SEMESTER 5
LEARNING AND FOCUS GROUP DISCUSSION GUIDELINES

STUDENT BOOK

UNIVERSITAS GADJAH MADA
FACULTY OF VETERINARY MEDICINE
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FGD Book for Facilitator

Semester 5

Scenario 1-4

Integration and Synergy Courses:

- Virology and Veterinary Viral Disease
  - Veterinary Systemic Pathology
    - Veterinary Necropsy
  - Veterinary Clinical Pathology
    - Pharmacotherapy I

Fourth Edition
Year 2018

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Education goals of Faculty of Veterinary Medicine Gadjah Mada University (FKH UGM) which has been set in Renstra FKH UGM 2013-2017 are generating competent veterinarian in handling animal diseases and harmonizing animal health, human and its environment health, as problem solver pioneer of animal health problem, and ready to carry technical duties that fulfill standard competency of veterinary profession. Therefore it needs Higher Education curriculum that adjusted and harmonized to existing needs and developments, assessed periodically minimum once in 5 (five) years so that it fits to needs and demands of Higher Education graduates public user. Faculty of Veterinary Medicine hereafter, develops new curriculum with competency basis with SK Rektor (Rector Decree) No: 484/SK/HT/2013 on 24 July 2013, starting effectively since academic year of 2013/2014.

Main competency of Program Study FKH UGM graduates that develops in that curriculum is adjusted with mutual agreement in Provisions of Professional Education of Veterinary Assembly of Indonesian Veterinary Association (9 competencies), added with 9 supporting competencies that are development and characterization of Faculty of Veterinary Medicine UGM competencies.

Learning method applied is Student Teacher Aesthetic Rolesharing (STAR) or Student Centered Learning plus (SCL+) that combine Teacher Centered Learning (TCL) and Student Centered Learning (SCL) proportionally according to learning outcome that will be

achieved in learning. STAR principle is existence of harmonious relationship between lecturers and students, enhancement of reciprocal learning partners between students and lecturer, so *Patrap Triloka* is created, *ing ngarsa sung tulada, ing madya mangun karsa, tut wuri handayani,* lecturers properly becomes an example in front of students, motivates in the middle, gives supports behind with lecturers authority so that the students will develop. Harmonius relationship between lecturers and students is created since the beginning of the lectures through interaction in class and more focus through tutorial in Forum Group Discussion (FGD), and added with guidance to students to be long life learner.

Lecture delivery method in class is done by cooperative learning method, lecturers deliver materials and discussion, deliver what will be learn and why it needs to be learned by the students. On the inaugural lecture, coordinator of the Course (MK) deliver learning contract to students, learning contract content is suitable with Plan of Semester Learning Activities Program (RPKPS) that has compiled by lecturers team, introducing all lectures with each of their expertise with goal that the students know the lecturers and their expert since the beginning of the lecture, so that the lecturers are expected to be a role model for their students. After lectures in class are done, it is followed by tutorial activities in small classes thorugh FGD for SCL application. Delivery method in FGD at the beginning of the semester is done with collaborative learning method, while for the next semester it can be done using competitive learning, case-based learning, research-based

learning, problem-based learning, and other way used according to learning goals.

This learning and FGD guidelines book is used for lecturers/ facilitators in delivering lecture materials and guiding FGD process and students in doing FGD program. We wish that output result in this learning and education process in Faculty of Veterinary Medicine UGM is able to prioritize intellectual ability for sharpening hard skills and improving soft skills based on moral and veterinary Ethics, can conduct its students to achieve competencies that have set.

February,   2018
Dean

INTRODUCTION

Focus Group Discussion is done through discussion inside small classes to discuss existing tasks in a designed scenario so that students can understand significantly, deeply, not only in the form of theory but more realistic in the form of scenario through synergy and intregation of Virology and Veterinary Viral Disease, Veterinary Systemic Pathology, Veterinary Necropsy, Veterinary Clinical Pathology, and Pharmacoteraphy I Courses. Integral discussion from various course aims to support achievement of curriculum learning competency of Faculty of Veterinary Medicine.

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General Instructional Goal
Students are able to understand MK that learned through implementation of intregration and synergy among courses to complete/ improve/ sharpen each other and share scientific, skill, and behavior concepts.

Specific Instructional Goal
Students are able to understand significantly of Virology and Veterinary Viral Disease, Veterinary Systemic Pathology, Veterinary Necropsy, Veterinary Clinical Pathology, and Pharmacoteraphy I Courses that mutually synergized and intregrated in a scenario to be discussed.

LEARNING SCHEME

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FGD
Semester 5
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| Virology and Veterinary Viral Disease | Veterinary Systemic Pathology | Veterinary Necropsy | Veterinary Clinical Pathology | Pharmacotherapy I |

Synergy and integration among courses to built deeply and comrrehensively understanding to reach competency

Scenario 1:
Understanding Orf disease, the etiology (viruses morphology, character, biology and structure), pathogenesis, diagnosis methods, appropriate and integrated disease prevention and control

Scenario 2:
Understanding Jembrana disease, pathogenesis, Able to associate data from various laboratory , able to interprate data, diagnosis, holistic and integrated disease prevention and control

Scenario 3:
Understanding Rabies disease, etiologi, viruses character, and pathogenesis, Able to identify and diagnose rabid dog, Able to dan mampu mendiagnosis, Able to conduct appropriate handling, prevention and control of the disease

Scenario 4:
Understanding Canine distemper disease, pathogenesis, Able to associate data from various laboratory , able to interprate data, diagnosis, holistic and integrated disease prevention and control

Integral discussion from various courses through scenario in FGD aims to support curriculum competency learning achievement of Faculty of Veterinary Medicine.

Learning Outcome of Virology and Veterinary Viral Disease Course:

Students are able to understand viruses concept and viral disease in animals. Students are able to explain what are viruses? The differences with others organism, How viruse replicate, How viruses can infect and generate the disease and also understand important viral disease in animals.

Learning Outcome of Veterinary Systemic Pathology Course:

Students are able to understand and explain disease process in the body after exposed by destructive agent (physics, chemical and biological agent) in various animal organ system.

Learning Outcome of Veterinary Necropsy Course:

Students are able recognize and diagnose the disease which often occurs in animals through macroscopic lesion supported by clinical symptoms.

Learning Outcome of Veterinary Clinical Pathology:

Students are able to examine and interpret laboratory examination result including of blood, urine, feces, body fluids, enzymes, hormones analysis and associated the analysis result with clinical symptoms for diagnose the disease

Learning Outcome of Pharmacotherapy I Course:

Students are able to understand the various drugs mechanism/action; able to understand drugs therapeutic effects and provide appropriate treatment for disease; able to understand appropriate method/technique/procedure of drugs administration (dosage and application) in various species.

This learning activities series is prepared to direct the students reach learning goals:

1. **Learning method**

    Learning method used is through Student Teacher Aesthetic Role-sharing (STAR), by combining proportionally between teacher centered learning (TCL) and student centered learning (SCL) according to learning outcome that will be achieved.

    STAR principle is harmonious relationship between lecturers and students, enhancement of reciprocal learning partners between students and lecturer, so *Patrap Triloka* is created, *ing ngarsa sung tulada, ing madya mangun karsa, tut wuri handayani,* lecturers properly becomes an example in front of students, motivates in the middle, gives supports behind with lecturers authority so that the students will develop. Harmonious relationship between lecturers and students is created since the beginning of the lectures through interaction in class and more focus through discussion activities in forum group discussion (FGD), and student guidance to be a long life learner.

2. **Lectures**

    Lectures method is used by lecturers delivering/presenting materials and discussion, delivering what will be learned by the students and why should it be learned. On the inaugural lecture, coordinator of the Course (MK) deliver learning contract to students, learning contract content is suitable with Plan of Semester

Learning Activities Program (RPKPS) that has compiled by lecturers team, introducing all lectures with each of their expertise with goal that the students know the lecturers and their expert since the beginning of the lecture, so that the lecturers are expected to be a role model for their students. Plan of Semester Learning Activities Program (RPKPS) and teaching materials must be given to students to be copied (or given to Library as narration/ reference/ students learning materials). Coordinator of MK introduces all of lecturer team and facilitators involved from each division with each expertise.

In applying curriculum competency basis, lectures are held by combining with group discussion in small classes, aim to make students obtain enough lecture materials and followed by self-study time addition. Lectures are held based on specified learning outcome in reaching competencies. Integration and synergy among courses are held through FGD that discuss certain scenario, to increase and sharpen students understanding. Lectures can be held between FGD schedule, to give chance to student for clarifying and discussing unanswered students question in group discussion.

3. **Group discussion in FGD with facilitator mentoring**
    FGD is scheduled twice a week. If facilitator could not come because of certain reasons, it should be substitute by other facilitator. If at the fixed schedule the facilitator has not come yet, relevant students group should inform academic as soon as possible. During discussion process, all of the groups should bring relevant learning sources that might be needed during tutorial.

To reach learning goals in the first semester, collaborative learning method is used, that held in twice discussion meeting in discussing one same scenario. Basic questions that should be underlined are: What have we known? What else that we expected to know?

First FGD:
- All students are divided into 12 classes, each of class consist of 12-16 students.
- Facilitator explains the discussion process and scenario for discussion
- Facilitator divides the class into small groups of 5-6 students
- Facilitator asks each students to read the scenario relevant to materials learned
- Facilitator asks the students to do task relevant with perception and solution towards cases/problems in scenario
- Facilitator asks students to discuss their work results in each of their small groups, led by one of the students (as chairman) helped by one other students (as secretary)
- Facilitator asks each of small groups discuss the group agreement
- Facilitator asks each of the students to make report of discussion results with by searching reference sources as wide as possible. Contents of the report are: discussion topic, learning goals, learning scheme, analysis, conclusion, learning outcome (explaining student ability after discussing topic in scenario), references.
- Facilitator asks every small groups prepare their discussion results in the form of power point that

presented by one of the group representatives in the second FGD meeting.

Second FGD:
- Facilitator asks every students to submit complete report
- Facilitator asks each of the group to present group discussion result
- Facilitator asks other groups to give feedback to presentation result

Facilitator Job:
- Facilitator must be present on schedule. The facilitator's delay in attending is a maximum of 10 minutes (the rest will be replaced by a substitute facilitator).
- Directing and facilitating the discussion, lecturers put themselves as trend setter applying *patrap triloka ing ngarsa sung tulada, ing madya mangun karsa, tut wuri handayani* (in front becomes example, in the middle motivates, at behind gives support with lecturers authority so that students can develop).
- Giving assessment to students activities during discussion in the first and second FGD, with assessment through 3 aspects:
  1. A = Attitude (mental and manner) = affective
  2. S = Skill (competent, expert, adaptable to positive competency) = psychomotor
  3. K = Knowledge (building intellectual capital) = cognitive

4. **Group discussion without facilitator mentoring**
   According to group needs, students can held a meeting without facilitator. Aims of this discussion are varies, for

example, identify theory questions, identify group learning goals, ensure that group have already submitted all of the information needed, and identify practical questions.

5. **Practicum**

   Held by Laboratory in Division to enrich students understanding about discuss concept related to science development. Exercise to improve skills that needed by veterinarian to fulfill their competencies also given intensively (such as communication with clients skill, clinical skill, etc.)

6. **Expert consultation**

   This activity is held based on needs and held by groups of students, by directly contacting the relevant competent lecturer. It is very recommended for the chairman of the group make an appointment before with the relevant experts.

7. **Self study**

   As mature learner, students are expected to able to applied self-study, a kind of important skills for developing personality and career in the future. This skill including ability to find personal interest, find more information from various learning sources, decided the appropriate learning style, and identify further learning needs. Students will not feel enough to study only from lecture notes or text books. Self-study is the most important character of SCL approach, and in the certain level, study will be an unlimited journey.

8. **Class discussion**

Class discussion can be held through lectures between FGD schedules. The aims of this discussion are to give explanation and compare learning process among groups to prevent wrong direction groups in the discussion. All of the groups can propose certain issues to be discussed, and facilitator or lecturers will answer questions based on their own competencies.

GENERAL ASSESSMENT

Some assessments to evaluate students learning results achievement:

1. **Formative Exam**

   Students will be given series of pre-test or post-test during lectures. This test is unscheduled, so that will force students to learn the materials since the beginning of learning. This test gives contribution to student final grade. So that, if there is a student disturbed in their final tests, this tests will help the final grade result.

2. **Summative Exam**

   This exam is done in the mid-semester (mid-semester exam/ UTS) and semester final exam (UAS). Students should prepare themselves to take summative exam. A mature learner can achive better result because s/he can utilize time effectively to achieve goals.

3. **Remidial Exam**

   Students are possible to tak eremidial exam to improve grades of certain MK that failed. This exam is held at the end of final semester exam.

STUDENTS ASSESSMENT COMPONENTS
- ✓ FGD 15 %
- ✓ Practicum 25%
- ✓ UTS+UAS 60 %

Types of question:
- MCQ with answer types of a, b, c, d, e
- Essay
- etc.
  E

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ORF in Goat

It has been 2 days Ettawa goats in a livestock group were anorexia and lethargy. Veterinarian examined and found vesicles, pustules even ulcers and crusts around the mouth, nose and gingiva. Veterinarian suggested to separate the healthy and unhealthy goat into different group caused the disease is very contagious and tend to zoonosis. Veterinarian administered anti-histamine and anti-inflammation. Skin sample were collected from lesion for histopathology examination and viruses isolation. Virus inoculation in embryo-chicken eggs showed *white plaque* on the chorioalantois membrane and histopathology examination showed *Bollinger body* in the skin epithelium and chorioalantois membrane epithelium in embryo-chicken eggs.

Keyword : vesicles, pustules, ulcers, crusts, *Bollinger body*

Learning Objectives:
1. Students are able to know viral disease in goat, able to know character of the laboratory exanimation result, able to interpret laboratory data, able to diagnose, treat, and prevent the disease.
2. Students are able to trace the pathogenesis of the disease (philosophical concepts: what / what, why / why and how / how), diagnosis, disease prognosis and give suggestion for client.
3. Students are able to associate laboratory data from various laboratories as well as carry out integrated interpretations before heading to definitive disease diagnosis.

Bloody Sweat on Cattles

A farmer called a veterinarian hurriedly and asked to vaccinated the cattle because his neighbor's cattle was sick even died. Before dead, cattle were showed bloody sweat. Farmer remembered that the cattle could not be saved because the medicine for the disease has not been found yet. Veterinarian visited the farm and examined the cattle. The cattle were lethargy, thin, fever, cattle showed bloody sweat. Hematology examination showed leucopenia. Veterinarian explained to farmer that the cattle were suspected Jembrana, caused by *Lentivirus* and only suffered the Bali cattle. Advanced diagnosis might be done to confirm the disease. Blood sample examination was run for serologic test such as ELISA and antigen precipitation. However, lately it could be diagnose molecularly. Veterinarian administered anti-pyretic and B-complex to the cattle. Then, giving suggestion to the farmer that cattle shed might be cleaned and disinfected, controlled the insect around the shed because the Jembrana viruses transmission via blood sucking insect bites

Keyword: Jembrana, bloody sweat, serologic diagnosis, vaccination, Lentivirus

Learning Objectives:
1. Students are able to know the causative agents of bloody sweat, morphology and character of the virus, able to understand the mechanism and pathogenesis of disease, clinical symptoms, macroscopic and microscopic lesions which are generated and able to describe of clinical pathology.
2. Students are able to apply the basic concept of the case in the field with anamneses, able to observe the clinical symptoms, able to collect and analyze the sample, able to collect and interpret data from various laboratories before heading to definitive disease diagnosis give suggestion for client.
3. Students are able to know handling management in Jembrana disease, able to know Jembrana vaccine and prevention.

Rabid Dog

A resident in a village was passed away due to exposed the disease that is still rare around local resident. The chronology are : 3 months ago before he was sick, he was bitten by dog on the way to went home after picked up his sister. Actually, bite wound had medical assistance, but doctor in public health center did not administered anti-rabies vaccine and immunoglobulin caused out of stock. Three months later, he was unwell then had been observed by the doctor in the hospital and diagnosed rabies. According to one of family member, during sick, patient showed strange temperament such as afraid to the sunlight, screaming and drolling. Bite case had been reported to local livestock services, and the dog was caught and quarantined. 1 week after quarantined, the dog was died, clinical symptoms are violent when approached, bite the iron of the cage, excessive salivation, and staggered before death. Veterinarian diagnosed rabies and collected brain samples for histopathology examination then observed the neuron. Diagnostic confirmation was done by FAT test as gold standard for rabies examination. Gen amplification by using RT-PCR technique were done for diagnose confirmation. According to result of 3 type of examination, it concluded that the dog were infected rabies virus. Medication are not recommended for infausta prognosis. However, to reduce the suffering animal, it was recommended to administered nervous depresant drug, e. g. hypnotic sedative

drug group. Local livestock services launched rabies control program immediately, such as simultaneous rabies vaccination and titer antibody monitoring after vaccination by using ELISA examination.

Keyword: rabies, FAT, RT-PCR, *gold standard*, ELISA

Learning Objectives:
1. Students are able to know the causative agents of rabies, morphology, molecular biology, and the character of viruses, are able to understand the mechanisms and pathogenesis of infection, clinical symptoms, macroscopic and microscopic lesions caused by the rabies virus.
2. Students are able to understand the sampling concept of various diagnostic tests, able to understand diagnosis of pathology, virology, serology, and molecular and are able to analyze the results of laboratory tests for diagnostic purposes.
3. Students are able to understand governance in handling rabies cases, able to develop rabies vaccination programs in animals, prevention and control programs.

Scenario 4

Canine Distemper

Tamara said "Loving pet lead the client to learn about his/her pet health". Tamara receive 6-months old Dachshund from her friend as a birthday present. The dog were buy by her friend from Pasar Pasty (Animal and Plant Market in Yogyakarta), Dongkelan, Bantul.

The dog were examinated by veterinarian cause it showed clinical signs : discharge from the eyes and nose, coughing, dyspnea, convulsions, chorea, anorexia, vomiting, diarrhea, depression, biting and drolling. Blood smear examination showed inclusion body in erytrocytes, neutrophils cytoplasm, lymphocytes and monocytes. The result of advanced blood examination was still waiting for laboratory confirmation. Veterinarian prescibe anti-histamine, decongestan, transquilizer, and non-specific anti-diarrhea. Veterinarian gave the suggestion to investigate the animal before they were bought. It's mean that buyer must ask the origin of animal, breed of animal, health history, especially vaccination program, routine anthelminthic administration etc. Tamara said, "experience is the teacher".

Keyword : *Canine distemper*, dyspnea, convultion, anorexia, vaccination.

Learning Objectives :
1. Students are able to trace pathogenesis, philosophical concepts of disease: what, why, how, able to analysis sample examination, diagnosis, prognosis, disease therapy and able to give advice to clients.
2. Students are able to know dog disease caused by viruses, able to know characterized features of the results in pathological examination and able to interpret laboratory data.
3. Students are able to associate clinicopathology laboratory data as well as carry out integrated interpretations before heading to definitive disease diagnosis