

# IMPACT AND ASSESSMENT OF EDUCATION QUALITY ASSURANCE SYSTEM OF THE FACULTY OF SCIENCE AND TECHNOLOGY, SUAN SUNANDHA RAJABHAT UNIVERSITY

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## ABSTRACT

This research was studied the education quality assurance (QA) system and evaluated the impact and assessment of the education, performance result of the Faculty of Science and Technology, Suan Sunandha Rajabhat University (Sci-SSRU). The purpose of this study was comparatively the qualitative data and quantitative data in various parameters within the faculty leading to analyze trends in the results performance of the educational management quality. The assessment and impact results were used to benefit the development and improvement of the QA component of the faculty. By these study audits results were using the education quality internal of faculty record data within 4 years from the academic year 2014 to 2017. The evaluation was analyzed following 5 major elements and 13 indicators based on the criteria of QA following to the Office of Higher Education Commission, Thailand (national standard 2014). Then analyzing the data were performed using the general statistics for analysis, such as mean, standard deviation, and variances of SPSS program.

The parameter 2 of academic research quality were showed highest full scores 100% (5 from 5) of 4 years continuous from year 2014 to 2017. Next, the parameter 5 which was the performance of official educational management and parameter 3 was the academic services program had an average score 85% (4.25/5, SD 0.87, 0.96). The parameter 4, preserving arts and culture obtained 75% (3.75/5, 0.96). The last parameter 1 the production of graduate student grinned an average 67.6% (3.38/5, SD 0.61).

These data were performed action planning improvement the parameter 4 and to continue maintain the other parameters, standards of QA of the Sci-SSRU on the future.

Keyword : parameter, quality assurance, Suan Sunandha, education, assessment

## INTRODUCTION

The National Education Act of 1999 (2<sup>nd</sup> Amendment in 2002) had rationale aims for education management and quality standards setting. The details were described in section 6 of the Standards and Education QA. This assurance was composed with both an internal and external QA system which were supported the mechanism of standards Thai higher education institutions. The system of internal QA had developed by the Office of the Higher Education Commission since 2007 and to be continued evaluate in various institutions on recently.

The internal QA system developed by the Office of the Higher Education Commission and to be applied in 2007, which was the first system used by all higher education institutions to assess their operational quality every academic year. Each of higher education institution was allowed to add assessment components reflecting institutional identity. In the 1<sup>st</sup> round, operational assessment indicators consisted of input, process, and output or outcome indicators. There were covered quality components in the ministerial regulation regarding systems, criteria, and procedures for internal QA in higher education institutions of 2003, and were in harmony with the intent of the national education act of 1999 (2<sup>nd</sup> amendment in 2002). They were also consistent with the national education standards, higher education standards, and other related standards, including being aligned in a similar direction with external assessment indicators of the office for national education and quality assessment (public organization, ONESQA). Under the important principle to avoid creating duplicate work for higher educational institutions, the revised indicators can evaluate all dimensions of QA systems, such as inputs, processes, and outputs or outcomes. They also maintain a balanced view of the four criteria managements as, namely, students and stakeholders, internal procedures, and personnel financial. Evaluation criteria for learning and innovation consist of both general criteria applicable to all institutions, and

specific criteria for use by institutions with different focuses, such as institutions focused on graduate production and research, institutions focused on graduate production and social development, institutions focused on graduate production and cultural development, and institutions focused solely on graduate production. Due to the fact that initially, many higher education institutions lacked working systems that clearly emphasized the quality cycle, most of the indicators emphasized processes.

In 2014, the office of higher education commission had set up a framework for improving higher education internal QA systems. Additional consideration was given to related material from the second 15-year long range plan on higher education (2008-2022), the 11<sup>th</sup> Higher Education Development Plan (2012-2016), Higher Education Standards, Higher Education Institution Standards, and Standard Criteria for Higher Education Curriculum of 2005, including the Thai Qualification Framework for Higher Education of 2009. It was determined that 3 levels of internal educational QA should be established: the program of studies level, the faculty level, and the institutional level. Whereas the internal QA components according to the 4 missions of higher education institutions, and more areas may be added as needed. Development of internal QA indicators and standards should be proceeded concurrently at the program, faculty, and institutional levels. Process indicators must assess operational outputs resulting from the process (process performance) [1].

Sci-SSRU has a policy and criteria for implementation in accordance with the internal QA guidelines specified in principles as the 1<sup>st</sup> Round, following the 10<sup>th</sup> higher education development plan (2007-2011), the ministerial regulation regarding systems, criteria, and procedures for internal educational QA of SSRU (2010). The internal educational QA at the faculty level consists of 5 components: 1) graduate production, 2) research, 3) academic service, 4) preservation of arts and culture, and 5) administration. Indicators and standards for internal educational QA at the faculty level were operated the faculty in support of learning and teaching in each program of studies offered by the Faculty, including student activities, student services, academic service, research, administration, and QA for the faculty [1, 2, 3].

As mentioned the reasons earlier, those reasons interested the researcher to gather internal QA system of faculty and the past 4 academic years record from 2014-2017 so that they can compare and analyze trend of internal QA system of faculty. Moreover, it is beneficial for developing the operational assessment components and indicators which containing of 4 processes: thinking and brainstorming (Plan), Process and data collection (Do), quality assessment (Check/ Study), and improvement suggestion (Act) including controlling the standard of assurance system of faculty continuously. This study were aimed to compare the result of internal education quality assessment at the faculty level. Furthermore our study was described the trend of changing of internal education quality assessment at the faculty level in this report.

## METHODOLOGY

### Data collection

1. This research used the internal QA data at the faculty level from 2014-2017 of academic year which containing of 5 major elements and 13 indicators that based on the criteria of QA: production of graduates (6 indicators), academic research (3 indicators), academic service (1 indicator), preservation of art and culture (1 indicator), administration and management (2 indicators) [4, 5, 6 7].

2. This research also collected data by using classified group of population interview of internal QA data at the faculty level from 2014-2017 of academic year. This classified interviewee contained of the group of administrator, teacher, personnel, student, alumni and graduate user representatives of each academic year as following [4, 5, 6 7].

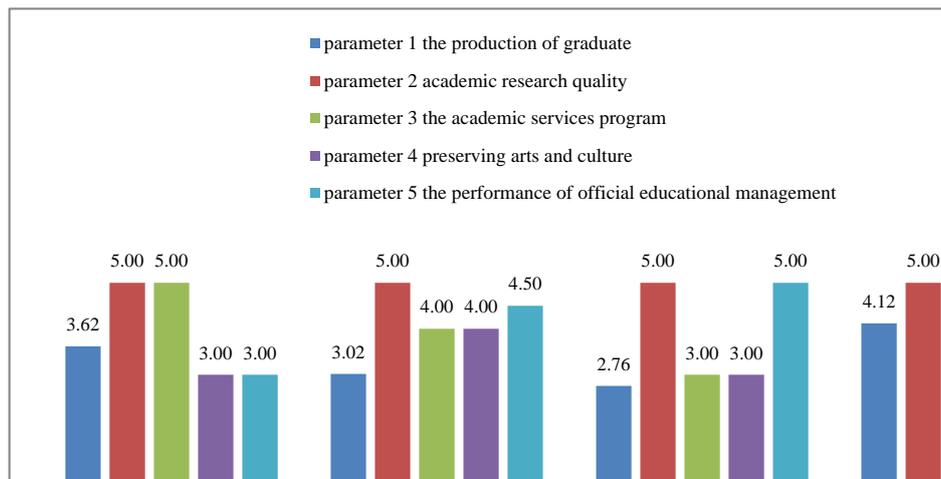
- 2.1 In academic year 2014, there were 6 of administrator, 6 teacher, 4 personnel, 5 student, 3 alumni and 1 graduate user representatives.
- 2.2 In academic year 2015, there were 9 of administrator, 5 teacher, 5 personnel, 5 student, 4 alumni and 5 graduate user representatives.
- 2.3 In academic year 2016, there were 9 of administrator, 5 teacher, 5 personnel, 4 student, 5 alumni and 4 graduate user representatives.
- 2.4 In academic year 2017, there were 23 of administrator, 5 teacher, 5 personnel, 4 student, 4 alumni and 3 graduate user representatives [4, 5, 6 7].

## RESULTS AND DISCUSSIONS

The researcher determined to statistically analyze data by using SPSS program which could help in finding mean and standard deviation. From the study, these are the procedures:

### I. Overall average score of QA academic year 2014-2017

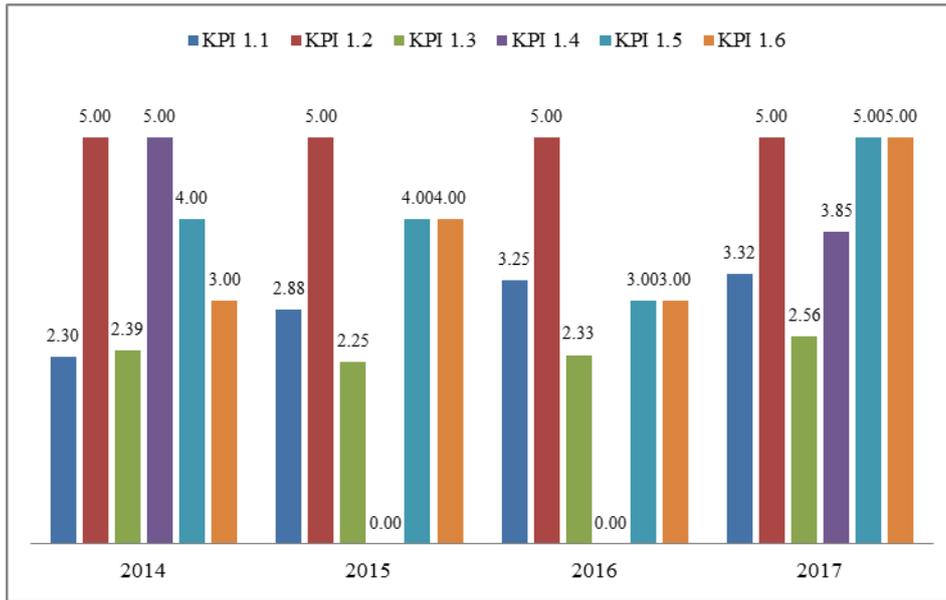
The analysis of all average component of QA from 2014-2017 of academic year, it obviously showed that component 2 (academic research) continuously ranked in the highest mean value (5.00) for 4 years and followed by component 5 (administration and management) which was 4.25 and the standard deviation (SD) was 0.87. Then, the mean value of component 3 (academic service) was 4.25 and the SD was 0.96. While the component 4 (preservation of art and culture) had 3.75 for mean value and 0.96 for SD, the component 1 (production of graduates) had the lowest ranked mean value (3.38) and SD. (0.61) respectively (Fig. 1).



**Figure 1:** The comparative score of the internal QA at the faculty level from year 2014-2017

### II. Average score of graduate production academic year 2014 - 2017

The analysis of an average QA from 2014-2017 of academic year of component 1 (production of graduate) with 6 indicators clarified that indicator 1.2 (full-time lecturers holding doctoral degrees) had the highest mean value (5.00) throughout 4 years, and followed by indicator 1.5 (services for bachelor degree students) with mean values (4.00) and SD (0.82). Then, indicator 1.6 (bachelor degree student activities) had the mean value of 3.75 and SD of 0.96, and indicator 1.1 (achievement of overall curriculum administration) had the mean value of 2.93 and SD of 0.47. Whereas indicator 1.3 (full-time lecturers holding academic titles) had the mean value of 2.38 and SD of 0.13, indicator 1.4 (the number of full-time students is equivalent to the number of full-time lecturers) had the mean value of 2.21 and SD of 2.63 respectively (Fig. 2).



**Figure 2:** The comparative graph of the internal QA at the faculty level of component 1 (production of graduate) with 6 indicators from 2014-2017 of academic year

### III. Average score of research production academic year 2014 - 2017

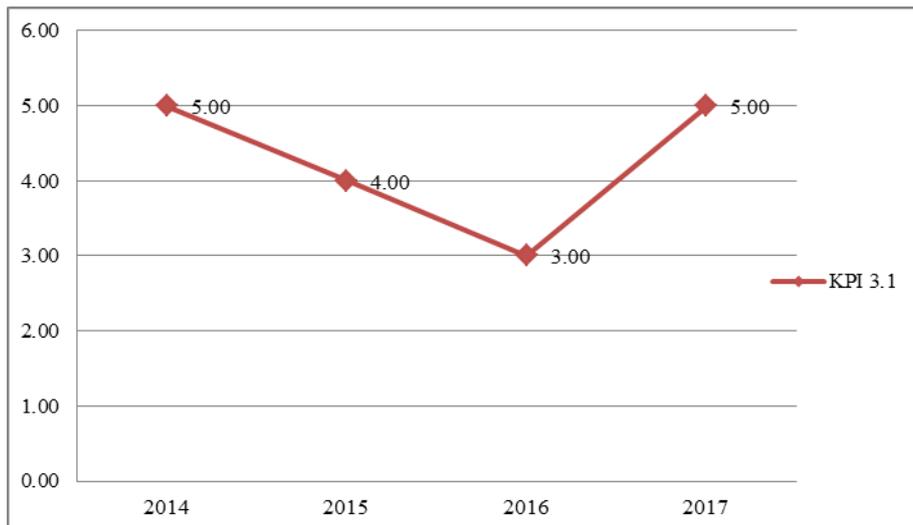
The figure 3 showed the equivalent of mean value of component 2 (academic research). The fact was indicator 2.1 (system and mechanism for research or creative work development), indicator 2.2 (research or creative work funds), indicator 2.3 (research or creative work publication or dissemination) were all at 5.00 throughout 4 academic year.



**Figure 3:** The comparative graph of the internal QA at the faculty level of component 2 (academic research) with 3 indicators from 2014-2017 of academic year

### IV. Average score of academic service production of the year 2014 - 2017

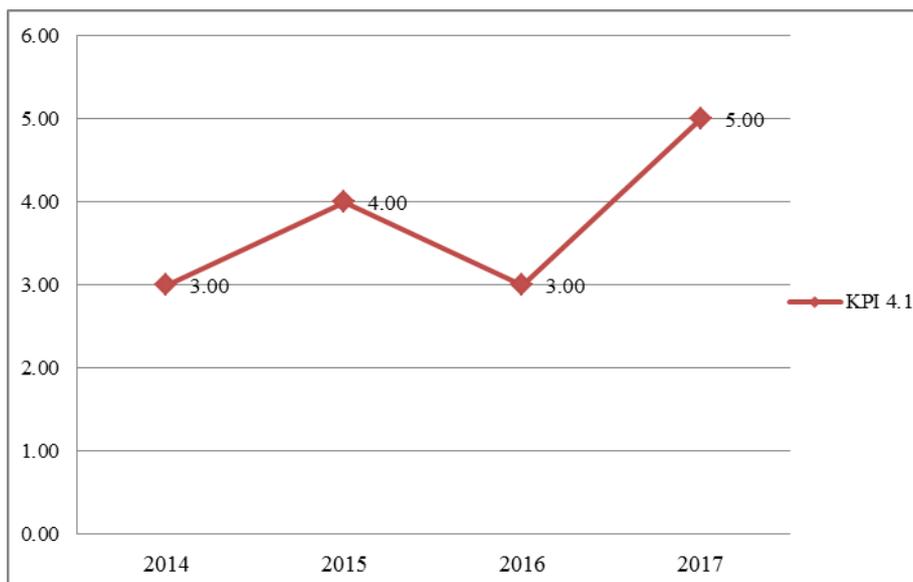
The result analysis of component 3 (academic service) was an indicator 3.1 (academic services to society) had mean value of 4.25 and 0.96 SD (Fig. 4). The value of highest score was represent in 2014 and 2017.



**Figure 4:** The comparative graph of the internal QA at the faculty level of component 3 (academic service) with 1 indicator from 2014-2017 of academic year

#### V. Average score of culture and arts preservation academic year 2014 - 2017

The systematic of culture and arts preservation showed the analysis of component 4 (preservation of art and culture) and clearly stated that indicator 4.1 (system and mechanism for preservation of art and culture) had mean value of 3.75 and SD of 0.96 (Fig. 5).



**Figure 5:** The comparative graph of the internal QA at the faculty level of component 4 (preservation of art and culture) with 1 indicator of academic year 2014-2017

#### VI. Average score of management system academic year 2014 - 2017

The result of the analysis of component 5 (administration and management) showed that indicator 5.1, university council's performance in compliance with roles and responsibilities was in the highest range of mean value (4.50) and SD (0.58), followed by indicator 5.2 (risk management system) which the mean value was 4.00 and SD was 1.41 respectively (Fig. 6).



**Figure 6:** The comparative graph of the internal QA at the faculty level of component 5 (administration and management) with 2 indicators from 2014-2017 of academic year.

### CONCLUSION

In conclusion, this study showed the analysis of the results of internal QA system at the faculty level of the Sci-SSRU from the academic year 2014 - 2017. There were searched and collected data by searching document and different group interviewing which were the administrator, staff, learner, alumni and graduate user representatives. The analysis illustrated the changes in the internal quality assessment of the Faculty of Science and Technology from the academic year 2014-2017 that almost every component in the academic year 2017 tended to increase. Moreover, it was founded that the important thing to drive internal QA was the faculty administrators who concerned about priority and follow-up the operation result continuously. Nevertheless, there should be an encouragement for the exchange of learning between faculties within and outside the university in order to analyze the strength and weakness point of the faculty. In addition, those points were they keys that can determine appropriate guidelines for the faculty and also maintain the standard of QA of the faculty continuously.

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