In response to a low passing rate in a general psychology course taught at Howard Community College (MD), as well as to student and instructor dissatisfaction with the course, a systems model was developed and applied to improve course quality. The development of the model involved nine steps: (1) enumerating precise skill objectives which could be applied by the students to everyday life; (2) developing a sequence for objectives from the simple to the complex; (3) analyzing data to determine student characteristics such as age, educational background, and motivation; (4) analyzing student performance to determine success factors; (5) providing systematic course evaluation to assure student feedback; (6) soliciting ideas and suggestions from fellow instructors; (7) utilizing the professional literature, such as the Skinnerian writings on class attendance; (8) utilizing educational psychology to provide optimum student learning; and (9) applying research concerning the goals of learning. The success of this approach has been demonstrated in improvements in the percentage of students who passed the course and in student course/teacher evaluations. The model description concludes with some general comments about its development. (JH)
Teaching Psychology by Using a Humanistic Systems Model

by

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TEACHING PSYCHOLOGY BY USING A HUMANISTIC SYSTEMS MODEL
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I. 5 Years Ago -- Some background information.
A. The course that I have systematically developed is General Psychology.
   1. It is the beginning psychology course in college and has no prerequisite.
   2. A 3 credit course, 15 weeks long, meeting 2 times for 1 1/2 hours weekly.
   3. About 240 students enroll each year. Section sizes range from 15 to 70.
   4. I am the only full time psychologist at HCC and I usually teach all
      sections of General Psychology.
B. I had been teaching for 7 years (5 years at four year colleges and 2 at
   HCC) and had taught the General Psychology course more than 15 times.
C. 66% of the students were finishing the course with an A, B, or C. Students
   reported that they felt the course was disorganized and they were not clear
   on what they were to learn. I was not satisfied with the amount or quality
   of learning that was taking place in General Psychology.

II. An Overview
A systems model was developed at HCC which I applied to General Psychology. This
model helped me develop an organized approach to using various types of information
and to include ideas of humanistic education to improve the quality of General Psy-
chology. Here are the various things I have done as a part of a systems approach.
Examples of humanistic education are included in each section.

A. Written specific objectives
B. Developed careful sequencing of objectives and materials
C. Analyzed various kinds of data about students taking the course
D. Analyzed student learning within the course
E. Collected, analyzed, and evaluated feedback from students
F. Reacted to feedback from peers and supervisors
G. Collected and applied ideas from writings on teaching, from conferences, and
   from visits with other psychologists
H. Applied results of psychological research from the field of Educational Psychology
I. Applied general conclusions from research based on the goals of teaching

III. What I did.
A. Precise objectives (behavioral objectives) were written for lectures, films, and
   reading assignments. My students overwhelmingly value specific objectives.
   In addition, I find that specific objectives have helped me clarify what I
   want students to learn.

   Behavioral
   Objectives

1. Content objectives were selected for their importance in psychology and
   their usefulness beyond the classroom.
2. I have decreased the emphasis on recalling specific terms and facts and
   have increased the emphasis on describing views and concepts and
   using skills. Recall tests have decreased while written work has increased.
3. Skill objectives were chosen which could be used by students in everyday life.
   a. Students are taught to critically evaluate psychological
      materials found in the mass media.
   b. Students are taught creative problem solving skills.
   c. Students are exposed to the skills of self control, self assertiveness,
      and group discussion.
B. Careful sequencing of learning was accomplished.

1. Higher level objectives depend on lower level objectives.
   a. Bloom analyzed objectives into knowledge, understanding, application, analysis, synthesis, and evaluation. Before a student can apply a concept, he needs to be able to define the concept, cite examples, and distinguish the concept when faced with similar concepts.
   b. Complex tasks can be analyzed into their components. For example, critical evaluation involves identifying the source, summarizing the arguments of the source, identifying key terms, identifying research evidence, identifying conflicting research evidence, and evaluating the evidence and reasoning of the source.

2. The first two written assignments in the course are very simple and treated as practice. Examples of good answers were put onto transparencies and shown to the class.

3. The more complex assignments and higher level objectives come toward the end of the course.

4. Most textbooks for General Psychology are written so that any sequence of chapters can be used. Integrating the content of General Psychology has been an evolving process for me and only parts of the course are yet so integrated. For example, positive reinforcement is introduced during the first week as a part of self control. Positive reinforcement is later met as a part of a type of treatment for mental illness (behavior therapy), as a method for decreasing aggression (reward cooperative behaviors), and as a part of Skinner's view on people.

C. Analysis of data about students who take the course is used in revising the course.

1. 80% of the students have had no previous psychology courses.
2. 33% take General Psychology as their first course in college or during their first semester while 5% have over 100 credits prior to taking the course.
3. Some students take the course as a requirement while others select the course because of their high interest in psychological events.
4. About 50% plan to take a second psychology course while less than 10% plan to major in psychology.
5. Students range in age from 16 to 55 with the median age around 30.
6. Students report they have weak study skills and few report that they have ever had a lecture on or any help with study skills.
   a. I give a lecture-demonstration on remembering at the start of the course. At the end of the lecture a practice quiz is given to test remembering.
   b. A study skills booklet is available for those who wish to learn more about what I suggest to improve their study skills.
7. The motivation, intelligence, ability to follow directions, ability to listen, and study skills of my students vary greatly.
   a. Students who wish a more scientific introduction to psychology can take Advanced General Psychology without starting with General Psychology.
   b. Students may take General Psychology through independent study. A booklet on independent study is used to guide students on independent study. Only one student a year selects this option.
   c. The skill of following directions is emphasized the first classes.
D. Analysis of performance in the class is used to improve the course.
1. Students who have had high school psychology pass the course (with grades of A, B, C) more often (92%) than students without high school psychology (79%).
2. Full-time students do no better than part-time students.
3. Students aged 17 to 20, 31-40, and above 40 pass 90% of the time while students aged 21 to 30 pass 67% of the time.
4. Students who drop General Psychology usually drop all of their courses.
5. Assignments are revised based on the percent passing. If too many have a problem with an assignment (more than 15%), the assignment or study guide is revised. If a number of students miss a test item, I ask them to explain their reasoning. I find they often know the information and can defend their answer. I either write a new item or give credit for more than one correct answer.
6. Group discussions often did not produce the learning I expected.
   a. I wrote a booklet on group discussion which is used by all students.
   b. Several group discussion exercises are used with the class.
   c. Periodically I stress the value of participation in groups.
   d. In general, the larger the class the less well this skill of group discussion is learned and used.

E. Students' thoughts and feelings have been very useful in improving the course.
1. Informal student comments about the course have not been very useful because I was not sure what percent of the class agreed.
2. Systematic student evaluation has been very useful.
   a. Each semester certain class activities and assignments are evaluated by all students.
   b. Students evaluate the course overall at midterm and the end of the course using college evaluation forms. These evaluations do provide a few hints for improvement but are not as useful as the evaluations of specific assignments.
   c. In the day section each semester 4 to 8 students evaluate each class and the weekly assignments. They meet with me weekly to provide their views and the views they have gathered from other students. We then brainstorm on ways to improve the course.
3. The textbook is a book of readings of articles selected from a variety of magazines and journals. Xerox puts the book together for me every two years. Students suggest topics, rate articles I select, and help in the final selection of articles.
4. Students help preview and suggest films for purchase.

F. Peer and supervisor classroom visitations have resulted in other ideas for teaching.
1. One supervisor recommend that a film guide might help focus student attention and help students in making up a missed film. Before each film students now read a one to three page film guide which is also used to guide the discussions after the film.
2. Peer evaluation has resulted in a very smooth first class which starts with music and includes slides, posters, a film, a practice assignment, and small get-acquainted discussion groups.

G. Ideas from reading have also been useful. These ideas and suggestions have not necessarily developed from research but have provoked my thinking.
1. Writings of humanistic psychologists have suggested that choices are an important way to deal with individual differences.
a. Students can take the course through independent study.
b. Students can select a testing option with no required class attendance.
c. On 20% of the assignments a student can choose among two or three articles.
d. The midterm and final (both are open book, written, take home) allow students to select what they wish to write on.
e. HCC's grading system requires a project for an A. Students have over 10 separate A options including a "plan you own" A option.

2. Skinnerian writings have provided me ideas for dealing with class attendance. If a student misses more than 3 classes, he has chosen by his behavior the testing option which does not require class attendance. Students who used to miss several classes and then get behind would often drop out. Now they are completing the course.

H. Ideas from the field of educational psychology have been useful.

1. Increasing student activity increases student learning.
a. Weekly written assignments along with the midterm and final which are written require students to write rather than identify the correct answer as in multiple choice tests. The weekly written assignments also help structure students' study time rather than encouraging cramming.
b. Films are shown to demonstrate psychology in action. Films were purchased which provoke discussion.
c. Leaderless discussions are used after films and reading assignments.
d. Creativity is practiced in class as is the skill of critical evaluation.

2. Too much anxiety can prevent learning.
a. Recall multiple choice tests are not used. Many of the objectives in the course are higher level objectives and are very difficult to measure with multiple choice items. In addition, older students can learn the material but have difficulties taking tests. In upper courses I do use tests. In this course I want to have students feel they can learn and be successful by doing their own thinking.
b. Since this is the first college course for many of my students, high anxiety is a part of the beginning of the course. I show the film "You Pack Your Own Chute," which follows how a successful saleswoman deals with the fears of her first sky dive. Students talk about the fears in the film and soon find that others are also anxious about starting school again.
c. Mastery learning is used. Mastery learning means that every assignment must be passed to pass the course. If a student turns in a poorly written assignment, he must redo the assignment. Redoing the assignment insures that learning has taken place and reduces the anxiety of the grade depending on always having done the assignment properly the first time.
d. Self pacing was tried but found wanting. Too little anxiety resulted in too little learning. The students who most needed deadlines didn't want them.

3. Meaningfulness increases remembering.
a. Study guides for the reading assignments help students see the big picture and learn why the topic is important. Difficult words are defined and related course materials are pointed out.
b. Writing out answers in their own words increases meaningfulness.
c. Reviewing materials in discussions helps understanding.
d. The midterm and final increase meaningfulness and retention through review.
I. Ideas from research have also been used. Dr. Mizell, past Associate Dean for Instructional Development at HCC, and I have written three reviews of research. In one of our booklets we summarized what we had discovered from research when the goals of learning are considered.

1. "If the emphasis is on recalling definitions and facts, then programmed materials (books, articles, written lectures) which include feedback are most effective."
   a. The most important concepts in the course are developed through a programmed approach: (1) explanation of the concept and its definition, (2) examples of the concept, (3) practice examples, (4) feedback on the practice examples. Examples of these concepts are positive reinforcement, cognitive dissonance, and the bystander effect.
   b. Material which is to be recalled from lectures is written out for students in outline form.

2. "If the emphasis is on applying what one has learned, then discussions and assignments in which the student is to use the information are most effective."
   a. Group discussions are used to help students apply what they are learning.
   b. Parts of the midterm and final require application. Examples of application are given as a part of the instructions for these examinations.
   c. Creativity and critical evaluation are practiced in class.
   d. Films are shown which demonstrate examples of concepts. "The Eye of the Beholder", "Why Man Creates", and "Reinforcement Therapy" are three examples of such films.

3. "If the emphasis is on higher cognitive skills, such as analysis, synthesis, evaluation, and problem solving, then student-centered methods such as student-led discussions...are most effective."
   a. Student-led discussions are used.

4. "If the emphasis is on relating to others and developing a tolerance for others' views, then group discussions are most effective."
   a. An important goal of this course is to help students to become aware that there are viewpoints in psychology, not absolutes. Students encounter the contrasting views of Freud, Maslow, and Skinner.
   b. At the start of the course students participate in group discussions with different students each time. After four weeks students can stay with one group or rotate among several groups.

5. "If the emphasis is on increasing student motivation to learn, then student-centered rather than instructor-centered methods are more effective."
   a. Group discussions, student choices, and the films increase motivation.
   b. Providing a variety of activities each class period keeps attention.
   c. Demonstration, Candid Camera films, posters, and the unusual (the disappearing tie) can increase motivation.
   d. A vocal minority continue to request more instructor lectures while an equally vocal minority want more discussion time. Research shows that there is little difference in learning between live lectures, tape recorded lectures, and written lectures. Written lectures read at home and written lectures with some in-class commenting are the types of lectures I give.
III. Evidence That the Extra Efforts Put Into The Course Were Worthwhile
A. Success Rate
   An increasing percent of students earned a grade of C or higher.
   1971-1973 66% of 362 students
   1973-1975 75% of 422 students
   1975-1977 78% of 404 students
   1977-1978 71% of 267 students
   1978-1979 85% of 255 students

B. Student Evaluations - computer scored data for the entire college.
   The same form has been used only since Fall 1975. The single best item
   is "In general, taught course effectively."
   1975 - median for my 4 sections of General Psychology was at the 25 percentile
   of all courses.
   1978 - median for my 4 sections of General Psychology was at the 75 percentile
   of all courses.

C. Student Evaluations - comments section
   No systematic study has been done. However, the number of positive com-
   ments has increased and the number of negative comments has decreased.

D. Instructor Feelings
   The course is much more enjoyable to teach now. Students' comments are
   often and positive. More learning can be accomplished in the course.

IV. Conclusions About Developing Systematically
A. Developing my courses systematically has taken a lot of time. I feel
   that the time has been well spent.

B. A systems approach does not force a certain approach to teaching. It
   helped me organize what I wanted to do.

C. Systematic instruction does not result in a finished product. A systems
   approach is a process of improving teaching and increasing learning.

D. Systematic instruction can occur with little institutional support. How-
   ever, institutional support can greatly help. Here are some of the in-
   stitutional supports found at HCC.
   1. The Board of Trustees, President Smith, and the Deans of Instruction
      have supported and encouraged systematic development.
   2. The Word Processing Center does our typing and printing with high quality.
   3. The library staff has greatly helped in securing audio visual materials
      and equipment. In addition, the staff has been very caring about
      students.
   4. Money has been provided for travel to conferences, summer grants to
      work on extended projects, and merit money for systems development.
   5. The Associate Dean for Instructional Development gave leadership to
      the development of systems.
      a. Workshops for faculty have been provided.
      b. The Associate Dean for Instructional Development consulted with
         faculty extensively.
      c. Bag lunches on teaching topics, a file of articles on teaching and
         learning, and a continual stream of ideas helped stimulate
         systematic development.
      d. Classroom visitations brought helpful insights to faculty.
E. End of course evaluations are not very helpful in improving a course. In general, the comments are too broad and deal more with feelings than ideas for improvement.

F. Peer evaluations have been helpful. Some faculty are able to offer useful insights and perspectives from being in the classroom. These comments are most useful when they are not tied into any evaluation system. Peer comments can be candid if used for improvement rather than evaluation.

G. Teaching higher level objectives takes more time than teaching lower level objectives. Most students are able with help to read and recall. Understanding takes additional help. Application takes practice and feedback. Analysis, synthesis, and evaluation also take additional practice.

H. Students are often at first anxious about a course that is systematically structured. Consequently, I start my courses in a more traditional fashion and then gradually fade out the instructor centered approach to move to a more student centered approach.

I. Teaching systematically decreases changing texts each year. Developing a good study guide takes time.

J. Ideas which have not worked out for me are the following.
   1. No single approach is best for all students. We don't yet know which approach is best for which students. I have not been able to use information from the area of personality research to assign students to the best way for them to learn.
   2. Self pacing for beginning students has not worked out well for me.
   3. It was thought that once a course had been through the entire process of systematic development that little remained to be done. I have not found this thought to be true. Systematic development is an ongoing process. To be sure, future changes are usually fine tuning and not major changes.
   4. Having students do so much writing takes a huge amount of grading time. I have not yet solved this problem.
   5. A systematic approach results in a very organized course since certain things are to be accomplished every class. I cover the same amount each semester but it is more difficult the bigger the class. Some students in big classes feel there is little room for extended class question and answer sessions. They are right. Some spontaneity is lost with a systems approach but tangents are decreased. I have had to be careful not to overplan the class and try to cram in too much. However, when I plan too much and try to carry the plan out, my student evaluators let me know.

K. My future plans for General Psychology.
   1. The topic "research methods" is perceived by students as dull. I would like to liven up this topic.
   2. The interrelation of concepts throughout the course could be improved.
   3. The sequencing of objectives needs a large block of time for reflection.
   4. More of the concepts need to be taught in a programmed approach.
   5. The teaching of creativity needs to be more creative.
   6. More demonstrations and motivators need to be added in.
   7. A study needs to be done on students' ability to read and write and their success in my course.
   8. Oral quizzes need to be explored further.

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