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The Effects of Simulation and Evaluative Procedures on Performance and Student-Reported Self-Confidence Levels in an Associate Degree Nursing Program

Jean A. Snow
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THE EFFECTS OF SIMULATION AND EVALUATIVE PROCEDURES ON PERFORMANCE AND STUDENT-REPORTED SELF-CONFIDENCE LEVELS IN AN ASSOCIATE DEGREE NURSING PROGRAM

by

Jean A. Snow

A Thesis
Submitted to the Faculty of The Graduate College in partial fulfillment of the Degree of Master of Arts

Western Michigan University Kalamazoo, Michigan August 1977
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Jean A. Snow
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PREFACE

Student evaluation procedures and technical skills training have been components of nursing education for years. Only recently has systematic research been done to determine effectiveness, problem areas, and differences in these areas among the three types of registered nurse training programs.

A review of the three types of registered nurse training programs is presented for reference since each has unique characteristics. In addition, the associate degree nursing program at Kalamazoo Valley Community College (KVCC) is briefly described because of its relatively new approach to nursing education. The KVCC program will be presented first.
INTRODUCTION

Kalamazoo Valley Community College has a two-year associate degree nursing program based on a career ladder concept. When compared to other types of nursing educational programs, associate degree programs differ considerably. Table I shows that the length of educational preparation, settings, and admission policies vary considerably from other types of nursing programs. Educational costs and responsibility for assuming student costs vary as well. Theoretical and clinical emphases differ as reflected in the amount of time spent in the clinical area. Even though the three types of programs have defined their roles differently and have variations in program requirements, students graduating from all three programs take the same state board examination for registration. Since registered nurse expectations in nursing service are similar regardless of the length of training, problems associated with providing competent nurses in a relatively short time are immense. In an attempt to deal with several of the educational and program problems of training competent nurses, the nursing faculty of Kalamazoo Valley Community College (KVCC) developed a performance-based, personalized system on a modification of the Keller system (Keller, 1968).

The nursing faculty used the Keller system for instruction in both theoretical and clinical evaluation. Technical skills were taught in the Health Careers Learning Laboratory (HCLL) before the students applied those skills in a hospital. Clinical focuses (Appendix A)
Table I: A comparison of registered nurse programs.
### TABLE I
A COMPARISON REGISTERED NURSE PROGRAMS

<table>
<thead>
<tr>
<th>PROGRAM</th>
<th>ASSOCIATE DEGREE</th>
<th>DIPLOMA</th>
<th>BACCALAUREATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>2 years</td>
<td>3 years</td>
<td>4 years</td>
</tr>
<tr>
<td>Location</td>
<td>Community College</td>
<td>Hospital Affiliated</td>
<td>Collegiant</td>
</tr>
<tr>
<td>Admission</td>
<td>Open Door, Some Additional Policies</td>
<td>High G.P.A. Several Tests</td>
<td>High G.P.A. Several Tests</td>
</tr>
<tr>
<td>Profile</td>
<td>Self-Support, Mean age = 24.4, $2720 cost, 54% single</td>
<td>Parental support Mean age = 19, $4200 cost, 96% single</td>
<td>Partial self-support Mean age = 19.9, $10,000 cost, 99% single</td>
</tr>
<tr>
<td>Theory Emphasis</td>
<td>Skills, Problem-Solving Disease Entities</td>
<td>Disease Entities Leadership Skills</td>
<td>Principles and concepts, supervision &amp; leadership, assessment, psycho-social needs</td>
</tr>
<tr>
<td>Clinical Emphasis</td>
<td>Skills, Safety, 8 hrs. clinical/week, some assessment, some skill lab</td>
<td>Safety, skills, supervision, 24 hrs. clinical/week, on the job training</td>
<td>Safety, leadership, assessment, 16 hrs. clinical/week after first year</td>
</tr>
<tr>
<td>Classification</td>
<td>Registered Nurse after State Board Exam</td>
<td>Registered Nurse after State Board exam</td>
<td>Registered Nurse after State Board exam</td>
</tr>
</tbody>
</table>

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Table II: Elements of the Kalamazoo Valley Community College modified Keller system.
<table>
<thead>
<tr>
<th></th>
<th>ELEMENTS OF THE KALAMAZOO VALLEY COMMUNITY COLLEGE MODIFIED KELLER SYSTEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Emphasis on written instructional material versus traditional lecture</td>
</tr>
<tr>
<td>2</td>
<td>Small units of instruction</td>
</tr>
<tr>
<td>3</td>
<td>Repetition and review of material</td>
</tr>
<tr>
<td>4</td>
<td>Remediation procedures</td>
</tr>
<tr>
<td>5</td>
<td>Modified self-pacing</td>
</tr>
<tr>
<td>6</td>
<td>Use of teaching assistants</td>
</tr>
<tr>
<td>7</td>
<td>Programmed sequence of instruction</td>
</tr>
<tr>
<td>8</td>
<td>Mastery criterion required</td>
</tr>
<tr>
<td>9</td>
<td>Differential consequation for performance tasks</td>
</tr>
<tr>
<td>10</td>
<td>Built-in reinforcement for learner progress</td>
</tr>
<tr>
<td>11</td>
<td>Contingency management grading system</td>
</tr>
<tr>
<td>12</td>
<td>Use of measureable instructional objectives</td>
</tr>
<tr>
<td>13</td>
<td>Reduced probability of cumulative failure</td>
</tr>
<tr>
<td>14</td>
<td>Immediate feedback</td>
</tr>
</tbody>
</table>
for the purpose of ascertaining students' clinical preparedness and
the KVCC clinical evaluation form were developed. (See Appendix B)

As shown in Appendix B, there are six categories on the KVCC
clinical evaluation form. The student receives a patient assignment
the day before he provides patient care. He then completes the clini-
cal focus and items under Category I of the form. The student pre-
pares for patient care based on all six categories. The student's be-
behavior on each category is then evaluated each day according to a three-
criterion scale—satisfactory, questionable, or failing. If the
student does not receive any questionables or failing evaluations on
the individual behaviors, he receives a pass or outstanding letter
grade for the week which is converted to a total weekly score. The
sum total of weekly score points comprises the final clinical grade
as shown in the clinical course syllabus (Note 1, Appendix C). For
the time being, the student cannot receive a questionable grade on
any portion of any category and still pass the clinical experience
the first time that week. The rationale for this restriction is that
a questionable ("Q") should be given only for really questionable be-
havior. Thus, if the student receives a questionable ("Q") on Category
III, he receives a "Q" for the week (2 points), remediates with an
instructor and receives seven points for a weekly total of nine out
of ten clinical points. The overall clinical grade then is based
on the total number of points earned so an individual might not meet
course requirements by the first, second, or third weeks of the sem-
ester. The evaluation criteria minimize the problem of allowing
students to progress without sufficient prerequisite skills and
decrease the chances of cumulative failure. More importantly, it
reduces the risk to a patient. The behaviors sampled on this form
were too limited and subjective to provide adequate information on
skill development but were better than those on previous evaluation
forms.

Even with this procedure, there are some problems. The present
KVCC clinical evaluation procedure as shown in Table III reveals both
its strengths and weaknesses.

A clinical evaluation committee was formed comprised of
students, faculty, program counselors, and the director of the nurs­
ing program. The major purpose of the committee was to determine the
students' apparent anxieties related to the clinical evaluation
procedures. Student comments expressed concern over the following:
(KVCC, Note 2)

1. The evaluation procedure promoted learning from fear.
2. Students had increased fear of failure.
3. Students expressed fear of instructors as a result of rumors
   about the instructors' teaching style.
4. Students expressed fears about being introduced into new
   clinical areas.
5. Students expressed fears of failing to acquire skills and
   concepts necessary to succeed in advance courses.
6. Students feared the questionable grade ("Q").
7. A questionable ("Q") carried more weight than a Satisfactory
   ("S") or Pass ("p") grade.
8. The evaluation procedure emphasized testing and not teaching.
Table III: Presentation of the current Kalamazoo Valley Community College clinical evaluation.
TABLE III
PRESENTATION OF THE CURRENT KVCC CLINICAL EVALUATION

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
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<tbody>
<tr>
<td>1. Short form</td>
<td>1. No specific guidelines for use in every course</td>
</tr>
<tr>
<td>2. Separate sheet for student to keep</td>
<td>2. Skill centered; not patient centered</td>
</tr>
<tr>
<td>3. Space for anecdotal notes</td>
<td>3. Not sure if treating mandatory skills properly</td>
</tr>
<tr>
<td>5. Remediation available</td>
<td>5. Unsure what constitutes a &quot;questionable&quot; (&quot;Q&quot;) evaluation</td>
</tr>
<tr>
<td>6. All courses use this except psychiatric nursing and leadership</td>
<td>6. One &quot;questionable&quot; grade on the form results in a &quot;Q&quot; for the week</td>
</tr>
<tr>
<td>7. Attitudinal area is fairly specific</td>
<td></td>
</tr>
<tr>
<td>8. It works; students who need more time or who make dangerous errors usually fail</td>
<td></td>
</tr>
</tbody>
</table>
Other concerns identified by the committee included the students' concern for patient safety, the desire of the faculty to train competent, safe nurses, and the hope that the instructional program would indeed reinforce professional behavior. The question which overshadowed all others was, how can instructors ensure adequate clinical experience for the students while ensuring patient safety? Several comments related to anxiety over the clinical experience itself rather than the system by which the students were to be evaluated were made. This is similar to findings in the literature regarding the generalized anxiety of most nursing students.

The committee then made the following suggestions regarding possible ways to reduce student anxiety related to the clinical area:

1. Each course should specify measurable objectives and incorporate them into the evaluation system.

2. Counselors should be told how to reduce students' anxieties resulting from the unrealistic expectations students bring to their training.

3. Each instructor should share views on behaviors which merit various grades.

4. Instructors should be more consistent in grading procedures.

5. The HCLL should be used to train students in problem-solving and clinical skills in order to ensure confidence when they begin clinical training.

The problems and suggestions were then researched in the literature. The associate degree nursing programs were emphasized since there are approximately 230 accredited associate degree nursing programs in the United States as of 1974 (National League of Nursing, 1974) and since associate degree nursing graduates comprise the highest percentage
of working full-time registered nurses after graduation (Cicatiello, 1974).

As mentioned by the KVCC students, several factors cause considerable anxiety with nursing students. One major problem is high attrition with little difference in attrition rates across the types of nurse training programs. Between 1965 and 1967, the 29 associate degree nursing programs experienced a 38% attrition rate as compared to a 35% attrition rate in all nursing schools (Marquette University, Note 3). In another study, 25% of associate degree nursing students entering the nursing program failed to graduate (Baker, 1975). The attrition rate for Kalamazoo Valley Community College's registered nurse program between 1970 and 1974 with seven classes represented ranged from zero to 46% with a mean attrition rate of 22.6% (Kalamazoo Valley Community College, Note 4). The attrition rate for baccalaureate nursing students between 1955 and 1965, ranged from 40% to 43% with a mean of 41% (Rotticamp, 1968).

General reasons for attrition are many. There are extensive training procedures especially in the associate degree program and the nature of training that is required in caring for human lives is different from liberal arts training programs. Students are quick to discover the disparity between their expectations and the actual role of the nurse, and there is generalized dissatisfaction with the clinical experience (Raven, 1974). Also, nursing students have very heavy academic and physical requirements with high pressure responsibilities creating high anxiety levels. This anxiety may be due to
program characteristics and requirements in which students may be taking nursing courses which range from one to as many as ten credits per course, preparing for clinical and theory assignments, working in the clinical setting up to nine hours per day, one to three days per week, and taking adjunct or elective courses. In addition, program effects can be seen on individual students since all three types of nursing students tend to rate themselves very low in self-esteem (Meieis and Farrell, 1974).

An additional cause of much anxiety reported in the literature was related to performance evaluation. Students generally feared that their ignorance would be exposed and that they would do something wrong (Searight, 1967). Anxiety related to grading procedures may be exemplified in a study by Haas and Roberts (1975). Their purpose was to assess the effect of evaluation potential upon the learning and performing of a complex motor task. Experimental Group I was comprised of 45 undergraduates in which three treatment procedures were employed:

1. Subjects performed the tasks alone.
2. Subjects performed the tasks in front of a blind-folded audience.
3. Subjects performed the task in front of an evaluative audience.

Experimental Group II was comprised of 45 undergraduates who were under the same three treatment procedures but had not learned the task to specified criterion before. The results showed that Experimental Group II subjects were significantly hindered by the evaluative audience while subjects in Group I were facilitated in their motor responses.
This study suggests that evaluation procedures do cause some anxiety, but less is generated if the student is well trained for the specific task. On the other hand, Smith (1968) stated that if students felt they could do better if they were not evaluated, instructors should respond by indicating that evaluations are a fact of life because everyone is evaluated everyday.

Grading procedures in some nursing courses, however, can cause extreme anxiety, making learning unpleasant and blocking learning (Layton, 1972; Kramer and Cowles, 1974). On the other hand, Bare (1967) said that "whether anxiety immobilizes a student or is constructive depends somewhat on the tasks involved but mainly on the student's frustrations, tolerance, and other personality characteristics" (p. 20). Conversely, some evaluation procedures do not allow enough time for students to practice and demonstrate their knowledge, i.e., "instructors should not expect students to use the nursing process on their first exposure to patient care" (Chuan, 1972, p. 726). Another problem with some evaluation systems is that there is too much concentration on testing and not enough on the individual student (Moore, 1968). This observation was also made by the KVCC nursing students.

Fear of the unknown regarding grading purposes may be another cause for student anxiety. Evaluating students in nursing, especially clinical evaluations, serves the purpose not only of assessing one's ability to meet course objectives and to diagnose strengths and weaknesses but also of safeguarding against incompetent nursing practices.
Evaluation procedures also serve to determine the effectiveness of teaching techniques (Schweer, 1972).

Regardless of the cause of student anxiety, current nursing literature indicates that grading in the hospital, objectives of clinical evaluation, and techniques for assessing student progress are the most widely discussed concerns in nursing education today (Litwack, Sakata and Wykle, 1972), (Schweer, 1972). These concerns arise from several factors. The clinical area is the most difficult area to grade due to difficulty in validation (Litwack et al., 1972), (Fivars and Gosnell, 1966). This difficulty is exemplified by Hayter (1973). Thirty-one teachers viewed a film of three nursing students caring for a shock patient. Each instructor evaluated the students by whatever he felt necessary and then evaluated the students using a specific set of behavioral objectives. Before the objectives were reviewed, there was a 31% agreement as compared to 76% agreement after the objectives were reviewed.

In addition, there is considerable controversy as to whether the clinical area should be graded at all as opposed to a pass-fail system. Several programs and authors support a satisfactory-unsatisfactory grading system (McKeachie, 1969, 1969), (Niagara County Community College, Note 5), (North Central Technical Institute, Note 6), (Marquette University, 1975, Note 7), (Frejlach and Corcoran, 1971), (Ortelt, 1966), (O'Shea, 1967). They agree with Rines. "Any finer designation than satisfactory or unsatisfactory or the equivalent is probably unjustifiable" (Rines, 1963, p. 65). Others support graded
systems (Chuan, 1972; University of Arizona, 1970; Smith, 1968).
Additional literature reviewed did not indicate the type of grading system utilized.

Researchers agreed on several points, however, regarding evaluation procedures. Most stated that clinical evaluation should be clear with an absolute as opposed to a curved grading scale and should be a relevant system to indicate minimal essential criteria for safety (Litwack et al., 1972). The evaluation should also be descriptive rather than evaluative and adverbs instead of adjectives should be utilized (Litwack et al., 1972; MacKay, 1974). Immediate feedback should also be available (Litwack et al., 1972; Layton, 1969; Marquette University, 1975, Note 8). Kalamazoo Valley Community College's procedure had immediate feedback by way of written weekly evaluation and did indicate minimal acceptable criteria. For example, the students were evaluated every week in writing and were given oral evaluations everyday. They knew how many points they had earned each week. In addition, a satisfactory performance on a particular behavior was considered minimal criteria for passing the weekly evaluation, e.g., checking the patient's wrist band was minimal criteria for identifying the patient before administering a medication. It also included provisions for using adverbs rather than adjectives by way of stating unacceptable behaviors in behavioral terms; e.g., "the medication was given late, at 10:00 a.m." Other studies indicated that the evaluation process should establish and make known all standards, should be realistic, and should evaluate behaviors within a specified time interval (MacKay,
The current evaluation process at KVCC indicated a deficiency in the last two areas.

Layton (1969) found that in regard to evaluation procedures, students felt they learned better if instructors were not threatening, supervision was minimal, and they would not be punished for lacking knowledge. Also, they felt spontaneous praise by instructors was important since student nurses' morale was generally low anyway. They stated instructors should give immediate feedback regarding their progress. Most of these suggestions were judged to be included in Kalamazoo Valley's procedure.

As a means of implementing the points of consensus regarding clinical evaluation procedures, at least eight clinical evaluation tools in nursing are available with most having several drawbacks. The use of various rating scales appears to be the most common format (Litwack et al., 1972). The scales describe various characteristics to be rated and are diverse in their format (Nursing Outlook, 1970; Slater, Note 9; Carty, Note 10; Ortelt, 1966; O'Shea, 1967).

Two that are similar to Kalamazoo Valley Community College's are the Moritz and Sexton (1970) assessment scale which focuses upon five weighted areas—planning, implementation, interpersonal relations, communication, and evaluation. The other is the Durham scale (1970). This scale has 96 statements in behavioral terms which are grouped into five categories. Litwack et al. (1972) stated that a good scale should include observable, measurable behaviors, that it should be limited to crucial behaviors, that it should include directions for
completing the scale, and that the categories should be assembled so that an average response could not be used. Bare (1967) also agrees with the avoidance of a middle rating. Kalamazoo Valley's evaluation scale included more than just the crucial behaviors and did allow average responses in the form of a satisfactory rating.

The use of anecdotal notes is also popular either alone or in conjunction with other verification procedures. Problems with the use of anecdotal notes are varied ranging from instructor subjectivity and value judgement to the lack of sharing notes with the students. Also, there is a tendency to emphasize negative behaviors and retain the notes in the student's permanent file (Marquette University, 1975, Note 11), (Litwack et al., 1972), (Moore, 1968). Many instructors are not trained observers and do not limit their observations to a single behavior. Kalamazoo Valley uses anecdotal notes only minimally.

Checklists are frequently utilized (Niagra Community College, Note 12), (North Central Technical Institute, Note 13), (Anderson, 1968), (Toph, 1969), (Stewart and Graham, 1968) and evaluation by interview has been documented (Chuan, 1972). Students are graded upon that interview at the end of their clinical experience.

Palmer (1967) advocates a self-evaluation process in which the student writes anecdotal notes at intervals and then evaluates himself against well-defined clinical practice criteria. Dyer (1971) stated that nursing students should begin self-evaluation skills in the first nursing courses while Litwack et al. (1972) advocated instructor evaluation predominantly. Others use tape recordings as a means of evaluation.
A trend toward the use of specific behavioral objectives as criteria measures on clinical evaluation forms is growing (Schweer, 1972) whether a scale or checklist is used. Many authors and/or programs advocate clearly stated objectives, specification of the situation in which the student is graded, and minimal criteria for passing (Reilly, 1975; Litwack et al., 1972; Bare, 1967; Stevens, 1970; Clissold and Metz, 1966; Ortelt, 1966). With the use of well defined objectives, teaching strategies and evaluation measures can be simplified. Reilly (1975) believed that with the use of behavioral objectives in nursing education, there will be an increased accountability.

Pearson (1975) indicated there are three types of objectives— instructional, expressive, and Type III objectives (problem-solving). She then defined three types of specific outcomes—content-specific, teacher-specific, and learner-specific. Classification of the outcomes would help to suggest appropriate evaluation processes, e.g., by criterion-reference testing, and by identifying and sorting value criteria concerning outcomes, outcomes could be quantified and weighted more objectively.

On the other hand, a few authors feel that subjectivity by way of instructor observation and professional knowledge are appropriate tools for evaluation (Moore, 1968; Styles, 1975). "A teacher should evaluate what she herself knows and no tool, technique or behavioral objective will compensate for the instructor who has a
superficial understanding of what she is trying to teach" (Moore, 1968, p. 55). She advocated the use of anecdotal notes. Styles stated that "the use of behavioral objectives would not save the world or nursing and will retard it" and that the use of behavioral objectives leads to tunnel vision (Styles, 1975, p. 312). She implied that a larger part of learning is unplanned and if behavioral objectives are used, unplanned learning cannot take place. She stated that the students' self-concept may decrease because if the students concentrate on just meeting the objective they would not be able to cope with any alternatives and therefore would see themselves as inadequate. This position is directly contrary to Bloom's mastery learning theory by way of the use of behavioral objectives in which self-concept is increased with mastery performance (Bloom, 1968).

Because of the diversity of nursing educational assessment tools and the lack of agreement among educators as to what constitutes the "perfect" evaluation process, it is no wonder that so many problems exist. However, teaching technologies which attempt to resolve some of these difficulties have evolved in recent years mainly from experimental psychology. These include competency-based education (CBE), mastery learning and the personalized system of instruction (PSI). All three contain elements similar to one another or are sub-categories of one another.

Many educational programs today are based on the CBE and/or PSI framework ranging from psychology (Alessi, Note 14), (McClelland, 1973), (Trivett, 1975), to vocational education (Michigan Department of Education,
Note 15) to specific courses in biology (Protopapapas, Note 16) and
dental hygiene (Woodall and Poole, Note 17). In addition, the
**Personalized System of Instruction Newsletter of 1971-1974** listed
PSI courses available in chemistry, engineering, math, science, and
nursing.

Elements included in those courses are similar to those CBE
courses at Kalamazoo Valley Community College. Those elements are:
(KVCC, Note 18)

1. Specific program performance objectives which are inte­
grated specific competencies.

2. Specific competencies for each course.

3. Performance objectives and specific objectives which
detail cognitive abilities, attitudes, and psycho­
motor skills the student must have before he gradu­
ates.

4. Specific competencies that are clustered into small
instructional units.

5. Varied learning experiences are used.

6. Specific assessment tools are developed.

7. Study guides are provided and include descriptions of
the competencies, instructional unit sequences, learn­
ing activities, and sample assessment tools.

Similar to other CBE programs, the entire CBE program at KVCC
hoped to: (KVCC, Note 19)

1. Assist the student in the transition to the world of work
by:
   a. providing specific skills,
   b. improving student testing, and
   c. using many learning strategies.
2. improve the efficiency of learning by:
   a. giving credit for prior learning experiences and
   b. allowing self-pacing.
3. decreasing negative or inaccurate self-concept by:
   a. providing the student with opportunities to be successful and
   b. developing a belief in the student that education is the key to growth and a healthy self-concept.
4. decrease the student attrition rate by:
   a. avoiding academic mismatches with unstated prerequisite skills and
   b. better program counseling.

These are all similar concerns to those stated by the KVCC Clinical Evaluation Committee.

Huckabay and Arndt (1976) illustrated the benefits of mastery learning in a CBE framework by way of their investigation into the effects of knowledge acquisition on self-evaluation and self-concept. There were 69 graduate nursing students with 25 in the Experimental Group and 18 in Control Group I and 26 in Control Group II. The results showed:

1. The Experimental Group taught by mastery learning acquired more knowledge than the control groups which were taught by the traditional lecture-discussion method.
2. There was an inverse relationship between knowledge acquisition and self-evaluation of the entering behaviors.
3. There was a positive correlation between the amount of overestimation or underestimation of previous knowledge and extremes of self-concept.
4. Single students were less able to evaluate themselves
accurately by what they thought they knew.

5. The relationship between self-concept and the acquisition of knowledge was not significant. They felt that as students mastered the subject and reached 90% or "A" level of accomplishment, their sense of achievement reinforced their motivation which resulted in a similar rise in self-concept. This was an important study in regard to the KVCC study. For instance, if the aim of nursing education is to acquire knowledge, and with the implementation of mastery learning models, like the KVCC procedure, then more learning will occur than with traditional methods. Also, as far as mental health and education are concerned, there is a positive relationship between scholarship and increased self-concept. Thirdly, all students over-estimated the amount of knowledge they thought they had before instruction implying that objective rather than subjective tests to measure entering behaviors should be used. Gudmundsen (1975, p. 23) summed it up when she discussed the teaching of psychomotor skills by saying that "failure to achieve mastery interferes with other cognitive processes." This observation points to the significance of mastery learning and the repercussions that may occur if mastery learning is not implemented. This feature is most important to look at in KVCC's evaluation procedure.

PSI systems as explained by Keller (1968) contain many of the same principles as the CBE system. This is the basis for KVCC's nursing program. Even so, nursing has been slow in utilizing innovative educational
techniques. Reasons for this slowness seem to stem from the profession's reliance on teaching for state board examinations and its hesitancy to try new ideas within accrediting and outside examination influences (Garrison, 1971). Never-the-less, more and more nursing educators are employing some, if not all, of the principles of CBE and PSI. Individualized learning is a current trend in nursing education as more faculty are aware of its value especially where direct clinical application is a significant part of learning (California State University, and College Systems, Note 20).

Clinical competencies have been formulated (Niagra County Community College, Note 21), (North Central Technical Institute, Note 22), and modularized instruction has evolved (Beyers, Diekelmann and Thompson, 1972), (Meielis and Benner, 1975). California State University and College System found many advantages in the use of individualized learning modules (ILM). If used appropriately, they allow for greater correlation between theory content and clinical application. The faculty can spend more time with the students to diagnose student problems, and provide a variety of student learning experiences. Finally, mastery learning increases student confidence.

Brown and Townsend (1975) explained the development of PSI techniques in nursing which included resource assisted classrooms, use of specific behavioral objectives, multi-media approaches, remediation procedures, and complete syllabus content. Nursing courses using self-instructional materials are increasing (Meramec Community College, Note 23), (Florida Community College, Note 24). Langford (1972)
at the University of Texas School of Nursing described educational techniques to achieve self-directed learning while other nursing courses use the entire PSI principles (Gough, Note 25). Kalamazoo Valley Community College appears to be unique in that all courses in the entire nursing curriculum are taught employing the majority of PSI principles.

A weakness in the associate degree nursing program is insufficient clinical time (Cicatiello, 1974). The use of a skills or simulation laboratory within a PSI system would seem useful in preparing students for their clinical assignments and improving patient care and student self-confidence. This concept is again exemplified in the studies by Haas and Roberts (1975), Gudmundsen (1975), and Huckabay and Arndt (1976).

There are several approaches to the utilization of skill laboratories. Searight (1967) explained the use of a "planning laboratory" to help reduce student anxiety. Instead of a simulated laboratory, the student spent three out of fifteen hours per week in the clinical area for planning only. Students met with the instructor, selected their assignment, reviewed the patient chart and then discussed patient needs. There was an increase in adequate preparation and confidence, and anxiety was reduced.

Frejlach and Corcoran (1971) used slides, movies, audio-tapes, role-playing and simulated situations in a group or individual setting. Each item was pretested with established criteria. The students were evaluated immediately. They were not graded clinically. Simpson (1967) described a walk around the laboratory in which various stations were
set up and students were evaluated on specific skills. Specific objectives were used as well as specific assessment criteria. Judgment, observation skill, and problem-solving ability to work under pressure were measured. Lowe (1975) described a similar process in games and simulations used in nursing education.

California State University at Long Beach used an individualized learning module for skills training similar to those at KVCC (McGuire, 1975). The modules contained overall goals, specific behavioral objectives, prerequisite knowledge and skill definitions, required student activities, and a list of readings and audio-tutorial requirements. The modules must be completed before class and the skills mastered before the students received clinical assignments. Students must pass a written component based upon 80% mastery of the objectives (McGuire, Note 26). The written component and the pre-test and post-test requirements differed from the present Kalamazoo Valley HCLL procedure.

Sinclair Community College in Dayton, Ohio, offers a program similar to the Kalamazoo Valley HCLL procedure (Eveslage, 1976). Sinclair's emphasis is on simulating clinical experiences. First year students were evaluated in the laboratory on their skills—asepsis, irrigations, and intramuscular injections. Performance criteria were given three weeks in advance along with the scoring procedure. Two points were given if the student performed the skill without prompts, one point was given if the skill was performed incorrectly but the student recognized it, and no points were given if the skill was performed incorrectly and the student needed considerable
guidance. Three test stations and verbal instructions were given. The student selected and prepared the equipment, charted hypothetical observations, and stated the explanation of principles involved. The student was evaluated by different instructors by way of performance criteria sheets which were shown to the students immediately. Students stated the tests were stressful but were necessary for clinical preparation. Instructors felt that skills' evaluation before the clinical experience ensured the patient's right to competent nursing care.

Supporting the concept of technical and problem-solving skill practice prior to clinical practice, McKeachie (1969) stated that if a student was to learn a skill, he must practice it and see the results of his practice immediately.

Padnano (1974) described the use of a skills laboratory in an associate degree nursing program. The laboratory offered predictable situations where skills could be performed, observed, and evaluated. She emphasized the importance of evaluating more in the laboratory than in the clinical area since there was a need to teach and evaluate at different times. At least four were tested—asepsis, vital signs, positioning, and body mechanics. The students received hypothetical situations on index cards and were evaluated as satisfactory or unsatisfactory based upon specific criteria. If the student erred but recognized the error, he passed; if he did not, he failed. A paper and pencil test was given for knowledge of principles. The students were paired, one the nurse, one the patient. Both full and part-time faculty were involved in the evaluation. A post-questionnaire
showed that 90% of the students were nervous; 53% said they would practice the skills without the evaluation; and 47% said they would not practice the skills without the evaluation. Other results included the follow:

1. Evaluation should be given at the end of each unit and not altogether.

2. There was not enough faculty commitment.

3. There appeared to be no positive correlation between laboratory evaluation and clinical grades; in fact, there was an inverse relationship.

4. Part-time instructors were unprepared to participate in the evaluations.

5. It was unclear which constituted satisfactory and unsatisfactory performances.

6. There was too much worry over failure.

Padnano's experiment was similar to the present Kalamazoo Valley procedure and had some of the same problems.

Another approach was described by de Tornay (1968). She used a written clinical nursing problem test based on a description of the patient, his diagnosis, and his orders. The students could take several broad strategy routes all leading to acceptable results. Each choice led to further information or results. If students made the wrong choice, they would uncover a description of a resulting complication. The choices were then scored.

Curtis and Rothert (1972) at Michigan State University developed a similar system offering practice in assessment of patient needs through multi-media projects for sophomore nursing students. Students
reviewed materials, went to the chart for further information and observed the patient's room. Two or three choices of action were given. They then received immediate feedback regarding their actions. Performance was measured by a net score, efficiency index, proficiency index, and a follow-up group discussion.

Dincher and Stidger (1976) did a pilot study to develop an instrument to measure the ability to make clinical judgments. They utilized McGuire's (1963) format for patient management problems. Hypothetical situations were presented in writing with several general types of inquiries or actions available. The students recorded their decisions and then proceeded through the hypothetical situations. The answers were scored based upon a composite of instructor judges.

The last three examples approximate the revised Kalamazoo Valley HCLL procedure except that the Kalamazoo Valley procedure involved practice and evaluation in both the technical and problem-solving areas.

With the use of CBE and PSI principles, decreased anxiety, and increased self-confidence and self-concept should occur. This should occur because keeping the students informed helps them control anxiety: students' morale should increase when they know the situations in which they must cope and their anxiety will decrease when the evaluation system is explained (McKeachie, 1969). Techniques used with some evaluation systems seem not to agree with principles of PSI and CBE and thereby might increase anxiety. They may imply to a student that nothing he does will lead to success. They may have unpredictable
standards regarding acceptable performance or present information in large units of instruction. They may keep secret the intent of the instruction or the way one's performance will be evaluated, teach one set of skills and then test another, and force all students to proceed at the same pace (Mager, 1968). These concerns will be studied in KVCC's evaluation procedure.

In summary, nursing educators are concerned with fairness, objectivity, reliability and the validity of various evaluation tools. Most nursing educators support the concepts of specifying behaviors, indicating standards of grading or criteria measures, and indicating minimal levels of acceptable performance. Some programs are using skills laboratories prior to clinical experience to insure patient safety. Many agree that the clinical setting should be graded on a pass-fail or satisfactory-unsatisfactory basis and everyone agreed that students should have frequent feedback regarding their performance. Regardless of the type of nursing program and the teaching strategies used, questions that still go unanswered and need further study regarding clinical evaluations are:

1. How often is "frequent feedback"? Does this imply everyday, every week, every month, or once a semester?

2. What format is followed in the evaluation process? Is it written, oral, or both?

3. If a course is graded on a pass-fail basis, how many times may a skill or behavioral objective be evaluated
as unsatisfactory and still enable the student to pass the course yet provide safe, competent nursing care?

4. How many evaluation tools include specific minimal levels of competency?

5. If unsatisfactory levels of performance occur, what types of remedial projects are available to prevent cumulative failure?

6. Knowing that any type of evaluation process causes some degree of anxiety both in the skills' laboratory and in the clinical setting, and knowing also that some sort of evaluation procedure is necessary to provide competent nurses, does simulation laboratory experience prior to clinical experience offer an alternative to providing patient care and decreasing student anxiety in the clinical setting?

To implement some of the Evaluation Committee's suggestions and research and to answer some of their questions, the evaluation system was revised to a more specific competency-based performance system; a training procedure for problem-solving skills was devised and a self-confidence inventory was developed to determine actual degrees of student anxiety and to what variables the anxiety was attributed.

The two dependent variables in this study were 1) anxiety levels as revealed by a self-rating scale of confidence in performing clinical tasks; and 2) academic performance in clinical studies. Four levels of confidence were measured—high, above and below average, and low. The lowest level of self-confidence is recorded by the student as unable to perform a task with practice or prompting. The middle levels are recorded by the student's ability to perform a task with some practice and prompting. The high level is indicated by the student's ability to perform a task without practice or prompting.
The two independent variables were measured by the Self-Confidence Inventory (SCI) in the form of competency-based performance objectives and the problem-solving training procedure. The SCI is an inventory of performance objectives on which to base one's level of confidence. The training procedure for problem-solving involved the provision of hypothetical patient care situations containing face sheet data, history and physical, presenting signs and symptoms, current physician's orders, laboratory reports, etc. The students assess and implement care based upon the SCI performance objectives.

The Health Careers Learning Laboratory is a simulated hospital setting in which students practice technical and/or problem-solving skills on other students or manikins before providing patient care in a hospital. The clinical setting is any physical location beside the HCLL which provides patient care.

The purpose of this study was to test the following hypotheses:

Hypothesis I: Students' level of clinical anxiety is more related to ineffective training procedures than to clinical evaluation procedures.

Hypothesis II: Subjects who did not participate in the problem-solving procedure and the competency-based system would be less competent. They would score lower on weekly evaluations and have less confidence and more anxiety than those who did participate in the problem-solving procedure and the competency-based system. In addition, it was hoped that clinical grading patterns might be identified more specifically to determine other possible causes of anxiety.
METHOD

Subjects

The subjects for the study were 49 students enrolled in beginning Medical-Surgical nursing in the second nursing course of the first year at Kalamazoo Valley Community College, Kalamazoo, Michigan. They had taken Fundamentals of Nursing, the first nursing course of the year and had some anatomy and biology background. Students were selected for the study as a total class based upon successful completion of their first theory and clinical nursing course. There were 45 females and four males between the ages of 18 and 47 years. The mode was 19 years, the median was 22 years, and the mean was 25 years of age. Married students comprised 46% of the study, 41% were single and 12% were separated or divorced. Students with children totaled 68%. Most of the students (86%) were taking the course for the first time. A large proportion (68%) had worked in some type of hospital setting prior to entering the nursing program. Seven students did not complete the study due to withdrawal for personal reasons, failure to meet course objectives, or for waiver of specific course requirements. The control group was composed of 69 students from the previous semester's Medical-Surgical course.

Materials

The materials used in this study were:
1. Self-Confidence Inventory Category List

The list was a seven-page (8½"x11") list of performance objectives, written in behavioral terms, which were measurable, and were assembled under the following six general categories:

a. demonstrates good planning,
b. demonstrates good organization,
c. demonstrates good implementation,
d. demonstrates good observations and communications,
e. demonstrates good self-evaluation, and
f. demonstrates good attitude.

Each general category had several sample behaviors which indicated criteria for evaluation (see Appendix D).

2. Self-Confidence Inventory Rating Scale (SCIRS)

This was an 8½"x11" sheet which included at the top, the student's name, skill to be evaluated for that week, theory topic for that week and a rating scale for self-confidence levels for HCLL and the hospital experience (see Appendix E).

3. Patient Profile Consisting of Hypothetical Situations for the HCLL

This contained information placed on an 8½"x11" sheet of paper and on the patient's chart and Kardex. The week number and situation number for that week were listed at the top. From the information on the paper, the same information was separated and placed on the appropriate places on the patient's chart and Kardex (see Appendix F).

4. Flexibility Cards for Use in the HCLL

These cards for each week's hypothetical situations were comprised of 3"x5" cards which gave directions to the student regarding the hypothetical situation for the week. The cards contained information which was not included in the initial hypothetical situation but was related to the skill or specific patient problem. The cards listed the week number and the number of the situation for the week (see Appendix G).

5. Nursing Kardex

The Kardex was hospital purchased and was a card index which contained plastic envelopes with a flip-type cover. The Kardexes themselves contained spaces for the patient's name, age, diagnosis, and current physician's orders. It also
listed nursing observations, problems, and approaches.

6. Patient Chart

The chart was a composite of donated and improvised hospital chart forms. They included patient's order sheets, progress records, history and physical, nurses' notes, intake and output records, graphic records, laboratory sheets, medication records, and infusion records.

7. Equipment and Supplies

Those needed for each hypothetical situation were purchased, donated, or made by various nursing instructors and/or institutions. Three manikins with several orifices, a circ-o-electric bed, oxygen equipment, ambu bags, tracheostomy trays, resusci-Annie for cardiopulmonary resuscitation, intravenous solutions and equipment, central venous pressure apparatus, syringes, needles, dressings, disposable gowns, colostomy bags and irrigation equipment, nasogastic tubes, etc. were also available.

Procedure

The 49 students were divided into Experimental Group I, consisting of three clinical groups of eight, eight, and nine students each, and Experimental Group II, consisting of three clinical groups of approximately 8 students each. Clinical group instructors were randomly selected and assigned to the groups they supervised. Three instructors supervised Group I students, and three instructors supervised Group II students. The clinical instructors were not aware of group designations for purposes of this study. However, the HCLL instructors were aware of which group they supervised in the laboratory. There were two instructors who supervised students in both the laboratory and clinical but were assigned to opposite groups to avoid instructor bias. The control group was composed of 69 students who were enrolled in Medical-Surgical nursing the previous semester. All the students
were subjected to the same theory content, HCLL procedure, and clinical evaluation format in the previous semester's nursing course. All students were quizzed weekly on theory. They had all used the laboratory prior to the clinical experience by way of practice and instructor check-off procedures and were evaluated in the clinical area using the KVCC clinical evaluation form. Students in both groups were given three hours release time per week as compensation for participating in the project.

Students in both experimental groups participated in the study for nine weeks. Each group was evaluated on skills performance in the HCLL and in the clinical area on a weekly basis.

Group II subjects used the SCI rating scale composed of specific performance behaviors and the problem-solving training procedure. Group I subjects were not under these controls.

The HCLL procedure consisted of the following: Since previous nursing instructors evaluated students on skills only in the HCLL, Group I subjects rated their self-confidence levels for the particular weekly skill on a one-to-four basis for the skills portion of the SCIRS category list (Category III) only. They rated themselves before and after the skill for as many trials as it took to reach a three or four self-confidence rating. Their skill competency levels as determined by the HCLL instructors were also rated independently on a scale from one-to-four using the SCIRS Category list. This was done only after the skill performance. An instructor's one rating indicated a very low level of competency while a four rating indicated
a high level of competency.

In contrast, Group II subjects went through a problem-solving training procedure. Students went to the HCLL, obtained an hypothetical patient situation based upon the theory unit for that week, read flexibility cards that were placed on manikins on a random basis and were required to make approximate nursing decisions based upon those cards. They then rated their self-confidence levels on a scale from one to four on all six categories of the SCIRS. They rated themselves before and after the hypothetical care of each situation until they obtained a three or four rating. Similarly, the HCLL instructors rated the students' competency for all six categories on the same one to four scale. They rated the students only after the students' performance. At no time were any of the students' SCIRS ratings known to the instructors. However, it was verbally agreed that by instructor-student consensus, a three or four instructor competency rating was necessary to proceed to the clinical area for that week.

In addition, students and instructors in both groups were required to give written rationale for their ratings if their ratings were two or below. These were based upon the SCIRS performance behaviors.

The clinical procedure for both groups were the same. Both groups of students received their patient assignment, rated each of the six categories from one to four and then rerated each category at the end of the day. Similarly, at the end of each shift, each clinical instructor rated each student's competency level on a one to four scale using the SCIRS performance behaviors. They utilized
that information to determine the final weekly grade presented on the
KVCC clinical evaluation form.

A weekly analysis of student self-confidence ratings, HCLL in-
structor competency ratings, clinical instructor competency ratings,
and the weekly clinical grade used on the KVCC clinical evaluation
tool was compiled. Thus, for each student, the investigator received
a weekly student SCIRS comprised of HCLL and clinical experience, an
HCLL competency rating, a clinical instructor competency rating, and
a KVCC weekly clinical evaluation form.

In summary, students in Group I were subjected to Category
III (Implementation) of the SCIRS only in the HCLL and to Categories
I through VI in the clinical area while Group II students participated
in all six categories in both the HCLL and the clinical area. Group
II students also used the problem-solving training procedure. (For
sample SCIRS ratings, See Appendix E for Group I and Appendix I for
Group II.)

Experimental Design Diagram

<table>
<thead>
<tr>
<th>SCI Categories</th>
<th>Group I</th>
<th>Group II</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HCLL</td>
<td>Hospital</td>
</tr>
<tr>
<td>I Planning</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>II Organization</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>III Implementation</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>IV Observation-</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V Self-Evaluation</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>VI Attitude</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Plus Training Procedure
RESULTS

The results of the study in terms of the effects of the dependent variables, the training procedure and the use of the SCIRS are shown in academic performance measures. Also, trends in clinical and HCLL grading, instructor inconsistency, and identification of problem areas are presented. Most of the results are in the form of descriptive statistics.

The results of the student questionnaire taken before the project are shown in Appendix J. An analysis of variance was used in describing Table IV which consists of the final clinical mean grade point average. In addition, the percentage of letter grades given for each group is presented. Note that there is no statistical difference in mean grade point average between the three groups. Table V depicts various descriptive statistics involving the number of forms completed by each group. Group II having more information to complete, completed the forms in a substantially greater number than Group I. Appearing in Table VI are weekly letter grades and the total academic letters given. Note the difference between the two groups. It would appear that Group II should have fewer questionable grades than Group I; however, this was not the case.

Table VII lists the total number of questionable grades given for each SCIRS category and the frequency of the three largest sub-categories. All three groups were consistent for Category III, Implementation, and the importance of previously learned skills and safety of the patient.
Table IV: Final clinical grade point averages.
# TABLE IV

**FINAL CLINICAL G.P.A.**

<table>
<thead>
<tr>
<th></th>
<th>SPRING 1976 GROUP I and GROUP II</th>
<th>SPRING 1976 GROUP I</th>
<th>SPRING 1976 GROUP II (Control)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=49</td>
<td>N=25</td>
<td>N=24</td>
</tr>
<tr>
<td>4.0 = A</td>
<td>14 28%</td>
<td>9 36%</td>
<td>5 20%</td>
</tr>
<tr>
<td>3.5 = B+</td>
<td>13 26%</td>
<td>5 20%</td>
<td>8 33%</td>
</tr>
<tr>
<td>3.0 = B</td>
<td>5 10%</td>
<td>2 8%</td>
<td>3 12.5%</td>
</tr>
<tr>
<td>2.5 = C+</td>
<td>4 8%</td>
<td>2 8%</td>
<td>0 0%</td>
</tr>
<tr>
<td>2.0 = C</td>
<td>2 2%</td>
<td>1 4%</td>
<td>2 2%</td>
</tr>
<tr>
<td>b = x = Fail</td>
<td>x = 2 4%</td>
<td>x = 1 4%</td>
<td>x = 1 4%</td>
</tr>
<tr>
<td>c = I = Incomplete</td>
<td>I = 3 12%</td>
<td>I = 2 8%</td>
<td></td>
</tr>
<tr>
<td>d = W = Voluntary withdrawal</td>
<td>W = 5 10%</td>
<td>W = 2 8%</td>
<td>W = 3 12.5%</td>
</tr>
</tbody>
</table>

Mean = 3.45 Mean = 3.5 Mean = 3.38 Mean = 3.47

---

**NOTE:**

- 4.0 = A
- 3.5 = B+
- 3.0 = B
- 2.5 = C+
- 2.0 = C

- Percent = % of specific grade given
- b x = Fail
- c I = Incomplete
- d W = Voluntary withdrawal
Table V: Number of forms completed per group.
<table>
<thead>
<tr>
<th></th>
<th>GROUP I</th>
<th>GROUP II</th>
<th>CONTROL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of Students</td>
<td>25</td>
<td>24</td>
<td>69</td>
</tr>
<tr>
<td>Number of Weeks Covered</td>
<td>9</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Number of Student HCLL Forms</td>
<td>102</td>
<td>89</td>
<td>—</td>
</tr>
<tr>
<td>Number of Instructor HCLL Forms</td>
<td>115</td>
<td>134</td>
<td>—</td>
</tr>
<tr>
<td>Number of Student SCIRS Forms</td>
<td>124</td>
<td>103</td>
<td>—</td>
</tr>
<tr>
<td>Number of Instructor SCIRS Forms</td>
<td>149</td>
<td>160</td>
<td>—</td>
</tr>
<tr>
<td>Number of KVCC Forms</td>
<td>158</td>
<td>155</td>
<td>—</td>
</tr>
</tbody>
</table>

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Table VI: Weekly clinical letter grades and total score letters given.
### TABLE VI

**WEEKLY CLINICAL LETTER GRADES AND TOTAL SCORE LETTERS GIVEN**

<table>
<thead>
<tr>
<th></th>
<th>GROUP I (N=25)</th>
<th>GROUP II (N=24)</th>
<th>CONTROL (N=69)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Weekly &quot;Q's&quot; Given</td>
<td>28</td>
<td>44</td>
<td>93</td>
</tr>
<tr>
<td>Number of Weekly &quot;O's&quot; Given</td>
<td>5</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Number of Weekly &quot;F's&quot; Given</td>
<td>2</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL Number of &quot;Q's&quot; Given on All Forms</td>
<td>55</td>
<td>93</td>
<td>-</td>
</tr>
<tr>
<td>Total Number of &quot;F's&quot; Given on All Forms</td>
<td>2</td>
<td>3</td>
<td>8</td>
</tr>
</tbody>
</table>

**NOTE:**

O = Outstanding  
S = Satisfactory  
Q = Questionable  
F = Fail

*Score letters refer to letters given to specific behaviors under a generalized category.*
Table VII: Total number of "Q's" given per SCIRS category.
TABLE VII
TOTAL NUMBER OF "Q's" GIVEN PER SCIRS CATEGORY

<table>
<thead>
<tr>
<th>Why &quot;Q's&quot; Given</th>
<th>GROUP I (N=25)</th>
<th>GROUP II (N=24)</th>
<th>CONTROL (N=69)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category I</td>
<td>9</td>
<td>18</td>
<td>21</td>
</tr>
<tr>
<td>Category II</td>
<td>1</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Category III</td>
<td>34</td>
<td>56</td>
<td>101</td>
</tr>
<tr>
<td>Category IV</td>
<td>7</td>
<td>11</td>
<td>56</td>
</tr>
<tr>
<td>Category V</td>
<td>3</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Category VI</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Three Largest Categories for "Q's"

1. 3b = 13 (previous skills) 1. 3c = 17 (safety) 1. 3c = 33 (safety)
2. 3a = 9 (new skills) 2. 3b = 13 (previous skills) 2. 3d = 24 (judgment)
3. 3c = 9 (safety) 3. 3d = 11 (judgment) 3. 4c = 24 (observation)

NOTE: "Q" = Questionable Behaviors
A comparison between Group I and Group II on "two's" given clinically (below average level of confidence or competence) is shown in Table VIII. It appears that a greater degree of confidence exists in Group I students than Group II students while instructors in both groups were fairly close in their student competency ratings. In addition, both groups of instructors agreed in the category of lowest competency while the students did not. Table IX compares Group I and Group II on the "four's" given clinically (high level of confidence or competence). Generally, both groups of students rated higher than their corresponding instructors and were very similar in the percentage of "four's" given. There was no correlation among categories rating the most "four's" in either the student or instructor groupings. Table X compares Group I and Group II on "two's" given in the HCLL (below average level of confidence or competency). Generally, instructors and students agreed that Category III, Implementation, had the lowest level of confidence and competency. Table XI shows the "four's" given in the HCLL (high level of confidence or competency). Group II students generally reported less confidence than either their instructors' ratings of competency or Group I students. Group II students also differed in their categorical ratings as opposed to their instructors.

Table XII illustrates the number of total weekly questionale grades given in each group and the number of times a questionable was given for only one questionable behavior. Table XII also shows the differences between the two groups and the categories or behaviors in which they fell. The number and explanation for clinical warnings without
Table VIII: Comparison between Group I and Group II of "Two's" given clinically.
### TABLE VIII

**COMPARISON BETWEEN GROUP I AND GROUP II OF "TWO's" GIVEN CLINICALLY**

<table>
<thead>
<tr>
<th></th>
<th>GROUP I (N=25)</th>
<th></th>
<th>GROUP II (N=24)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Student</td>
<td>Instructor</td>
<td>Student</td>
<td>Instructor</td>
</tr>
<tr>
<td>Total Number of</td>
<td>253</td>
<td>261</td>
<td>852</td>
<td>381</td>
</tr>
<tr>
<td>&quot;two's&quot; Given</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Number of</td>
<td>4464</td>
<td>2682</td>
<td>4608</td>
<td>3006</td>
</tr>
<tr>
<td>&quot;two's&quot; Possible</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent of Number</td>
<td>5%</td>
<td>9%</td>
<td>18%</td>
<td>12%</td>
</tr>
<tr>
<td>of &quot;two's&quot; Given</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Why Number of</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;two's&quot; Given</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinically</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category I</td>
<td>57</td>
<td>36</td>
<td>183</td>
<td>49</td>
</tr>
<tr>
<td>Category II</td>
<td>74</td>
<td>64</td>
<td>146</td>
<td>80</td>
</tr>
<tr>
<td>Category III</td>
<td>56</td>
<td>82</td>
<td>178</td>
<td>101</td>
</tr>
<tr>
<td>Category IV</td>
<td>34</td>
<td>45</td>
<td>131</td>
<td>66</td>
</tr>
<tr>
<td>Category V</td>
<td>24</td>
<td>23</td>
<td>90</td>
<td>39</td>
</tr>
<tr>
<td>Category VI</td>
<td>22</td>
<td>11</td>
<td>111</td>
<td>47</td>
</tr>
<tr>
<td>Days most &quot;two's&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Given</td>
<td>Wednesday</td>
<td>Wednesday</td>
<td>Wednesday</td>
<td>Thursday</td>
</tr>
</tbody>
</table>

**NOTE:** "Two's" = below average level of confidence rating by student and below average level of competence rating by instructor.
Table IX: Comparison between Group I and Group II of "Four's" given clinically.
### TABLE IX

**COMPARISON BETWEEN GROUP I AND GROUP II OF "FOUR's" GIVEN CLINICALLY**

<table>
<thead>
<tr>
<th></th>
<th>GROUP I (N=25)</th>
<th></th>
<th>GROUP II (N=24)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Student</td>
<td>Instructor</td>
<td>Student</td>
<td>Instructor</td>
</tr>
<tr>
<td>Total Number of &quot;Four's&quot; Given</td>
<td>577</td>
<td>206</td>
<td>669</td>
<td>215</td>
</tr>
<tr>
<td>Total Number of &quot;Four's&quot; Possible</td>
<td>4464</td>
<td>2682</td>
<td>4608</td>
<td>3006</td>
</tr>
<tr>
<td>Percent of Number of &quot;Four's&quot; Given</td>
<td>12%</td>
<td>7%</td>
<td>14%</td>
<td>7%</td>
</tr>
<tr>
<td>Why Number of &quot;Four's&quot; Given Clinically</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category I</td>
<td>92</td>
<td>47</td>
<td>105</td>
<td>9</td>
</tr>
<tr>
<td>Category II</td>
<td>86</td>
<td>41</td>
<td>113</td>
<td>11</td>
</tr>
<tr>
<td>Category III</td>
<td>88</td>
<td>37</td>
<td>84</td>
<td>14</td>
</tr>
<tr>
<td>Category IV</td>
<td>104</td>
<td>56</td>
<td>114</td>
<td>19</td>
</tr>
<tr>
<td>Category V</td>
<td>84</td>
<td>6</td>
<td>135</td>
<td>22</td>
</tr>
<tr>
<td>Category VI</td>
<td>149</td>
<td>16</td>
<td>118</td>
<td>44</td>
</tr>
</tbody>
</table>

**NOTE:** "Four's" = above average level of confidence rating by student and above average level of competence rating by instructor.
Table X: Comparison between Group I and Group II of "Two's" given in HCLL.
### TABLE X

**COMPARISON BETWEEN GROUP I AND GROUP II OF "TWO's" GIVEN IN HCLL**

<table>
<thead>
<tr>
<th></th>
<th>GROUP I (N=25)</th>
<th>GROUP II (N=24)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Student</td>
<td>Instructor</td>
</tr>
<tr>
<td>Total Number of &quot;Two's&quot; Given</td>
<td>31</td>
<td>20</td>
</tr>
<tr>
<td>Why Number of &quot;Two's&quot; Given in HCLL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category I</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Category II</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Category III</td>
<td>31</td>
<td>20</td>
</tr>
<tr>
<td>Category IV</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Category V</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Category VI</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

**NOTE:** "Two's" = below average level of confidence rating by student and below average level of competence rating by instructor.
Table XI: Comparison between Group I and Group II of "Four's" Given in HCLL.
TABLE XI
COMPARISON BETWEEN GROUP I AND GROUP II
OF "FOUR's" GIVEN IN HCLL

<table>
<thead>
<tr>
<th></th>
<th>GROUP I (N=25)</th>
<th>GROUP II (N=24)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Student</td>
<td>Instructor</td>
</tr>
<tr>
<td>Total Number of</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Four's&quot; Given</td>
<td>24</td>
<td>13</td>
</tr>
<tr>
<td>Why Number of</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Four's&quot; Given</td>
<td></td>
<td></td>
</tr>
<tr>
<td>in HCLL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category I</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Category II</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Category III</td>
<td>24</td>
<td>13</td>
</tr>
<tr>
<td>Category IV</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Category V</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Category VI</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

NOTE: "Four's" = above average level of confidence rating by student and above average level of competence rating by instructor.
Table XII: Number of times a Questionable weekly grade was given with only one Questionable behavior.
TABLE XII
AN ANALYSIS OF NUMBER OF TIMES A WEEKLY QUESTIONABLE GRADE (Q) WAS GIVEN WITH ONLY ONE QUESTIONABLE BEHAVIOR ON A WEEKLY FORM

<table>
<thead>
<tr>
<th>Why &quot;Q&quot; Given</th>
<th>GROUP I</th>
<th>GROUP II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category IA</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Fills out focus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category IC</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Knows diagnosis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category IIIA</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Performs new skills</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Category IIIB</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Knows previous skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category IIIC</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Provides protective measures</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Category IIID</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Uses good judgment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category IIIE</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Incomplete focus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category IVA</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Makes accurate observations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category IVB</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Charts appropriately</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category IVC</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Analysis observation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category VB</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Self-directive</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Total Number of One-Time Questionable Behaviors | 14 | 17 |
| Total Number of Weekly Questionables Given     | 28 | 44 |
| Percent of Total Weekly Questionables Given for One-Time Questionable Behaviors | 50% | 38% |
penalty by the instructors is shown in Table XIII. Group I had 22 more warnings than Group II. The number of warnings given were for different categories. Also, Group I received 27 more warnings for technical skills, e.g., Category III. Table XIV shows the week number in which the most questionable grades were given for clinical procedure. It appears that most were given in the middle of the rotation.

The results of Group students' post-questionnaire are shown in Appendix K. Reasons for clinical difficulty are listed. This is different from the pre-questionnaire. This appendix shows that implementation was the most difficult area in clinical even though this category was stressed in the HCLL. Finally, most reported that they felt better about the HCLL than in the previous course. The results of Group II's post-questionnaire are also listed in Appendix K. Reasons for clinical difficulty were different from their pre-questionnaire and from Group I's responses. The helpfulness of the HCLL was not significant yet there were only a few respondents. Reasons for clinical difficulty were different from both Group I's responses and Group II's SCIRS ratings. The response to question number 6 indicates that like Group I, Group II students felt better about the lab and had some constructive suggestions for improvements of the HCLL. The results of the HCLL Group I instructors' questionnaire are found in Appendix L. The results of question number 4, 10, 11 and 14 show that I.V. regulation, circoelectric bed demonstration and levine care took the longest time to evaluate. Instructors used verbal remediation, and asked students to return to the lab for additional practice even if they were "signed-off"
Table XIII: Analysis of student warnings given without receiving weekly questionable grades.
### TABLE XIII

**ANALYSIS OF STUDENT WARNINGS GIVEN WITHOUT RECEIVING WEEKLY QUESTIONABLE GRADES**

<table>
<thead>
<tr>
<th>Why Warnings Given</th>
<th>GROUP I (N=25)</th>
<th>GROUP II (N=24)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Category I:</strong> Planning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus</td>
<td>—</td>
<td>7</td>
</tr>
<tr>
<td>Knowledge of diagnosis</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Priorities</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Rationale for treatment</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>Rationale skills</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td><strong>Category II:</strong> Organization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completing work on time</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Organization</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Flexible schedule</td>
<td>—</td>
<td>2</td>
</tr>
<tr>
<td>Care plan</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td><strong>Category III:</strong> Implementation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protective measures</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Previous skills</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Missed procedure</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Medications</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Judgment</td>
<td>—</td>
<td>4</td>
</tr>
<tr>
<td>New Skills</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Incomplete focus</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td>42</td>
<td>15</td>
</tr>
</tbody>
</table>

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TABLE XIII
(Continued)

Category IV:
Observation-Communication

<table>
<thead>
<tr>
<th>Item</th>
<th>Category</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charts appropriately</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td>Charting sequence</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>Observes accurately</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Relates signs &amp; symptoms to diagnosis</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Communication</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Correlates lab reports</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td><strong>18</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

Category V:
Self-Evaluation

<table>
<thead>
<tr>
<th>Item</th>
<th>Category</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluates self appropriately</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Much assistance needed</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td><strong>1</strong></td>
<td><strong>2</strong></td>
</tr>
</tbody>
</table>

Category VI:
Attitude

<table>
<thead>
<tr>
<th>Item</th>
<th>Category</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Not smile</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Too emotional</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Authority figures</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Indiscrete patient information</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Approach to change</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Too Apprehensive</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td><strong>4</strong></td>
<td><strong>8</strong></td>
</tr>
</tbody>
</table>

**TOTAL** 85 63

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Table XIV: Week number in which most questionables were given.
<table>
<thead>
<tr>
<th>Week</th>
<th>GROUP I</th>
<th>GROUP II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Week 2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Week 3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Week 4</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>Week 5</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Week 6</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Week 7</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>Week 8</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Week 9</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
on the skill. They stated that only one or two weeks passed when they signed off skills anyway due to lack of time. Most instructors agreed that the project was worthwhile but that there should be a lower student-instructor ratio in the HCLL. Appendix M shows the results of the HCLL Group II instructors' questionnaire. The results of question number 4, 8, 13, 14 and 15 indicate that instructors had suggestions similar to the students' for improvements of the HCLL.
DISCUSSION

The pre-questionnaire indicated that the mean age of subjects was 25 years which is similar to the mean age of Kalamazoo Valley Community College's general student population. Approximately 70% of the students had no children which is much higher than the mean for community college students. Seventy percent of the students also worked in the hospital setting in some capacity before entering nursing which coincides with other associate degree nursing students as cited in various other studies. Fifty percent of the respondents stated the theoretical portion of the previous course was most difficult while 50% stated the clinical portion was most difficult. The majority of theory problems related to individual study behaviors, weekly testing procedures, too much memorization and too much information given too rapidly. These complaints may be due to the students' unfamiliarity with Kalamazoo Valley's teaching strategies, their length of time out of high school, and their not having small enough instructional units. The majority of clinical problems included student concerns over doing something wrong which may harm the patients, their feeling unprepared, their feeling that instructors made them nervous and their not being organized enough. Their concerns are consistent with the studies by Searight (1967) and Smith (1968). Possible reasons for these results may include unfamiliarity with weekly instructor evaluation procedures, anxiety unrelated to evaluation procedures as stated in the above, or lack of practice in organizational skills as beginning practitioners.
In addition, 30% of the students stated the HCLL helped prepare them for the hospital very much; 7% stated that it helped very little; 63% stated that it helped somewhat in preparing them for clinical. These results may indicate a trend toward the students' choosing the average response in the questionnaire, i.e., unfamiliarity with the HCLL previously and having nothing to compare the experience to. Most frequent responses related to the HCLL stated the teaching assistants were unprepared and that there were not enough thorough demonstrations of skills by HCLL personnel. Other comments related to the lab's disorganization, the HCLL's not being simulated enough and its poor equipment. Students were evaluated in the laboratory without contingencies and some students reported that the HCLL caused too much tension, a finding similar to Padnano's and a variable remote from the evaluative procedures.

The differences between the final grade point averages between the control group and Group I and Group II were not significant as shown in Table IV. However, of the control group, 17% received a 2.5 or lower while only 14% of the total experimental group received 2.5 or below. In addition, 55% of the control group received 3.0 or higher while 64% of the total experimental group received 3.0 or higher. An analysis of variance showed that the treatments had no discernable effects on the final grade point averages, (F(2.78) = .19).

Even though Group I received more 4.0's, both groups were statistically indifferent regarding the number of students receiving 3.5's or above. Also, 5% of the experimental group failed while 9% of the control group
failed. The statistical difference is minimal, but is may indicate that the experimental group's contact with the most specific performance objectives may have helped decrease the amount of lower clinical grades.

Table V shows the total number of forms returned. Since Group II had more information to complete each week, these results were good.

Table VI shows the weekly clinical letter grades and the overall letters given on each weekly form. Group I received fewer weekly questionable grades with 1.12 per student ratio as compared to 1.83 per student ratio for Group II and a 1.34 per student ratio for the control group. Also, fewer "questionables" on the sub-categories were given for Group I than Group II. This is not a significant statistical difference yet it would seem that Group II should have fewer questionable grades. However, as will be seen in Table XIV, Group I subjects received 85 warnings on the Kalamazoo Valley evaluation form without receiving a "questionable" for the week while Group II subjects received only 63 warnings. This may indicate that warnings instead of "questionables" were given more often in Group II. In addition, of the total 44 weekly "questionables" given in Group II, 20 (45%) were given by one instructor. The other two instructors in Group II gave 9 (21%) and 15 (34%) which depicts some significant instructor inconsistency patterns. Group I instructors gave between 5 and 13 "questionables" with percentage ranges of 17% to 46%. Total number of weekly outstandings, failures, and total number of failures on individual categories were all statistically similar. Instructors appeared to be more discriminative
in what constituted those grades.

From Table VII, it is clear that Category III, Implementation of Nursing Care, comprised of performing new skills, providing protective measures to insure patient safety, demonstrating good judgement and completing the clinical focus correctly, received the greatest number of "questionables" from all three groups. More "questionables" were given in this category for Group II possibly because students in Group I who were evaluated on the skills' portion only in the HCLL were therefore more prepared for skills than those in Group II who were evaluated on all six categories. Of the sub-categories under Category III, both Group I and Group II received the highest number of "questionables" in sub-category IIIb (demonstrates mastery of previously learned skills) and IIIc (patient safety). These results indicate a severe need for mastery of previously learned skills, remediation follow-up and/or the necessity of including previously learned skills in the HCLL evaluative procedure. This observation would be consistent with the literature indicating that at least 47% of the students would not practice skills unless they were evaluated (Padnano, 1974). Also, this observation indicates the importance of teaching patient safety and using appropriate consequences for jeopardizing patient safety. This would also indicate that all instructors felt that providing patient safety was a crucial behavioral performance objective. The control group also received the most "questionables" for patient safety along with use of good judgement.

Table VIII shows a comparison between Group I and Group II of "two's" given clinically (below average level of confidence rating or competence
Students in Group II generally showed a lower level of confidence than those in Group I. These results might be due to the fact that as more complex tasks were expected and evaluated the students felt less confident. Students in Group I had a lower percentage of two's than their instructor while students in Group II had more two's than their corresponding instructors. This difference could be the result of Group I students focusing more upon skills while instructors focused upon total patient care, i.e., use of all six categories. Instructor consistency between both groups was fairly close in regards to percentage of two's given and in the category given. Instructors were emphasizing Category III, Implementation, again. Group II students gave most "two's" for Category I, Planning. This difference may be due to the fact, as will be seen later, that Category I was least emphasized in the HCLL for Group II. Why Group I had the lowest level of confidence in Category II, Organization, is unclear. The days that "two's" were given were very consistent for students and instructors except for Group II instructors. It would be assumed that the first clinical day would be the least confident and competent. Possibly instructors in Group II gave more warnings on Wednesday without giving a "questionable" until Thursday.

From Table IX, both Group I and Group II students rated themselves higher than their actual performance as rated by their instructors. This is consistent with Huckabay's finding of a positive correlation between the amount of over- or underestimation of previous knowledge and extremes of self-concept. There does not appear to be a pattern...
for why "four's" were given except that Category III, which instructors felt to be the most important, did not receive any "four's" by either students or instructors in either group. In addition, the categories with the highest confidence and competence ratings were the least objective and most difficult to specify.

Table X shows that since Group II had more categories to rate, they had more ratings. Students tended to have low levels of confidence in the HCLL as compared to their actual performance as rated by the HCLL instructors. Group II students rated Category III as lowest level of confidence possibly due to having to concentrate on all six categories; yet, Group II instructors felt that students were less competent in observation and communication skills. This may be a result of the students' perceptions of the importance of technical skills as opposed to other categories. This conclusion is similar to findings of Gudmundsen's study which showed that failure to achieve mastery of psychomotor skills may interfere with other cognitive processes. Also, low self-confidence ratings may indicate students' difficulty with simulated conditions as mentioned in the student post-questionnaire. When comparing Tables VIII and X, "two's" given clinically and "two's" given in the HCLL, the only correlation is Group I instructors' ratings. In both cases, they gave the most "two's" clinically and in the HCLL in Category III, again, the emphasis upon implementation of nursing care or the psychomotor skills.

As shown in Table XI, students in Group I rated their confidence levels higher than their instructors' ratings of their competence which
is consistent with the students' overall ratings. In addition, only one category was rated. Students in Group II rated their confidence levels much lower than their corresponding instructors' ratings. This may be due to the students' perceptions of self-confidence related to the number of categories rated in providing total patient care under hypothetical situations. Students found that writing, communicating, evaluating, etc., were often more difficult under simulated conditions than mentioned in the student post-questionnaire. For Group II, similar findings to the number of "four's" given clinically are evident. The same categories of self-evaluation and attitude received the highest ratings. However, Group II students rated higher in clinic than their instructors and lower in the HCLL than their instructors. Finally, when comparing Table IX with Table XI, there is a direct correlation. This correlation shows the subjectivity of Categories V and VI which might account for the higher ratings.

Note from Table XII that 50% of the "questionables" given in Group I were given for only one "questionable" behavior on the form. However, the greatest number of "questionables" were given for protective measures followed by new skills and previously taught skills. These data point out that instructors felt that protecting the patient's safety was a crucial behavior as was mastery of previously learned skills. Only three "questionables" were given for new skills which indicate that instructors generally do not expect or require students to perform perfectly the first time in the clinical area. Only one "questionable" was given for incomplete focus preparation which reveals that the students'
perception that too much emphasis is placed on written focus preparation is not valid. In addition, of the three "questionables" given for previous skills, two were given for medication administration. Group II subjects received a significantly lower percentage of one-time weekly questionable grades. This difference may be related to the greater number of warnings given to Group I. Group II also received more one-time questionables for focus preparation followed closely by protective measures and previously learned skills. Of the three "questionables" given for previously learned skills, all three were given for medication administration. Principles and implementation of medications evidently were not mastered in the first course and/or in the simulated laboratory.

Table XIII shows an analysis of warnings given to students by instructors for specific categories or behaviors. Group I subjects received 85 warnings with the greatest number in Category III, Implementation. The greatest number of warnings and the actual number of "questionables" given in the clinical area for Group I show a direct correlation. Behaviors in Category III which required warnings included safety factors related to forgotten procedures (vital signs, clinitests, checking intravenous infusion rates), inaccurate mathematical calculations for medication administration and call bell not within patient reach. Eleven warnings were given for incomplete focuses but only one, one-time questionable was given as a weekly grade as shown in Table XII. These observations reveal the extent to which the students' fear is unfounded that too much weight is placed upon clinical
focus preparation. For Group II, Category IV received the most warnings while Category III was a close second which suggests that charting was not stressed in the laboratory and that students might have had difficulty communicating with manikins in the HCLL. This was stated in the students' post-questionnaires. In addition, since 85 warnings were given in Group I compared to 63 in Group II, the increased number of "questionables" given clinically for Group II might be explained. Finally, a very small number of warnings were given for the affective domain in Categories V and VI.

As shown in Table XIV, except for week number seven, most "questionables" were given in weeks four and five. Skills for those weeks were application of heat and cold and neurological checks. These did not appear to be difficult skills. Possible explanation might be an unscientific observation of previous classes in which mid-rotation slump occurs. Students switch clinical rotations at eight weeks.

The results of the student post-questionnaire were disappointing in that there were only 16 responses; 10 from Group I and six from Group II. This may have been due to another instructor's being responsible for distributing and returning the forms. However, from Group I, the clinical area was the most difficult. This may be due to the more acute setting and diversified patient assignments compared to the Fundamentals course. Reasons were different from the pre-questionnaire stating anything except fear of failure, tenseness, or fear of unsafe practice. The most frequent response regarding helpfulness of the HCLL was response B, "helpful but not necessarily in preparing me for
clinical." This response was interesting since the sole function of the laboratory was to prepare the student for the clinical area. On the other hand, respondents stated that implementation, especially of new skills, was the most difficult part of clinical. Possibly the students were not familiar with the function of the laboratory and/or there were many errors in the evaluative procedures for skill sign-offs. In addition, "much difficulty with charting" occurred as a response. This would seem reasonable because charting was not practiced or evaluated in the laboratory.

Most frequent responses for the number of hours spent practicing skills outside of the evaluation time was two to three hours per week. It appeared that this was not enough time and/or there was no way to monitor practice times. Monitoring would seem critical. The consensus of the respondents indicated that there were enough supplies and equipment but they could have been in better condition. Also, there were several statements indicating that equipment was not exactly like equipment in the local hospitals. These observations show that students and staff need to take more responsibility in caring for equipment. Some sort of contingency and/or a regular inventory system are needed. In addition, laboratory instructors might stress more principles and techniques so that students will become more flexible in working with many different types of equipment. Thirdly, a cost analysis of equipment, supplies, and inventory procedures might be explained to students. Finally, a laboratory fee may be necessary to defer costs.

Several comments regarding the initiation of a more thorough
evaluation procedure for skills was mentioned. Students reported that they felt the skill must be mastered thoroughly and that each student should have enough time so he could demonstrate the skill in its entirety. These responses indicate a need for more HCLL time. These observations are consistent with Huckabay and Gundmundsen's study. Either less time should be spent in the clinical area and/or more instructor compensation. Both would be a real necessity if mastery learning is a principle cherished by the educational system.

Most students agreed that registered nurses and teaching assistants were necessary in the laboratory as much as possible. Both were needed for practice sessions and sign-off procedures. Also, the majority of the respondents stated that they felt much better about the HCLL than they did the previous term mainly because it contained more equipment and was better organized. Finally, students pointed out the need for clinical instructors' presence in the laboratory for better continuity, for better prepared registered nurses for all technical skills, and for extended open laboratory hours. Some clinical instructors were in the laboratory during the study, but many were not because of inadequate financial compensation. A possible solution might be reduced clinical time with clinical instructors evaluating students for the compensated hours. Also, similar to past experience, most students did not use the HCLL on weekends or evenings. However, there have not been any formal monitoring of practice times either.

Group II respondents also stated that the clinical area was most
difficult. Reasons were varied but none referred to anxiety, fear, etc. as in the pre-questionnaire. There were equal responses to helpfulness of the laboratory; "very helpful" to "helpful but not necessarily in preparing for clinical". No evidence is available for these responses. The reason for organizational problems in the clinic might result from the decreased amount of time spent organizing the laboratory as stated by the HCLL instructors. "Difficulty with verbal communication" was rated higher by Group II whereas Group I rated "difficulty with written communication" higher. This difference may be due to students' difficulty communicating with manikins in the laboratory. Most students agreed that discussion of priorities, organization, and complications was most helpful in preparing them for clinical. This may indicate a need for more patient care discussion or "planning lab" as suggested by Searight. Most clinical instructors have very little time to spend with students discussing patient assignments other than briefly reading the students' clinical focuses.

The reasons for some of the responses to Question Six might be valid as more time was necessary. The importance of simulation and earlier introduction to simulation procedures are also evident. Responses to Question Eight also suggest the need for more monitored practice times. Responses regarding laboratory staffing and HCLL improvements were similar to Group I's responses.

The HCLL instructors questionnaire for Group I showed fairly consistent results. It would appear that there is a need for longer skills' practice sessions and sign-off periods during the weeks of the more
difficult skills. Longer sessions may prevent premature signing-off of skills due to lack of time. The reasons for the divergent responses to Question Five might be related to the individual group of students as opposed to the evaluative or training procedures. All three instructors were consistent with verbal remediation procedures and fairly consistent in responses to Questions Seven, Eight, Nine, and Ten. All three stated they did not sign-off skills prematurely because they lacked time for more than one to two weeks. These responses disagreed with students' comments on their post-questionnaire.

The need for better clinical and HCLL communication and the need for a full-time registered nurse are very evident needs. Both types of instructors should have weekly meetings and/or have the same instructors in the laboratory. Instructors' responses to Question 13 were divergent possibly due to individual group differences, unfamiliarity with laboratory routines, or relief to students of returning to old evaluative procedures.

The following are three possible reasons for the responses to Question 14: 1) difficulty in coordinating various faculty and student HCLL groups and clinical groups regarding the project, 2) limited monitoring of 49 students, six clinical instructors and six HCLL instructors, and 3) minimal amount of preparation time for student orientation to the project. In addition, teaching assistants, instead of manikins, should be used more in role-playing techniques; and the student-T.A. ratio should be decreased. These conclusions are consistent with the students' responses. One instructor suggested that clinical time not
be decreased because it was too valuable. Possibly, if the above
suggestions were implemented, clinical time could still be reduced as
a result if better student preparedness for use of the HCLL.

For Question Four, the results of the HCLL instructor questionnaire
for GROUP II were consistent with Group II students. On the other hand,
writing nurses' notes and daily schedules were least helpful even though
inadequate or incorrect charting was a fairly large problem in the
clinical setting, especially for Group II. Possibly more time could
be spent on writing skills as part of the "planning lab". The use
of the flexibility cards was rated as not very beneficial. Possibly,
too much information was given to students all at once without mastery of
prerequisite skills. Responses to Questions Five and Seven were con-
sisten while responses to Question Six were not, probably because in-
dividual instructor's workloads were excessive. Responses to Question
Eight agreed with Group I responses. Responses to Questions 10-13 were
consistent as were responses to Question 14. It is evident that Category III
received the greatest emphasis for both groups. This emphasis is a
possible reason for lower self-confidence with other categories and the
reason for the greatest emphasis in the clinical area.

It was generally agreed upon by Group II HCLL instructors that the
project was worthwhile not only for immediate improvement but also
for formal research into problem areas. Both Group I and Group II
felt the need to discuss patient care in order to plan and develop
problem-solving situations. HCLL Group II instructors also agreed with
Group I HCLL instructors regarding the need for an additional full-time
registered nurse, better communication between clinical and HCLL instructors, increased respect for equipment, and a decreased student-instructor ratio.

In summary, faculty and students agreed that the laboratory was important for preparatory training for the clinical, that mastery of skills was important, and that technical aspects of patient care were stressed over other categories of planning, organization, communication, and affective areas. Further, there was evident inconsistency in clinical grading by instructors where unclear specification of crucial behaviors was defined. Thirdly, nursing students are generally anxious and have low self-confidence levels compared to their actual performance. Very few, if any, low self-confidence ratings or high anxiety ratings were related to the clinical evaluation procedure as shown on the students' SCIRS forms.

A synopsis of problems, suggestions, limitations and uncontrollable variables in the study is presented as a guide to replication. First, the study was run for nine weeks instead of eight, in order to better acclimate students and faculty to the project. The investigator met with both groups of students, clinical instructors, HCLL instructors and T.A.'s on a regular schedule. More frequent meetings would have been better. The investigator met also with all involved students and instructors in the hospital setting, in the laboratory, and in the classroom at least three times per group per nine weeks. Teaching Assistants in the HCLL helped set up equipment, performed demonstrations, assisted with evaluations and wrote up additional hypothetical situations. The
investigator should have spent more time with T.A.'s, however. Students had to be continually reminded to turn in their completed SCIRS forms every week. Specific students in each clinical area were assigned to pick up all SCIRS forms and to return them to the investigator. Sample completed SCIRS forms were posted in the laboratory and in the hospital setting, and it was agreed that if a three or four rating was not attained in the HCLL and time was lacking, the student would be signed-off anyway. This might have caused some unpreparedness for clinical and a lack of mastery of skills. It also demonstrated the severe lack of financial and human resources in the HCLL. In addition, it was emphasized repeatedly that instructors rate each category regarding competency levels rather than self-confidence levels of each student and that instructors write a patient-assignment summary on their evaluation forms for the investigator to identify. Students were to be given three hours compensatory time from the clinical area on Fridays, and the instructors' SCIRS forms were to be used as guides for completing their Kalamazoo Valley weekly clinical evaluation forms.

Students' verbal comments throughout the study included the following: 1) Why did they have to fill out all these forms to help the investigator with her thesis? 2) "I'll write three or four for every category so I don't have to write the rationale." 3) "It is difficult to perform a skill accurately and concentrate on other activities, i.e., charting, communication, etc. at the same time." Other student comments included these:

1) They were having to spend too much time in the HCLL even when they were compensated.
2) They were still anxious about clinical.

3) They feared receiving a "questionable" weekly grade even though none had been given as yet.

4) The flexibility cards were most helpful.

5) Group II was burdened with all the work.

Continued explanation for the purpose of the study, why accurate ratings were necessary for future students' benefits, occurred throughout the study period.

Instructor comments throughout the study stated their concern over the generalized unpreparedness, lack of motivation, inability to follow directions and poor performance of the majority of the students. Other comments included their concerns over repeated skill deficits with charting, organization, medication administration and intravenous regulation. One instructor felt very overwhelmed in the HCLL with over-time and paper work while most instructors felt there was not enough time or personnel in the HCLL.

General problem areas regarding the project than pertained to the insufficient preparation and acclimation time, the difficulty in monitoring 49 students and 12 instructors, the voluminous paper work, the lack of sufficient numbers of HCLL instructors and T.A.'s, the lack of a full-hearted commitment to the project and laboratory on the part of the students and faculty, the overcrowding of the HCLL, the unbalanced student-instructor laboratory ratio, the insufficient follow-up of problem areas, the lack of sufficient communication between clinical and HCLL instructors and the deficient academic and clinical preparedness of
this particular group of students. These problems are similar to those discussed by Eveslage and Padnano.

Even with these difficulties, the project proved beneficial in gathering systematic data regarding problem areas of the clinical evaluation procedure and the use of the HCLL. Suggestions for future research would include increasing time for project acclimation; limiting the training procedure for the HCLL time; requiring students to master technical skills prior to their evaluation on the problem-solving areas; developing a planning laboratory similar to the model described by Searight; developing a point system; counting the HCLL as part of the clinical experience in order to increase its effectiveness; hiring a full-time registered nurse for the laboratory; and finally, staffing the HCLL with some clinical instructors with an equitable compensation in either time or money. In addition, instructors in each course should establish their crucial behaviors with reasonable consistency, possibly omit giving a weekly "questionable" for only one "questionable" behavior unless it pertained to patient safety or previously learned skills. Utilization of weekly clinical evaluations based upon the above modifications and using the revised performance objectives would seem reasonable and necessary to continue to insure competent nursing care.
SUMMARY

A summary of the conclusions based upon results of the study show:

I. Student SCIRS ratings did not show low self-confidence levels or high anxiety levels related specifically to the clinical evaluation procedure.

II. There was no statistical difference between Group I and Group II regarding self-confidence levels and clinical grade point average.

III. Clinical grade point averages were generally high with the PSI system regardless of student self-confidence levels. This differs slightly from Arndt's findings (1976).

IV. Other variables unrelated to the clinical grading procedures may have accounted for some lower self-confidence levels as shown by student verbal and written responses and descriptive statistical analysis. This coincides with studies by Raven, Meieis and Farrell.

V. Group II generally received more "questionable" grades than Group I and were less confident than Group I.

VI. Category III of the clinical evaluation, Implementing Nursing Care, was stressed most by students and faculty as shown by most problem areas and least amount of self-confidence. This would be consistent with most associate degree nursing philosophies.
VII. As a task becomes more complex, student self-confidence levels decrease.

VIII. There was no correlation between student levels of self-confidence in the HCLL and student levels of self-confidence in the clinical setting. This is similar to Padnano's findings.

IX. There was much instructor inconsistency regarding grading criteria, what behaviors were most crucial and number of warnings given. These results are similar to those of Hayter (1973).

X. The majority of instructors felt that providing safety for the patient was a crucial behavior as was mastery of previous learned skills. This is similar to Hayter, Padnano, Sinclair, and Gudmundsen's studies.

XI. Instructor emphasis in the HCLL and the clinical area was different.

XII. Both Group I and Group II reported feeling less confident in the HCLL than they did in their actual performance in the HCLL.

XIII. Students and faculty in both groups felt the use of the HCLL was necessary and an important part of skills' training while both offered suggestions for improvement.

XIV. Students and instructors rated the highest in confidence and competence respectively in the affective domains such as attitudes and self-evaluation.

XV. Full faculty commitment and instructor agreement on the use of evaluation and simulation procedures are necessary. This supports Padnano's findings.
XVI. Previously learned skills were not being mastered. This depicts the importance of Huckabay and Arndt's study.
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7. See #3 above.

8. See #3 above.


11. See #3 above.

12. See #5 above.

13. See #6 above.


18. Competency Based Education: Kalamazoo Valley Community College Grant through Advanced Institute Development Program, 1975.

19. See #18 above.


21. See #5 above.

22. See #5 above.


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APPENDIX A

BEGINNING MEDICAL-SURGICAL NURSING

NAME __________________________

Face Sheets
Clinical Focus: Kidney

* Required
** Look up and answer prior to clinical experience.

*1. On your assigned patient, look on their chart for admitting urinalysis and note the following:

A. Specific gravity
B. pH
C. Glucose
D. Cells RBC, WBC

Explain rationale for any difference.

Was the specimen obtained by "clean-catch method"? _______________

*2. Monitor the I and O on your assigned patient for one day and record here ____________. Is the intake adequate? ______________ Document.

Is the output adequate? ______________ Document.

*3. If physically possible, record your patient's blood pressure lying

Record the blood pressure standing _______________.

4. Observe a person being dialyzed.

5. Observe an IVP.

6. Observe a cystoscopy.

**7. How can a nurse evaluate increases or decreases in fluid retention in a person having edema?

8. Does your patient have any of the following diet modifications?

Decreased Na _______________
K+ Supplement _______________
Protein Restrictions _________
Fluid Restrictions __________
APPENDIX B

KALAMAZOO VALLEY COMMUNITY COLLEGE
CLINICAL NURSING PROGRAM
EVALUATION FORM

DATE ______________________

STUDENT'S NAME/SIGNATURE  _____________________________________

INSTRUCTOR'S SIGNATURE ____________________________________________

NAME OF CLINICAL EVALUATION

INITIAL SCORE: Outstanding (11)  Pass (10)  Questionable (2)  Fail (0)

REMEDIAL SCORE: Pass (7)  Fail (0)

TOTAL ______

If a Questionable or Fail is given, state the consequences and time-span for make-up here:

Rating Scale:  0 = Outstanding  S = Satisfactory  *Q = Questionable
**F = Fail

*Q's may be made up prior to or at the next clinical session.
**F's may be made up during the next two remedial sessions or by individual agreement between the student and instructor. If this is not done, the student will receive an F on that clinical focus. An F that is not removed on a clinical focus will cause the student to receive an F in the clinical portion of the course and thus have to repeat it.

1. Demonstrates good planning:

______ a. Fills out the designated portion of the clinical focus prior to arrival at the clinical facility.
______ b. Outlines the day's schedule prior to arrival at the facility.
______ c. States the appropriate diagnosis.
______ d. Explains the diagnosis.
______ e. Gives the rationale for performing assigned skills.
2. Demonstrates good organization:
   _____ a. Prepares a flexible care plan.
   _____ b. Completes the care plan in the allotted time.

3. Demonstrates good implementation:
   _____ a. Performs new skills correctly.
   _____ b. Demonstrates mastery of previously learned skills.
   _____ c. Provides protective measures to minimize hazards to patient's welfare.
   _____ d. Demonstrates good judgment in following directions.
   _____ e. Completes clinical focus correctly.

4. Demonstrates good observation and communication skills:
   _____ a. Verbalizes accurate observations appropriately (time, persons, etc.).
   _____ b. Charts appropriately.
   _____ c. Analyzes observations appropriately.

5. Demonstrates good self-evaluation:
   _____ a. Evaluates own performance accurately.
   _____ b. Is self-directive (demonstrates initiative and follows through appropriately).

6. Demonstrates "good" attitudes (as defined in student's handout):
   _____ a. Personal appearance and hygiene.
   _____ b. Approach to change.
   _____ c. Approach to routine.
   _____ d. In dealing with "authority" figures.
   _____ e. In dealing with "non-authority" figures (patients, peers, visitors).

   Student's Signature ________________________
   Evaluator ________________________________
   Date _________________________________
Clinical Experience: You will be assigned to one or the other hospital and time.

Wednesday, Thursday, and Friday

7:00 - 3:00 PM
Borgess Hospital

7:00 - 3:00 PM
Bronson Hospital

Instructors:

Credit Hours: 8

Pre-Requisite: HCR 110, 111, N111, N112, N113

Co-Requisite: N 104 - N 121

Objectives: Upon completion of N 122, the student will be able to:

1. Make a nursing decision when given signs and symptoms presented by an assigned patient:
   a. Identifies the need for nursing action
   b. Initiates appropriate nursing
   c. Evaluates the nursing action

2. Formulates a nursing decision when given a specific situation:
   a. Explains the rationale for performing a clinitest on any patient with diabetes.
   b. Selects proper nursing action for a patient diagnosed as having renal calculi.
   c. Evaluates the need for measurement of I and O.
   d. Decides when taking VS are necessary.
   e. Indicates when drug dosage is not within normal limits.
3. Know how to collect specimens which may be ordered:
   a. Lists appropriate equipment for gastric analysis.
   b. Differentiates between double-voided and clean catch midstream urine specimens.
   c. Distinguishes between stool specimens which require immediate laboratory examination and those which do not.
   d. Lists blood tests which must be done in a fasting state.
   e. Describes several reasons for obtaining sputum specimens.

4. Performs all skills on the skill list:
   a. Gathers appropriate equipment.
   b. Identifies patient using proper guidelines.
   c. Positions patients properly.
   d. Distinguishes between skills requiring clean or sterile technique.
   e. Performs skill in proper sequence.
   f. Provides for patient safety and comfort.
   g. Charts necessary observations.

5. Understand the rationale for performing all skills on the skill list.

6. Apply nursing judgement when giving medication:
   a. States the "5 Rights".
   b. Indicates side-effects of medications.
   c. Identifies proper nursing measures prior to administration of drugs.
   d. Decides when oral drugs may be held.
   e. Correctly follows institutional policy regarding narcotics (i.e., key handling, signing out, wasting, etc.)
   f. Correctly identifies injection sites.
   g. Signs off all medications in the correct place after administering.

7. Construct patient care plan based on physical, social, and psychological needs:
   a. States rationale for performing nursing treatments.
   b. Differentiates between the needs of people of various cultural and social backgrounds.
   c. States observations to be made on patients with various diagnoses.
   d. Identifies verbal and non-verbal communication with patients.

**SKILL UNITS:**

Throughout the 15 week semester, practical skill demonstrations will be required of all students. These are referred to as activities on each
theory unit and will be evaluated on a Pass/Fail basis by an instructor in the HCLL. Students will be evaluated on a scheduled basis. The student must be evaluated as satisfactory on these BEFORE they can perform each skill in the clinical setting. Therefore, failure to be evaluated each week will lead to inability to participate in clinical experiences and the student will receive an "F" for the day.

When reviewing your patient assignment each week, if you note a skill included in N 122 content but which has not yet been learned; it is the student's responsibility to make arrangements with the HCLL supervisor to be evaluated on this skill prior to going into the clinical area.

On the other hand, if you have an opportunity to perform a skill clinically and are signed off by the instructor, then you may be excused from that skill in HCLL.

You must demonstrate mastery of the following skills to an instructor:

1. Administration of O₂ by catheter, cannula, ambu bag or mask.
2. CPR
3. Regulate and add to IV's (according to hospital policy for LPN's)
5. Isolation technique.
6. Application of moist heat, dry heat, and cold.
7. Suction of an airway.
8. Colostomy care.
10. Neuro checks
11. E, E, N Instillations or irrigations
12. Levine care
13. Foley catheter insertion
14. C.V.F.
15. Dressing change and wound irrigations
16. Incident report.

Grading:

Your course grade is determined by the total number of points earned in the clinical area plus passes on HCLL skills. The course activities are weighted as follows:

A. 16 skill units - pass or fail
B. Clinical facilities: 15 weeks @ 10 points per week
These points will be figured on the basis of points earned on weekly clinical evaluations by clinical instructors.

**CLINICAL FACILITIES:**

Your clinical experience will begin the first week of class for orientation to the facility and unit. Twenty-four (24) hours per week are scheduled on Wednesday, Thursday, and Friday. Weekly clinical evaluations will be given on Friday.

Each clinical experience will have a clinical focus sheet. Correct completion of this sheet will be required to pass each experience.

Each student will also be evaluated on planning, organization, implementation, communication, attitudes, and self-evaluation.

**ABSENCES & TARDINESS POLICIES:**

Part of your education as nursing students should include reliability. We expect you to attend each clinical experience. If you have children, please make arrangements now for their care during illness. Missing a clinical experience puts you behind, and we will question two or more absences. If you must be absent, call the specific hospital unit to which you are assigned, identify yourself as a KVCC nursing student and state you will be absent. This must be done by 7:00 AM on the day shift and 3:00 PM on the evening shift.

Do not leave a message with the switchboard operator. If you don't notify the hospital of an absence, you will receive an "F" for the week. (Do not
depend on friends to notify the unit for you.)

Tardiness is inexcusable for a nursing student. The patient and hospital are depending on you to arrive on schedule. We suggest that you arrive 10 - 15 minutes early. (Allow extra time in inclement weather.)

Two days of absence will be excused in this course. Any additional days will have to be made up to comply with the State of Michigan's requirements for practical nursing education.

If it is necessary for a student to make up time, he/she will receive an I in the course until the hours have been made up. This will be arranged by the lead instructor in the course and will be as soon as possible the next semester that the student's schedule can permit this.

CHEATING:

To use any form of unauthorized aid (notes, text, etc.) in a quiz, or to obtain any form of help from another student during an exam (looking at his paper, asking him questions, etc.) is considered a form of academic dishonesty. Also, to knowingly provide any form of help to another student during an exam is considered cheating. The first time any form of cheating is observed and can be documented, the student will receive an X grade and a report will be sent to the Dean of Students. Lying will be dealt with in a similar manner.

Since Pharmacology (N 104) is a co-requisite of N 122, any student who withdraws from N 104 will automatically be withdrawn from N 122.
I. Demonstrates Good Planning
A. Fills out starred items on focus
B. Knows skills involved
1. brings skill packet to hospital and lab
2. practices previous skills in lab based on M.D. orders, nursing orders, pt. diagnosis
C. Tells instructor 3 places to look besides text re: pt. dx., procedures, etc.
D. Outlines day's schedule in writing
1. procedures to be performed, medication schedule, M.D. orders, nursing orders, charting, physical threat to pt., support measures and 2-3 anticipated problems
2. shows to instructor first thing
3. explains rationale for schedule to instructor in less than 2 minutes
E. States appropriate diagnosis
1. pronounces dx. and any related terms based on medical dictionary at all times
2. states to instructor in a few sentences the main organ and system affected
3. explains dx. so layman can replicate explanation in less than 2 minutes
F. Assess individual needs of patient
1. locates on pt. chart, for instructor, four places of pt. information needed for care plan
2. tells instructor 3 other sources of information besides pt. chart
3. observes pt. using cephalocaudal or systems approach based upon 21 nursing problems for additional information and tells instructor what observed
4. tells instructor 2-3 priority needs based upon immediate threat to life, presenting signs or symptoms, emotional reaction to illness or hospitalization
5. states 2-3 nursing measures based upon your assessment to meet individual needs of the patient. Include:
   a) Nutrition (environment, requirements for age, hand-washing, positioning, temperature, right tray, right foods, recording, supplements)
   b) hygiene (oral, general, & perineal at frequent intervals)
   c) mobility (how often, how, aids, recording)

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d) elimination (report time, consistency, amount, burning, pain, blood, etc.; accurate I and O, first output, post-surgery output, post foley removal, post medication). Also, aids to elimination, following order, right orifice, what ordered, medication, recording and charting.

e) oxygen (signs of oxygen deficit, no smoking, equipment, ordered amount, signs of regression or progression of disease process)

f) circulation (pulse-rate, rhythm, loudness, radial, apical; BP-placement of cuff, proper size, recording, positioning; temperature-route, abnormality; respirations-rate, rhythm, pt. condition when taken, recording; impairment-color, skin temp., skin sensation; nursing actions-done when indicated based upon signs and symptoms, etc.

g) emotional

h) safety

i) spiritual

j) personal respect

G. Explains diagnosis to instructor
1. based upon reference reading and pt. dx. 2-3 possible causes
2. describes pathophysiology in just a few minutes so 3-4 altered states are represented, 2-3 reasons for altered vital signs or homeostatic mechanisms
3. lists 3-4 signs and symptoms identified by the pt.
4. explains 2-3 lab reports related specifically to the dx.
   a) states 2 places to look for normal lab values
   b) compares norms with abnormals
   c) relates at least one lab report with observable sign or symptom and tells instructor (i.e., if elevated WBC, see if temperature is up and vice versa)
5. explains 3-4 medical plans so layman can understand in less than 2 minutes

H. Demonstrates to instructor via showing medication cards for assigned drugs (route, normal dose and pt. dose, why this pt. is specifically receiving the drug, 3 side effects, 2 toxic effects)

I. Explains rationale in writing or orally for each nursing measure performed in no more than 2 minutes each.

II. Demonstrates Good Organization

A. Expends least amount of physical energy via
1. assembles all supplies needed for specific task or procedure so as not to forget anything and in the right order for use
2. goes over written schedule with instructor for suggestions prn
3. revises schedule as necessary based upon changing priorities and follows through stat
4. list in a schedule all treatments, procedures, diagnostic tests, etc., when done and approximately how long it will take
5. minimize walking, paper work, looking up information

B. Prepares flexible care plan
   1. verbalizes to instructor 3-4 possible complications or emergencies which might occur and include in schedule
   2. explains to instructor several nursing measures which would be alternatives to meet present patient needs

C. Completes assigned patient care (M.D. orders, nursing orders, diagnosis procedures, charting)
   1. between 7 am and 2 pm, 3 pm and 10 pm or as designated by instructor
   2. performs care at the correct time (M.D. orders, medication procedures, lab specimens, o.t., etc.)
   3. plans with patient other nursing care via talking with patient and writing it on care plan.

III. Demonstrates Good Implementation
A. Performs new skills correctly (refer to all skills in course syllabus)
   1. performs skills in HCLL according to skill objectives and HCLL instructor assessment
   2. brings HCLL skill sheet to clinical every day with HCLL instructor signature
   3. verbalizes by telling instructor when a skill is not performed correctly; not in patient's room
   4. writes or utilizes proper aseptic technique based upon diagnosis, transmission, susceptibility, etc.
      a) medical—washes hands between pts., before clean procedures, anytime soiled or contaminated
      b) discards clean linen that falls on floor
      c) prevents cross contamination via using individual pt. supplies
      d) uses proper attire (gown, gloves, etc.)
   5. Anticipates incidences which may alter successful implementation of skill
      a) verbally tells instructor 4-5 patient or environmental idiosyncrasies which may alter the way the skill might be performed, e.g., performing a cath on a comatose patient vs. cath on pt. in traction
      b) thinking what one is doing when M.D. suddenly walks in room
   6. describes to instructor 2-3 teaching needs based upon pt. understanding of diagnosis, procedures, lab tests, treatments ordered

B. Demonstrates mastery of previous (N 111-113) skills
   1. states to instructor which skills will be needed to perform new skill
   2. practices skill in HCLL before clinical as verified by another student, T.A., or instructor

C. Provides protective measures to minimize hazards to pt.
   1. asks patient, checks ID, looks at bed number, looks at pt. chart before performing any procedure or passing any medication...
2. tells instructor when various types of asepsis should be used (see A-4)
3. tells instructor when not in pt. room, when technique was broken
4. tells instructor upon immediately entering room, all safety or comfort hazards and remedies them via:
   a) checks call bell; location and functioning
   b) checks floor for wires, stools, cords, chairs
   c) checks air; smoke, odor, temperature
   d) implements 5 rights of drug administration
   e) checks body position for proper alignment
   f) checks linen for wrinkles, holes, debris
   g) locates bed pan or urinal and toilet paper for pt.
   h) tags bed of pt with special needs; deaf, blind, npo, etc.
   i) checks position of belts, side rails according to hospital policy and age of pt.
   j) tells instructor or notes on cardex, ages which might be more susceptible to accidents
   k) checks wheelchairs; belt, brakes
   l) checks thermal problems; HWB, ice bags, coverings, observations, etc.
   m) provides privacy during all procedures via pulling curtains, covering all parts of the body except surface area, keeps pt. information confidential

D. Provides evidence of following written directions accurately via:
   1. shows evidence that all M.D. orders were carried out, e.g., on nurses notes, in med. kardex, special hospital forms, etc.
   2. performing order at right time
   3. consults unit procedure manual and notifies instructor prn
   4. questions written order when not legible. Do so to instructor or staff R.N. stat

E. Follows verbal directions correctly via:
   1. questions team leader, M.D., staff R.N. or instructor when directions are unclear stat
   2. repeats outloud and in presence of another nurse, all verbal and written orders
   3. begins to question instructions (tactfully) that are not consistent with level of learning via:
      a) knowing normal lab values for that pt.
      b) knowing normal dosages for drugs ordered for pt.
      c) knowing present physical and psychological condition, e.g., vital signs, state of consciousness, color, activity, 2-3 observations indicating progression or regression of symptoms
      d) knowing level of expertise of staff members, e.g., verbal job description of team leader, charge nurse, R.N., LPN, aide, technician
      e) knowing what pt. has been told about diagnosis, lab reports, surgery, diagnostic tests via asking pt., reading kardex and progress reports
f) knowing channels of communication and chains of command via telling instructor who is person (first) you would be in any particular situation

F. Completes clinical focus correctly when assigned
   1. when assigned by instructor
   2. completes double starred items before clinical
   3. asks questions for clarification before focus is due
   4. legible and grammatically correct
   5. answers all questions
   6. content is based upon instructor-student verification

IV. Demonstrates good observation and communication skills
   A. Verbalizes accurate observations based upon systems or cephal-caudal approach and changes since reading previous shift's nurses notes via:
      1. telling right person (M.D., nurse, instructor, etc. based upon immediate threat to life, who is available, who else assigned to pt.
      2. states right information about observations (size, color, amount, odor, drainage, anatomical location, correct medical terminology)
      3. states at right time (stat, when report is over, etc.)
      4. correctly pronounces medical terminology as learned from medical terminology or dictionary
      5. tells instructor several verbal and non-verbal cues which gives you clues to individual pt. needs
   B. Charts correctly
      1. writes legibly
      2. spells all words correctly
      3. selects correct medical terminology
      4. selects information which correctly describes the pt. condition
      5. presents charting entries to instructor for approval before actually entering into chart
      6. charts in complete sentences
      7. uses no dangling modifiers
      8. corrects errors in charting via circling time that is out of sequence and puts one line through error and writes "error"
      9. indicates via signs and symptoms, vitals, level of consciousness and attitude:
         a) present physical and psychological condition
         b) reaction to meds, treatments, procedures, personal contacts
      10. quotations
      11. avoids "tolerated well" without further explanation or clarification
      12. mode of transportation
      13. correct time sequence with event
      14. so instructor or staff member could tell diagnosis
      15. writes objective rather than subjective entries, e.g. "in room most of day, very little interaction with roommates" instead of depressed.
C. Analyzes observations correctly via:
   1. tells instructor or team leader the presence or absence of several indicative signs or symptoms associated with the diagnosis based upon your reading and or change in condition
   2. reports any abnormal vitals, patient reaction to meds and treatments, personal contact, based upon norms for the patient and does this stat to the charge nurse
   3. uses systems or cephalocaudal approach to observation and reports findings to instructor or charge person
   4. tells the instructor several basic needs of your pt.
   5. tells instructor which of your observations are subjective and which are objective and state why
   6. tells instructor why pt. has particular sign or symptom based upon results of lab reports
   7. tells instructor several anticipated signs and symptoms to observe based upon 2-3 lab reports specific to the dx.

D. Communicates effectively with patient, team members, family via:
   1. speaks with pt. or family so as not to physically frighten them
   2. explains all procedures based upon your present knowledge and pt. level of understanding
   3. talks with and looks at pt. more than equipment
   4. listens to patient more than talks
   5. speaks clearly in correct sentences
   6. provides factual information rather than heresay
   7. asks pt. and family what they know about particular subject first (tactfully)
   8. discuss pt. problems with all staff members involved and charts on kardex.
   9. uses terms according to pt. understanding
   10. asks pt. or family or staff for clarification of any information you give them for every shift
   11. writes a brief care plan according to hospital procedures and forms which is updated daily
   12. reports off to staff member, instructor, etc. everytime you leave floor or go on break
   13. recognizes effects of your non-verbal communication via:
       a) having independent observer write down all questions re: non-verbal behavior and gestures
       b) having independent observer interpret the meaning of your gestures and non-verbal behavior
       c) writes down all non-verbal behavior and gestures of your patient for one day
       d) writes down your interpretation of above
   14. talks about family and patient to family and patient rather than talking about yourself

V. Demonstrates Good Self-Evaluation
   A. Evaluates self appropriately
      1. tells instructor if nursing care performed is accurate based
upon current level of education and Categories I-IV and VI of SCI

2. begins to summarize strengths and weaknesses via:
   a) at the end of four weeks, 8 weeks, 12 weeks and 16 weeks, is able to tell instructor several strengths and weaknesses based upon categories of SCI and so more of both are identified at the end of the course
   b) during weekly assessment conferences, tells instructor or peers several feelings re: a stressful situation

3. at the end of 4, 8, 12, and 16 weeks, tells instructor, peer or non-judgmental person, several negative or positive feelings toward other people (pt., family, staff)

4. tells instructor at the end of 5 weeks, several alternative approaches one might have used in a given situation

B. Is self-directive
   1. completes SCI on a daily basis
   2. initiates several nursing actions which are unique to the care plan for a patient based upon present level of knowledge
   3. seeks instructor's advice, by 12 weeks, only after assessing situation, e.g., getting all information, uses all references, knowing emergencies of situation, feeling competent in doing something new
   4. by 8 weeks, seeks instructor prn to "sound out" problem-solving approaches to identified problems
   5. by end of the course, uses nursing process to establish a nursing care plan via:
      a) tells instructor several things to consider re: a nursing history
      b) makes gross observations on assigned pt. using a systematic approach to observation
      c) picks out several priority needs based upon the 21 nursing problems
      d) writes several nursing actions to alleviate problem
      e) tells instructor several ways the nursing actions would help
      f) tells instructor if some of the nursing actions helped

VI. Demonstrates "Good Attitude"

A. Personal appearance and hygiene
   1. follows dress code in handout
   2. smiles at individuals more than frowns, looks up more than down, walks with "purpose" without skipping or sauntering, talks more about nursing and pt. care than other things, looks at speaker rather than at floor or elsewhere, sits in sitting position rather than slouched position, answers questions with affirmative or tactful approach rather than complaining response, answers with straightforward responses rather than sarcastic responses

B. Approach to change
   1. seeks out new experiences based upon level of performance, education and priority of time
2. is able to cope with assistance, in unexpected emergency situations via:
   a) tells someone of the emergency situation stat
   b) follows directions without becoming physically paralyzed as observed by 2 or more persons
   c) seeks help stat when can't institute action yourself
3. demonstrates flexibility in planning for and meeting pt. needs via:
   a) allowing several minutes of free time for special needs
   b) writing schedule that can be changed based on priorities
   c) tells instructor 2-3 priority needs stat
   d) plans with patient as evidenced via pt. or care plan on kardex
   e) assumes some responsibility for orienting self to new situations via:
      1) when assigned to new floor, writes out additional questions you might have besides that in orientation package
      2) asks charge person who would be logical resource person for additional information
      3) looks at new texts, procedure manuals, etc.
      4) goes to library on own time for resources on new situation as verified by another person
C. Approach to routine
   1. is cheerful, pleasant facial expression
   2. seeks out things to do as evidence by another person
   3. stays in pt. room more than at desk as seen by another
   4. suggests constructive changes to charge person based upon safety and betterment of patient care
   5. finds out additional pt. information which would disable pt. to be labeled, "routine appendectomy" and reports this
D. In dealing with authority figures (staff, instructor, M.D.)
   1. does not give impression as "matter-of-fact" via facial expression, little talking with pt., task oriented
   2. is friendly, pleasant facial expression
   3. asks questions more than is silent after most resources utilized
   4. speaks to visitors most of the time
   5. physically approaches them more than not
   6. consults authority figures when needs of pt. are being jeopardized by nurse, M.D., other individual, etc.
   7. talks with individual about negative feelings (except pt.)
E. In dealing with "nonauthority figures" (patients, family, peers)
   1. is friendly, pleasant authority expression, stays in pt. room more than not
   2. offers constructive suggestions to peers based upon fact and not rumor, cooperates with fellow students via helping with conferences, sharing work, helps fellow students develop good skills and attitudes via speaking with them more than not and setting examples as a professional
### APPENDIX E

**SELF-CONFIDENCE INVENTORY RATING SCALE (SCIRS)**

**GROUP I**

**BEGINNING MED-SURG - SPRING 1976**

<table>
<thead>
<tr>
<th>Student Name</th>
<th>Date</th>
<th>Week #</th>
<th>Skill</th>
<th>Theory</th>
<th>HCLL Instructor</th>
<th>CLIN Instructor</th>
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**Rating Scale:** 1 = Very Low Level of Confidence; 2 = Below Average Level of Confidence; 3 = Above Average Level of Confidence; 4 = High Level of Confidence

HCLL = Health Careers Learning Lab; Sit. = Situation

B = Rating before performance.

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<tr>
<th>HCLL</th>
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</tr>
</tbody>
</table>

APPENDIX E
(Continued)
WK. 3

SIT. #1

Instr. Description:
Mr. Athero, 52 y.o. male, c/o chest tightness, burning sensation, pain radiating to L arm. 260#. President of oil co.

Dx: Poss. M.I.
On Adm: pallor, diaphoresis, confusion

Morphine ½ gr IM q 3-4° prn for pain
Valium 5 mg qid IM
Heparin LOK IV q A.M. T P.T.T.
VS. q 4° apical
BP q 4
BR
Serum electrolytes
IV 1000 L/R 20 meq ringers lactate at 125cc/hr
N.P.O.
I & O T shift
O₂ @ 6L prn for dyspnea
<table>
<thead>
<tr>
<th>WK. 3</th>
<th>SIT. #1</th>
<th>CARD #1</th>
<th>WK. 3</th>
<th>SIT. #1</th>
<th>CARD #2</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLEXIBILITY</td>
<td>At anytime put on forehead:</td>
<td>FLEXIBILITY</td>
<td>Put on forehead:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;No respirations. (\text{R}) eye starting to dilate.&quot;</td>
<td>&quot;Eyes constricting better, carotid pulse of 30.&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student should initiate CPR</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WK. 3</th>
<th>SIT. #1</th>
<th>CARD #3</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLEXIBILITY</td>
<td>Put on forehead anytime:</td>
<td></td>
</tr>
<tr>
<td>&quot;Respirations ceased - strong carotid pulse.&quot;</td>
<td>&quot;Your student colleague next to you has a pt. going into cardiac arrest now!&quot;</td>
<td></td>
</tr>
<tr>
<td>Student should initiate respiratory resuscitation</td>
<td>Two people initiate resuscitation</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WK. 3</th>
<th>SIT. #1</th>
<th>CARD #5</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLEXIBILITY</td>
<td>Put on forehead early in experience:</td>
<td></td>
</tr>
<tr>
<td>&quot;Pt. pale, cyanotic, dyspneic.&quot;</td>
<td></td>
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APPENDIX H

USE OF HCLL: GROUP II

The Health Careers Learning Laboratory (HCLL) is intended to be utilized as a simulated laboratory for the practice of both technical skill and theoretical application. For this reason, the student will be presented with hypothetical situations involving technical skill demonstrations and problem-solving techniques. If the student is able to practice both technical skills and problem-solving skills, student confidence, patient safety and less anxiety should result.

The HCLL will approximate a real hospital unit as much as possible. Please use your imagination to improvise when necessary. Every time you enter the HCLL, you are to assume that it is a local hospital unit. Therefore, you will be expected to abide by hospital quiet policies, wash hands frequently, check Identification bands on the manikins, review patient charts, nursing kardexes, medication kardexes, etc. as though you were preparing for and/or caring for an individual patient. If another student's patient rings his call bell, and he/she is busy, you should answer it if you are not busy.

When you are practicing on your own or during your patient assignment, principles of the simulated situation will be strickly adhered. On a non-grade basis, all instructors, students and teaching assistants will be monitored by each other to maintain the simulated situation.

During your patient assessment with an instructor, you will draw a hypothetical situation from a box. Both the skill and theoretical application for the week will be assessed according to the SCIRS.

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Also, anytime during the skill-situation unit, the instructor or T.A. may place a 3"x5" card around the area of your patient or on the patient or on his bed. The cards will give you new observations, conditions, etc., which may alter your care for that patient. For example, the week's skill is I.V.'s and the theory unit is communication. When observing your patient, the instructor may place a card on the patient's mouth which reads, "Am I going to die?" You must respond accordingly. Be sure to keep all six categories in mind. As a guide to behaviors expected in the HCLL, see the SCI categories and performance behaviors which are applicable.
## APPENDIX I

### SELF-CONFIDENCE INVENTORY RATING SCALE (SCIRS)

#### GROUP II

BEGINNING MED-SURG - SPRING 1976

<table>
<thead>
<tr>
<th>Student Name</th>
<th>HCLL Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week #</td>
<td>Date</td>
</tr>
</tbody>
</table>

Rating Scale: 1 = Very Low Level of Confidence; 2 = Below Average Level of Confidence; 3 = Above Average Level of Confidence; 4 = High Level of Confidence

HCLL = Health Careers Learning Lab; Sit. # = Situation # in HCLL; B = rating before performance

### Categories

- **I. DEMONSTRATES GOOD PLANNING**
- **II. DEMONSTRATES GOOD ORGANIZATION**
- **III. DEMONSTRATES GOOD IMPLEMENTATION**
- **IV. DEMONSTRATES GOOD IMPLEMENTATION/COMMUNICATION**

<table>
<thead>
<tr>
<th>HCLL</th>
<th>Wednesday - Hospital</th>
<th>Thursday - Hospital</th>
<th>Friday - Hospital</th>
<th>Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRIAL</td>
<td>TIME</td>
<td>RATIONALE</td>
<td>TIME</td>
<td>RATIONALE</td>
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<tr>
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<tr>
<td>Rating</td>
<td>1 2</td>
<td>7am 2 IA</td>
<td>7am 3</td>
<td>7am 3 IB</td>
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<tr>
<td>Rationale</td>
<td>I I A</td>
<td>3pm 3</td>
<td>3pm 3</td>
<td>3pm 2</td>
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<tr>
<td>Rating</td>
<td>2 3</td>
<td>7am 3</td>
<td>7am 2 IIA</td>
<td>7am 3</td>
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<tr>
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<td>II B</td>
<td>3pm 3</td>
<td>3pm 2 IIA</td>
<td>3pm 3</td>
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<td>7am 3</td>
<td>7am 3</td>
<td>7am 3</td>
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<tr>
<td>Rationale</td>
<td>IIIC</td>
<td>3pm 2</td>
<td>3pm 3</td>
<td>3pm 2 IIA</td>
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<tr>
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<td>7am 3</td>
<td>7am 3</td>
<td>7am 3</td>
</tr>
<tr>
<td>Rationale</td>
<td>IIIB</td>
<td>3pm 3</td>
<td>3pm 3</td>
<td>3pm 3</td>
</tr>
</tbody>
</table>

- | | | | | |

| Rationale | 11pm | 11pm | 11pm | | | |

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### APPENDIX I
(Continued)

<table>
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<tr>
<th>Rating</th>
<th>7am</th>
<th>3pm</th>
<th>11pm</th>
<th>7am</th>
<th>3pm</th>
<th>11pm</th>
<th>7am</th>
<th>3pm</th>
<th>11pm</th>
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</table>

V. DEMONSTRATES GOOD SELF-EVALUATION

VI. DEMONSTRATES GOOD ATTITUDE
APPENDIX J

BEGINNING MEDICAL-SURGICAL NURSING

STUDENT QUESTIONNAIRE

All information will be confidential as names will be converted to
student numbers. Jean Snow will be the only person reviewing this.

Name: Females = 45 Males = 4
Age: Mean = 25 Median = 22 Mode = 19
Marital Status: Married 23 Single 21 Divorced 4 Separated 2
Widowed 0
Number of Children: None 34 One to Three 13 Four or More 2 (1 omit)
Ages of Children: 5 4 14 10 4
Taking this course for the first time 44 Repeating course 2 (4 omit)
Are you now an L.P.N. 4 yes If yes, School and year graduated range 1961-72
Number of hours working outside of school per week:
0-10 35, 10-20 7, 20-30 1, 30-40 2 more than 40 ___ (5 omit)
Have you worked in a hospital before coming to KVCC? 34 yes If yes, where and in what capacity 2=vol., 18=aide, 1=orderly, 3=clerk, 4=LPN, 1=other hos. depart., 3=tech., 7=candy striper
Have you been enrolled in any other nursing school before coming to KVCC? 37 no If yes, where 5 yes, how long 1 yr. aver., general reason for leaving graduated LPN school, marriage (8 no comments)
What area of your previous nursing course gave you the most difficulty?
Theory 21 Clinical 21 In four to five sentences, explain why. (8 no comment

*See page 116a for explanations.

Did you feel that the HCLL experience was beneficial:
It helped prepare me for the hospital very much 13
It helped prepare me for the hospital very little 3 (7 omit)
It helped somewhat in preparing me for the hospital 27
any other comment about the HCLL overcrowded, disorganized, not enough practice, not simulated enough, lack of materials, too tense, unprepared T.A.'s, not thorough demo's, inconsistent and not get help, equipment not in good shape, T.A.'s available most of the time.

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<table>
<thead>
<tr>
<th>Theory Problems</th>
<th>Clinical Problems</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Not apply self - 1</td>
<td>1. A lot of research involved - 1</td>
</tr>
<tr>
<td>2. Too much, too fast - 4</td>
<td>2. Nervous being watched - 1</td>
</tr>
<tr>
<td>3. Study behavior - 5</td>
<td>3. Lack self-confidence - 1</td>
</tr>
<tr>
<td>5. Pharm - math - 1</td>
<td>5. Not viewing nurse as a prof. - 1</td>
</tr>
<tr>
<td>7. Tests - 3</td>
<td>7. Didn't practice skills at hospital - 1</td>
</tr>
<tr>
<td>8. Learning problems - 1</td>
<td>8. Instructor made me nervous - 3</td>
</tr>
<tr>
<td>10. Application to clinic - 1</td>
<td>10. Not confident of skills - 5</td>
</tr>
<tr>
<td>11. Availability of LRC times - 1</td>
<td>11. Fear of flunking - 1</td>
</tr>
<tr>
<td></td>
<td>12. Decreased communication with instructor - 2</td>
</tr>
</tbody>
</table>
APPENDIX K

FOLLOW-UP QUESTIONNAIRE
BEGINNING MEDICAL-SURGICAL NURSING
SPRING 1976

Name ___________________________ Student # _________________

Clinical Instructor(s) ________________________________

Theory Instructor ________________________________

Group Assignment: Please check Group I 10 Group II 6
(GI) (GII)

1. Which gave you the most trouble this term? Please check
   GI GI GII
   Theory 2 Clinical 12 5

2. Please give reason(s) for above:
   GI: Hospital supervision, Skills, Organization, Spelling, Not enough
   GII: Too much lab time, Disorganized lab, Adjustment from Fundamentals
   HCLL time. instructor.

3. Please check appropriate box. The HCLL was: Group I Group II
   A. very helpful in preparing me for clinic 4 2
   B. helpful but not necessarily in preparing me for clinic 5 2
   C. not helpful at all in preparing me for clinic 1 1
   D. a total waste of time 0 1

4. The reason(s) why I felt I had most difficulty in the clinical area
   were: Please check all applicable.
   A. Planning for care 1 1
   B. Organizing care 3 4
   C. Implementing care 5 2
   D. Communication skills
      1) written 4(charting) 0
      2) verbal 2 2
   E. Evaluating self and care given 1 1
   F. Attitude 1 1

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If assigned to Group II, please answer following:

9. Which were most helpful in preparing you for clinical. (One is most helpful)
   A. Role playing by T.A. or instructor ____
   B. Discussion of priorities, organization, complications, etc. ____
   C. Writing daily schedules ____
   D. Writing nurses notes for time span ____
   E. Use of flexibility cards ____
   F. Trying to communicate with patients while performing skill simultaneously ____

10. Which aspect of Group II project was least helpful in preparing you for the clinic? Please explain briefly.
    Role play with T.A. - not simulated enough      Writing nurses' notes
    Too much time                                  Daily schedules
    Difficult to communicate with manikins         Staff-instructor ratios
    Poor equipment

11. About how many hours per week did you practice in the HCLL besides your scheduled times?
    GI   GII
    A. 0-1  3  1
    B. 1-2  3  3
    C. 2-3  4  1
    D. 3-4  ____  1
    E. 4 or more ____

12. Was there enough equipment or improvised equipment available for you to practice? Please specify.
    Group I: lack equipment, not like hospital, Group II: equipment poor condition, yes - 4 better

13. How might you suggest improving: Group I Group II
    A. HCLL student evaluation schedules Mastery of skills Only one class
       in HCLL smaller groups in HCLL at one time
    B. R.N. staffing in HCLL Should have R.N.s
C. Use of T.A.'s in HCLL

Group I: More T.A.'s with more responsibility

Group II: T.A.'s help with evaluations, T.A.'s very helpful

D. HCLL student practice schedules

GI GII

GI GII

14. Did you feel better 5 4 or worse 1 2 about the HCLL the first eight weeks of Med-Surg compared to previous terms? Why?

Group I

more organized
more help
skills still not mastered

Group II

not enough time
more organized
more help

15. Any other suggestions on how to improve the HCLL in preparing you for clinic?

more simulation
clinical instructors should be in HCLL also
better HCLL personnel knowledge of skills
immediate feedback needed
skills demonstration needed
at specific times
consistency of skill demonstrations
more open lab time

only one class in HCLL at a time
consistency among T.A.'s and instructors
post times for demo's quizzes on skills help

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APPENDIX L

HCLL INSTRUCTOR QUESTIONNAIRE FOR GROUP I ASSIGNMENT
POST-MEDICAL-SURGICAL PROJECT
APRIL 1976
(FIRST EIGHT WEEKS ONLY)

LZ = 5  RW = 2  CC = 10

1. Name _______________________________________________________
   (If you wish)

2. Scheduled # of hours assigned per week in HCLL ________________

3. Did you spend more time in HCLL evaluating skills than in previous
   terms?
   Yes X  No X  How much? 2 hrs (CC)

4. Which week took longest to evaluate? 1 = longest. Week of:
   A. IV regulation 1, 6
   B. Dressing change 0, 1, 1
   C. Incident reports 0, 6
   D. CPR 5
   E. Oxygen 5
   F. Heat, cold, z-track 0, 5
   G. Neuro checks and circoelectric 0, 4, 1
   H. Levine care, sigmoidoscopy, wound irrigation 0, 2, 1
   I. Colostomy care 0, 3

5. If you were also in clinic, did you see any improvement in their
   skills? 1. most definitely  3. no, "poor class"
   2. not in clinic

6. Did you give students any other information besides skill objectives
   and procedures in order to evaluate their skills? (i.e., evaluate
   their organization, problem-solving, charting, hypothetical situations,
   etc.) Please explain briefly.
   1. Checked charting
   2. Pointed out errors
   3. Some objectives elaborated upon before skill

7. If any of the above were used, besides the skills objectives,
   how frequently?
   A. with every student every week X
   B. with every student most weeks X
   C. with every student occasionally
   D. with some students every week X
   E. with some students most weeks
   F. with some students occasionally
8. Did you have to remind students to complete weekly HCLL portion of SCI?

A. almost everybody all the time _____
B. almost everybody some of the time X
C. almost everybody occasionally _____
D. some of the students all the time X
E. some of the students some of the time _____
F. didn't have to remind anybody at all _____

9. Were you able to complete your SCI's for Category III before students left for the day?

A. all of the time _____
B. most of the time _____
C. some of the time _____
D. none of the time _____

10. How did you prompt the students when remediation was necessary after Trial 1?

1. Group evaluated in usual manner  
2. Verbal remediation  
3. Encouraged student to return to lab  
4. by discussion

11. Did you sign students off on skills due to lack of time even though you didn't feel confident about their ability? Please check.

A. for 1-2 weeks of skills  3
B. for 2-3 weeks of skills _____
C. for 3-4 weeks of skills _____
D. for 4-5 weeks of skills _____
E. for more than 5 weeks of skills _____

12. What would you recommend re: improvements in HCLL for next term to help prepare students more thoroughly for clinic? Briefly.

1. use situations with skills  
2. full-time R.N.  
3. better continuity between HCLL and hospital staff  
4. better equipment  
5. more simulation  
6. better organization  
7. more discussion

13. Did you note any changes in student or HCLL personnel attitude re: HCLL evaluations in the LAST 8 weeks of semester? Briefly explain.

1. students didn't appear as prepared  
2. some appeared better prepared  
3. unknown
14. Any other comments re: this project?

1. SCI behaviors helpful for weekly evaluations, more complete and reliable.
2. Good analysis of lab problems
3. Confusion re: how to complete some forms
4. Did well with T.A.'s instead of manikins
5. 8 students in one group was difficult to evaluate
6. Clinical time "too valuable" to decrease
APPENDIX M

HCLL INSTRUCTOR QUESTIONNAIRE-GROUP II
POST-MEDICAL-SURGICAL PROJECT
APRIL 1976
(MOST QUESTIONS PERTAIN TO FIRST EIGHT WEEKS ONLY)

1. Name (if you like) ____________________________________________

2. Scheduled # of hours in the HCLL JP = 2.  CC = 7  CL = 2
JP = 3
3. # of hours spent per week (average over schedule hours) CC = 4
CL = 1-2

4. Which did you personally feel was most beneficial to student re:
this project?  #1 = most beneficial

A. Group discussion re: priorities, organization, possible
complications, etc.  3, 1, 1
B. Role playing by T.A. and instructors  2, 1
C. Writing daily schedules  6, none
D. Writing nurses' notes for time span  5, some
E. Use of flexibility cards  4, little
F. Trying to communicate with patients while student performed
skill simultaneously  1, only if T.A. used

5. Did you have T.A.'s or another instructor help you? Yes X
No ____.  If so, how utilized?  1. As patient
2. check skills only
3. as evaluator

6. Were you able to complete all 6 categories of SCI? Please check.

A. before student left for day  X
B. sometime that day  X at home
C. sometime within two days ______
D. within one week  X

7. Were students aware of their weekly SCI evaluations by you?
Please check.

A. all students all the time  X  X
B. most students all the time ______
C. some students all the time ______
D. some students some of the time ______
E. no students at all  X
8. Which week(s) were most time consuming? Please check. #1 = most
   A. IV regulation 8
   B. Dressing change 1, 1
   C. CPR 7
   D. Oxygen administration 6
   E. Heat, cold, Z-track 5
   F. Neuro checks, circulectric 2, 1, 2
   G. Levine care, sigmoidoscopy, wound irrigation 3, 3
   H. Colostomy 4

9. If you were also in clinic, did you see any improvement in:
   Check appropriate. Not applicable x2.
   A. problem-solving _____
   B. Identifying priorities X
   C. Charting _____
   D. Organization _____
   E. Communication with patients _____

10. Did you have to remind students to complete weekly HCLL portion of SCI? Please check.
   A. almost everybody most of the time _____
   B. almost everybody some of the time X X
   C. almost everybody occasionally _____
   D. some of the students all the time _____
   E. didn't have to remind anybody X

11. Were you able to complete your SCI for the students? Please check.
   A. before the end of the period X
   B. before the end of the day X
   C. within one week X

12. Were students aware of your SCI results for them? Please check.
   A. at all times _____
   B. most every week _____
   C. sometimes X X
   D. hardly at all X

13. Explain briefly how you remediated unsatisfactory behaviors in HCLL.
   verbally
   charting returned
   repeated skill after suggestions
   asked student to learn it
   student "suppose" to remediate it later

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14. What aspect of the six categories were given least priority? Please rank one as least, six as greatest priority.

A. Planning 1, 5, 5
B. Organization 3, 4, 4  Greatest = Implementation
C. Implementation 2, 6, 6  Least = Evaluation, Attitude
D. Communication 6, 2, 3
E. Evaluation 5, 3, 1
F. Attitude 4, 1, 2

15. How personally did you feel about the efficacy of this project? Was it worthwhile?
   1. Important research
   2. Role play effective discussion
   3. Felt students learned
   4. More time should be spent on

16. What suggestions do you have about implementing a plan such as this to help prepare students more thoroughly for the clinic?
   1. More sample situations
   2. Full-time R.N.
   3. All instructors compile flexibility cards
   4. Better communications among staff
   5. More discussion
   6. Better screening of T.A.'s
   7. More student lab time
   8. Better care of equipment cards