

## Abstract

This study was about analyzing the efficiency of the use of buildings and surrounding area in Rajabhat Institute Nakhon Sawan in the academic year 2002. The purposes of this study were to study the current state of buildings and surrounding area in Rajabhat Institute Nakhon Sawan by sorting the buildings and calculating the total area of each building. This would enable us to analyze the rate of use of rooms and laboratories and to find out how efficiency the buildings and surrounding area were being used. The results of this study can be used to plan and analyze the use of the buildings and surrounding area.

The results of this study were as follows:

### 1. General state of use of the area of buildings

#### 1.1 The state of area categorized by its uses

Rajabhat Institute Nakhon Sawan has 6210.40 square metres ( $m^2$ ) for teaching and studying, 6124.80  $m^2$  for laboratories, 3960.60  $m^2$  for administration, 5295.90  $m^2$  for servicing and 8333.50  $m^2$  for pavement.

#### 1.2 The number of rooms for teaching and studying

The size of the room used are as follows: 4.9 % of rooms had an area of less than 60  $m^2$ , 89.30 % of rooms had an area of 60-120  $m^2$ , 3.85% of rooms had an area of 121-180  $m^2$ , and 1.95 % of rooms had an area of 181-240  $m^2$ . 31.64 % of laboratories had an area of less than 60  $m^2$ , 59.46 % of laboratories had an area of 60-120  $m^2$ , 3.80% of laboratories had an area of 121-180  $m^2$ , 3.80 % of laboratories had an area of 181-240  $m^2$  and 1.30 % of laboratories had an area of more than 240  $m^2$ .

### 2. The uses of classrooms

#### 2.1 Examine the uses of lecture rooms and laboratories

The rate of use of lecture rooms and laboratories was 76.39 % and 77.69% in the first and second semesters respectively. The rate of use of the area of lecture rooms and laboratories was 74.26% and 64.06% in the first and second semesters respectively.

#### 2.2 Examine the uses of lecture rooms

The rate of use of lecture rooms in the first semester was 73.81% and 74.25 % in the second semester. The rate of use of the area of lecture rooms in the first semester was 37.82 % and 35.86% in the second semester.

### 2.3 Examine the uses of laboratories

The rate of use of laboratories in the first semester was 32.85 % and 42.80 % in the second semester. The rate of use of the area of laboratories in the first semester was 101.94 % and 90.22 % in the second semester.

### 2.4 Examine the uses of lecture rooms and laboratories

The rate of lecture rooms and laboratories had an area of less than 60 m<sup>2</sup> being used was 69.14% and 66.67 % in the first and second semesters respectively. The rate of use of the area of lecture rooms and laboratories in the first semester was 278.48 % and 196.82 % in the second semester.

The rate of use of lecture rooms and laboratories with an area of 60 - 120 m<sup>2</sup> was 78.27% and 77.78 % in the first and second semesters respectively. The rate of use of the area of lecture rooms and laboratories in the first semester was 68.59 % and 68.80 % in the second semester.

The rate of use of lecture rooms and laboratories with an area of 121-180 m<sup>2</sup> was 78.29% and 76.57 % in the first and second semesters respectively. The rate of use of the area of lecture rooms and laboratories in the first semester was 41.13 % and 59.82 % in the second semester.

The rate of use of lecture rooms and laboratories with an area of 181-240 m<sup>2</sup> was 53.33% and 68.57 % in the first and second semesters respectively. The rate of use of the area of lecture rooms and laboratories in the first semester was 24.59 % and 18.97 % in the second semester.

The rate of use of lecture rooms and laboratories with an area of more than 240 m<sup>2</sup> was 45.71 and 94.29 % in the first and second semesters respectively. The rate of use of the area of lecture rooms and laboratories in the first semester was 14.28 % and 15.91 % in the second semester.

### 2.5 Examine the uses of lecture rooms

The rate of use of lecture rooms with an area of less than 60 m<sup>2</sup> was 91.43% and 83.77 % in the first and second semesters respectively. The rate of use of the area of lecture rooms in the first semester was 79.86 % and 43.57 % in the second semester.

The rate of use of lecture rooms with an area of 60 - 120 m<sup>2</sup> was 82.52% and 110.23 % in the first and second semesters respectively. The rate of use of the area of lecture rooms in the first semester was 43.68 % and 57.33 % in the second semester.

The rate of use of lecture rooms with an area of 121-180 m<sup>2</sup> was 82.14% and 90.71 % in the first and second semesters respectively. The rate of use of the area of lecture rooms in the first semester was 31.12 % and 35.09 % in the second semester.

The rate of use of lecture rooms with an area of 181-240 m<sup>2</sup> was 65.71 % and 55.71 % in the first and second semesters respectively. The rate of use of the area of lecture rooms in the first semester was 20.90 % and 19.45 % in the second semester.

#### 2.6 Examine the uses of laboratories

The rate of use of laboratories with an area of less than 60 m<sup>2</sup> was 54.29% and 67.14 % in the first and second semesters respectively. The rate of use of the area of laboratories in the first semester was 410.89 % and 272.08 % in the second semester.

The rate of use of laboratories with an area of 60 - 120 m<sup>2</sup> was 61.55% and 61.73 % in the first and second semesters respectively. The rate of use of the area of laboratories in the first semester was 144.60 % and 136.38 % in the second semester.

The rate of use of laboratories with an area of 121-180 m<sup>2</sup> was 62.86% and 20.00 % in the first and second semesters respectively. The rate of use of the area of laboratories in the first semester was 81.19 % and 158.73 % in the second semester.

The rate of use of laboratories with an area of 181-240 m<sup>2</sup> was 28.57% and 94.29 % in the first and second semesters respectively. The rate of use of the area of laboratories in the first semester was 31.98 % and 18.00 % in the second semester.

The rate of use of laboratories with an area of more than 240 m<sup>2</sup> was 45.71 and 94.29 % in the first and second semesters respectively. The rate of use of the area of laboratories in the first semester was 14.28 % and 15.91 % in the second semester.