

DOCUMENT RESUME

ED 123 427

CE 007 165

AUTHOR Pennington, Floyd; Green, Joseph
 TITLE Comparative Analysis of Program Development Processes
 in Six Professions.
 PUB DATE [73]
 NOTE 49p.

EDRS PRICE MF-\$0.83 HC-\$2.06 Plus Postage.
 DESCRIPTORS *Comparative Analysis; Educational Planning;
 Educational Programs; Educational Resources;
 Educational Strategies; Instructional Design;
 *Models; *Professional Continuing Education;
 Professional Occupations; *Program Development;
 *Program Planning

ABSTRACT

The study was designed to discover and describe planning strategies used by persons developing continuing professional education (CPE) programs for six professional fields. From the descriptions of practice in the six professions, a general model portraying the program development process was developed and used for comparative analysis. The study was conducted in two phases. Phase 1 was based on the research methods of grounded theory. The observations made in Phase 1 were used to design an instrument to test the strengths of those observations and modify the general planning model. The model developed was also compared to several portrayals presented in the literature of continuing education. Results indicate planners: attend to at least six clusters of activities in their program development processes in a fairly consistent sequence, make limited use of knowledge resources available in the literature, and use a wide variety of resources available inside the university and outside the university. The model resulting from the study portrays the various resource systems planners link to the program development process. Differences in strategies of program development in various professional fields do exist. These differences are usually a matter of ordering and emphasis given to specific activities in the program development clusters. (Author/MS)

 * Documents acquired by ERIC include many informal unpublished *
 * materials not available from other sources. ERIC makes every effort *
 * to obtain the best copy available. Nevertheless, items of marginal *
 * reproducibility are often encountered and this affects the quality *
 * of the microfiche and hardcopy reproductions ERIC makes available *
 * via the ERIC Document Reproduction Service (EDRS). EDRS is not *
 * responsible for the quality of the original document. Reproductions *
 * supplied by EDRS are the best that can be made from the original. *

ED123427

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

COMPARATIVE ANALYSIS OF
PROGRAM DEVELOPMENT PROCESSES
IN SIX PROFESSIONS

BY

FLOYD PENNINGTON, ASSISTANT DIRECTOR,
OFFICE OF INTRAMURAL EDUCATION,
DEPARTMENT OF POSTGRADUATE MEDICINE
& HEALTH PROFESSIONS EDUCATION,
MEDICAL SCHOOL
UNIVERSITY OF MICHIGAN
ANN ARBOR, MICHIGAN

JOSEPH GREEN, ASSISTANT DIRECTOR,
INTERWEST REGIONAL MEDICAL EDUCATION CENTER
VETERANS ADMINISTRATION
SALT LAKE CITY, UTAH
ADJUNCT ASSISTANT PROFESSOR
COLLEGE OF HEALTH SCIENCE
UNIVERSITY OF UTAH
SALT LAKE CITY, UTAH

CE007195

PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

Floyd Pennington
TO ERIC ORGANIZATIONS OPERATING
UNDER AGREEMENTS WITH THE NATIONAL IN-
STITUTE OF EDUCATION. FURTHER REPRO-
DUCTION OUTSIDE THE ERIC SYSTEM RE-
QUIRES PERMISSION OF THE COPYRIGHT
OWNER.

Not to be quoted or duplicated
without permission of the authors.

ABSTRACT

This study was designed to examine and describe planning strategies used by persons developing continuing professional education (CPE) programs for six professional fields. From the descriptions of practice in the six professions, a general model portraying the program development process was developed and used for comparative analysis.

The study was conducted in two phases. Phase I was based on the research methods of grounded theory. The observations made in Phase I were used to design an instrument to test the strengths of those observations and modify the general planning model. The model developed in this study was also compared to several portrayals presented in the literature of continuing education.

Results indicate planners attend to at least six clusters of activities in their program development processes in a fairly consistent sequence. Results also indicate limited use of knowledge resources available in the literature. Planners do, however, use a wide variety of resources available inside the university and outside the university to plan programs.

The model resulting from the study portrays the various resource systems planners link to the program development process.

Differences in strategies of program development in various professional fields do exist. These differences are usually a matter of the order of activities and the differential emphasis given to specific activities in the program development clusters.

Inquiry into the processes used by persons who plan learning activities for adults is largely an unexplored area in continuing education research.

Research findings on which to base decisions about the superiority of one approach to planning over any other is difficult to find. Guides to planning procedures have been presented based on what is found in the literature, revised personal perceptions, reflection, observation and experience. "Hard data on the comparative 'success,' 'effectiveness,' or long-term results of . . . program planning when specific procedures are followed is rare, if not non-existent."

(1:134) Jones (2) asserts that the problem is compounded since theoreticians and practitioners generally do not agree on the process by which educational programs for adults should be planned and organized.

While this researcher is not in complete agreement with the position held by Jones, this study addresses the problem of relating theory to practice in a unique way.

This study was designed to examine and describe various approaches to planning learning experiences for adults. Current theoretical foundations of the planning approaches in continuing education are those borrowed from curriculum development approaches used in primary and secondary education. The purpose of this study is to examine practice as it is occurring in the field and propose some substantive statements which can be used as a basis for a formal theory of program development for use in continuing education.

As substantive and formal theories of program development for adult learning activities emerge, comparisons

can be made that will provide insight into the relative effectiveness and application in various settings or situations.

Most theorists in continuing education discuss program development in Tylerian terms. This rational model assumes a planning process that entails a certain sequence of steps, all of which are interrelated and interdependent. On the other end of the continuum is a planning process that can be best described as a series of decision points relating to both the explicit design (decisions made only after forethought and consideration of alternatives) and the implicit design (action based on precedent and habit without the consideration of alternatives). The differences in the two models were succinctly described by Walker (4:58)

This model is primarily descriptive, whereas the classical model is prescriptive. This model is basically a temporal one: it postulates a

beginning (the platform), an end (the design), and a process (deliberation) by means of which the beginning progresses to the end. In contrast, the classical model is a means-end model: it postulates a desired end (the objective), a means for attaining this end (the learning experience), and a process (evaluation) for determining whether the means does indeed bring about the end.

The major purpose of the study was to develop a substantive theory related to program planning processes used in continuing professional education efforts sponsored by institutions of higher education. A secondary purpose was to study the utility of a form of naturalistic inquiry for developing educational theory, specifically the discovery of grounded theory. In the process of developing substantive theory, it was hoped that a general model could be devised that described the important activities planners in several professions engaged in as they planned learning activi-

ties for practicing professionals:

The subjects selected for the study were planners of continuing professional education programs sponsored by the eleven institutions participating in the Committee on Institutional Cooperation (CIC). The University of Chicago and all Big Ten universities are participants in CIC.

The program planning processes used by planners in the development of continuing education activities in six professions were studied. The six professions included: business administration, educational administration, law, teaching, social work, and medicine. A series of comparative analyses were made.

1. Planning processes within single professions were compared.
2. Planning processes across the six pro-

fessions were compared.

3. Actual planning activities were compared with what the literature described as program planning processes.

A two-phased approach was utilized for the study. Phase I was based on the naturalistic method developed by Glaser and Strauss (3). The researcher concurrently collects, codes, and analyzes the data before deciding what to collect next and where to find more information in order to develop the theory as it emerges. The criterion for determining when to stop sampling the different groups pertinent to a category is the category's theoretical saturation. Theoretical sampling will provide different views or vantage points from which to understand a category and to develop its properties. These views are called slices of data. The theory is then generated by collecting the coded data on each

category, cross-checking for validity and strength of relationship, and developing hypotheses to be empirically tested. In the current study, the hypotheses that were generated from Phase I data were used as the basis of the Phase II Questionnaire. The purpose of the second phase was to attempt to verify the theoretical formulations of the first phase.

Subjects for the Phase I interviews were selected from five of the eleven institutions included in the study. Contact was made with the Deans or Directors of Continuing Education at the five institutions to explain the study and help arrange interviews with one or two people within each of the six professional groups who had personally been involved in planning Continuing Professional Education programs, staff personnel in Continuing Education or Extension Units, or administrators

in Academic or Extension Units.

The interview guide was developed and tested with University of Illinois Continuing Education and Public Service staff and selected faculty members. The Guide was then field tested at one institution prior to use at the other institutions.

A description of the project was given as a basis for the specific questions that followed. The interview was responsive to the differences in programs; however, in most cases all topics in the Guide were covered in each interview. The main concern was not to impose any structure on the program development process as the respondents described it. Categories that emerged after each interview were tested, expanded upon, or dropped in subsequent discussions. The program planning processes reported by individuals were charted for ease of comparison. Data was then

combined and flow charts were developed to depict relationships among the various categories for a given profession. The six program planning process models were then merged into one General Model. Analysis was then done to compare and contrast individual models with the professions model and General Model. Comparisons were made of the descriptive data, similarities and differences in planning processes and impinging issues within and across professions. The General Model was revised as a result of this careful analysis.

Using the similarities and differences found as a result of this analysis, a number of hypotheses concerning the practice of planning learning activities for professionals were generated. These hypotheses, like the process flow charts, emerged from the categories developed as a result of the interviews.

Finally, in order to quantitatively test the hypotheses from the qualitative interview data, a questionnaire was developed. The instrument was field tested with individuals at the University of Illinois who had experience in planning Continuing Professional Education programs. The final questionnaire was sent to each person interviewed in Phase I and to their counterparts at the other six institutions. Thirty-seven individuals were personally interviewed and the total number of questionnaires sent out was one hundred twenty-five.

Following the same format for displaying the data in Phase I, a series of graphic portrayals was made for Phase II. Three portrayals of Phase II data were made. First, a description of the major clusters of activities. Then, two models, one describing practice as analyzed from the data and a second projecting an ideal.

The data from Phase II supported the idea that the planning process was a series of tasks and decisions that seemed to cluster around six groups of activities. The tasks and decisions within a given cluster occurred at approximately the same time in the planning process and were more related in terms of type of task and type of person responsible for the task than they were with the activities and decisions among clusters. There was, of course, some overlap between those clusters that occurred in sequence and between all clusters and the activities described as originating the idea. The main emphasis of this discussion will be the highlights from all the data that would give rise to a general theoretical model of program development in Continuing Professional Education.

Originating the Idea

Activities in this cluster included the ways program needs were identified, the selection of the program planner, and the planner's subsequent involvement as the instructor. Figure 1 portrays the relationships among the activities of this cluster. The inner oval is the cluster title. The outside circle represents the two most often chosen program planners. The heavy dark horizontal lines show that an even number of programs were planned by Faculty/Administrators or those on dual appointments and by Continuing Education Staff members.

[Insert Figure 1 here]

The next circle shows the different origins of programs. The most common origin was informal contacts with practicing professionals and Faculty members' ideas. The second most common origin was specific requests from

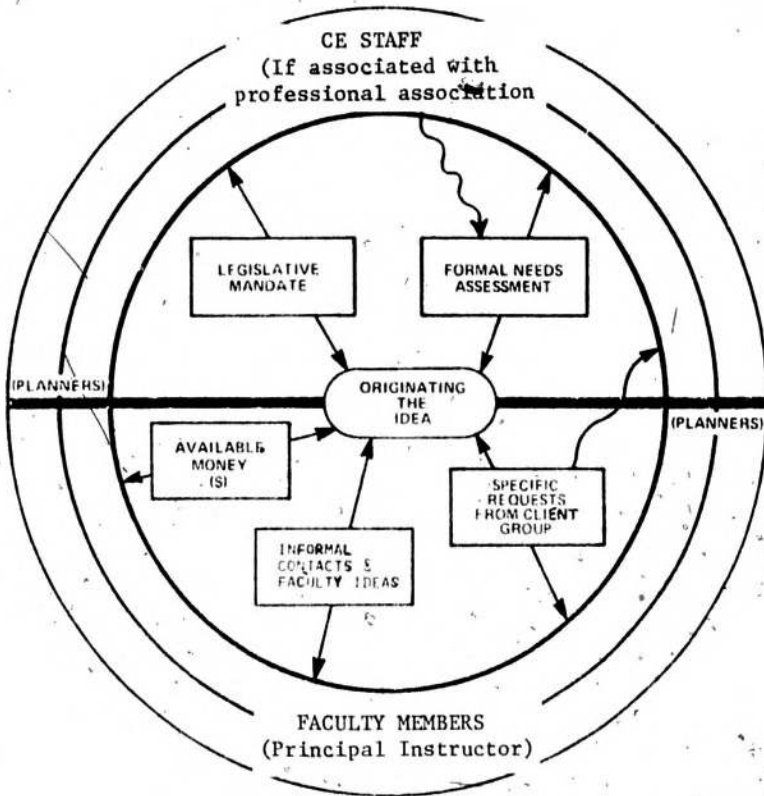


Fig. 1. Cluster 1: Originating the idea

client groups. The solid arrows indicate who became the planner. When project monies were made available, Faculty members usually received the request. When the origin was from informal contacts, Faculty members usually received the request and became the primary instructor. (Continuing Education planners rarely, if ever, became the instructors.) The wavy arrow means that when the origin was from specific requests from a client group, Continuing Education Staff became the planners. Faculty members usually planned the programs in response to client requests. Finally, if the origin were a legislative mandate or from a formal assessment of needs, Continuing Education Staff usually became planners. If the Continuing Education Staff member were also associated with a professional organization, the chances increased that needs would be identified through a more formalized

assessment process.

Developing the Idea

The cluster titled "developing the idea" is shown in Figure 2. Activities in this cluster are a complex set of relationships among activities within the cluster and between Cluster 1 and 2 activities and planners. The intersecting circle in the upper left represents Cluster 1. The wavy arrow from Continuing Education Staff Planner to the circle entitled planned by group indicates the greater probability of a program being group-planned if the planner were associated with a Continuing Education Division. If the planner were a Faculty member, it increased the chance that the program was planned by an individual.

[Insert Figure 2 here]

The solid diagonal line in the upper right quadrant of the circle separates group and individual planned pro-

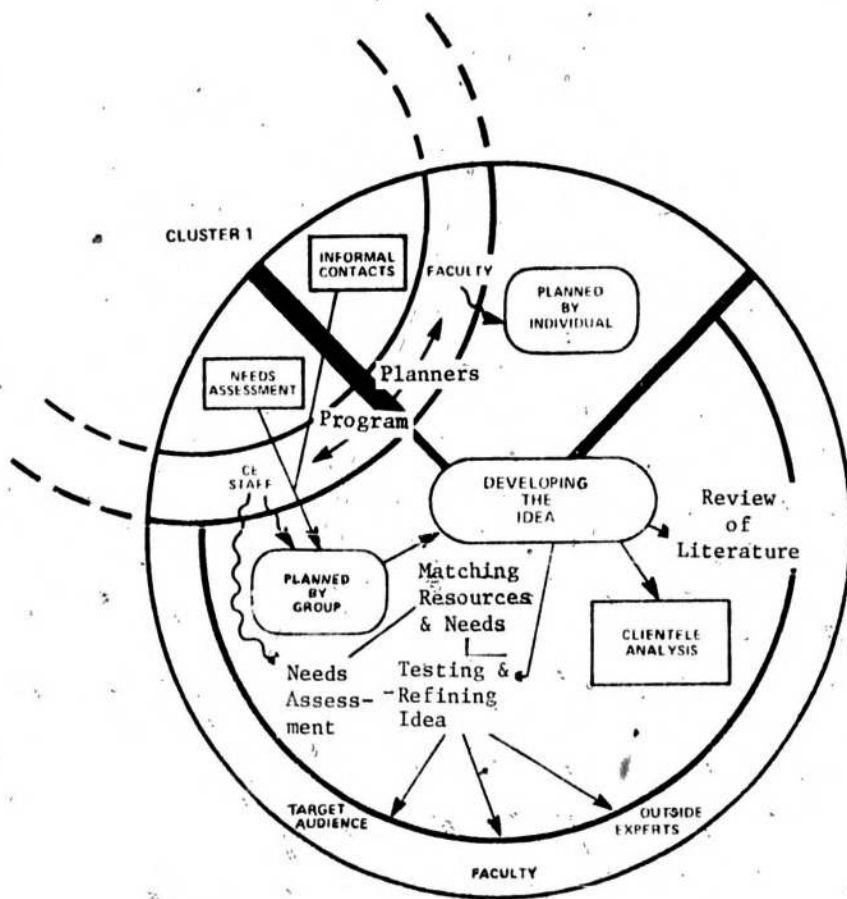


Fig. 2. Cluster 2: Developing the idea

grams -- the vast majority of which were planned by groups. If the origin of the program were either needs assessment or informal contacts, it increased the chance that the planning group was involved in developing the idea. The boxes in Cluster 2 indicate the methods used to develop the program idea prior to making a commitment to proceed. The most common procedure was clientele analysis and the least common used was a review of the literature. The three other boxes represent those methods that were more likely to be used of the planner were a Continuing Education Staff Member (wavy arrow) -- needs assessment, matching institutional resources with expressed professional needs and testing and refining the idea. The target audience, faculty and outside experts were usually consulted to test and refine the content ideas.

[Insert Figure 3 here]

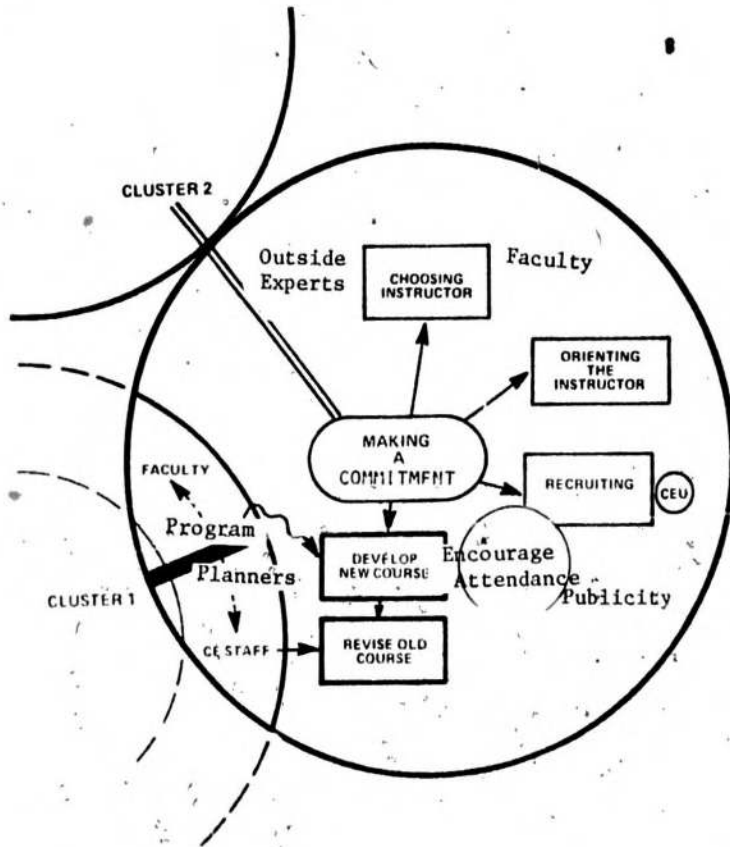


Fig. 3. Cluster 3: Making a commitment

Making a Commitment

This cluster includes those activities that surrounded making a firm commitment to proceed with the program. Cluster 2, which is shown in the upper left of Figure 3, is tangential to Cluster 3. The large arrow indicates the results of the activities in Cluster 2 led to a decision to proceed with either revising an existing course (more likely if the planner were a Continuing Education Staff member) or developing a new course (more likely if faculty planner). If a planning group were selected, it usually occurred prior to making a commitment to proceed. Once again, Cluster 1 intersected with this cluster. Starting at the twelve o'clock position, three activities followed making a commitment. The data indicated the order of these activities was sequential from choosing the instructor (usually outside experts or faculty members)

to orienting the instructor on principles of adult education, recruiting participants by means of publicity, employer encouragement, attendance, and offering Continuing Education Unit credit (in that order).

[Insert Figure 4 here]

Developing the Program

This cluster, shown in Figure 4, concerns those activities involved with developing the program -- reviewing the literature, developing the course, determining and stating the objectives, and developing materials. The source of the ideas for most program content came from some type of literature review. The major input into the development of the content usually came from the primary instructor. The objectives for the course were most often determined by the planning group, unless an outside expert was the primary instruc-

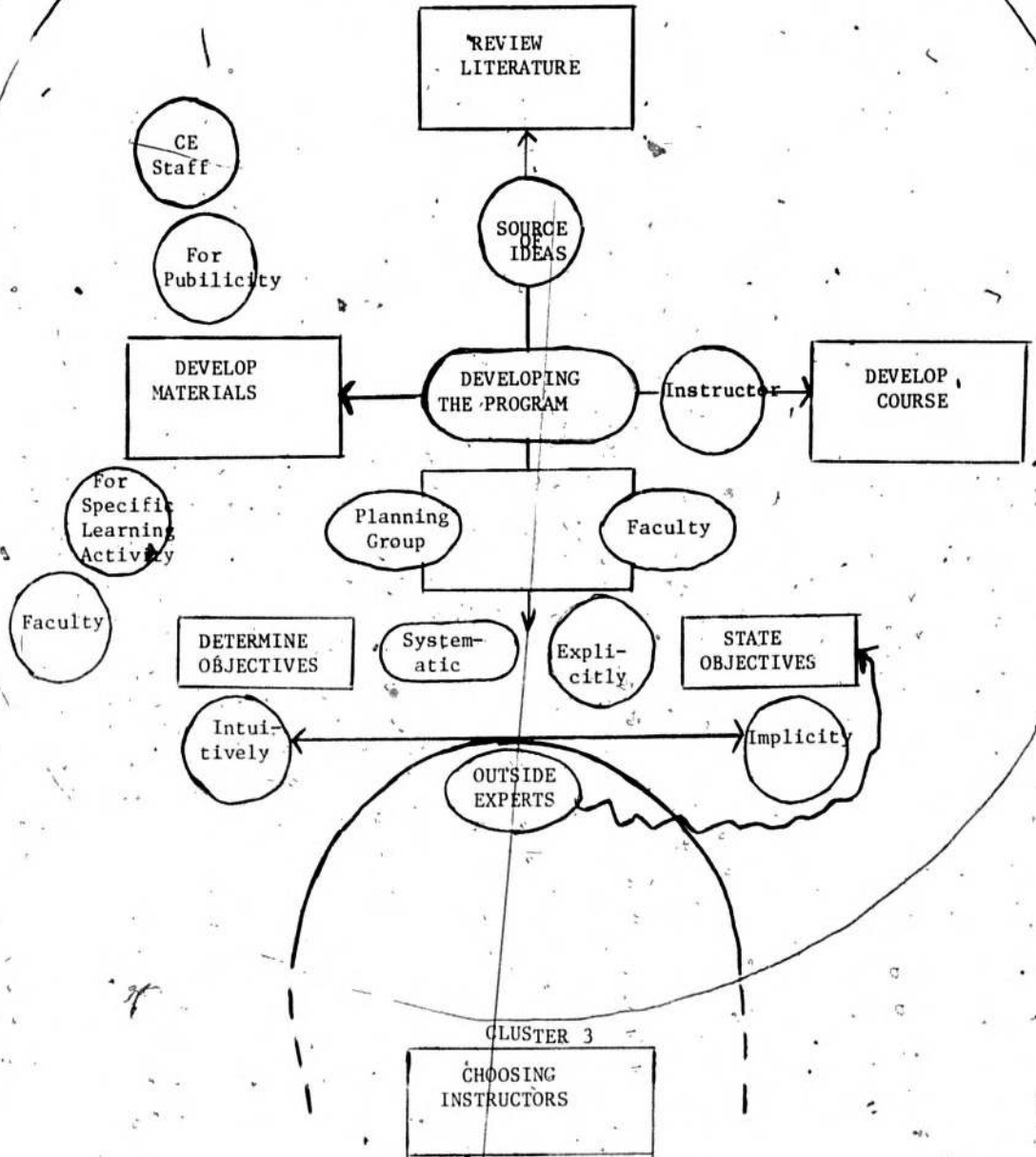


Fig. 4. Cluster 4: Developing the program.

tor (intervening Cluster 3). In that case, a faculty member usually determined the objectives (wavy arrow). Most objectives were stated explicitly, but determined intuitively. There was also a logical relationship between objectives that were not explicitly stated and the fact that they had not been systematically determined. Finally, most planners indicated developing materials specifically for the learning activity (usually by Continuing Education Staff).

Teaching the Course

Figure 5 indicates the dynamics of this cluster.

The methods that were used were usually determined by the primary instructor. The most common method (largest sub-circle) was the discussion and seminar, followed by the lecture and role playing and simulation. If the planner were a faculty member, the chances increased that discussion or lecture would be used. If

the planner was a Continuing Educaiton Staff member, the chances increased that role playing and simulation would be used. The reason most often given for the type of method used was that it was most appropriate for the target professional audience. The second most popular reason was that it was most appropriate for the subject matter.

[Insert Figure 5 here]

Evaluating the Impact

Figure six shows evaluation activities. Continuing Education Staff members were most often involved in Evaluation activities and usually received the results. If the planner were a Continuing Education Staff member, the purpose of evaluation was usually to develop new program ideas (wavy arrow). The most often mentioned reason, however, was to improve the program. The data indicated that the most often

[Insert Figure 6 here]

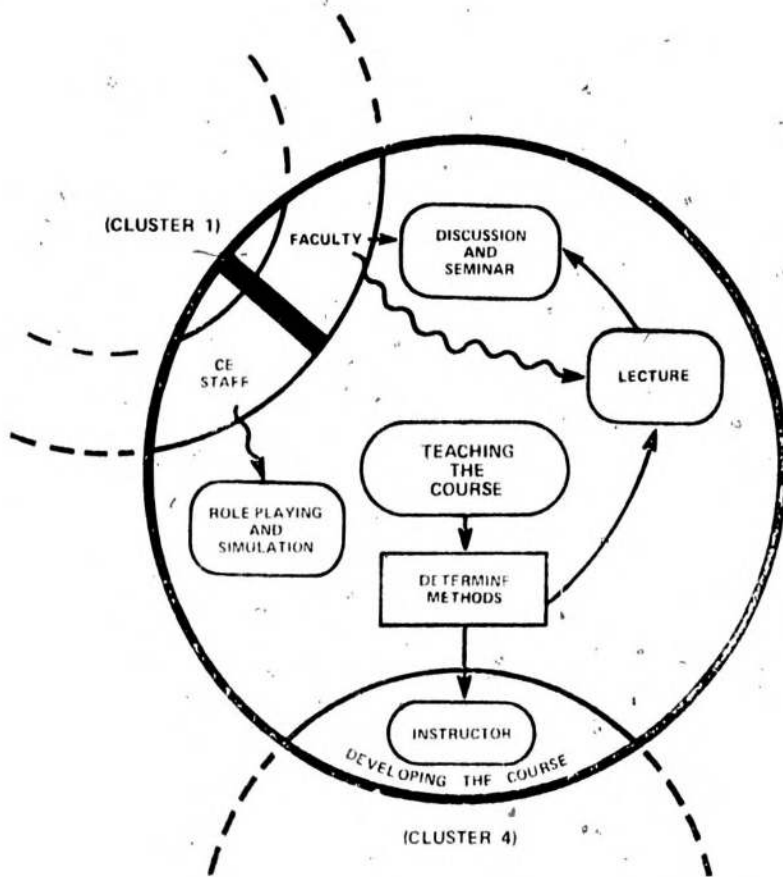


Fig. 5. Cluster 5: Teaching the course

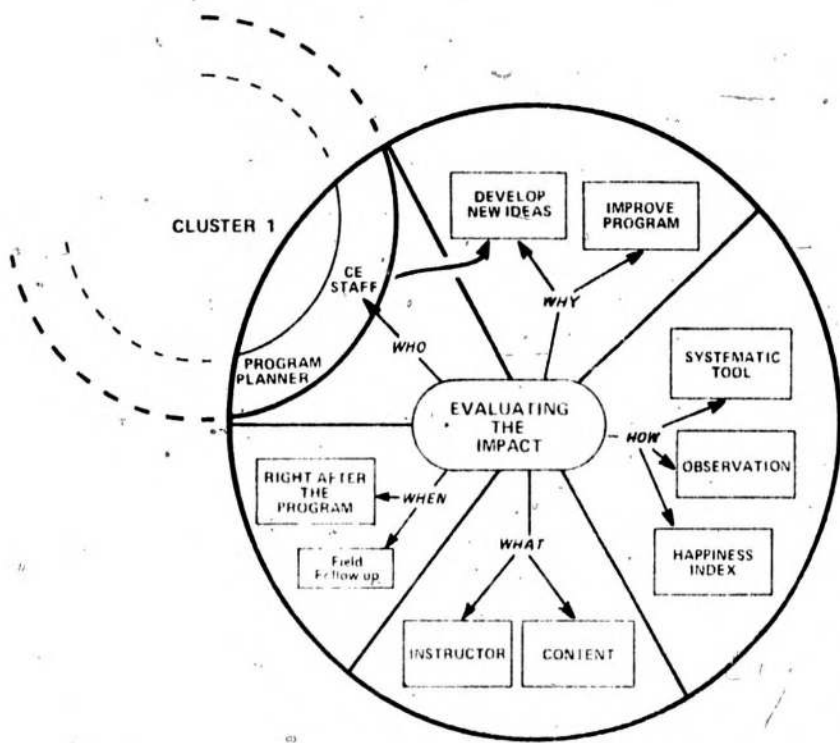


Fig. 6. Cluster 6: Evaluating the impact

utilized method was a systematic instrument, followed by observational techniques and happiness indices. The instructor was most often evaluated with content mentioned next. Nearly all program planners agreed that evaluation most often took place right after the program. Field follow-up was rarely utilized in the programs studied.

New Theoretical Model

The Phase II General Model (Figure 7) indicates the nature of the interrelationships among the six activity clusters. Clusters 2, 3, 5 and 6 all interact with Cluster 1, Originating the Idea. The arrows between Evaluating the Impact and Originating the Idea show some evaluation data being fed into the origination of the idea (if the planner were associated with a Continuing Education Division). Most program planning activities took place in Clusters 2 and 4. The sequential

order of the clusters corresponds with the numbers (1-6). Phase II data did not support an extremely

[Insert Figure 7 here]

detailed, exacting, flow chart-type program development model. The reality was much less structured in terms of detailed interrelationship of activities. The sequential nature emerged not in terms of specific activities, but rather in terms of clusters of activities.

This study was designed to develop substantive theory to support the practice of program development in continuing professional education. Thus far, the analysis of data in the study has been descriptive of actual practice. At this point, the discussion is extended to focus on a portrayal of the program development process showing that planners draw upon a variety of available resources to complete the essential planning activities. This part of the study is

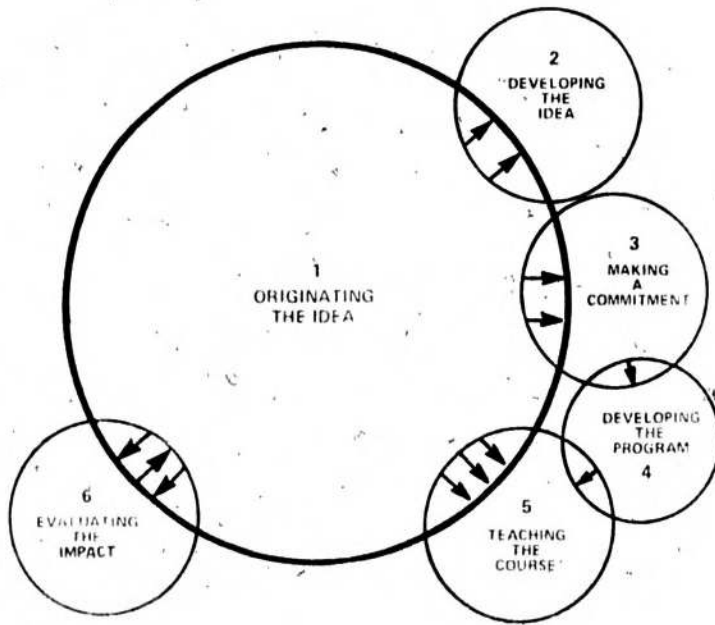


Fig. 7. Phase II: General Model

the beginning of a statement of substantive theory
for program development in continuing professional
education.

[Insert Figure 8 here]

The upper part of the model is composed of three systems: the learner, internal resources of the university, and, resources available external to the university. The three systems are related to each other and represent special resources available to the planner as well as concerns that affect the development process.

The learner system is representatives from the target audience who might be recruited for planning and involvement in the learning activity. Professionals are confronted with many pressures that need to be considered by planners and leaders in the design of continuing education programs.

The internal resource system is composed of the

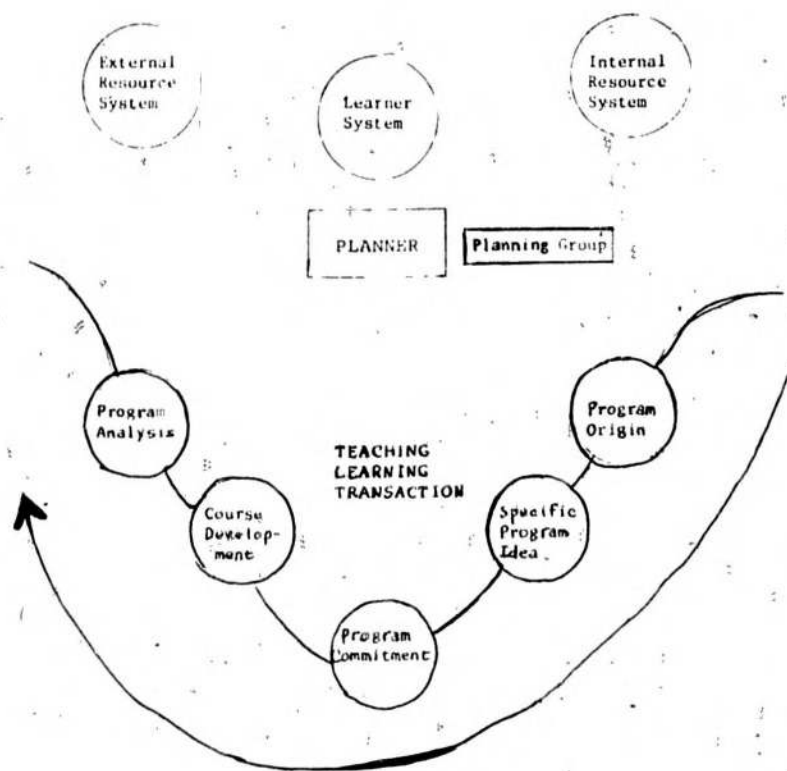


Fig. 8. Prescriptive Program Development Model

resources available at the university. The planner is a part of this system and his familiarity with the available resources enhances the quality of the learning activities and the planning resources. Included in this system are: the knowledge expertise held by faculty members in the many schools, colleges, and institutes; the library holdings; the continuing education staff and delivery systems like conferences and institutes, extramural classes, computer assisted instruction; learning resource centers; individual study opportunities; and facilities for housing continuing education activities.

This system also has pressures that the planners and learning leaders must consider as they design continuing education activities. Is the program one this university can and should engage in? Can the resources be gathered that will contribute to a quality educatio-

nal experience? Are faculty members appropriately rewarded for participating in continuing education activities so recruiting is made easier? Can the activity be scheduled at an appropriate time using campus facilities or will other facilities be needed? Can potential financial losses on the program be absorbed or offset by other resources?

The external system is the unlimited resources outside of the university. Included in this system are: the government and other outside funding agencies; other knowledge experts, professional associations; employers; the public; and many other resources available to the planner. Each of these groups have concerns and restrictions that planners might use or must consider in the design of learning activities for professionals.

The planner is that person who assumes the main responsibility for linking the resource system to the learning needs of the professionals. He does this by drawing upon the resources essential to complete the specific planning activity being attended to. Unique resources are needed at different times during planning to keep the program development process moving.

For example, the planner might work closely with a professional group to identify educational needs.

These groups are from the learner system and needs assessment is in the program origin cluster. The planner might then turn to his university resources, perhaps in this case a faculty member, to see if some of the identified needs are ones the faculty member would like to design a learning experience around.

If it is, the planner might convene a group of professionals and faculty members in a planning session

to begin to shape a possible learning activity.

This group might make decisions about objectives, content to be highlighted, and potential participants. In the planning process some external resources might be sought from a funding agency. If outside funding groups seem interested they might meet with and even join the planning group in the planning process to assure that their standards are met.

The planner must constantly monitor the development process and acquire resources from the systems that can provide the assistance. When drawing from various resource systems the planner must keep in mind the various pressures, limitations, and strengths that he is getting by requesting help.

Planners move in and out of the resource systems and development clusters in the way they determine most

effective in accomplishing the task. Activities in several clusters may be occurring concurrently using resources from one or more of the available systems. It has been indicated that the clusters do appear to occur in sequence, but not so one could say this cluster must be complete before moving to the next one. The step-by-step development process is situationally specific, with planners' style and critical tasks intermingling, shaping the planning in different ways from activity to activity, institution to institution, and profession to profession.

This study brought to light some very important discrepancies between program planning models found within the literature and actual practices in diverse fields of Continuing Professional Education. Planning,

as described by those planners involved with this study, was superficial at best. When comparing existing planning procedures with ideal models, four main discrepancies emerged.

1. Analysis of Client Needs: Although there was indication of some of these types of activities preceding programs, the overall picture painted by the data was that little comprehensive needs assessment was being conducted. Lack of time, resources, and expertise were the major reasons mentioned when planners were asked (during the Phase I interviews) why this situation existed. Most planners gave lip service to the importance of needs assessment, but very few followed through. The additional time and money spent in basing educational endeavors on documented needs represents a long-term savings and investment. Although programs may be very well planned

and even, evaluated in depth, without baseline data indicating a need for such an effort, the program may very well be providing answers for questions the target professional audience never had.

2. Systematic Determination of Objectives: If programs were based on the documented needs of a target audience, systematically determining objectives becomes the next critical activity. An end result of needs assessment should be a listing and prioritizing of learning objectives. Other sources of program objectives mentioned within the literature and, in isolated instances within this study, include previous programs, literature reviews, and opinions of experts. In most cases, when objectives were determined "systematically," one of the above sources was utilized; however, the ideal is to use as many of those sources as possible. This comprehensive ap-

proach to developing objectives rarely occurred.

A second aspect of developing ideal objectives is to specify the nature of the learning tasks -- cognitive, behavioral, or affective. These activities are essential to meeting the needs of practitioners and they are not being practiced because most planners lack the educational expertise to do so.

3. Designing Instruction: Educational formats and methods have a great potential for improving the responsiveness and impact of Continuing Professional Education programs. Lectures and group discussions are not always the most appropriate methods. An entire body of literature and research exists on the subject of selecting methods and media based on learner characteristics, desired learning outcomes, and time, money, and resources available. No indi-

cation of planning decisions based on these criteria was found in the present study. Lack of time or expertise can be used as a reason why these activities have not occurred, but should not continue to be used as an excuse for not utilizing more innovative, more responsive formats in the future.

4. Comprehensive Evaluation: This term does not describe evaluation practices in Continuing Professional Education programs in this study. The term signifies possible attempts at judging the real-world impact of educational efforts. This might include within-course evaluation, pre-post testing, post workshop questionnaires, pre-workshop procedural analyses and post-workshop field follow-up, phone interviews, or questionnaires. Combinations of these procedures provide data that can help in the accurate assessment of impact. What occurred in practice was the use

of one of these methods. In order to benefit in future on-going programs, accurate evaluation of past programs must occur. These data can then close the program development circle by linking evaluation with needs assessment. Evaluation can be very time consuming, but once again, it should be viewed as a long-term investment. Continuing Professional Education Planners must become aware of the possible evaluation methods, as well as committed to the value of their use.

The programs used as models to collect data in both phases of this study were eufunctional. Investigations into the planning processes of dysfunctional programs might prove to be very interesting and helpful. What factors in the planning process contribute critically to the success of programs? What factors in the planning process, if any, con-

tributed to the failure of programs?

More extensive research needs to be conducted that will provide specific information about what clusters of planning activities seem crucial to any program development effort. More detail needs to be provided concerning which series of activities can be subsumed in each cluster. Are some clusters more important than others? Are there specific activities within the clusters which cannot be neglected? How important is the sequence of clusters to an efficient planning model? These questions answered through rigorous investigation will help move us from more descriptive to prescriptive program development models.

What critical relationships exist between the clusters? Is the planner the person who creates the relationships based on his own values, insights,

and environmental constraints? How effective is the notion that the planner is a linkage agent bringing together resources through an efficient program development process?

Continuing Education Staff personnel were most involved in the more systematic, responsive program development efforts (through needs assessment, systematic instructional design, or comprehensive evaluation). Because of this, academic departments or individual faculty members or administrators should make greater use of their professional expertise. In addition, more attention needs to be given to ideal sequence of development activities. Planning groups (especially with target audience participation) were associated with more responsive programs and should, therefore, be utilized more often.

What is being suggested is that planners must know and use their resource systems and apply their skills in using those resources to accomplish the critical program development tasks. What order the specific tasks occur in is not critical. The order of clusters may be important. The resources that are used must be the appropriate ones to accomplish the task being done.

It is the opinion of these researchers that, the resource systems must be understood and the utilization of those resources in a development process must be effective. The emphasis and order of the interaction created by the planner between resource inputs and planning process will vary due to a number of reasons. The important thing is that an effective interaction occurs constantly focusing on the ultimate teaching-learning transaction.

References

1. Brady, Henry G.; Long, Henry B. "Differences in Perceptions of Program Planning Procedures." Adult Education, XXII, No. 2, (1972) 122-135.
2. Jones, Charles. "Planning Educational Programs for Adults -- Theory and Practice." Adult Leadership, September (1973) 89 ff.
3. Glaser, Barney G.; Strauss, Anselm L. The Discovery of Grounded Theory. Chicago: Aldine Publishing Company (1967).
4. Walker, Decker. "A Naturalistic Model of Curriculum Development." The School Review, Vol. 80, No. 1, November (1971) 51-65.