

**Human Resources Management for Pharmacists
PHRD 525**

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Problem-Based Learning Course Portfolio

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Previous practice experience includes work in hospital, home care, and ambulatory infusion settings and she was an intermittent Home Care surveyor for the Joint Commission on Accreditation of Health Care Organizations from 1990 to 2001. Since 1996, Monk-Tutor has been a full time faculty member at the McWhorter School of Pharmacy, Samford University, where her academic responsibilities include teaching courses for Doctor of Pharmacy candidates in Fiscal Management/Pharmacoeconomics and Human Resources Management. She has been extensively involved in the design and delivery of pharmacy courses using a problem-based learning format since 1998, including development of an integrated curriculum. She has published over 30 articles, and made numerous national presentations on the topics of home care, administrative pharmacy practice, and pharmacy education, including problem-based learning.

Monk-Tutor is a member of AAHE, APhA, AACP, ALSHP and ASHP. She is a past chair of the AISHP Home Health Care Committee (1999-2000) and has been active in the ASHP Section of Home Care Practitioners, including roles as chair of the Continuing Education Committee (2000-2001) and Director at Large of the Section (1997-1999).

Introduction: In re-designing this course into a PBL format, my pedagogical intention was to provide a learner-centered environment as opposed to an instructor-centered environment that used ill-structured problems to help students build an understanding of the complexity and ambiguity of human resources management practices as well as build practical skills in communication, teamwork, problem-solving, conflict resolution, and leadership.

Course Design: The PBL format was totally integrated throughout the entire course through four problem modules.

Mini-cases were used to provide students with basic understanding and application of the content area, followed by more complex cases for the integration and analysis of material. Other active learning strategies used during the course included think-pair-share discussions, "round robin" discussions, individual and group assignments, simple and complex cases, individual objective exams, group essay or case exams, peer and self assessment of skills developed during the course, board exercises, a field trip to a pharmaceutical wholesaler, role playing and student course portfolios.

Students were responsible for preparing written case summaries and participate in group discussions. Students were involved in peer and self assessment of attendance, preparation, attitude and contributions to group work. Student assessment for the course were expected to be based on group

quizzes (no exams), case-based group exercises and minimum of three complex cases (including self and peer assessments).

Thesis: Based on the content and nature of the course, the need for students to develop real-time skills in identifying, solving and if possible, preventing management problems that are common to all pharmacy practice sites and instructor experience with PBL; it was expected that at least 50 percent of the course material would be taught using a PBL format. Because of the fit of the active learning model with the skills that needed to be developed in the course, the instructor was able to use a combination of group work, interactive cases, and problem-based lectures to convert 100 percent of the course material to a PBL format.

My research questions, based on goals and challenges associated with my course were:

- 1) How can active learning techniques, including PBL and group work, be used most effectively in a large class to teach students the knowledge and skills required for optimal pharmacy management?
- 2) How can I use a student course portfolio and an instructor course portfolio to better assess and improve the processes of teaching and learning that go on in my class?

Course Management: Pharmacy Human Resources Management (PHRD 525) is a 3-credit course that meets for 15 weeks for 3 hours a week from 8:00-9:00 a.m. on Tuesday and from 10:00-noon on Wednesday. The one hour Tuesday class each week was spent on short problem-based lectures and the introduction of exercises and/or cases. The two hour Wednesday class each week was spent on small group work and class discussions.

Class size – 94 students were enrolled in the course. There were no student tutors or faculty facilitators available to assist in implementation of the course. Also, there was not additional physical space to accommodate having either a separate meeting room for each group or single meeting room large enough for all groups to have enough privacy to work efficiently and effectively.

I divided the students into 23 groups consisting of 4-5 members (21 groups of 4 and 2 groups of 5). Groups were chosen using random sampling techniques adjusted somewhat for student gender, culture, and other classes each student was taking the same semester (the same groups were also used in other third year courses during the same semester). From that experience, we at MSOP found that placing a student in more than one group made it almost impossible for students to be able to meet with multiple groups outside of class and contributed to intra-group conflicts. Each group developed their own ground rules during the first to second week of class and group members rotated roles with each project so that everyone had at least one opportunity to serve in each role. Designated group roles included: supervisor, scribe, motivator, thoughtful skeptic and researcher.

Progressive disclosure format was used in integrated complex cases. The primary use of active learning strategies was to enable the integration, analysis and synthesis of information to solve a contemporary problem in pharmacy practice management. Students were expected to spend time outside of class researching and developing these cases with the majority of class time devoted to discussions of questions and application of content material.

One faculty member (the instructor) facilitated all class group work with the exception of two role playing activities and a field trip to a local pharmaceutical wholesaler. Because all 94 student were in the same physical space with a single facilitator, precluded a meaningful discussion between various groups, although the "round robin" technique helped somewhat.

Description of a Problem

Case 1 – Organizational Structure and Culture (community/pharmacy setting)

Case 2 – Supervisory Skills I: Employee Selection Skills (hospital pharmacy setting)

Case 3 – Supervisory Skills II: Conflict Management Skills (ambulatory care/infusion therapy setting)

Case 4 – Career Preparation (individualized to each student)

Case 3 – The topic of Case 3 was Conflict Management. I initially developed this case for the Spring 1997 course as a written report that was to be prepared outside of class by each individual student and then discussed in class in groups of approximately 25 people. For the spring 1999 course, I revised the case so it had a written individual component, a written group component, and both small group (5-6 students without their own facilitator) and large group (24-25 students with on faculty facilitator) discussions. The case was also made more complex with the addition of information about employees from their personnel files and a clinical component, development of a chemotherapy drug protocol. The case was also reformatted into a progressive disclosure problem. Concepts from the new “texts” chosen for the course, The One Minute Manager and Leadership and the One Minute Manager were woven into the case, along with personality typing information.

Case 3 worked extremely well, and I felt it was the crowning achievement of a year of writing and using PBL cases. Strong points of this case included its integration from all three student texts for the course, a clinical component that reflected a recent topic in Therapeutics II, incorporation of concepts from both Cases I and II, and the ability to engage students in the problem via a progressive disclosure format.

The weakness of this case was that for the final discussion period, I had each group create and perform a skit describing how they would discipline one of the problem employees in the case. The amount of time required for all 23 groups to perform a 5 minute skit also resulted in little time for in-depth discussion of the concepts presented. I feel I will continue to keep this role play portion of the case intact but need to improve this learning exercise in the future. Possible suggestions include assigning a certain employee to each group, call on only some of the groups to perform their skit (although everyone would need to prepare) if using a single facilitator, or dividing the class into small groups of approximately 25 and assigning a facilitator within each group to guide discussion of the skits to a deeper level.

Sample Problem

Topic: Supervisory Skills I: Employee Selection Skills (hospital pharmacy setting)

Memo: Congratulations on your promotion! As a new Supervisor at our hospital; you have the responsibility of hiring and training all new pharmacists and technicians for your practice area. As you know, we are in the process of hiring a pharmacist to fill the vacant inpatient position for a Clinical Pharmacist in Internal Medicine. I have already completed an employee recruitment program and have narrowed the pool of job applicants down to those who will be interviewed on site. I would like for you to take over the employee selection immediately. I look forward to hearing from you soon regarding your progress.

xc: Mrs. Ima N. Charge, Human Resources Department

What do you know?

What do you need to know?

How can you find the answers? Where can you look for resources? What are some possible resources?

Memo: The hospital job description for the pharmacist position in Internal Medicine is attached for your review. Note that it is hospital policy that all employee benefits are discussed with job applicants by a member of the HR Department. Therefore, please defer any questions from interviewees regarding benefits during your own interview process. I will contact all candidates to discuss the specifics of our excellent employee benefit plan after you have completed interviews in the Pharmacy Department.

Please do not hesitate to contact me if I may be of further assistance as you complete the interview and employee selection process.

xc: Mr. Ingalls Hall, Director of Pharmacy

What do you know?

What do you need to know?

How can you find the answers? Where can you look for resources? What are some possible resources?

(Individual report, due 4/6/99)

Memo: As I mentioned in my last memo, I have already completed an employee recruitment program and have narrowed the pool of job applicants down to the top four candidates that you will interview on site for the Internal Medicine position. You have been scheduled to meet with each of these candidates individually between 8:00 and 10:00 am on 4/13/99. My secretary will provide you with the exact schedule for interviews.

I know this may be your first experience interviewing and hiring staff, therefore, to facilitate your decision process, I would like you to review the attached resumes and prepare a written report (with a cover memo) for me by 4/6/99 outlining each of the following:

- 1) A brief summary of each candidate based only on their resume, including your assessment of their strengths, weaknesses, leadership potential, ability to work with others, communication skills, and any particular problems/questions you have regarding the resume itself (use complete sentences).
- 2) Rank each of the candidates based only on their resume and justify why you plan to offer the job to the top candidate on your list. Please use concrete examples in your justification based on the job description, resumes AND your evaluation of this material (use complete sentences).
- 3) A list of at least five questions you would like to ask each job applicant (you may need to ask different applicants different questions based on their resume).
- 4) A list of at least five questions that you anticipate that job candidates may ask you during the interview and your proposed answer (or your plan for finding out the information that you will need to answer the question).

I look forward to reviewing your recommendations regarding the selection of a pharmacist to fill this position. Please do not hesitate to contact me if you have questions about this process.

Attachments: Candidate Resumes

What do you know?

What do you need to know?

How can you find the answers? Where can you look for resources? What are some possible resources?

(Group report, due 4/14/99)

Memo: I would like to meet with you on Wednesday, 4/14/99, at 11:00am, to discuss the results of the job interviews you conducted on 4/13/99. I know this may be your first experience interviewing and hiring staff. An evaluation form is attached that may assist you in your evaluation of job candidates during the interview process. Also, to facilitate our discussion, I would like you to prepare a written report (with a cover memo) for me by 4/14/99 outlining each of the following:

- 1) A brief assessment of each candidate based on both their resume and their interview including their strengths, weaknesses, leadership potential, ability to work with others, communication skills, and any particular problems/questions you have regarding the resume itself (you may use a list or table format (complete sentences are not necessary). Our discussion here will focus on how your assessment of each individual may have changed between the resume review state and the actual interview.
- 2) Rank each of the candidates based on both their resume and their interview and justify why you plan to offer the job to the top candidate on your list. Please use concrete examples in your justification based on the job description and resumes AND your evaluation of this material (you may use a list or

table format – complete sentences are not necessary). Our discussion here will focus on how your ranking of candidates may have changed between the resume review stage and the actual interview. I look forward to discussing your selection of a pharmacist to fill this position. Please do not hesitate to contact me if you have questions about this process.

Attachment: Candidate Evaluation Form

What do you know?

What do you need to know?

How can you find the answers? Where can you look for resources? What are some possible resources?

Appendix: Interview Schedule
MEMO

To: Students in PHRD 525, Human Resources Management
From: Mary R. Monk-Tutor, Secretary to Mr. Ingalls Hall, Director of Pharmacy
Subject: Interview Schedule for Tuesday, April 13, 1999
Date: January 4, 2002

Interviews for the open position in Internal Medicine will be conducted at the McWhorter School of Pharmacy at Samford University from 8am to 10am on Tuesday, April 13, 1999. Your interview schedule, including room and group assignments, is listed below. **Please be on time and sit in the appropriate section of each room - tables for each interview group will be identified.**

- Remember that Mr. Hall would like to have your written group recommendations regarding which candidate to hire by **11am on Wednesday, April 8.**

ROOM 114

Interview Group 1: Groups 1,2,3

8:10am Debbie Wadsworth
8:35am Jimmy Ball
9:10am Elizabeth Reeves
9:40am Walter Smith

ROOM 114

Interview Group 3: Groups 7,23

8:10am Elizabeth Reeves
8:35am Walter Smith
9:10am Debbie Wadsworth
9:40am Jimmy Ball

ROOM 114

Interview Group 2: Groups 4,5,6

8:10am Walter Smith
8:35am Debbie Wadsworth
9:10am Jimmy Ball
9:40am Elizabeth Reeves

ROOM 114

Interview Group 4: Groups 8, 9,10

8:10am Jimmy Ball
8:35am Elizabeth Reeves
9:10am Walter Smith
9:40am Debbie Wadsworth

ROOM 113

Interview Group 1: Groups 11,12,13

8:10am Elizabeth Reeves
8:35am Jimmy Ball
9:10am Debbie Wadsworth
9:40am Walter Smith

ROOM 113

Interview Group 3: Groups 17,18,19

8:10am Debbie Wadsworth
8:35am Walter Smith
9:10am Elizabeth Reeves
9:40am Jimmy Ball

ROOM 113

Interview Group 2: Groups 14,15,16

8:10am Walter Smith
8:35am Elizabeth Reeves
9:10am Jimmy Ball
9:40am Debbie Wadsworth

ROOM 109

Interview Group 4: Groups 20,21,22

8:10am Jimmy Ball
8:35am Debbie Wadsworth
9:10am Walter Smith
9:40am Elizabeth Reeves

The focus of this case is on using your personal supervisory skills to efficiently and effectively achieve organizational goals related to employee conflict and discipline.

Memo: You are the Pharmacy Supervisor at Oncology Care Services, a busy suburban cancer treatment center where you have worked for two years. The center employs physicians, RNs, LPNs, pharmacists, pharmacy technicians, radiology technicians and support staff. On Tuesday afternoon, April 18, you return home from a well-deserved, week-long vacation in Hawaii. Among the many messages on your answering machine is the following:

"Uh, hi...this is Laura from work...I know you're out of town right now, but please call me at home as soon as you get this...I need to talk to you about something Jill did at the pharmacy today.." [Friday 4/13, 4pm].

Hearing the message makes you feel tense and angry and you say to yourself, "Why can't they leave me alone while I'm on vacation? I'll see Laura when I get back to work tomorrow, so I'm not going to spend my last night of vacation listening to her stupid personal problems."

Are there any terms with which you are unfamiliar?
What possible problem employee behaviors can you identify?
What will you do as a result of this information?

Give at least three options.

You arrive at work early on your first day back after your vacation so that you can look through your mail before the clinic gets busy. You find the following memo under your door in a sealed envelope that is marked "confidential."

Memo: Yesterday, in your absence, I was made aware of a problem in the outpatient high-dose chemotherapy clinic involving pharmacy employees. I will briefly describe for you the facts as I know them:

On the morning of April 13, Laura Reynolds paged me ("stat," I might add) because she and Jill Applegate had a "disagreement" in the pharmacy and she wanted to tell someone in management about it "before they heard it from someone else." Apparently, the two of them had conflicting opinions as to who was responsible for arranging a meeting with the wholesaler about a new automated distribution system. I heard only Ms. Reynold's side of the story, but it was evident that a good bit of yelling and crying, and door-slamming had occurred, and some of this was witnessed or overheard by patients. I immediately spoke with Carol Phelps, the pharmacist in charge for the day, who was close to tears herself. I stepped in and insisted that all employees behave professionally or be sent home for the rest of the day without pay. While this was a temporary solution, you need to address this issue in a more formal manner as soon as possible.

I am aware that there have been personal conflicts in the past among various pharmacy employees, however, the above situation cannot continue without hurting both the morale and the productivity of the pharmacy department. As the pharmacy supervisor, it is your responsibility to resolve this personnel conflict and develop an appropriate disciplinary plan for each problem employee. I suggest you review the company employee. I suggest you review the company policies on discipline. Please be prepared to discuss your actions with me during our monthly management meeting on May 14 from 8-10am.

xc: Jill Applegate, senior Pharmacy Technician

Laura Reynolds, C.Ph.T, Pharmacy technician, Human Resources Department

Are there any terms with which you are unfamiliar?
What possible employee behaviors can you identify?
What will you do as a result of this information?

Give at least 3 options

Case 3

Conflict Management Skills

Objectives

- 1) Understand the concepts of good leadership and supervisory skills and APPLY them to a business situation
- 2) Identify and understand possible reasons for problematic behaviors among employees
- 3) Develop an appropriate discipline plan and a conflict management plan to deal with employees who exhibit problem behaviors in the workplace
- 4) Use personality typing and situational leadership skills to help resolve personnel problems

5) Demonstrate communication, cooperation and consensus-building skills during professional discussion with a group of peers

Required Reading:

- 1) Leadership and the one Minute Manager (LOMM) (read entire book by 4/25)
- 2) Effective Pharmacy Management: Chapter 12, pp 403-420

Other suggested resources:

Students are expected to search for other sources of information to supplement class notes in order to develop solutions for the case.

- 1) CM Nimmo. Staff Development for Pharmacy Practice. Bethesda, MD: ASHP, 2000
- 2) LB Murdaugh. Competency Assessment Tools for Health-Systems Pharmacies. Bethesda, MD: ASHP, 2000
- 3) The following videos are available to be checked out from the instructor or viewed during group work sessions. The Performance Appraisal, Making Diversity Work, Conducting the Performance Appraisal, Hiring and Firing: Things you need to know, Managing Performance Problems

Wednesday 4/11

Kiersey Temperament Sorter

Mini-lecture: Personality typing

Wednesday 4/18

Receive/ review case objectives/directions

Receive case pages 1,2,3/discussion

Mini-lecture: Employee Discipline

Tuesday 4/24

Receive case pages 4, 5/discussion

Mini-lecture: Leadership and the OMM

Wednesday 4/25

Videos: Managing Performance Problems (30 min)

Quality Improvement (15 min)

Tuesday 5/1

Lecture: Power and Motivation

Individual report due to group

Group work (~ 1 hour)

Wednesday 5/2

Special Guest: Mark Todd, Farmed, Director of Pharmacy, UAB Hospitals (roll taken)

Tuesday 5/8

Video: Performance Appraisal (~ 30 min)

Discussion: Competency Testing

Group Work (~ 1 hour)

Wednesday 5/9

11am Course Evaluation (Ms. Landry)

Part 1: Application exercise for Case 3 (25 pts)

Group Work (at least 20 minutes)

5/11

The Portfolio is due by 4:30pm. Place in box outside my office (310). Note: You may use an un-graded copy of your case 3 group report in the portfolio. See me if you have questions about including case 3 work.

Tuesday 5/14

Final case discussion/skits

Case 3 group report due

Part 2: Application exercise for Case 3 (25 pts.)

Wednesday 5/15

Course review/celebration!

Remaining assessments (outcomes, PBL)

Do you play basic level guitar, etc.??

Case Instructions

The focus of this case is on using your personal supervisory skills to efficiently and effectively achieve organizational goals related to employee conflict and discipline.

Individual Reports – due to group on 5/1 (Place copy in Group notebook for MMT) Prepare a report (with attached cover memo addressed to members of your group) that answers each of the questions below. Lists or tables are acceptable where appropriate.

- 1) Identify and define any terms in the case or readings with which you are unfamiliar.
- 2) Identify any inappropriate/problematic behaviors that have occurred in the case.
- 3) Based on what you know about the employees, why might these behaviors have occurred? (e.g., think about the possible needs, motivations or other reasons that may have resulted in the problem behavior).
- 4) What questions or comments do you have for Laura Reynolds and Jill Applegate?
- 5) What questions or comments do you have for Carol Phelps and Russell Cornelius?
- 6) List the resources (written, video, persons, etc. you used to assist you in your report.

Group Reports are due on May 14 (30 Pts.)

Prepare a short report (with attached cover memo addressed to Dr. Tattletale) that answers each of the questions below. Lists or tables are acceptable where appropriate.

1. What is your specific disciplinary plan to deal with each employee who exhibited problem behaviors? Justify why the plan was chosen for each employee, including the leadership style you feel is most appropriate to use with each employee and why it is the most appropriate style.
2. Include as attachments: copies of any written information that should be provided to any problem employee or put in the personnel file as part of your discipline plan.
3. Develop a policy on competency testing for clinical pharmacists at Oncology Care Services, including the specific skills that should be evaluated for a pharmacist in Russell's position, how often skills should be evaluated, and the process to follow if a pharmacist does not pass a competency review.
4. List the resources (written, video, persons, etc.) you used to assist you in your report. Include at least two references from the primary literature (journal articles or online) on the topic of situational leadership, conflict management, competency testing, or employee discipline.
5. NO GROUP PROCESS REPORT FOR THIS CASE

Group Activity – May 14 in class, 8-9am (15 pts)

1. Prepare a short skit (5 minutes or less) to depict a situation (one you were involved in, something you witnessed, something you make up, etc. – does not have to be about pharmacy) that involves conflict between at least two persons that was not handled appropriately. All group members should be involved in the skit in some way and be present on the day of the skit, but all do not have to have an 'acting' role.
2. First, portray the conflict situation as it actually occurred (the "don't").

3. Second, ask other groups for suggestions on how the conflict could have been handled better. Get at least 3 alternatives and record on the sheet provided that day.
4. Third, using your knowledge of One Minute Manager principles, personality typing, situational leadership, motivation theories and employee discipline, portray the situation using good conflict resolution techniques (the "do").
5. Fourth, lead a brief discussion of why the actions depicted in the second version of the skit were a more appropriate way to deal with this specific situation. Address the following in the discussion and record the answers to each on the sheet provided that day:
 - a) What specific conflict management skills/tools were used?
 - b) What style of situational leadership was used and why?
6. Each group will perform their skits for 5-6 other groups; the best skit from each group will be presented for the entire class.

Room 109:

Groups 13, 14, 15, 16, 17, 18

Room 113

Groups 7, 8, 9, 10, 11, 12

Room 114

Groups 1, 2, 3, 4, 5, 6

Room 211

Groups 19, 20, 21, 22, 23

Further down in your stack of mail you find the following memo:

To: Your Name!, PharmD., Supervisor of Ambulatory Pharmacy Services
From: Rhea Serch, R.N., Rh.D., Director of Clinical Trials
Re: study XFWSD-28 Treatment Protocols
Date: April 11, 2000

Last week Russell Cornelius turned in the final copy of the treatment protocols for our newest investigational trial, Study XFWSD-28. It is my understanding that he has been working on this project for almost a month and that this is one of his major job responsibilities. Upon reviewing the information, I was disappointed to find numerous errors and incomplete work. I have attached a copy of what Russell submitted, with my comments regarding his numerous mistakes.

I discussed this with Dr. Cornelius who stated that he was hired to do purely "clinical" work and that if "paperwork" needed to be done in the future he would appreciate it being assigned to Ms. Phelps. I needed the corrections to be made immediately and because you were out of the office I gave the work to Ms. Phelps, who did an excellent job completing the work by the end of the day.

I am concerned about Dr. Cornelius' attitude toward his work as well as his job performance and level of competency. Please set up an appointment with me as soon as possible to discuss this issue.

xc: Human Resources Department

Attachment: Incorrect protocol as turned in by Dr. Cornelius

Are there any terms with which you are unfamiliar?

What possible problem employee behaviors can you identify?

What will you do as a result of this information?

Give at Least 3 options

You need to review the policies on discipline and ask the secretary to pull a copy for you (attached). As you look through the policy manual you note that Oncology Care Service currently has no policy on competency testing for its pharmacy employees. You also decide to review the personnel files for Carol, Russell, Jill and Laura and note the following information and make a copy of each employee's last performance evaluation.

Carol
B.S. Pharmacy, Tennessee, 1983
Personality typing: INFP
Hired: October 1995
Next performance evaluation: October 2001

Russell
Doctor of Pharmacy, Samford, 1997
Personality Typing: ENTJ
Hired: April 2000
Next performance evaluation: April 2001

Jill
Personality typing: ISFJ
Hired August 1993
Next performance evaluation: August 2001

Laura
Personality typing: ESFP
Hired: November 1996
Next performance evaluation: November 1996

Are there any terms with which you are unfamiliar?
What possible problem employee behaviors can you identify?
What will you do as a result of this information?

Give at least 3 options

Assessment: Cases 1, 2, and 3 included both a graded individual and a graded group component. Individual students were assessed by the instructor based on the comparison of a typed, professional memo and groups were assessed by the instructor via the completion of a typed, professional report with an attached cover memo. Average group case length was 10 pages. The performance of all group members was assessed at the completion of each case via a self assessment and a peer assessment from all other members of the group. The self/peer assessment counted 5% toward the total grade each for Cases 1, 2, and 3.

The mean group score for each question on the peer assessment was calculated by the instructor and provided as feedback to the student for comparison with their own self-evaluation score. The purpose of this comparison was to provide an opportunity for students to improve their own self assessment skills as well as to improve their performance in areas that other group members felt were weak.

The instructor reviewed and compared the pre test and post tests for each of the 23 groups in the course. Scores for each question were evaluated on the correctness as well as the group members self reported confidence in their answer. Fourteen groups (60.1% of groups) improved their score, five groups (21.7%) achieved a lower score and there was no change in the score for 4 groups (17.4). Interestingly (and disappointingly), student confidence in their answers often increased more than did correctness of their answers.

Portfolios were actually received from 81.1% (77 of 95) of the class. Assessing the course portfolios was much more interesting than grading traditional exams, and reading students comments in the portfolio convinced me that even though improvements need to be made in this PBL class, the course goals had indeed been met. It was evident that the portfolio was something each student was proud of and that most students intended to keep for future reference.

Grades - Student grades were based on a combination of both individual and group work. For group cases, 30% of the final grade was based on written individual work, 50% was based on written group work, and 20% was based on attendance and participation in group discussion. Students had the option of completing an individual, take-home, comprehensive final exam or an individual reflective course portfolio. See course syllabus for a thorough explanation of assignments and grading policies for this class.

Average exam grades for the Spring 1998 and Spring 1999 class; were reviewed by the instructor at the completion of the PBL course. Direct comparisons in student grades cannot be made because of the difference in course formats and timing of exams. For example, in the Spring 1998 class, there were two exams, both of which were based entirely on individual student work. In the Spring 1999 course, there were no exams during the semester, two group quizzes, and for the final exam students had the choice of completing a comprehensive take home exam or a course portfolio. While no conclusions can be made from the data, I have included average exam grades from the two courses as supplemental information in Table 1. In the future exam grades for PBL versions of the course can be compared with the 1999 data.

Table 1: Average Grades for PHRD 525 for 1997, 1998 and 1999

Spring 1997 (pre-PBL)		Spring 1998 (pre-PBL)		Spring 1999 – (PBL)	
Exam 1	93.9			Group Quiz 1	92.5
Exam 2	93.4	Mid-term	88.6	Group Quiz 2	94.5
Final Exam	96.6	Final Exam	83.2	Final/Portfolio	95.7
Final Grade	98.3	Final Grade	92.4	Final Grade	91.2

Faculty Experience

My involvement in this project has given me the opportunity to learn about the “science” of education and make valuable contacts with learner-centered educators all over the world. This course needs some modifications and I have still not resolved how additional facilitators might be made available for use in this course. However, I am convinced the PBL format is the best way for students to learn this content material.

Student Evaluation

Instructor comments on Student Evaluation of Self and Peer Assessments

Discussions with the LEARN team during the semester indicated that the class as a whole felt that the revised self/peer assessment form was an improvement over last semester. Neither individual students nor the LEARN team made any suggestions for changes, however, I believe the opportunity exists for additional improvements.

Student suggestions from last semester that I am still interested in incorporating, if possible, include the following:

Include more verbal assessment of yourself and your peers, and consider assessing only the supervisor within each group for each case or project, have the students to complete assessments outside of class to decrease peer pressure. One way to do this might be through the use of an E-mail or an Internet program that would calculate the data and provide feedback immediately.

A final course assessment form

The purpose of this assessment was to collect feedback on the course regarding both the use of PBL and specific human resources management content areas. I plan to use this evaluation in the course again next year so a comparison may be made regarding the degree of problem-solving and active learning used by students in the course. No such information was collected from students who took the course before it was converted to a PBL format, therefore, no comparison may be made at this time. Students were given an option of completing narrative comments on the survey, which were completed by 23 students (24.5% or 23 of 94). All students were asked to complete the multiple choice section of the survey and 98.6% response (94/95) was achieved.

Instructor Comments on Instructor-Developed Course Assessment – Course Organization

In general, I believe the overall course organization was done well considering the course was taught in a new format and I was unsure of how much time to allow for certain activities and group work. I learned with PHRD 524 that it was a mistake to build in too much specifics in the course schedule, especially the first time a course is taught in the PBL format. The use of E-mail was an effective and efficient way to communicate to the students. In the future, I plan to continue using this method of class organization, at least until I can better gage the time requirements. In addition, I feel this method will be helpful when I incorporate any new material into the class as the same problem of time management will occur to some degree with each new case or exercise. I do feel I did a good job of being flexible in class and making needed adjustments to the schedule as the class progressed through the semester.

Attitude/Availability

I was pleased to see the students felt I was enthusiastic about the class and supportive of students, and I was available to meet with them, individually or in groups, when they needed. No suggestions for improvement were given by students in this area.

Teaching Ability

Students noted only two areas for improvement: decrease repetitious activities or tasks and improve general time management of the course. I agree with both these suggestions and will attempt to improve these issues in the future. It should be noted, however, that some degree of repetition was built into class activities for consistency, e.g., process of receiving and progressing through cases and methods of assessment. I believe the comments of those students who mentioned the class sometimes seemed repetitious may have been the result of the skits performed during the last case discussion, which occurred during the same period but just prior to the final course assessments.

Revisions were made to the assessment forms and the assessment process used in this course from those used in PHRD 524 in the Fall of 1998. As a result, students had no concerns about assessment in PHRD 525 and one student even noted that I had responded to student suggestions regarding assessment forms from the previous semester.

Cases

Most comments focused on changing the skits in Case 3, increasing guided discussion time, and decreasing "busy work." All the activities and assignments were designed to convey important concepts; therefore, I do not feel any of them will be deleted in the future. I do believe, however, I need to improve my "wrap up" discussions after these activities so the students can clearly connect the assignment to the concept I intended to demonstrate.

PBL

I feel strongly that PBL is an appropriate format for the material in this course, and the majority of students (71.3%) agreed. However, the course does need some revision. I will continue to explore the use of progressive disclosure in management cases as well as the development of more cases with a clinical component (as in Case 3). In addition, problem areas such as the use of group work in multiple

classes that do not allow time for groups to meet in class and the best way to structure groups will need to be addressed.

When asked if they would like to take another class designed like this one over 70% (71.3%) agreed as compared with 35.7% for PHRD 524 in the fall semester. The majority of the class (93.6%) rated the course as excellent or average (75.0% for PHRD 524) as compared with other taken at MSOP. Almost 35% (34.0%) of students felt the course was excellent (5.7% for PHRD 524) and 59.6% (69.3% for PHRD 524) felt the course was average. Only 3.2% (11.4% for PHRD 524) of student felt the course was poor or a waste of time. About two thirds of the students rated the instructor as excellent (66.0%) (43.1% for PHRD 524) and another 29.8% (69.3% for PHRD 524) felt the instructor was average. No student (0.0%) (4.6% for PHRD 524) felt the instructor was poor and none (0.0%) felt the instructor "needs very much improvement" (0.0% for PHRD 524).

Students were asked to rate the importance of 19 skills in their success in the course (**Table 8**). Again, no past data was available for comparison; however, some interesting trends emerged. In general, communication skills were rated as being important for a student's success in this course. For example, almost 90% of the students felt both written communication skills (89.4%) and verbal communication skills (88.3%) were either extremely or very important for success in the class. In addition, over 87% of the students felt collaboration with other students (91.5%) and interpersonal skills (90.4%) were either extremely or very important for success in the class. Trust in other students was rated as being either extremely or very important by 71.3% of the students and supervisory skills were rated as being either extremely or very important by 65.9% of students.

In keeping with goals of the course in the PBL format, about 80% of the students felt the application of material (85.1%), personal initiative (82.9%), attendance (79.8%), problem solving skills (78.7%) and learning new information (78.7%) were either extremely or very important for success in the class. Only 15.9% of the students reported that taking notes in class was either extremely or very important in the course, and only 2.1% of the students felt that memorization was either extremely or very important in the course. Less than 5% (4.3%) of the students felt that prior knowledge of the content material was required to be successful in the class.

These results indicate that many of the reasons for the use of a PBL format were achieved. For example, students clearly indicated that lower order cognitive skills such as memorization were not important for success in the class while higher order skills such as problem solving and communication and interpersonal relations were extremely important. Unfortunately, a similar final course assessment was not conducted for pre-PBL versions of this course for comparison. Less than 45% (44.7%) of students indicated that research skills were important for success in this course. While my goal is for more students to rank this as an important skill in the course, I suspect it is much higher than it would have been for previous non-PBL versions of the course.

Table 8

Instructor's Final Course Assessment Student Ranking of skills Important for Success in PHRD 525 (Human Resources Management for Pharmacists)

Collaboration with others	91.5%
Interpersonal skills	90.4%
Trust in other students	89.4%
Written communication	89.4%
Verbal communication	88.3%
Application of material	85.1%
Personal initiative	82.9%
Attendance	79.8%
Problem solving	78.7%
Learning new information	78.7%
Conflict resolution	71.3%
Self evaluation	71.3%
Peer evaluation	70.2%
Supervisory	65.9%
Computer	63.8%
Research	44.7%
Taking notes	15.9%
Prior knowledge of subject	4.3%
Memorization	2.1%

Student LEARN Team Final Course Assessment

The student LEARN team for the Spring semester felt there were no major problems with the course or improvements that needed to be made during the semester. While this was encouraging news for me, the team did not develop or administer any written course assessments because they did not perceive there were problems to address.

Learn Team Process

Organizing and Running a LEARN team – Quick Introduction and Reference

[The following are just suggested guidelines –a place to start. Each team will be unique.

For more detailed information, please refer to the LEARN manual by Kathryn H. Baugher. Copies of this manual are located in the Drug Information Center.

1. Introduction:

The LEARN team process allows students to provide feedback to course coordinators and/or instructors during the course. It is not a means whereby students attempt to dictate policy, but rather a forum for students and faculty to brainstorm issues of concern to the entire class. Usually, for broad process areas are involved:

- Content of course
- Delivery of course material
- Environment
- Testing

The ultimate goal is not only to identify areas of concern, but also to suggest solutions or alternative approaches. This involves utilizing surveys or other means to gather data from the class as a whole and communicating the results to the faculty involved. The LEARN team members are not authorized to present their personal opinions as the basis for suggested changes.

The LEARN name is derived from the acronym below, and the manual is subtitled: Student Quality Team Process for Improving Teaching and Learning.

Locate an opportunity for improvement

Establish a team to work on the process by defining team roles and setting ground rules

Assess the current process using checklists and surveys to determine issues of the particular class

Research causes of these issues by utilizing cause and effect diagrams

Nominate an improvement and enter the PDSA cycle [see below for explanation]

Team Composition:

Student members: 3-5, one of whom serves as leader and each student may have an opportunity.

To serve on a LEARN team, it is suggested that students not serve for two consecutive semesters in the same course, on more than 2-3 LEARN teams during their time at Samford, if they are class officers (class officers should help facilitate communication between LEARN teams and the class as a whole).

Faculty Facilitator:

Role is to assist the team without taking a dominant position within the team.

Possible Responsibilities include:

Helping to keep meetings on track, if necessary (student members should assume primary and responsibility for this)

Answering procedural or other questions which may arise

Reviewing student developed surveys, etc. for clarity

The facilitator may be a course coordinator, course instructor or someone not associated with the course. Students may feel less inhibited in the presence of someone not directly a part of the course, but ideally, this should not be an issue. Since this is meant to be a collaborative rather than a confrontational process, participants should feel free to express all ideas and opinions openly and in a professional manner.

Suggested Time Table for Setting up a Team:

Within the first week of the start of the course, the faculty facilitator meets with the class to answer any questions and assist in setting up a class meeting for LEARN team selection.

§ Within the first two weeks, the class selects the LEARN team members who will represent them.

§ Class officers may wish to run the meeting.

§ Team selection can be the result of accepting volunteers from the class, election by the class, selection by the instructor or any combination of the above.

§ Within the first three weeks, the first meeting of the LEARN team should take place to establish: Team roles (see manual, p.7) – leader, timekeeper, recorder, and others as necessary.

§ Ground rules (see manual, p. 8) – meeting times (manual suggests weekly at least initially) – record keeping (see manual, pp. 16-22 for examples of forms that can be used) – others as necessary.

Approach to the LEARN Team Process:

§ Brainstorm potential issues and/or problems, if any

§ Organize and prioritize concerns

§ Develop a mechanism for gathering data from the class (surveys can be useful—see manual, pp. 26-31).

§ Analyze results (see manual, pp. 10-12).

§ Focus on issues that are most significant.

§ Research causes for problem areas (see manual, p. 13).

§ Propose a solution, and, in cooperation with the faculty involved, enter what the manual calls the PDSA.

§ Cycle, starting with planning the improvement (see manual p. 14).

Remember, the LEARN team represents the entire class and is responsible for collecting data from the class and reporting back to the class on a regular basis. Regular meeting times may need to be established for the purpose of keeping the class informed.

The case study found at the back of the manual (pp. 45-50) might prove useful in gaining an understanding of how the process works. Again, these are just guidelines. Each LEARN team will take on a unique character and should feel free to adapt to the specific needs of a given course.

ECE End of Course PBL Evaluation

Examining all the data currently available indicated scores on four (questions 1, 2, 4, 5) of six questions were higher (indicating greater agreement with statements) for PHRD 525 than for either the MSOP or the university during Fall 1998. In addition, scores increased on all six questions for PHRD 252 as compared with the same group of students who were surveyed at the end of Fall 1998 semester in PHRD 524.

Mean values for the course indicate that students agreed the course had increased their ability to work effectively on a team (mean= 4.0), solve real-world problems (mean = 4.0), consider alternative solutions to problems (mean = 4.0) and take a more active role in personal learning (mean = 3.9), and encouraged them to consider alternatives when solving problems (%). Areas where the class appeared to be somewhat less effective included development of the students' ability to identify appropriate resources and students' use of knowledge and methods drawn from outside the course to complete course assignments (mean for both = 3.7).

Student Attitudes and Activities – Assessment (SAA)

The greatest changes in student attitude were found in Question 10 "I learn more by working in groups rather than working alone" and question 11 "I feel this instruction of this course is similar to other classes that I have taken at Samford." For question 10, the mean response value decreased 0.6 points during the semester, indicating students tended to agree that they learned more when working in groups. For Question 11, the mean response value increased by 0.6 points from the neutral/agree range to the neutral/disagree range indicating that students tended to agree that the PBL course to be different from other courses they had taken at Samford University.

The mean response value decreased by 0.3 points during the semester for Question 1 ("I feel comfortable working and participating in small groups") and Question 12 ("I feel comfortable in asking probing questions that clarify facts, concepts, or relationships") indicating that students tended to agree slightly more with these statements at the end of the semester than they did at the beginning of the course. The mean response value increased by 0.3 points during the semester for Question 13 ("I am flexible and creative in seeking potential solutions to problems") and increased by 0.2 points for Question 14 ("I am primarily responsible for my own learning") indicating that students tended to disagree with these statements slightly more at the end of the semester than they did at the beginning of the course. The mean responsive value for all other questions related to student attitudes only changed by 0.1 points during the semester.

Overall Analysis of Assessment Results

Based on a review of all available assessment tools, I believe that using a single facilitator to teach PHRD 525 in a PBL format to 94 students was effective and met the course goals and objectives. Through the assessment process during Fall 1998 in PHRD 524 students identified many of the same areas that I did in which active learning techniques or processes could be more effective or efficient in this course. These changes were implemented in course design for PHRD 525 in Spring 1999 and were found to be successful.

Based on student feedback and my own observations, I feel that the student course portfolio was a very successful tool for assessing both individual student learning and the effectiveness of the course as a

whole. Comments and suggestions made by students in their reflective writings about the course assignments and assessment techniques provided me with the specific feedback that I need to continue improving the content and delivery of the course as well as my teaching and facilitation skills. In addition, the completion of a portfolio gave students the opportunity to assess their own learning in the course and consider the potential value of this learning to their future practice of pharmacy.

Results from student pre and post test results; provide some areas of concern. For example, improvement in post test scores was not as great as I would have expected and even more disconcerting, student confidence in their answers increased for the most part even though the accuracy of their answers did not improve significantly. However, this might be explained by the fact the questions on the pre/post test were taken from the final exam used for PHRD 525 in Spring 1998 and 1999, but the 1998 version of the course contained no group work and was taught in a traditional lecture format. The final exam from 1998 contained many questions that required memorization of facts and details that I did not expect of my students in the PBL version of the class in 1999. I have no doubt that students learned much more about human resources management processes in 1999 than they did in 1998, although the pre/post test did not assess this knowledge for the most part. Students increased confidence in their answers even when they were not correct; may simply have been the result of their increased familiarity with the subject in general although they still lacked some detailed knowledge. I would like to continue to use a pre-post test in the future but will need to consider ways to revise the test to more accurately reflect the learning that I actually expect to occur in the PBL version of the course. For example, more questions should probably be added regarding general processes such as problem solving, conflict resolution and research skills.

While there is a need to improve some areas of the course, I feel that the assessment results provide both subjective and objective evidence that students did indeed improve their content knowledge as well as problem-solving, communication and teamwork skills during the semester. The assessment data gathered this semester will serve as a foundation to conduct specific statistical comparisons over the next several years to further evaluate the effectiveness of the use of a PBL format in this course as well as my personal progress as a teacher in a learner-centered environment.

Reflective Essay

The mere process of writing the course journal will help me in future delivery of the course so I can remember exactly what I did, what worked well and what needed to be improved. The portfolio process will also help me over time to be more systematic about assessing my own teaching abilities. By providing both examples of both the products and the process of my teaching (in context) I hope to provide scholarly evidence of my teaching skills as well as identify areas for future improvement that may be tracked systematically over time. I hope that my own reflections on the course will display an ability and willingness to objectively critique my own performance in the classroom, accurately assess my strengths and weaknesses, and develop plans to improve problem areas.

I have found the development of the portfolio to be a learning process in itself. Like my students, pulling all the course material together, reviewing it, and reflecting on it has helped me to pull the course content together in a tangible way. It has also helped me to better understand the process and criteria by which teaching might be reviewed as a scholarly work. In addition, I believe the knowledge that I would complete a course portfolio made me deliberate and thoughtful in developing and delivering the course and encouraged me to think about why a teaching or learning component was included in the syllabus, how it could be meaningfully assessed, what learning outcomes I was striving for, and what products would provide acceptable evidence of this accomplishment.

In this sense, I believe both the course development process and the portfolio development have helped to clarify my pedagogical thinking about this course, as well as appropriate methodologies for implementing and assessing teaching strategies. In the future, I would like to have another faculty member who is familiar with PBL observe my classroom and provide input on areas and processes for

improvement. I also look forward to receiving comments and suggestions based on the review of his and subsequent course portfolios.

Reflective Statement about the Course

I have addressed each part below with a brief listing of elements that fit each category. Please refer to the Reflective Journal and other instructor comments throughout this portfolio for more specific information.

Part 1 – What Worked:

- Revision of self/peer assessment from PHRD 524 into one form resulted in increased student satisfaction with the process and decreased instructor time for evaluation.
- Development of team names, mottos and ground rules helped solidify the groups and give them a unique identity.
- Concept maps were a quick, fun icebreaker for group work
- Group quizzes worked well to promote discussion and integration of case material
- In class writings were very successful in helping students to reflect on the purpose of the course and the value of groups, and also gave them an opportunity to practice writing and editing skills under time pressure and to find out what their peers felt about these topics.
- All cases worked well in the progressive disclosure format. Students were engaged with the topics, especially in Cases 2, 3 and 4.
- E-mail communication with the class was very effective.
- Student course portfolio was a big success – students seemed to enjoy it and learn more from it than they would have from a final exam and I enjoyed reading them as well.
- Students and faculty alike responded well to Case 2, which allowed small groups of 8-10 students to interview for different faculty members for a pharmacy position. Faculty really bought into the concept and created some great scenarios for students to deal with such as bringing an infant to the interview, stopping the interview to answer a cell phone, providing different information in the interview than was on the resume, and presenting for the interview with a minor disability. Most students were engaged in the role play and enjoyed (and learned from) the opportunity to prepare for and conduct an employment interview.
- The BafaBafa cultural simulation game was adapted for this large class and was successful in opening up students to issues of cultural diversity by exposing them to an environment in which they experienced attitudes, expectations, societal rules and social mores with which they were not familiar. To improve the use of this activity in the future, it should be moved to the beginning of case one so it can be used to help students understand the concept of organizational culture. It will also serve as a great ice breaker during which group members can get to know each other better.

Part 2 – What did not Work:

- While all cases worked well, Case 1 needs some improvement so the students are more interested in the topic and receive more background information. Perhaps an additional problem-based lecture or two prior to beginning the case would be helpful.
- Assessment. Although the students liked the revised form, I found it was still very cumbersome and time-consuming to calculate and compare self and peer assessment scores.
- At times it was very difficult being the only facilitator; some groups seemed to need their own facilitator to help them reach the intended depth of case material.
- Sometimes student groups worked on group assignments from other courses during the group work time that was built into this course. This happened most often just before the deadline for a group project in the other course.
- The format that called for performing skits in Case 3 was repetitious and time consuming. To improve this, I should assign a different skit topic to each group, have all groups prepare a skit but only call on a few of them or split the class into smaller groups of 25-30 students to perform skits.

Part 3 – What did not Matter that you Thought Would?

- Being the only facilitator was not as hard as I had thought it might be.
- Separating groups into different rooms to work was not ideal, but was not as disruptive as I had expected.
- Negative attitudes and experiences regarding PBL from the Fall 1999 semester seemed to have little to no effect on students' acceptance of the use of PBL in this course.

Part 4 – What Surprises Were Found?

- The collective excitement that most students had about Cases 2, 3 and 4 – these topics really hit the mark.
- Students' inability to see the "big picture" in cases was improved from PHRD 524 I the Fall 1998. I believe the use of the progressive disclosure format helped many students to identify and focus on the main points of the case rather than become too caught up in unimportant details.
- Problems with group dynamics were only a minor problem for 2 groups as compared with the major problems that occurred in PHRD 525 during Fall 1998.
- Students' openness/willingness to try something new in the classroom, including activities that were sometimes perceived as "silly."
- The high quality of student reflective writings and portfolios.
- The significant increase in class preparation time and the feeling that I should be "doing" more in class while student groups are working through problem/cases.
- The amount of detail and structure needed for one facilitator to guide all students through the case at one time.
- The amount of work still required during the semester to prepare for class after three semesters had already been devoted to course development.
- The amount of flexibility still required in the schedule.
- Time required for computer logistics of group grading.
- Personal insight, pride, excitement, attitude improvement, course ownership reflected in students' course portfolios.
- The discovery of different ways to arrange classrooms with movable tables and chairs to facilitate role playing activities (BafaBafa and interviews in Case 2).

Part 5 – What Changes in the Course Would You Recommend?

- Changes noted above
- Continue to revise assessment forms and progress.
- Improve time management during class periods – have back up assignments or activities prepared in case some groups finish early; require all groups to turn in something at the end of each scheduled group time to increase accountability.

Part 6 – What Issues Need Further Investigation?

- Use of additional faculty, practitioner and/or student facilitators in the course.
- Refinement of cases and pace with which information is presented.
- Continued integration of case material with content from Therapeutics.
- Use of grading contracts for either individual students or groups.
- Most effective format for final case discussions.
- If students don't need me during group work sessions, is it acceptable to do other course work (grading, etc.) during this time?

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