \leq 100$

Score B, if $80 \leq SA \leq 89$

Score C, if $70 \leq SA \leq 79$

Score E, if $0 \leq SA \leq 69$ (failed)

D. Lecturer and Educational Staf Standards

In the implementation of learning, each study program assigns lecturers according to their expertise. The description of the ratio of lecturers with students can be seen in Table-5.

TABLE VI. NUMBER OF LECTURER IN POSTGRADUATE SCHOOL OF UNIMED BASED ON ACADEMIC POSITION

| No.	Study Program	Asst. Prof.	Assoc. Prof	Profes sor
1.	Applied Linguistics of English (M.Sc&P.hD)-LTBI	3	3	6
2.	Education Technology (M.Sc&P.hD)-TP	1	3	2
3.	Administration (MSc)&Education Management (PhD)-	0	6	1
4.	Chemistry Education (MSc & PhD)	0	3	13
5.	Social Anthropology	0	7	3
6.	Economics	2	11	5
7.	Mathematics Education	3	17	10
8.	Biology Education	0	4	7
9.	Primary Education (MSc &PhD)	0	14	2
10.	Physics Education	2	14	4
11.	Indonesian Language Education	2	11	1
12.	Sport Education and Sport Science	4	11	4
13	Economic Education	0	10	0
14	Accounting	0	9	0
Total		**13**	**114**	**46**
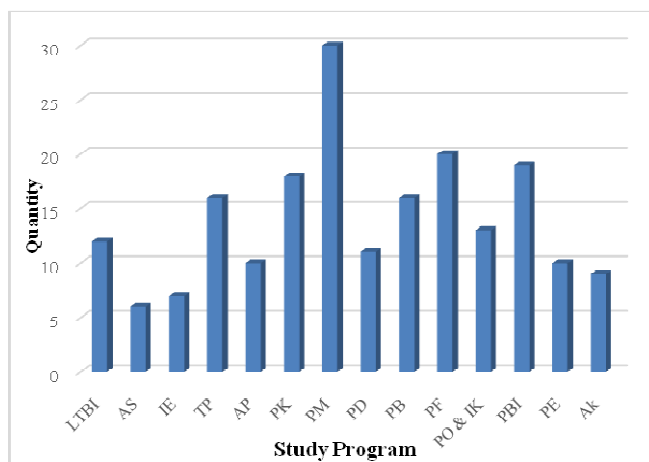
Fig. 4. Distribution of lecturer quantity on Postgraduate School of Unimed

III. CONCLUSIONS

Analysis related to the compliance of national standards of higher education (SNPT) at the Postgraduate School (PPs)of Universitas Negeri Medan (Unimed) has been carried out. From the analysis can be known that the enforcement of education at the PPs Unimed has fulfilled 8 (eight) learning standards and 8 (eight) research standards. Various policies and programs have been developed to improve the quality of learning and research include: (a) increases the capacity of lecturers to produce of innovative works, ISBN books, publication of research results in reputable international journals, research joints for multi and transdisciplinary. (b) Increases the study program and PPs capacities for quality assurance of learning and research by sustainable. Academic and administrative services based on IT/ICTneed to be improved to accelerate graduates of postgraduate Unimed. Research funds for lecturers who are oriented to appropriate products and technologies need to be improved so that they can have an impact on improving the welfare of the community.

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