

CHAPTER IV

RESEARCH FINDING

A. Document analysis

The research finding is presented in two main topics:

1. Quantitative data summary
2. Qualitative data summary

1) Quantitative data summary

Table 1 Cutting Conduct Scores of medical students

Medical Student Years (Total = 9)	Number of Conduct Scores who were deduced	Main Behavioral Finding
2	24	Alcohol drinking
3	24	Alcohol drinking
3	24	Alcohol drinking
5	24	Car driving and parking
6	24	Car driving and parking
6	24	Car driving and parking
6	15	No working at Chonburi Hospital
6	15	No working at Chonburi Hospital
6	24	Car driving and parking

The sixth year is the most number of students who were deduced conduct scores from car driving, parking and no working at Chonburi hospital and the third year is the second number of students who were deduced conduct scores from alcohol drinking.

Table 2 Number of medical students(%)in each year (Cutting Conduct Scores)

Years	Number of Medical students (Total = 9)	Total number of Medical students	% (/ each year)
2	1	102	0.98
3	2	62	3.2
4	0	30	0
5	1	30	3.3
6	5	64	7.8

The sixth year is the most number of students (7.8%) who were deduced conduct scores and the fifth year is the second number of students (3.3%) who were deduced conduct scores.

2) Qualitative data summary

There is six steps [14] :

2.1 Identification of the phenomenon to be studied

- In this study is role of the Student Affairs Division: Phramongkutklao College of Medicine in assessing army medical students.

2.2 Identification of the participants in the study : there are two groups

- a. Executive, staff and personnel of the Student Affairs Division: Phramongkutklao College of Medicine.
- b. All of army medical students in the fourth year, Phramongkutklao College of Medicine

2.3 Generation of hypothesis

- There is no hypothesis in this study because the study is only observation in situations and document analysis.

2.4 Data collection

- For this study includes Self Assessment Report (SAR) of The Student Affairs Division: Phramongkutklao College of Medicine 2005; Army Regulation part of Phramongkutklao College of Medicine 2004; Handbook of Army Medical Students, Phramongkutklao College of Medicine 2004;

Handbook of Military Terminology, Acronyms and Abbreviations 1997[12]; Conduct score records of army medical students in the five academic years and related documents 2006 [13].

2.5 Data analysis and 2.6 Conclusion

- Refer to objectives of this study:

A. Structure of the Student Affairs Division: Phramongkutklo College of Medicine.

Number of personnel of the unit [1]

- Total personnel = 42 subjects (Full positions = 49 positions)
- Commissioned officers = 6 subjects, Non- Commissioned officers = 10 subjects, Employees = 26 subjects (Full positions = 33 positions)

Total staff = 11 subjects (Executive = 1 subject, staff = 10 subjects)

Organization and activities of the Student Affairs Division [1]

The Student Affairs Division is direct controlled by Phramongkutklo College of Medicine and which is divided to 3 sections ; command section, government section and physical education section. Activities of each section are demonstrated by following figures.

Figure 1

Organization Chart

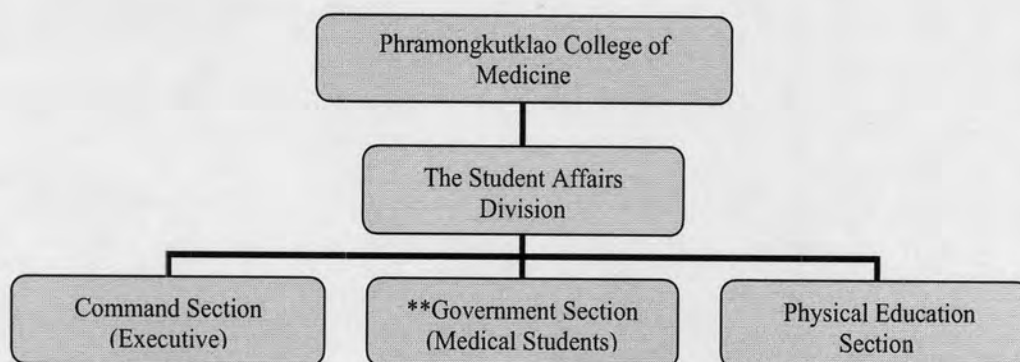


Figure 2

Activity Chart

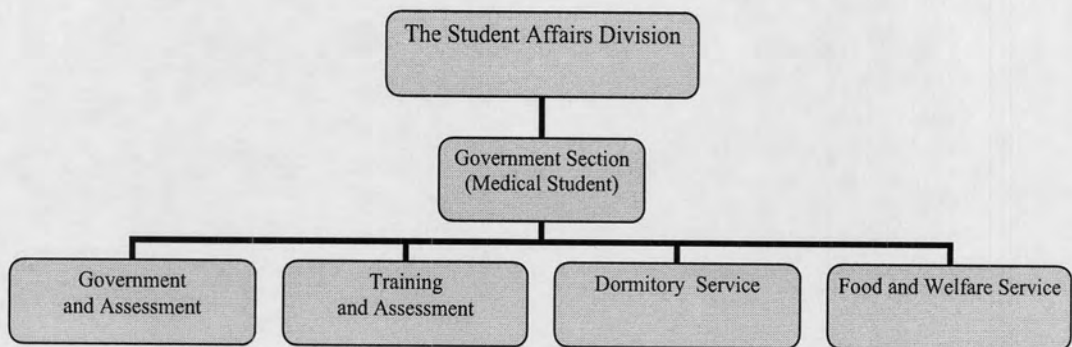
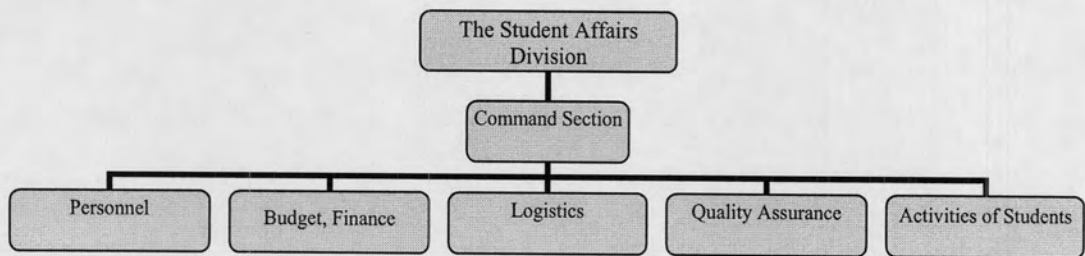
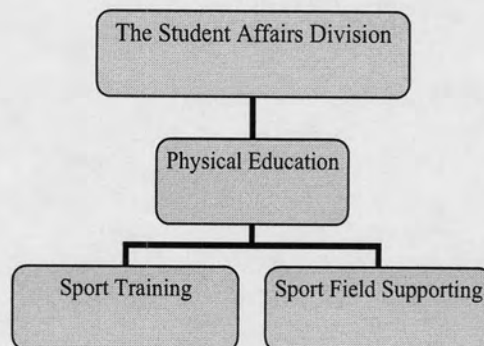


Figure 2 (continue)



B. Function of the Student Affairs Division: Phramongkutkloa College of Medicine in assessment aspect for army medical students.

There are three main aspects in assessing army medical students:

1. Military subjects
2. Discipline or conduct
3. Leadership

1. Assessing Military Subjects:

- Teaching and studying compose of lecture, practice and problem-based learning both in classroom and out classroom, only the second and the third years of army medical students
- Assessment by pass or fail, no grading, no credit

2. Assessing Discipline or Conduct:

- Army Regulation part of Phramongkutkloa College of Medicine in 2004; Class 7; Scores of conduct and punishment; Order 20.2.1 describe that if scores of any army medical students are deducted in conduct more than 120 scores in an academic year though they pass summative assessment but they will fail in final assessment and repeat class, and if not pass summative assessment in that academic year, They must suggest to Phramongkutkloa College of Medicine Council for withdrawing register of army medical students ; order 20.2.2 describe that scores of any army medical students are deducted in conduct more than 200 scores in an academic year, They must suggest to Phramongkutkloa College of Medicine Council for withdrawing register of army medical students. ; order 20.2.3 describe that scores of conduct effect to receive any right depend on reference of Army Medical Department[8].
- Scores in conduct or discipline of students will be operate by the Student Affairs Division: Phramongkutkloa College of Medicine and they will be recorded in data base of students for assessment in each an academic year.

3. Assessing leadership

The staff assess leadership of army medical students in 19 items [13];

1. Gesture
2. Courage
3. Responsibility
4. Trust
5. Patience
6. Passionate
7. Initiation
8. Faith
9. Considering
10. Justice
11. Well- versed
12. Loyalty
13. Punctilio
14. Good model
15. Teamwork
16. Communication
17. Good adviser
18. Negotiation
19. Open mind

- Peer group assessment in 4 items [13];

1. Sacrifice
2. Union
3. Patience
4. Good model

- By using Likert scale in summative scores these scores of three main aspects will effect to students in competency and selection the places for working after they complete medical curriculum [17].

C. Function of the Student Affairs Division: Phramongkutkloa College of Medicine in cooperation with other related units both internal unit and external unit for assessment aspect.

1. Internal unit :

- Meaning: the Student Affairs Division cooperate within Phramongkutkloa College of Medicine and Phramongkutkloa army hospital in assessing medical students especially conduct and ethics aspects with other departments (both formative and summative evaluation).

2. External unit:

- Meaning: the Student Affairs Division cooperate with external units or departments in training and assessing medical students especially military subjects. External units, for examples:

- The Chulachomklao Royal Military Academy
- The Sciences School, Royal Thai Army
- The Special Warfare School, Royal Thai Army
- The Preventive Medicine Unit, Royal Thai Army
- The Medical School, Royal Thai Army

- Summative evaluation (by external staff) = Pass or Fail (Goal, Pass =100%)

D. Problems and obstacles of the Student Affairs Division:

Phramongkutkloa College of Medicine for assessment aspect.

1) Number of staff

- According to increasing number of medical students, Phramongkutkloa College of Medicine in present (N = 100) ,so main problem is assessing medical students may not cover completely by staff. (who fixed in number)

2) Cooperation with internal units or other departments may not support one another especially conduct and ethics aspects of medical students.

3) Bias or attitude of staff (or assessors) in assessing medical students

- About this topic will be further presented and discussed in the next chapter.

B. Questionnaires:

The researcher sent the questionnaires to the five specialists for reviewing and improving content and format of thirty items much more appropriately. Thereafter, the researcher calculated content validity by using summative value from the five specialists that value of content validity should more than or the same as 0.5 [24, 25] (from formula: Content validity, $I = \sum R / N$, when R = total scores of the specialists that approve the items, N = number of the specialists).

Content validity(I) of Questionnaire

Items	+1	0	-1	$I = \sum R / N$
1	3	2	0	0.6
2	5	0	0	1
3	5	0	0	1
4	3	2	0	0.6
5	3	2	0	0.6
6	3	2	0	0.6
7	4	1	0	0.8
8	3	2	0	0.6
9	4	1	0	0.8
10	4	1	0	0.8
11	4	1	0	0.8
12	4	1	0	0.8
13	3	2	0	0.6
14	3	2	0	0.6
15	3	2	0	0.6
16	3	2	0	0.6
17	3	2	0	0.6
18	4	1	0	0.8
19	3	2	0	0.6
20	4	1	0	0.8
21	4	1	0	0.8
22	4	1	0	0.8
23	4	1	0	0.8
24	4	1	0	0.8
25	4	1	0	0.8
26	4	1	0	0.8
27	3	2	0	0.6
28	4	1	0	0.8
29	3	2	0	0.6
30	4	1	0	0.8

Content validity; $I = \sum R / N$, when R = total scores of the specialists that approve the items , N = number of the specialists (= 5)

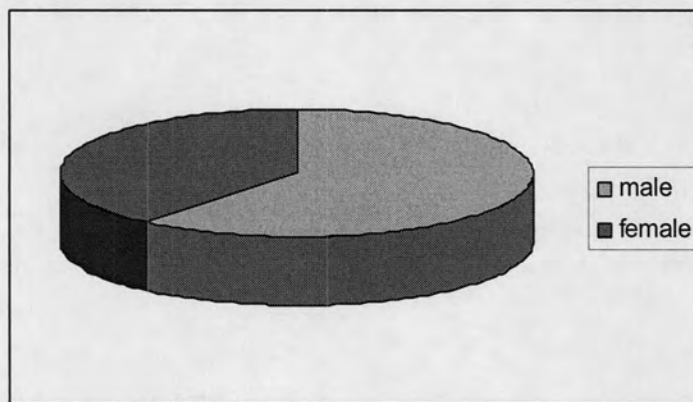
Describe from results

From this questionnaire, Content validity was calculated from the formula; $I = \frac{\sum R}{N}$, when R = total scores of the specialists that approve the items, N = number of the specialists (=5). Accepted value of content validity is to more than or the same as 0.5 [24,25].

Results ;

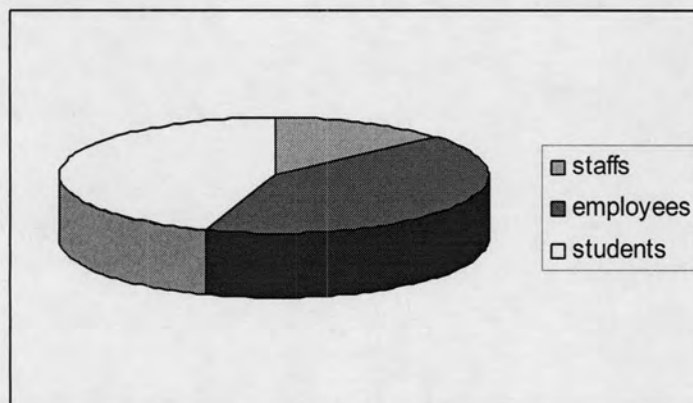
1. Demographic data

Gender

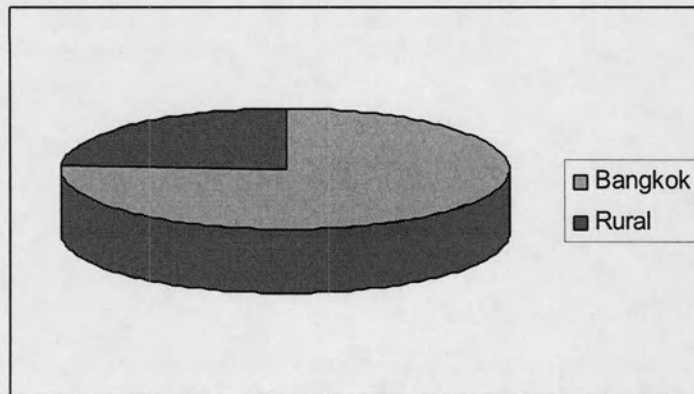


Pie Graph 1; Describe: Subjects are 44 male (61.1%) and 28 female (38.9%)

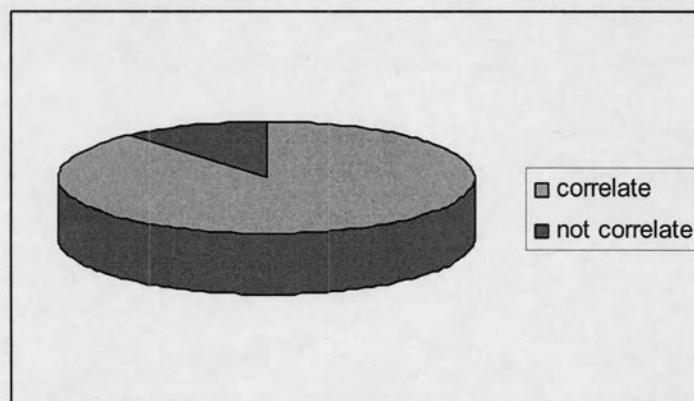
Position



Pie Graph 2; Describe: Subjects are 9 staff (13.4%), 28 employees (41.8%) and 30 the fourth medical students (44.8%) (missing = 5)

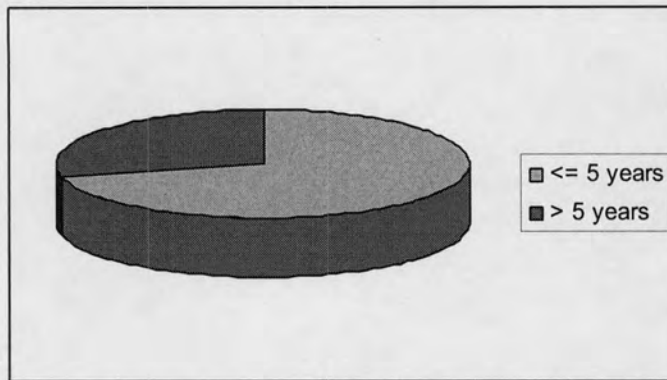
Domicile

Pie Graph 3; Describe: Subjects have an domicile in Bangkok about 54 subjects (76.1%) and in rural about 17 subjects (23.9%) (missing =1)

Correlation between assessment and learning of medical students

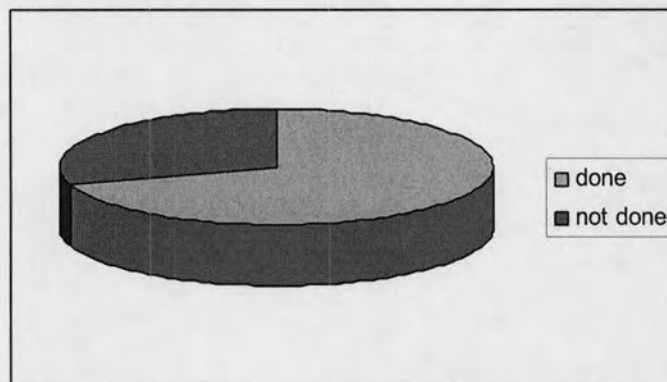
Pie Graph 4; Describe: Subjects who accepted that assessment correlate with learning about 63 subjects (88.7%), not correlate with learning about 8 subjects (11.3%) (missing =1)

Number of years to work in the government service



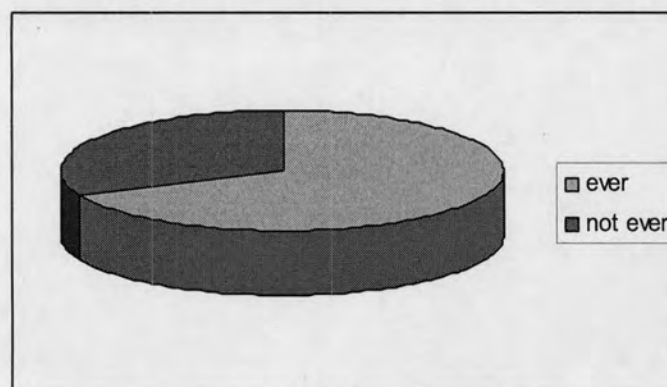
Pie Graph 5; Describe: Subjects work in the government service less than or the same as 5 years about 30 subjects (71.4%), more than 5 years about 12 subjects (28.6%)

You have ever assessed army medical students



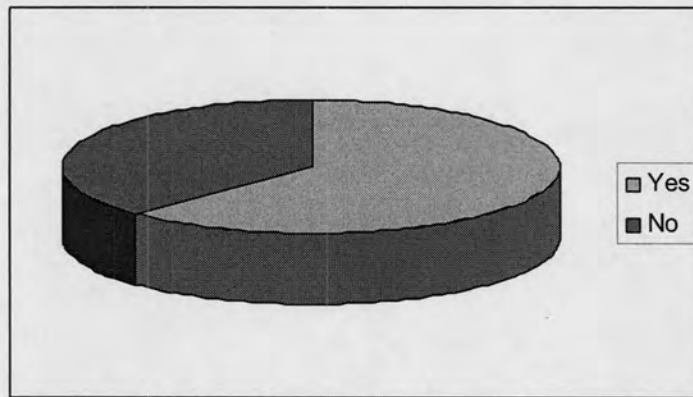
Pie Graph 6; Describe: Subjects have ever assessed medical students about 28 subjects (70.0%), not assessed about 12 subjects (30.0%) (missing =2)

You have ever been assessed by army medical students



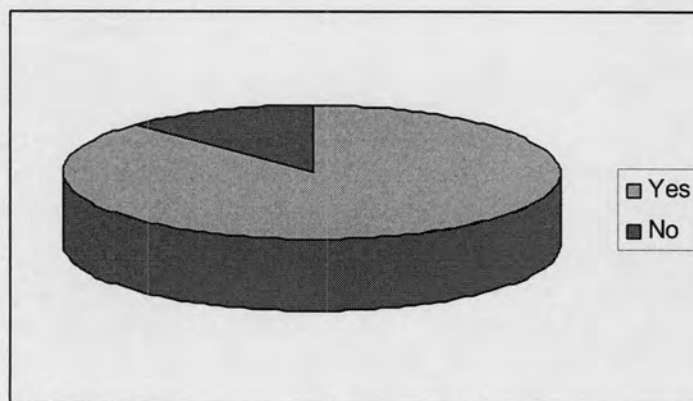
Pie Graph 7; Describe: Subjects have ever been assessed by army medical students about 28 Subjects (68.3%), not ever been assessed by army medical students about 13 subjects (31.7%) (missing =1)

Your family is a soldier



Pie Graph 8; Describe: Subjects who their families are soldiers about 45 subjects (62.5%), their families are not soldiers about 27 subjects (37.5%)

You chose Phramongkutklao College of Medicine because you would like to be a soldier



Pie Graph 9; Describe: Subjects chose Phramongkutklao College of Medicine because they would like to be soldiers about 63 subjects (87.5%), chose Phramongkutklao College of Medicine but they would like not to be soldiers about 9 subjects (12.5%)

2. Main data (main 30 questions)Table 3: Demonstration of domains and agreement of subjects

DOMAINS	Numbers of Subjects (%)						
	1	2	3	4	5	6	Total
1. Main educational programs							
Item 1- appropriation of curriculum	1.4	4.2	15.3	75.0	7.8	1.4	100
2- appropriation of military subjects	1.4	5.6	4.2	30.6	56.9	1.4	100
3- leadership course for students	2.8	2.8	13.9	73.6	5.6	1.4	100
2. Aims and missions							
Item 1- mission is appropriate	1.4	2.8	12.5	80.6	1.4	1.4	100
3. Teaching methods							
Item 1- teaching method is appropriate	1.4	5.6	9.7	77.8	4.2	1.4	100
2- developing teaching in the future	0	0	0	81.9	5.6	1.4	100
4. Organizational culture							
Item 1- the SAD have organizational culture	0	0	2.8	83.3	12.5	1.4	100
2- changing organizational culture	0	11.1	8.3	70.8	8.3	1.4	100
5. Key requirements and expectation for programs							
Item 1- efficiency of curriculum	0	2.8	19.4	70.8	5.6	1.4	100
2- medical sages are qualified	0	0	6.9	83.3	8.3	1.4	100

DOMAINS	Numbers of Subjects						
	(%)						
	1	2	3	4	5	6	Total
3-military subjects and discipline are prominent	0	1.4	2.8	83.3	11.1	1.4	100
6.Related units relationships and communication							
Item 1-cooperation of the SAD is appropriate	2.8	6.9	12.5	75.0	2.8	0	100
2-the SAD should more cooperate	1.4	0	2.8	84.7	11.1	0	100
7.Role of staff for student assessment							
Item 1-staff assess students appropriately	1.4	5.6	12.5	77.8	2.8	0	100
2-developing assessment of staff	0	1.4	11.1	79.2	8.3	0	100
3-training assessment course for staff	0	1.4	12.5	76.4	9.7	0	100
4-staff as a role of advisor	0	2.8	6.9	77.8	12.5	0	100
5-following up assessment appropriately	0	8.3	12.5	75.0	4.2	0	100
8.Discipline, leadership assessment							
Item 1-separation conduct assessment	0	6.9	4.2	79.2	9.7	0	100
2-peer assessment of students	1.4	2.8	6.9	80.6	8.3	0	100
3-conduct scores deduction is appropriate	0	1.4	9.7	83.3	5.6	0	100
4-leadership assessment is appropriate	1.4	1.4	13.9	77.8	5.6	0	100

DOMAINS	Numbers of Subjects (%)						
	1	2	3	4	5	6	Total
5-proportion of conduct scores and leadership scores is appropriate	2.8	0	12.5	73.6	11.1	0	100
6-the SAD should develop assessment system	0	0	6.9	81.9	11.1	0	100
9.Problems and obstacles for student assessment							
Item 1-assessment is a lot of problems	1.4	2.8	18.1	63.9	13.9	0	100
2-uncertain results from command students	0	30.6	12.5	43.1	13.9	0	100
3-assessing army and non-army students is a problem	0	1.4	11.1	73.6	13.9	0	100
10.Related units of student assessment							
Item 1-cooperation of the SAD is appropriate	0	5.6	26.4	61.1	5.6	1.4	100
2-the SAD develop active role with other units	2.8	4.2	12.5	73.6	6.9	0	100
11.Others							
Item 1-role of the SAD in assessment should be improved	0	0	26.4	61.1	12.5	0	100

Describe;

1 = strongly disagree

2 = disagree

3 = uncertainly

4 = agree

5 = strongly agree

6 = no answer

The first domain

Items:

1. Curriculum of the Student Affairs Division: Phramongkutklao College of Medicine is appropriate
2. Curriculum of Military Subject of the Student Affairs Division: Phramongkutklao College of Medicine is appropriate
3. The Student Affairs Division: Phramongkutklao College of Medicine should have course of leadership for army medical students

The results show that the most subjects agreed and the following group strongly agreed with this domain.

The second domain

Item:

1. Mission of the Student Affairs Division: Phramongkutklao College of Medicine is appropriate

The results show that the most subjects agreed and the following group was not sure with this domain.

The third domain

Items:

1. Form and method of teaching and learning of the Student Affairs Division: Phramongkutklao College of Medicine is appropriate
2. In the future, the Student Affairs Division: Phramongkutklao College of Medicine should develop method of teaching and learning appropriately

The results show that the most subjects agreed and the following groups was not sure as well as strongly agreed with this domain.

The fourth domain

Items:

1. The Student Affairs Division: Phramongkutklao College of Medicine has organizational culture that is identical, for example: command, discipline and military custom

2. Changing of organizational culture is difficult, especially command in military custom

The results show that the most subjects agreed and the following group strongly agreed with this domain.

The fifth domain

Items:

1. You have self- confidence in efficiency of curriculum of the Student Affairs Division: Phramongkutklao College of Medicine
2. Medical sages who graduated of medical curriculum from Phramongkutklao College of Medicine, they have qualification appropriately
3. Curriculum of the Student Affairs Division : Phramongkutklao College of Medicine is prominent in military subjects and discipline training for army medical students

The results show that the most subjects agreed and the following group was not sure with this domain.

The sixth domain

Items:

1. Cooperation between the Student Affairs Division: Phramongkutklao College of Medicine with other units is appropriate
2. In your opinion, the Student Affairs Division: Phramongkutklao College of Medicine should cooperate with other related units much more

The results show that the most subjects agreed and the following group was not sure with this domain.

The seventh domain

Items:

1. Command personnel and teachers of the Student Affairs Division: Phramongkutklao College of Medicine have assessed army medical students appropriately
2. In your opinion, role of command personnel and teachers should be developed in assessing army medical students in efficiency

3. Phramongkutklao College of Medicine should train course of assessment for command personnel and teachers
4. In your opinion, command personnel should have a role of advisor both education and privacy aspects
5. Command personnel and teachers have looked after in assessing army medical students appropriately

The results show that the most subjects agreed and the following group was not sure with this domain.

The eighth domain

Items:

1. In a future, conduct assessment should be separated between army medical students and non- army medical students of Phramongkutklao College of Medicine
2. Army medical students should have peer assessment
3. Assessment criteria of Phramongkutklao College of Medicine about scores of conduct of army medical students is appropriate
4. The Student Affairs Division: Phramongkutklao College of Medicine has a criteria in assessment leadership of army medical students appropriately
5. Criteria for order of competency of army medical students, scores that combine between conduct and leadership (about 20% from total scores) appropriately
6. The Student Affairs Division: Phramongkutklao College of Medicine should develop system of assessment both leadership and conduct for army medical students in a future

The results show that the most subjects agreed and the following group was not sure with this domain.

The ninth domain

Items:

1. In a present, assessing army medical students both leadership and conduct aspects have a lot of problems
2. Assessing army medical students by command students may make results incorrectly
3. According to medical students divided to army and non- army ,so assessment of military subjects may be problems

The results show that the most subjects agreed and the following groups was not sure as well as strongly agreed with this domain.

The tenth domain

Items:

1. The Student Affairs Division: Phramongkutklao College of Medicine has assessed army medical students by cooperation with other related units appropriately
2. The Student Affairs Division: Phramongkutklao College of Medicine should develop role to push forward in assessing army medical students with other related units

The results show that the most subjects agreed and the following group was not sure with this domain.

The eleventh domain

Items:

1. In summary, role of the Student Affairs Division: Phramongkutklao College of Medicine in assessing army medical students should be developed and improved

The results show that the most subjects agreed and the following group was not sure with this domain.

General summary

Overall, the results show that the most subjects agreed with all domains or all items and the following groups were not sure with some domains.

The internal consistencies of items were calculated by Cronbach's alpha coefficients about 0.8751 ,so it showed that the construction questionnaire has good reliability [24,25,26]. Results by calculation from SPSS Version 12, are demonstrated below;

RELIABILITY ANALYSIS - SCALE (ALPHA)

Item-total Statistics	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
A1	113.0000	70.9855	.7224	.8636
A2	112.3571	69.5083	.5855	.8662
A3	112.9571	70.6213	.6786	.8641
A4	112.9429	72.1706	.6949	.8651
A5	112.9429	72.2576	.5811	.8670
A6	112.5857	79.4346	-.0330	.8781
A7	112.6429	79.4213	-.0316	.8783
A8	112.9571	77.5778	.0896	.8802
A9	112.9429	73.6199	.5424	.8685
A10	112.7286	76.2876	.4170	.8719
A11	112.7000	76.7928	.3136	.8734
A12	113.0714	73.2847	.4121	.8715
A13	112.7000	74.9667	.4542	.8706
A14	112.9857	72.4491	.5670	.8674
A15	112.7857	75.8520	.3781	.8722
A16	112.7857	76.6346	.2670	.8742
A17	112.7429	75.8749	.3212	.8732
A18	112.9857	73.8404	.4406	.8705
A19	112.8286	75.5934	.2932	.8741
A20	112.8286	73.9412	.4619	.8701
A21	112.8143	73.8925	.6627	.8674
A22	112.9000	72.5551	.6239	.8665
A23	112.8143	74.0375	.4091	.8713
A24	112.7000	75.8072	.4467	.8713
A25	112.8714	75.3600	.2679	.8753
A26	113.3143	75.5810	.1410	.8839
A27	112.7429	75.9329	.3152	.8733
A28	113.0714	73.0818	.5039	.8690
A29	112.9714	71.1006	.5946	.8662
A30	112.8714	75.6499	.3127	.8735

Reliability Coefficients

N of Cases = 70.0

Alpha = .8751

N of Items = 30

Describe from results

From this questionnaire, the sixth and the seventh items have Corrected item- Total correlation a little (minus) and they have high Alpha if item deleted, it show that correlation of the two items relate to other items a little when the two items are deleted, Cronbach's Alpha Coefficients or Reliability Coefficients of questionnaire are higher [24,25,26].

Table 4 : Comparing the data between staff/ personnel and students

DOMAINS		Staff/personnel (42)		Students (30)	
		MEAN	SD	MEAN	SD
Domain 1	1	3.80	0.641	3.67	0.661
	2	4.39	0.972	4.37	0.850
	3	3.95	0.631	3.53	0.776
Domain 2	4	3.83	0.543	3.73	0.640
Domain 3	5	3.80	0.679	3.77	0.679
	6	4.20	0.401	4.13	0.346
Domain 4	7	4.07	0.346	4.13	0.434
	8	3.85	0.727	3.67	0.802
Domain 5	9	3.88	0.510	3.70	0.651
	10	3.98	0.418	4.07	0.365
	11	4.00	0.447	4.13	0.434
Domain 6	12	3.69	0.841	3.67	0.661
	13	4.05	0.528	4.03	0.414
Domain 7	14	3.74	0.701	3.77	0.626
	15	4.01	0.37	3.73	0.583
	16	4.05	0.379	3.80	0.664
	17	4.10	0.431	3.87	0.681
	18	3.90	0.484	3.53	0.819
Domain 8	19	4.05	0.582	3.73	0.691
	20	4.00	0.698	3.80	0.484
	21	3.93	0.463	3.93	0.450
	22	3.90	0.656	3.77	0.504
	23	3.93	0.677	3.87	0.730
	24	4.10	0.370	3.97	0.490
Domain 9	25	3.90	0.759	3.80	0.714
	26	3.48	1.131	3.30	0.988
	27	4.07	0.513	3.90	0.607
Domain 10	28	3.69	0.680	3.66	0.670
	29	3.81	0.707	3.73	0.828
Domain 11	30	3.98	0.604	3.70	0.596

From the table, all domains show that mean scores of the staff/ personnel are not substantially different from mean scores of the students.

3. Summary from Open- end questions

3.1 Educational curriculum of the Student Affairs Division : Phramongkutklao College of Medicine

Summary:

Most subjects are positive attitude to educational course about training for discipline and knowledge but they suggest to increase content and elective curriculum of military subjects. Someone suggests to focus for practice and only one dose not know data.

3.2 Objectives of educational curriculum

Summary:

Most subjects are positive attitude to objectives of educational curriculum and they suggest to increase course of leadership, participate in social much more, train for good discipline. Someone suggests to apply for real life.

3.3 Teaching technique of staff

Summary:

Subjects suggest to increase and improve teaching technique, focus to concept and practice. One subject describes technique that is composed of lecture and problem-based learning.

3.4 Culture of The Student Affairs Division: Phramongkutklao College of Medicine

Summary:

Subjects suggest that staffs should command and control army medical students in relative pattern, compromise, focus reason more than use power, construct a good identity and good culture of unit. Only one comments that culture of unit is decrease but he does not explain reason.

3.5 Expectation of educational curriculum

Summary:

Subjects describe the army medical students who graduated educational curriculum to have a good role and discipline for their patients, include a good personality. The curriculum can be applied to practice, focus to moral and union too.

3.6 Cooperation with other units (in assessment and other aspects)

Summary:

Subjects suggest that the unit should increase cooperate with other units, have active role and the unit may have agreement of the same opinion. Someone describes to hesitate for data.

3.7 Role of staff in assessing army medical students

Summary:

Subjects suggest that staff have a main role for the second and the third army medical students and they should make reasons for guidance and advising for army medical students. Someone suggests to improve discipline for army medical students and to decrease bias of staff in assessment. Criteria of assessment must be described whenever the medical students need more information.

3.8 Method of assessing leadership and conduct in army and non- army medical students

Summary:

Subjects suggest that staff should make clearly standard, train leadership much more. Both army and non- army medical students should be assessed by the same standard for reducing some problems. Someone describes that bias from peer assessment may occur.

3.9 Problems and obstacles in assessing army medical students

Summary:

- Subjects describe that staff should take care of everybody fairly but some staff may have bias to some medical students.
- Number of staff are insufficient so they assess army medical students by group more than individual.
- Peer assessment may assess incorrectly because of bias or no motivation.

- Assessment lack of consistency and sometimes, it depends on satisfactory of staff.

3.10 Other comments

Summary:

Subjects suggest that they need army medical students to improve discipline much more, increase training military subjects. Some subjects describe that The Student Affairs Division : Phramongkutkloa College of Medicine should reduce pressure from high level of executives and parents or relatives in training military subjects for army medical students.

Summary of this chapter

In this chapter, the research finding from both quantitative and qualitative data has been presented. The discussion and conclusion of the finding will be presented in the next chapter.