Update

VOLUME 2 • NUMBER 4 • AUGUST 1996

Instructional Development: What Works?

Introduction

Those who facilitate faculty and instructional development efforts on college campuses often respond to growing needs (e.g., orienting new faculty to the institution, providing teaching assistants with instruction in college teaching, fostering pedagogical development for all who teach) with traditional, "tried and true" interventions: workshops, one-on-one consultation, instructional grant programs, newsletters. Just what is known about the activities that are supposed to improve instruction? What do they entail? How frequently are they used? And what, if anything, is known about their effectiveness? This report abstracts the most recent, comprehensive review of research in faculty and instructional development that answers these questions (Weimer & Lenze, 1991).

Research on the Effectiveness of Instructional Interventions

Faculty and instructional development is best described as a service-oriented field that has emerged from practice. Most of the interventions designed to facilitate pedagogical development and improvement have a 30-40 year history of use with little empirical evidence of their effectiveness.

Weimer and Lenze (1991) reviewed the literature on the effectiveness of five common instructional interventions: workshops, one-on-one instructional consultation, instructional grants for improving teaching, peer assistance programs, and resource materials. In the review, they considered how researchers measure effectiveness: administrators' attitudes about the effectiveness of interventions (administrator satisfaction); instructors' opinions about the effectiveness of the intervention (instructor attitudes); instructors' gains in knowledge as a result of the intervention (instructor knowledge); changes in teaching skills resulting from the intervention (teaching skills); students' satisfaction with changes in teaching after the intervention (student attitudes); or increases in student learning due to changes in teaching after the intervention (student learning) (Levinson-Rose & Menges, 1981).

This ***Update*** describes each of these interventions, takes a look at the prevalence of each intervention, and abstracts what the research tells us about their effectiveness.

Workshops

DESCRIPTION

Workshops aimed at improving and developing teaching take many forms. They vary in topics, instructional methods, target populations, length, and timing in the academic year. For example, workshops are often the main attraction in new faculty orientations, where they convey ideas and facilitate discussions about teaching at the outset of a faculty member's appointment. They also appear throughout the year to interest veteran faculty members who want to further develop their teaching. Workshops are an attractive intervention because they reach a large number of faculty, and they visibly promote commitment to teaching across campus. Various surveys indicate that workshops are one of the most prevalent activities used to improve teaching.

ASSESSMENT

How do workshops fare in improving teaching? Weimer and Lenze report that instructor satisfaction is the outcome most measured in the research on workshops' effectiveness. Workshops are typically rated good to very good by participants, and they are thought to be very effective by heads of instructional development programs. While Weimer and Lenze found no published research on the effectiveness of *short* (less than four hours in

length) workshops in producing changes in instructors' teaching, research on *longer* programs (between four hours and six days) suggests that workshops may contribute to better explanations and increased gender equity in classrooms. Published findings on mini-courses (two weeks to a semester-long course) indicate that some affect participants' teaching skills, and some are correlated with better academic performance by the teachers' students in experimental groups than by students in control groups.

DISCUSSION

The research suggests that longer-term workshops have some effect on teachers' skills and, perhaps, on students' learning. We know little, though, about the effects of shorter workshops—except that faculty like them. As many campuses renew commitments to teaching, customer satisfaction (and subsequent enthusiasm for teaching) should not be downplayed. Still, as higher education continues to focus efforts on student outcomes, research on the effectiveness of workshops needs more breadth and depth.

Instructional Consultation

DESCRIPTION

Instructional consultants provide outside, unbiased perspectives on faculty members' teaching. Although consultants may know little about the subject matter that faculty teach, they are trained to observe and reflect on the pedagogical decisions and actions that take place in instructors' courses. These specialists typically consult over observations of faculty members' teaching, videotapes of teaching, student evaluations, or general teaching concerns raised by faculty members. Surveys documenting the prevalence of consultation revealed that almost half of surveyed American universities that offer instructional development activities offer instructional consultation. Percentages ranged from 44% to 52%.

ASSESSMENT

Three assessment outcomes were identified in the area of instructional consultation. Survey research focuses on attitudes of campus administrators, coordinators, and directors of teaching centers. These people evaluate consultations as one of the most effective intervention strategies, because "they are based on the needs of individual teachers, they are initiated by them, and follow-up is feasible and usually occurs" (Moses, 1985, p. 79). Several studies looked at the effect on teaching of consultation over student evaluations. All indicated that consultation coupled with review of student evaluations increases teaching effectiveness as measured by observation of teaching and by end-of-course student evaluations. A few studies looked at the effect on instruction of consultation over videotaped teaching. All found better teaching after these consultations.

DISCUSSION

We know a little more about consultation than we know about workshops. Instructional consultation has support from administrators, and it facilitates better teaching and student satisfaction with teaching. Perhaps the growing support for this intervention is due to two personal components that consultation offers: face-to-face interaction and individualized attention.

Further support for instructional consultation resides in its long-term effects. Weimer and Lenze identified a study (Stevens & Aleamoni, 1985) that over a fourteen-year period of time found that faculty who received consultation about their teaching at the beginning of that period continued to teach better (as measured by student evaluations) than faculty who did not participate in instructional consultation sessions. Although this is the only study of its kind, it suggests the full potential that instructional consultation may have in improving and developing college teaching.

Grants for Instructional Improvement

DESCRIPTION

Weimer and Lenze describe the practice of awarding grants: "They are awarded competitively, with faculty writing grant proposals and faculty-administrative committees awarding the funds. Funds are used to purchase instructional materials, pay personnel, support travel, provide access to consultants, or buy release time" (1991, p. 314). Instructional improvement grants tend to be awarded at the institutional level and are typically small — ranging between $500 and $5000. Five of the instructional improvement activity surveys that Weimer and Lenze identified revealed that anywhere from 40% to 78% of institutions surveyed have grant programs. These figures are consistent with findings from an earlier review of the research on instructional interventions (Levinson-Rose & Menges, 1981).

ASSESSMENT

Most of the assessment of the effectiveness of grants centers on the opinions of those who *administer* grants. Seventy to 90% of American universities surveyed rated grants as effective or very effective. Two other studies looked at the effectiveness of grant programs. Both gathered faculty perceptions of the effectiveness of grant programs in improving teaching. One found little support for grant programs (Jacobsen, 1989), and the other found high ratings (Eble & McKeachie, 1985).

DISCUSSION

Evidence does not yet support that grant programs produce instructional change. Surveys of grant administrators tell us little about effectiveness. Two researchers concluded, "Grant programs are unlikely to affect norms [of teaching] unless a purposeful effort is made to use the grants as catalysts for institutional change through faculty forums, newsletters, and follow-up activities drawing upon the experi-

ence of the grantees and relating their learning to the interests and needs of other faculty members" (Eble & McKeachie, 1985, p. 199).

Colleagues Helping Colleagues

DESCRIPTION

There are two basic models of colleague collaboration. In the first model, one trained colleague helps another improve teaching; in the second, both colleagues (trained or untrained) assist each other. What faculty do when they help other faculty members ranges from observing teaching, to reviewing course materials, to interviewing students about their learning experiences in the faculty members' courses. Only two of the surveys identified by Weimer and Lenze that investigated trends in faculty and instructional development activities reported on the use of colleague collaboration to improve teaching. These surveys noted that 37% and 65% of those who responded reported using colleague assistance programs.

ASSESSMENT

There is little assessment of the effectiveness of colleague assistance programs. Two studies suggest that peer programs may positively affect teaching. In one study, teaching improved on six of seven primary teaching components measured by the Teaching Analysis By Students (TABS) evaluation instrument (Annis, 1989). In a case study, two professors wrote of the positive effects that the peer observation experience had on their teaching (Rorschach & Whitney, 1986).

DISCUSSION

As peer observation continues to grow in the United States, more effort must be made to document the effectiveness of this intervention. "The effectiveness of means to improve instruction remains for all intents and purposes unstudied. Theoretical grounding for the intervention exists, as does experience in a number of different programs and activities. What remains unproven is the effect of colleague interventions on the instructional practices of each other, on student evaluations, and on learning outcomes" (Weimer and Lenze 1991, p. 319).

Resource Materials

DESCRIPTION

Weimer and Lenze confined their review of the effectiveness of resource materials to *print* resources. These include materials from the disciplines (e.g., teaching journals, such as *Teaching Sociology* and *The Physics Teacher*), materials that cross disciplinary lines (such as the national newsletter, *The Teaching Professor*, or the cross-disciplinary journals, *College Teaching* and *Journal on Excellence in College Teaching*), and materials produced within the institution (e.g., monthly newsletters, a library of articles on teaching, tip sheets for instruction, annotated bibliographies). Little research documents the prevalence of this instructional intervention. Two surveys report on resource materials. These surveys found that 80% and 48% of respondents offer resource materials as an instructional intervention.

ASSESSMENT

Only one study inquired as to the effectiveness of printed materials. In Konrad's (1983) survey of Canadian universities, only 30% of administrators who reported using instructional resource materials rated them as effective.

DISCUSSION

Producing reading materials for faculty is a fairly common activity, but this is not a good sense of how much use they get or how effective they are at improving teaching. "Students of all sorts can and do learn by reading materials. There is nothing to indicate that faculty reading materials on teaching and learning are different than any other students who learn by reading, but that qualifies as general support, not the specific evidence needed to establish the efficacy of the case in point" (Weimer and Lenze 1991, p. 317).

Conclusion

What advice does the literature offer to faculty and administrators who are charged with the task of proposing activities for faculty development programs—or for those who serve on committees to develop a teaching center? The literature does not provide clear answers about how effective each common intervention is, because there is not enough research on the outcomes influenced by each type of intervention.

However, there are some indications of the probable effectiveness of each type of intervention. For instance, instructional consultation has been shown to improve teaching, as assessed by student evaluations and by expert observers. Workshops are generally well-received by those who attend—satisfaction is not an outcome to be ignored; and the longer the workshop program, the more likely it has an opportunity to affect teachers' skills and students' learning. The few studies that have been done on peer assistance suggest that this intervention may influence teacher skill and learner satisfaction with teaching. The bar graph on page 4 summarizes our best estimation of the effectiveness of specific interventions.

Reviewers have found that much of the research on instructional interventions "fails to go beyond data collected on the spot from participants" (Levinson-Rose & Menges, 1981, 403). The following list of action items suggests how faculty and administrators might help change this situation and contribute to what we know about what works in faculty development.

- Examine the campus' use of and assumptions about traditional instructional development activities.
- Fund the evaluation of instructional development interventions.

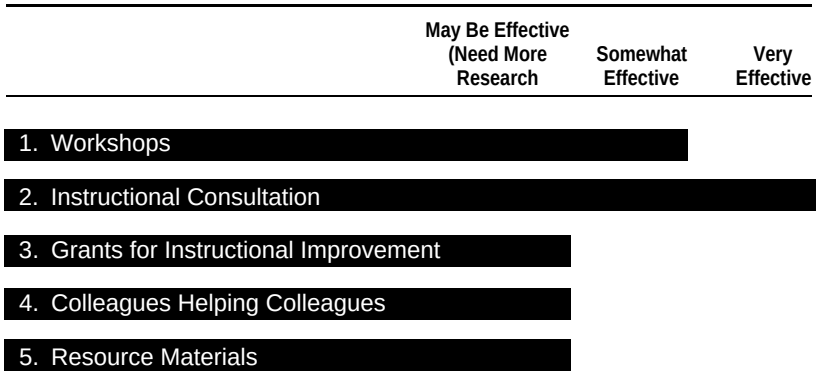
■ Request that campus faculty development offices or committees begin or continue to assess a variety of outcomes influenced by its instructional interventions.

■ Reward faculty for participating in instructional seminars, minicourses, and consultation programs (those likely to be the most effective).

■ Publish success stories resulting from instructional interventions.

■ Pioneer innovative interventions for developing and improving teaching—and make known their effectiveness.

OVERALL EFFECTIVENESS OF INDIVIDUAL INSTRUCTIONAL INTERVENTIONS



References

Aleamoni, L. M. (1978). The usefulness of student evaluations in improving college teaching. *Instructional Science*, 7, 95-105.

Annis, L. F. (1989). Partners in teaching improvement. *Journal of Staff, Program, and Organizational Development*, 7(1), 7-12.

Centra, J. A. (1978).Types of faculty development programs. *Journal of Higher Education*, 49, 151-162.

Eble, K., & McKeachie, W. (1985). *Improving Undergraduate Education Through Faculty Development*. San Francisco: Jossey-Bass.

Erikson, G. (1986). A survey of faculty development practices. *To Improve the Academy*, 5, 182-194.

Hansen, D. W. (1983). Faculty development activities in the Illinois Community College System. *Community/Junior College Quarterly*, 7, 207-230.

Jacobsen, R. H. (1989, March). The impact of faculty incentive grants on teaching. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

Konrad, A. C. (1983). Faculty development practices in Canadian universities. *The Canadian Journal of Higher Education*, 13(2), 13-25.

Levinson-Rose, J., & Menges, R. J. (1981). Improving college teaching: A critical review of research. *Review of Educational Research*, 51, 403-434.

Richardson, R., & Moore, W. (1987). Faculty development and evaluation in Texas community colleges. *Community/Junior College Quarterly of Research and Practice*, 11(1), 19-32.

Rorschach, E., & Whitney, R. (1986). Relearning to teach: Peer observation as a means of professional development. *English Education*, 18, 159-172.

Smith, A. (1981). Staff development goals and practices in U.S. community colleges. *Community/Junior College Research Quarterly*, 2, 209-225.

Weimer, M., & Lenze, L. F. (1991). Instructional interventions: A review of the literature on efforts to improve instruction. In J. C. Smart (Ed.), *Higher Education: Handbook of Theory and Research*, Volume 7 (pp. 294-333). New York: Agathon Press.

nea
NATIONAL EDUCATION ASSOCIATION

Office of Higher Education
1201 Sixteenth Street N.W.
Washington, D.C. 20036
202-822-7100

Higher Education Staff
Christine Maitland
Rachel Hendrickson
Dely Pena

This issue written by
Lisa Firing Lenze, Ph.D., Faculty Development Consultant
for Margaret S. Warner Graduate School of Education and Human Development, University of Rochester