## **Guidelines for Planning Faculty Development Workshops**

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As departments of family medicine succeed in recruiting faculty members from the ranks of practicing physicians and from other clinical disciplines, they are faced with the problem of how to help these new members function comfortably and effectively in their new roles as teachers, administrators and academicians. This paper addresses part of this problem by reviewing the literature on faculty development through workshops. Consistent components of effective faculty development workshops are presented as guidelines for future workshop planners.

With the rapid expansion of family medicine programs have come the problems of faculty recruitment and development. Since 1974, steps have been taken by the American Academy of Family Physicians to identify individuals who are not presently active in family medicine education but who might be willing to consider a midcareer change. The Academy has held eight workshops in various regions resulting in the identification of approximately 700 individuals who have indicated a willingness to consider the possibility of a faculty position.1 However, both the need for faculty development and the problem of how to help faculty members function more comfortably and effectively still remain. A recent survey of the membership of the Society of Teachers of Family Medicine further emphasized

the need for and interest in faculty development. In this study, 80 percent of the respondents indicated a desire to participate in faculty development,

community colleges, 2-6 professional associations, 7 foundations, \*\* the Federal Government,8 and the World Health Organization, 9-11 there is little information on workshops for faculty members in family practice. This is not to say that there is no activity occurring in faculty development. Particular attention has been given, at least on paper, to improving college teaching.

particularly through two-to-five-day workshops.\* Unfortunately, while there has been widespread interest in faculty development in many other areas, such as

\*See Bland CJ: Summary of Questionnaire on Continuing Education in Faculty Development, part of DHEW contract # 231-76-0018. Copies of this summary are available from Dr. Carole Bland, Dept of Family Practice and Community Health, University of Minnesota Medical School, A-290 Mayo Managiri R. A-290 Mayo Memorial Building, Box 381 Mayo, 420 Delaware St., SE, Minneapolis, Minn 55455.

12-19 But this attention has not always materialized into effective faculty development programs on university and college campuses. Although most campuses conduct student evaluations of instructional programs, in doing so they merely assume that teachers will use this information for self improvement.\* The junior colleges, however, are demanding formal educational training of their faculty and have instituted highly structured faculty orientation programs and specialized teacher preparation programs. 2-6,20

Medical schools appear to be taking a lead in the use of faculty development workshops and short-term seminars. A 1972 survey of the Association of American Medical Colleges21 revealed that all 113 medical colleges responding had some person or office charged with the improvement of teaching. Forty of these respondents had formal offices of research and development in medical education involving from 1 to 50 staff members. With this emphasis on educational process and research in medical schools, it is not surprising that the literature relevant to family practice faculty development through workshops is predominantly from the medical field, with some notable exceptions, such as the Faculty Development and Evaluation in Higher Education Newspaper.\*\*

This paper will present a review of this literature. The purpose of this review is to allow workshop planners to use the experience of others when making decisions about the design, content, staffing, and evaluation of faculty development workshops in family practice. The review focuses on seven areas: (1) effectiveness of the workshop format; (2) elements in planning a workshop; (3) organizational components of a workshop; (4) content of a workshop; (5) teaching strategies for a workshop; (6) strategies for maintaining skills learned at a workshop; and (7) evaluation of a workshop.

<sup>\*</sup>Center for Faculty Evaluation and Development in Higher Education, 1627 Anderson Avenue, Box 3000, Manhattan, KS, 66502 — (913) 532-5970. (This center has been created at Kansas State University to facilitate efforts of faculty members at colleges and universities across the nation as pursue their teaching activities and other professional responsibilities. This center was established through a two-year funding program from W.K. Kellogg Foundation of Battle Creek, Michigan, after which it is to become self-sustaining.)

<sup>\*</sup>See Eden H: Faculty Development and Evaluation: Annotated Bibliography and Other References. Washington DC, Association of American Medical Colleges, Division of Faculty Development, 1975, for an overview of the extensive attention given teacher evaluation, predominantly by student evalu-

ation.
\*\*Smith A (ed): Faculty Development and Evaluation in Higher Education Newspaper, 3930 NW 35th Place, Gainesville, Fla, 32605.

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#### Effectiveness of the Workshop Format

One might wonder if the dearth of information on faculty development through workshops indicates that the workshop is an inappropriate method. This seems unlikely for two reasons. Most institutions where faculty members are together at one location for many months at a time prefer faculty development through ongoing courses rather than through the workshop format. Furthermore, where studies have been made of workshops, they have been found to be effective. 22-27

Wergin, Mason, and Munson<sup>22</sup> report success with a variety of faculty development workshops conducted predominantly with medical faculty. Donnelly, Ware, Wolkon, and Naftulin<sup>23</sup> evaluated six weekend seminars for continuing medical education covering a variety of subjects. They found that, in general, cognitive gains and attitudinal changes were significant, as measured by multiple choice and true/false questions and semantic differential items. Nerup, Thomsen, and Vejlsgaard<sup>24</sup> examined three pilot programs developed for training college teachers. The pilot programs used 15 instructors, and the participants were 31 physicians and 15 chemists. A review of the effectiveness of these courses found that: (1) These courses, which sought to give participants basic principles as opposed to teaching skills, were quite acceptable to all the participants and not one participant would have preferred a practical teaching course; however, half of the doctors felt they needed further instruction of a more practical nature. (2) Participants rated the courses highly, averaging 4.5 on a 5-point rating scale for various elements such as organization and technical aids. (3) Most of the participants thought the courses should be longer; they ran 12 to 15 hours. (4) The teacher evaluations showed that the teachers thought the participants had acquired much of the content of the course; tests or papers were used to assess participant progress. (5) A follow-up, one to two years later, showed: (a) 37 of the 44 participants now prepare goal statements for their courses, (b) 20 of the 44 participants have changed their from of examination, (c) 38 of the 44 participants have changed the organization of their teaching, (d) 30 of the 44 participants have tried methods of teaching not previously used, (e) 25 of the 44 have tried modern teaching aids, (f) 29 of the 44 have found they need more planning for teaching than before, (g) 29 of the 44 participants now read teaching literature and a few have actually published articles on teaching, (h) 40 of the 44 think they need more teaching guidance, (i) half of the participants feel greater satisfaction in teaching, while some feel dissatisfied, recognizing the problems caused by the large number of students, the lack of space, etc, and (i) most participants stated that a shared background in subject matter between workshop instructors and participants was of little importance.

In another study, Koen<sup>25</sup> reports on a series of workshops in faculty educational development at Wayne State University School of Medicine.\* Participants reported an average goal achievement of 4.2 on a 5-point scale for the program's pre-set goals. Clearly, faculty development workshops can have significant and long-term effects on faculty members' behavior.

staff in his or her initial thoughts about program goals and procedures and invite their contributions. (Connell maintains that decisions should be made by the coordinator, but that mechanisms should allow for total staff input.) Once the planning of the procedures and goals has been completed, the participants in the program should be aware of the goals and

procedures.

5. The participants must be selected purposefully. Connell states that it is important to include people who will have the opportunity and the position to use what they gain from the training experience; to include a heterogenous group of participants; and, as often as possible, to include two or more participants from the same institution, so that they can reinforce each other in applying their learning back home

3. The coordinator must select the

4. The coordinator must involve the

program staff members.

Specific discussion on each of these steps follows.

#### Elements in Planning a Workshop

Although several writers address what they perceive to be the essential components of a faculty development effort, few outline how these efforts are organized and implemented. Karen Connell, while at the University of Illinois Center for Educational Development in 1970, wrote an article for the World Health Organization detailing basic guidelines for faculty development workshop planners. <sup>28</sup> Her guidelines are worth reiterating.

- 1. Any program must have a coordinator one who is charged with the responsibility for detailed planning, coordination of resources, supervision of operations, and follow-up of participants.
- 2. The coordinator, perhaps with a committee, must identify realistic and appropriate goals for the program.

# Organizational Components of an Effective Faculty Development Workshop

Many authors voice opinions about the necessary organizational components for an effective workshop. Their opinions are consistent in citing the following as critical components: leader, staff, participants, and preworkshop efforts.

#### Leader

Connell stresses the importance of a single, identifiable leader. <sup>28</sup> This leader should use the input of the workshop staff or perhaps a committee, but Connell stated that a democratic committee approach was not the most likely to succeed. Several other authors stress the importance of a

<sup>\*</sup>Available from Dr. Frank Koen, Wayne State University, School of Medicine, Gordon H. Scott Hall of Basic Medical Sciences, Division of Educational Services and Research, 540 E Caufield Ave, Detroit, Mich 48201.

chain of command within the faculty development planners. 22,29

Staff

Connell<sup>28</sup> states, "The program staff should include someone with competence in the educational content that will provide the specific focus of the program (for example, instructional strategies or evaluation methodologies). This simple requirement, however, is often overlooked because teachers for the health professions are inclined to think of themselves as competent in educational content because they have taught, even though they have not engaged in any sustained study of the science of education . . . . [Further, the staff should] have someone skilled in the process of facilitating active group learning and individualized learning . . . . [And,] the inclusion of an evaluation expert will surely assist staff members." A 1973 World Health Organization study 10 also emphasizes the need for the staff to include those whose primary training is in education rather than in health. They do, however, recommend "the individuals who conduct such programmes should be sufficiently familiar with the unique problems of health professions education to be able to address themselves to the issues directly and not merely use experience derived from elementary or secondary education." Gregory and Hammar<sup>29</sup> note the problem of the lack of "common language" between the educators teaching the course and the MD participants. In spite of their concerted efforts to minimize educational terminology, the participants complained of too much educational jargon. In subsequent courses this problem was partially solved by providing participants with a glossary of terms. On the other hand, Nerup, Thomsen, and Vejlsgaard<sup>24</sup> found in their study of three programs for training MDs and chemistry teachers that it mattered little if the teacher of the course had much in common with the participants as far as subject matter background. Nevertheless, it would seem reasonable, when possible, to "match" the educational consultants with the

participants. This is in keeping with Rogers and Shoemaker's statement 30 that "one of the obvious principles of human communication is that the transfer of ideas occurs most frequently between a source and a receiver who are alike, similar, homophilous."\*

Beyond the above background qualifications, the instructors, at least collectively, need to be versed in a variety of teaching techniques and be able to work with different types of learners. Wergin, Mason, and Munson,22 speaking from some painful experiences, point out that consultants/instructors need to establish credibility early on. "It may be that education and teaching have either rightfully or mistakenly gained a poor reputation in that people see this as a discipline with little to offer. Or it may be that teaching being the discipline it is, is about the business of giving away its secrets and is unable to maintain the mystique of other professions such as medicine and law that somehow seem to command more respect. In any case, particularly with physicians, it is important for the educational consultant to establish credibility before assuming a colleague role . . . . Further, if the consultant is not particularly sensitive to the needs and feedback coming from the participants they will be viewed as unresponsive. Therefore the consultants will need to have a broad range of consultant skills, ranging from group dynamics to expertise in test construction and be prepared to deliver." Others 22,28,29 have also found it important for instructors and participants to have good rapport. Some suggest setting aside outside time for establishing rela-

Clearly, then, all one needs to do to select staff is to enlist individuals who have formal training in education and evaluation, experience in the medical field, ability to use many teaching, evaluation, and interpersonal skills, versatility in working with a variety of learners, and ability to quickly establish and emanate credibility!

#### **Participants**

Several authors offer suggestions for selecting workshop participants. Connell recommends choosing at least two participants from the same institution so that upon returning home they will be able to support each other. If possible, the participants should hold positions of influence in their home environment so that they can implement their ideas and stimulate others. Certainly, their attendance at the workshop and subsequent implementation at home should have the official support of the department head or program director. 28

Wergin, Mason, and Munson<sup>22</sup> identified two primary types of learners. The first type know little about teaching and are afraid to expose their teaching limitations. These are passive learners who prefer a lecture which will give them answers. These learners will benefit most from "advanced organizers": things which let them know what is going to happen and that give them background information ahead of time, a full outline of the entire program, and readings to go through before it starts. The second type of learners are more advanced and will benefit from different instructional strategies. Discussion is particularly useful for these learners. Thus, when possible, it will help to cluster learners with similar needs and backgrounds and from the same location.

#### Pre-Workshop Efforts

Several factors for an effective workshop occur well before the actual workshop. (1) The objectives of the workshop need to be well defined 22,28,29 (see section on content), realistic, and matched to the concrete needs of the participants. 22,25,28,29 (2) The instructional strategies should be clearly outlined 28 (see section on teaching strategies). (3) Mechanisms for feedback from participants to leaders, as well as formal summative

<sup>\*&#</sup>x27;'Homophilous'' is the degree to which pairs of individuals are similar in certain attributes, such as beliefs, values, education, and social status.

evaluation, must be established. 22,25,28,29 (4) The incoming competencies of the participants should be assessed<sup>22</sup> and their educational tasks and responsibilities understood during the pre-workshop planning.25 (5) Preworkshop reading and activities should be identified and mailed to participants. 24,28,29 (6) A description of workshop objectives, teaching evaluational strategies, staff and participant responsibilities, and a list of workshop instructors should be mailed to participants. 28,29 (7) The program staff needs to understand the entire program and be committed to it. 28,29 (8) The participants, program organizers, and instructors must establish clear lines of communication and should begin their workshop relationships. 22,28,29

#### **Workshop Content**

Many articles list appropriate objectives for faculty development workshops. These lists are very similar and include abilities a faculty member would need in the roles of teacher. administrator, and academician. 22,25,28,29,31,32 While the majority of faculty development programs focused on "teaching objectives," several also considered the importance of training faculty members for other faculty roles, such as administration or research. 25,31 Specifically, Berquist 31 says, "the faculty member seeking to develop innovative courses based on non-traditional perceptions of students needs, faculty roles, and institutional objectives will soon encounter the powerful and demobilizing resistance of his colleagues . . . To deal directly and effectively with this issue, a faculty development program must be designed to deal with organizational development issues and the process of change in traditional decision making procedures." He goes on to say, therefore, that faculty development programs should include training which will develop skills in "(a) decisionmaking, (b) conflict management, (c) team building, and (d) management development."

When workshop planners select objectives for their workshop, it is important that they establish ones that can be realistically accomplished in the given time. <sup>25,28,29</sup> Each workshop's objectives should be interrelated so that the entire workshop constitutes a whole. <sup>27</sup> They should address the specific needs of the participants, <sup>10,22,25,27</sup> and they should include the theoretical background of education. <sup>10,24,31</sup>

## Teaching Strategies for a Workshop

What is the most appropriate way to teach teachers is a question that remains unanswered in spite of the mountains of books and journal articles describing "effective teaching." However, there are some major lines of convergence in the research. Peck and Tucker35 in their in-depth summary of research related to teacher training found that a systems approach to teacher education, often called "instructional design," substantially improves teaching effectiveness. Basically, a systems approach consists of: "(a) precise specification of the behaviors which are the objectives for the learning experience, (b) carefully planned training procedures aimed explicitly at these objectives, (c) measurement of the results of the training in terms of the behavioral objectives, (d) feedback to the learner and the instructor of the observed results, (e) re-entry into the training procedures, and (f) measurement again of the results following the repeated training."35

In keeping with this system, the objectives for a faculty development workshop should be plainly stated. The training procedures or teaching strategies to be used in a specific workshop will depend on participants' past experience, previous readings, the type of objectives, the instructors' preferences, and the desirability of illustrating a variety of strategies. <sup>22,24,29</sup> However, given these constraints, the following research results should be considered in selecting

teaching strategies to be used in a workshop.\*

#### Discussion/Lecture/Demonstration

Millett 36 studied four methods for preparing secondary teachers: unstructured discussion, oral instruction on how to teach the material, video-tane demonstration on how to teach the material, and a combination of oral instruction and video-tape demonstration. In an investigation of later classroom behavior, demonstration plus discussion was found to be the most effective training procedure, while unstructured discussion was the least effective. Similarly, Wedberg<sup>37</sup> found that using a structured lecture along with tapes and experiences was most effective. Centra<sup>32</sup> reports that small classes and discussion groups are most effective for the goals of retention, application, problem solving, attitude change, and motivation for learning. Finally, several authors of articles on faculty development state that they prefer and/or their participants highly rate the discussion component of their workshops. 23,29,38

#### Feedback

Steinen<sup>39</sup> writes that any of three methods for providing feedback increases skills as compared with a control group without feedback. The three types of feedback he considers are: feedback from fellow student teachers, feedback from pupils, and self-feedback. The research evidence consistently confirms the utility of giving teachers objective feedback

<sup>\*</sup>The results presented here are, at best, a keyhole glimpse of the literature on teacher training. The intent of this section is to give the reader an understanding, through selected references, of the prominent findings and directions of the current research. For a complete summary of the research in this area the reader is referred to Travers RMW (ed): Second Handbook of Research on Teaching. Chicago, Rand McNally College Publishing Company, 1973.

about specific aspects of their teaching behavior. However, most of the evidence indicates that teachers use such feedback to make changes in their teaching style only if another person participates in the feedback session. <sup>35</sup> Authors of articles on faculty development programs also stress the importance of providing feedback to participants. <sup>25-27</sup>

#### Learning by Doing

Many strategies for training teachers include a component of learning by doing or practice teaching. Traditional practice teaching, however, does not have consistently good effects. In fact, the effect of throwing a novice teacher into a teaching situation without adequate guidance often results in the development of undesirable teaching behaviors. One study which investigated student-teacher behaviors over three years found that after the student-teaching experience, the novice teachers became "more restrictive of student behaviors, . . . devoted an increasing proportion of their time to stating facts or their own opinions, ... showed less acceptance and less clarification of ideas, and [that] the frequency and length of student response to their questions decreased."35

Fortunately, these undesirable results can be largely avoided if the practice experience is clearly defined and structured. Currently enjoying widespread success in this area is a system called micro-teaching. This system involves actual teaching, but the complexities of a normal teaching situation are reduced by limiting class size, content, and time. Each microteaching session focuses on one specific teaching task or skill. The session is observed and usually video taped, so that the teacher can receive immediate feedback from several sources: students, supervisor, and tape. This feedback can be immediately translated into practice as the trainee re-teaches shortly after the critique. 40 The effects of this highly-focused kind of practice teaching are impressive. Em-

mer and Millett41 investigated the effectiveness of a series of microteaching units and found that the experimental group performed significantly better than the control group on three out of four dimensions measured: determining readiness, motivating students, and evaluating student responses. There was no difference in the dimension of clarifying the objectives. Peck and Tucker35 report a study by Davis and Smoot in which it was found that, compared to a control group, student teachers going through a micro-teaching lab "used more divergent questions, did more probing, gave less information, and elicited more pupil questions and statements. . . . [Further.] they were more supportive, more clarifying, less procedural and less nonsubstantive in their remarks. The variety of their teaching methods increased significantly, as well."

Similar results have been found whether the student teachers were novice or experienced, taught first-grade math or college architecture, or taught in the United States or the Philippines. Authors of articles on faculty development who address learning by doing, specifically the use of simulation or real teaching with video-tape feedback, report that participants believe it to be a most effective teaching strategy. 28,29,31,32,38,42

#### Readings

Authors recommended the use of carefully selected readings. 24,25,33,34 Preparation prior to workshop attendance, through readings, can serve to bring the participants to an initial common understanding of basic knowledge and language and it saves workshop time for interaction, such as discussion or micro-teaching. The instructors, however, need to anticipate that some participants will come unprepared or even disenthralled, having been unable to see the relevance of the

materials to *their* particular teaching situation.

In addition to pre-session readings, it is suggested that a bibliography and list of consultants be provided for participants for future reference.<sup>33</sup>

In summary, preferred teaching strategies (ones which should be considered for family practice faculty development workshops) include brief lectures or demonstrations, focused discussion, and structured practice — all with plentiful feedback.

## Strategies for Maintaining Skills Learned at a Workshop

Several strategies for maintaining faculty skills learned through workshops have already been suggested. These include: selecting at least two members from any faculty to attend the workshop, so that they can support each other in the home environment; setting targets or goals for participants to work toward in their home environment; seeking as participants high-ranking faculty members who are in a position to ensure that their newly developed skills and ideas are implemented; assuring high level (program director or department head) support for the implementation of abilities acquired by participants; and providing participants with bibliographies and a list of consultants for future reference. Unfortunately, these have not been sufficient to aid most participants in easily maintaining their newly learned workshop skills. Teaching abilities, in particular, are seldom rewarded or recognized. Even the most talented teacher can hope for little more than local recognition by students - something which carries little weight with colleagues or in promotion packets, curriculum vitae, or paychecks. In fact, the most frequently mentioned problem in faculty development has been the lack of reward in the home environment to reinforce and maintain newly acquired teaching, academic (non-research), or administrative skills. 10,28,32-34,43 Unfortunately, this is a problem for which there are seldom any suggested solutions. Workshop planners might address this problem by stating that participants should discover or develop rewards for each of the abilities they acquire. This is admittedly easier said than done. By making this a stated objective of the workshop, general attention may at least be drawn to this problem. Perhaps workshop planners could locate and announce available rewards, or suggest to appropriate, influential participants that providing rewards to support efforts in quality teaching, administration, and academic endeavors (in addition to research) would be worthwhile.

increase in ability and willingness to question traditional teaching strategies. They suggest these factors be assessed in addition to the more overt changes in participant behavior. Of course, any true evaluation of effectiveness is found in results, such as improved student learning through more effective teachers; improved and increased research through more effective researchers; and more rewards for quality teaching and quality administration. Such long-term results are not easily assessed. However, positive results on the more immediately assessable behaviors are likely indicators of long-range effects.

## Evaluation of a Workshop

Most of the faculty development programs reported in the literature use some form of evaluation. These vary from rating scales on which participants rate their perceptions of the workshop, 24,25 to pre-tests and posttests which assess participants' cognitive gains,<sup>23</sup> to follow-up interviews conducted two years later to assess any enduring change in participants' behavior.<sup>24</sup> Authors listing necessary components of an effective faculty development program include the need for the evaluation of such things as: teachers' effectiveness, participants' achievements, and programs' organization. 24-27

Wergin, Mason, and Munson<sup>22</sup> state that, for some learners, the effect of a workshop may simply be internal changes, such as an increase in awareness of various faculty activities and an

#### Summary and Suggested Guidelines

In conclusion, several components of an effective faculty development workshop seem to stand out. In brief, they are as follows:

- 1. Faculty development workshops can have significant and long term effects on faculty members' behavior
- 2. Some basic guidelines for planning a program include having one leader, using staff and participants' input in planning, and establishing clear lines of organization within the planning group.
- 3. Instructors and consultants for the workshops should individually or collectively have a background in education, be experienced in health fields, be versed in many teaching, evaluational, and interpersonal skills, and be able to work with a variety of learners.
- 4. Workshop instructors, consultants, and participants need to establish a comfortable relationship, each

understanding his or her role and the roles and expectations of others.

- 5. Workshops should include participants with similar needs, backgrounds, locations, and experience, perhaps by clustering participants into several groups.
- 6. Many of the factors which affect the success of a workshop occur prior to the workshop, for example, arranging mechanisms for assessing the incoming competencies and needs of participants; defining objectives; outlining instructional strategies; arranging mechanisms for ongoing feedback among participants, instructors, and organizers; establishing a formal summative evaluation; selecting and mailing pre-workshop readings and activities to participants; and mailing program description and objectives.
- 7. The content of a workshop should include objectives addressing the several roles a faculty member will play: teaching, academic, and administrative. The objectives should be realistic for the amount of time allotted and should coincide with participants' perceived needs. All staff and, when possible, participants should have input into the selection of these objectives.
- 8. The workshop should follow a systems approach in its design.
- 9. The workshop should demonstrate a variety of teaching strategies. Certain factors or constraints (such as instructor preference, type of objective, learners' knowledge base and experience, and size of group) will influence which teaching strategies are selected. Given these constraints, the preferred strategies are: brief lectures or demonstrations, focused discussion, and structured practice all with abundant feedback.
- 10. Several strategies are suggested to help participants retain new abilities and attitudes acquired at a workshop: include two members from a faculty; seek high-ranking faculty members as participants; assure support of participants' program director or department head for implementation of new abilities; provide participants with materials and lists of consultants for future reference; establish goals or targets for participants to work toward after they leave the workshop.
- 11. A workshop should have both informal and formal evaluation of participant gains, instructor effectiveness, and program organization.

1. AAFP Teacher Resource Registry Lists 700 Practicing Physicians. AAFP Reporter 3(10):5, 1976

2. Clements C Jr: How Staff Develop-ment Works in the Small Community College, ERIC Document Reproduction Service
#ED 093 398. Washington DC, Educational
Resources Information Center, 1973
3. American Association of Commun-

ity and Junior Colleges: Community College Faculty Development, ERIC Document Reproduction Service #ED 081 411. Washington DC, Educational Resources Information

- Center, 1973

  4. The Evaluation of Community College Teaching: Models in Theory and Practice, proceedings of the California Junior College Association Conference on Models for the Evaluation of Teaching, ERIC Document Reproduction Service #ED 063 923. Washington DC, Educational Resources Information Center, 1972
- 5. Faculty Development in the Junior College: A Second Interium Report on the Progress with Developing Institutions, 1969-1970, ERIC Document Reproduction Service #ED 052 773. Washington DC, Educational Resources Information Center,
- 6. American Association of Junior Colleges: In-Service Training for Two-Year College Faculty and Staff: A Survey of Junior and Community College Administrators, ERIC Document Reproduction Service #ED 034 519. Washington DC, Educational Resources Information Center, 1969

7. Eden H: Faculty Development and Evaluation: Annotated Bibliography and Other References. Washington DC, Association of American Medical Colleges, Division

of Faculty Development, 1975

8. A Pilot Program of Training Seminars for Faculty in Family Practice Medi-DHEW Contract No. 231-76-0018, 1976

9. World Health Organization: Expert Committee on Professional and Technical Education of Medical and Auxiliary Personnel, technical report series #69. Geneva, World Health Organization, 1953

10. World Health Organization: Training and Preparation of Teachers for Schools of Medicine and of Allied Health Sciences: Report of a WHO Study Group, technical report series #521. Geneva, World Health Organization; 1973

Center for Educational Development, Illinois College of Medicine (ed): Development of Educational Programmes for the Health Professions. Geneva, World

Health Organization, 1973 12. McKeachie WJ: Research on teaching at the college and university level. In Gate NL (ed): Handbook of Research on Teaching, Chicago, Rand McNally, 1963, pp 1118-1172

13. McKeachie WJ: Research on College Teaching: A Review, report 6. Washington DC, ERIC Clearinghouse on Higher Education, 1970

14. McKeachie WJ, Kulik JA: Effective College Teaching. Rev Res in Educ 3:165-209, 1975

15. Lee CBT (ed): Improving College

Teaching. Washington DC, American Council on Education, 1967

16. Miller GE, Graser HP, Abrahamson S, et al: Teaching and Learning in Medical School. Cambridge, Mass, Harvard University Proc. 1964 sity Press, 1961

17. Morris WH (ed): Effective College Teaching: The Quest for Relevance. Washington DC, American Council on Education,

18. McKeachie WJ: Teaching Tips: A Guidebook for the Beginning College Teacher. Lexington, Mass, DC Heath & Co, 1969 19. Holcomb JD, Garner AE: Improving

Teaching in Medical Schools: A Practical Handbook. Springfield, III, Charles C Thomas, 1973

20. Gleazer EJ Jr: Preparation of junior college teachers. Educational Record

48(2):147-152, 1967
21. Roush RE, Holcomb JD: Teaching improvements in higher education: Medical education may be the leader. Phi Delta Kappan 55:338-340, 1974

22. Wergin JF, Mason EJ, Munson PJ: The Practice of Faculty Development: An Experience-derived Model. Presented at the Annual Meeting of the American Educa-tional Research Association, Washington

DC, 1975

23. Donnelly FA, Ware JE, Wolkon GH, et al: Evaluation of weekend seminars for physicians. J Med Educ 47:184-187, 1972

24. Nerup J, Thomsen O, Vejlsgaard R: Teaching the teacher to teach: Results of three experiments. Dan Med Bull 19:198-201, 1972

25. Koen FM: An Action Research Program in Faculty Educational Development. Detroit, Mich, Wayne State University, 1975

(In House Document, photocopy)
26. Hulbert L, Gordon M: Precepting in
Primary Care. Presented at the Fourteenth Annual Conference on Research in Medical Education, Washington DC, 1975

Adams WR, Ham TH, Mawardi BH, et al: Research in self-education for clinical teachers. J Med Educ 49:1166-1173, 1974

28. Connell KJ: Organizing short-term teacher-training programmes, in Center for Educational Development, Illinois School of Medicine (ed): Development of Educational Programmes for the Health Professions. Geneva, World Health Organization, 1973, pp 93-103

29. Gregory ID, Hammar B: Case study of first course in teaching skills and methods for university medical staff, Br J Med Educ

8:92-98, 1974

30. Rogers EM, Shoemaker F: munication of Innovations: A Cross-Cultural

munication of Innovations: A Cross-Cultural Approach. New York, Free Press, 1968 31. Berquist WH, Phillips SR: Compo-nents of an effective faculty development program, J Higher Educ 46:177-211, 1975 32. Centra JA: Strategies for Improving College Teaching, Washington DC, American

Association for Higher Education, 1972 Cantrell T: How do medical-school staff learn to teach? Lancet 29:724-727,

1973

34. Group for Human Development and Higher Education: Faculty Development in a Time of Retrenchment. New Rochelle, NY, Change Magazine, 1974
35. Peck RF, Tucker JA: Research on

teacher education. In Travers RM (ed): Second Handbook of Research on Teaching. Chicago, Rand McNally College Publishing

Company, 1973
36. Millett GB: Comparison of training procedures for promoting teacher and learner translation behavior, technical report #9. Stanford, Calif, Stanford University, Center for Research and Development in Teaching, 1969

37. Wedberg DP: A comparative investigation of the instructional and administrative efficiency of various observational techniques in the introductory course in education, doctoral dissertation, University of Southern California. Ann Arbor, Mich, University Microfilms, No. 63-5065, 1963 38. Prentice ED, Metcalf WK: A teach-

ing workshop for medical educators. J Med Educ 49:1031-1034, 1974 39. Steinen RF: An exploratory study

of the results of providing increased feed-back to student teachers of mathematics, back to student teachers of mathematics, doctoral dissertation, Ohio State University. Ann Arbor, Mich, University Microfilms, No. 67-2544, 1967
40. Allen D, Ryan K: Microteaching. Reading, Mass, Addison-Wesley, 1969
41. Emmer ET, Millett GB: An assessment of terminal proformance in a teaching.

ment of terminal performance in a teaching laboratory: A pilot study. Austin, Tex, University of Texas, Research and Development Center for Teacher Education, 1968

42. Perlberg A, Peri JN, Weinreb M, et al: Microteaching and videotape recordings: A new approach to improving teaching. J Med Educ 47:43-50, 1972

43. Jason H: Effective medical teachers: Born or made? J Med Educ 38:46-47, 1963

### Selected Bibliography

Arsham GM: An instructional skills workshop for medical teachers: Design and execution. Br Med Educ 5:320-324, 1971 Cotsonas NJ, Kaiser HF: Student evaluation clinical teaching. J Med Educ 38:742-745, 1963

Davis LN, McCallon E: Planning, Conducting, and Evaluating Workshops. Austin, Tex, Learning Concepts, 1974

Freedman M: Facilitating faculty development. New Directions for Higher Education 1:105-111, 1973

Freedman M, Sanford N: The faculty member yesterday and today. New Directions for Higher Education 1:1-15, 1973

Fulop T: Training teachers of health personnel. In Center for Educational Development, Illinois College of Medicine (ed): Development of Educational Programmes for the Health Professions. Geneva, World Health Organization, 1973, pp 84-92

Gaff JG: Toward Faculty Development. San Francisco, Jossey-Bass, Publishers, 1975

Gerth DR: Institutional approaches to faculty development. New Directions for Higher Education 1:83-92, 1973

Hammons JO: Suggestions concerning institutional training of new faculty. munity College Review 1:49-60, 1973 Com-

Helfer RE: Peer evaluation: Its potential usefulness in medical education. Br J Med Educ 6:224-231, 1972

Miller GE: Educational science and education for medicine, Br J Med Educ 1:156-159, 1967

Reichsman F, Browning FE, Hinshaw JR: Observations of undergraduate clinical teaching in action. J Med Educ 39:147-163,

Rosenshine B, Furst N: The use of direct observation to study teaching. In Travers RMW (ed): Second Handbook of Research on Teaching. Chicago, Rand McNally College Publishing Company, 1973

Rous SN, Bamford JC, Gromisch D, et al: The improvement of faculty teaching through evaluation: A preliminary report. J Surg Res 11:311-315, 1971

Rous SN, Bamford JC, Gromisch D, et al: The improvement of faculty teaching through evaluation: A follow-up report. J Surg Res 13: 202-266, 1972

Sinatra LJ: Performance based teacher education: It can be transformational. Educ Technol 13(8):60-63, 1973

Slotnick HB: Taxonomy of Teaching Practices. Final report of the Faculty Development Project by the Division of Faculty Development of the Association of the American Medical Colleges, in conjunction with the Bureau of Health Manpower, Contract 231-76-0011, Bureau of Health Manpower, DHEW. Copies of this are available directly from the AAMC.

Stritter FT, Bowles LT: The teacher as manager: A strategy for medical education. J Med Educ 47:92-101, 1972

Stritter FT, Hain JD, Grimes DA: Clinical teaching re-examined. J Med Educ 50:876-882, 1975