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ABSTRACT

This chapter addresses the relationship between three different approaches to educational improvement--instructional development (ID), organizational development (OD), and faculty development (FD). These three approaches are related to each other using the concept of readiness for innovation, and a spiral relationship is postulated: an individual, or an organization, will adopt an innovation only if the variable, readiness, is at a high enough value. If not, then the level must be raised through a sequence which alternates among the three factors, FD, then OD, then FD again, and so on. The text is supplemented with three figures, and a 24-item bibliography is provided. (Author/EW)

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THE RELATIONSHIP BETWEEN
FACULTY DEVELOPMENT (FD), ORGANIZATIONAL
DEVELOPMENT (OD) AND INSTRUCTIONAL DEVELOPMENT (ID):
READINESS FOR INSTRUCTIONAL
INNOVATION IN HIGHER EDUCATION

By

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INTRODUCTION

During the past decade and particularly in the past few years, an increasing number of colleges and universities have established centers, agencies, or programs whose purpose is to help faculty improve their teaching. A study by Centra (1976) found over 700 institutions having such programs with over one-third of the programs less than two years old.

Several reasons for the rapid growth of these programs have been advanced. First, the emergence of educational technology as a field of specialization provided both personnel and tools to address the complex problems involved in improving learning and teaching. Second, many institutions, as a result of changing enrollment patterns, new clientele, shrinking resources, and burgeoning knowledge in the disciplines, realized that improvement of teaching was not a simple task. On the contrary, it remains an arduous task requiring a long-term institutional commitment of personnel and dollars (Davis, *et al.*, 1976; Gaff, 1975). Third, because of the general decline in the economy and resultant tightening of the academic job market, faculty are becoming far less mobile. With less turnover of faculty to stimulate new ideas and processes, the stimulation and renewal must come from within the institutions (Group for Human Development in Education, 1974). Fourth, enrollment in higher education has entered a period of continuous decline. Institutions must thus compete for a smaller number of students, or cultivate non-traditional populations. It is likely that improved instruction can provide a competitive advantage when recruiting potential students.

Due to the rapid growth of programs to improve teaching, a great deal of attention has been devoted to describing the activities of these programs, agencies, or centers. In the past few years, descriptions of the activities in such programs have been segmented into three discrete categories: Faculty Development (FD); Organizational Development (OD); and Instructional Development (ID). Briefly, FD activities focus on the knowledge, skills, sensitivities, and techniques of faculty members rather than the courses they teach. OD activities seek to change the structure, policies, and organizational environment in which instruction takes place. ID activities, on the other hand, focus on the systematic

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design, development, implementation and evaluation of instructional materials, lessons, courses or curricula. A measure of the increased interest in these three categories of activities is reflected in the increasing number of publications, workshops, and jobs emphasizing FD, OD, ID or some combination of the three.

Assuming that FD, OD and ID are each involved in instructional improvement, what is their relationship to each other (e.g., are they independent, interactive, etc.)? Is there some sequence or hierarchy among the three? Must an instructional improvement program encompass all three?

This chapter attempts to answer these questions by showing that FD, OD and ID are integrally related to each other within the process of bringing about the adoption of an instructional innovation having the potential for improving teaching and learning. Conditions preceding the adoption of an innovation are critical to any short or long-term success. Therefore, both individual faculty members and their organizations must be made "ready" to develop and adopt an instructional innovation capable of improving instruction. "Readiness" for innovation, it will be shown, is created by FD and OD activities and is a major factor in determining whether ID activities are likely to create or modify an instructional innovation which will be acceptable within the teaching organization and still be capable of improving teaching and learning. Before discussing the FD, OD and ID relationship, however, some background information on the instructional innovation process will be helpful.

INSTRUCTIONAL INNOVATION

If instruction is to improve, something related to instruction must change. The instructional process or content must change, the faculty member's knowledge, skills, or attitudes must change, or the organizational environment must change. Instructional change implies a deviation from the status quo towards some instructional process or content perceived as new or different by those doing the changing. An instructional idea, technique, content, or process which is new to the adopting individual or group is defined as an instructional innovation. Thus, the term "instructional innovation" is a relative one since an idea or technique which is new to one faculty member or to one department may be old hat to another.

Instructional innovations may or may not be adopted in their original form. An innovation developed and used in one location is often modified to meet differing local conditions prior to its adoption in another location. For example, the Audio Tutorial (AT) system developed by Postlethwait, *et al.*, (1972) at Purdue University, has been used at

numerous universities, but in many cases not in its original form. Instead, modifications were made to accommodate differences in local facilities, equipment, curriculum, etc.

In other cases, a faculty member might choose to combine several existing innovations to create a unique solution to a particular instructional problem. Such would be the case if a faculty member examined the Audio Tutorial system and the Keller Plan of Individualized Mastery Learning (Keller, 1968) to meet a particular instructional need but found neither totally satisfactory. However, by combining elements of the AT system and the Keller Plan, the faculty member derives a new and unique solution. Such a modification of existing techniques is an innovation in its own right.

A systematic method for finding, modifying, or developing instructional innovations is found in the process known as Instructional Development. The ID process focuses on the systematic design, development, implementation, and evaluation of instructional materials, lessons, courses, or curricula in order to improve teaching and learning. To many practitioners of ID, this systematic process is defined in step-by-step models such as are found in Briggs (1970), Davis, *et al.*, (1974), Kemp (1971), and Silvern (1969) among others. These models epitomize the rational decision making process and are designed to produce effective and efficient instructional programs.

Finding, modifying or developing an instructional innovation, however, is only a part of the larger process of bringing about instructional change. It is also necessary that innovations be tolerated by the individuals and organizations who will use them. This chapter will focus solely on those situations in which individual faculty are free to make their own decisions regarding when to innovate and which innovations to adopt. In these situations, the organization does not adopt the innovation. Instead, the organization must merely accept or tolerate the individual's tryout and use of the innovation. At the very least, this means the organization does not totally prohibit or prevent the individual from innovating.

Numerous models of the process involved in adopting innovations have been proposed (for example: Davis, 1977; Havelock, 1969; Rogers and Agarwala-Rogers, 1976; Rogers and Shoemaker, 1971). While there are some differences among these models with regard to the exact nature and progression of the steps involved in an individual's deciding to either adopt or reject an innovation, all of the models imply that there are two broad stages in the process. The first stage centers on readiness or preparation for innovation and involves such events as becoming aware of potentially useful innovations, identifying problems these innovations might solve, seeking information about the innovations and

obtaining organizational acceptance of innovation and change in general. The second broad stage centers on involvement with a particular innovation. This stage encompasses such activities as development or modification of an innovation to fit local needs, tryout of the particular innovation, seeking confirmation from other faculty on the innovative decision made and obtaining organizational acceptance for the specific innovation to be adopted. In sum, it might be said that both the individual faculty member and his organization must concur that a particular instructional innovation is a worthwhile enterprise, or the use of the innovation is likely to be short lived.

It is recognized that adoption of an instructional innovation is no guarantee that instruction will improve in either efficiency or effectiveness. Some innovations, after their adoption, may negatively affect student learning, attitudes, or performance; and furthermore, they may decrease faculty morale or overtax the instructional budget. Nevertheless, the adoption of any innovation requires attention to the two stages of the adoption process, Readiness and Involvement. The concept of Readiness for Innovation is pivotal in understanding the relationship between FD, OD and ID. The next section therefore explores several dimensions of the concept of Readiness for Innovation.

READINESS FOR INNOVATION

Individuals and organizations are complex entities; each has a number of characteristics which can affect the adoption of an instructional innovation.

Readiness for instructional innovation can be defined as that critical combination of characteristics prerequisite to the adoption of an innovation which changes instructional content or process. This critical combination of prerequisite characteristics can be compared to the concept of critical mass in atomic physics. A nuclear reaction will not take place until all the necessary elements are present in certain amounts; this combination of physical elements is known as the critical mass. By analogy, in an instructional situation, a combination of prerequisite characteristics must be present or the adoption of a particular innovation is unlikely to take place. However, since not all instructional innovations are identical, the value of the critical combination of prerequisite characteristics is dependent upon the nature of the innovation. The greater the change in the status quo resulting from the innovation, the greater the combination of prerequisite characteristics (or level of readiness) required.

In the instructional innovation setting, unlike physics, there is no set formula specifying the combination of characteristics which precisely defines the critical combination needed for the adoption of an innovation. However, the literature on the innovation process clearly

indicates that there are two broad classes of characteristics which create this critical combination of prerequisites: individual characteristics and organizational characteristics. (See Sachs, 1976, 1977, for descriptions of a study which confirms the importance of these two classes of characteristics for innovation in higher education.) A combination of individual characteristics (such as attitudes, values and skills) contributes to the readiness of an individual for innovation. A combination of organizational characteristics (such as structure, rewards and norms) contributes to the readiness of the organization for innovation. *It is the sum of individual faculty readiness and organizational readiness which provides the critical combination of characteristics prerequisite to the adoption of a particular innovation.*

As it has been pointed out, there is no single set value for the critical combination of prerequisite characteristics that applies to all instructional innovations. Instead, a higher level of readiness is required for adoption of innovations which are radical changes from the existing method of doing things than for innovations which are small variations from the status quo. For example, the conversion of a traditional lecture course to self-instructional audiovisual modules is a much more radical change than the inclusion of overhead transparencies in one or two lectures to help teach some particularly difficult concept. Therefore, a higher level of readiness would be needed for the conversion to the audiovisual modules.

Rogers and Shoemaker (1971) provide a framework which can be used to determine the relative degree of readiness required for particular innovations. They identify five characteristics of innovations that can affect the adoption decision. These characteristics are:

1. The relative advantage of the innovation compared to the existing practice.
2. The compatibility of the innovation with the existing practice.
3. The complexity of the innovation.
4. The ability to try out the innovation prior to full scale adoption.
5. The ability to observe the results of the innovation which shows it to be an improvement over the existing practice.

From these characteristics, it follows that innovations requiring more radical change generally have less obvious relative advantages (given the amount of effort required for implementation), are less compatible, are more complex, are less amenable to tryout, and have fewer observable results.

Continuing with the previous example, the overhead transparencies for teaching a difficult concept could quickly provide clear evidence of improved learning without a major change in the course and would be easier to try than the self-instructional audiovisual modules. Thus, the use of transparencies, as an innovation, requires a lower level of readiness than does the use of AV modules.

If, through ID, an innovation has been identified, modified or developed for which an insufficient level of readiness exists in a particular individual or organization, it is unlikely that the innovation will be adopted by that individual or accepted by that organization. What might be likely to happen in this case is: (1) the innovation would be modified (made less innovative) so as to fit the existing level of readiness; (2) the innovation might be adopted but not integrated with existing practice, therefore having little long-term effect; or (3) the innovation would not be adopted in any form.

If the use of a modified innovation proved successful, it is possible that readiness would increase as a result of this successful experience. Furthermore, as the current teaching methods became less traditional and more innovative, there would be a less drastic difference between the status quo and other innovations. This spiral process of continually increasing readiness through a series of small but successful innovations should ultimately result in a higher level of readiness.

Having discussed the concepts of readiness and prerequisite characteristics in general, attention will now focus on the dimensions of individual and organizational readiness.

INDIVIDUAL READINESS

Individual faculty readiness is a variable defined as a combination of characteristics which influence an individual's decision to innovate. The idea of a number of factors combining to influence an individual's decision is not new, having appeared in algebraic models describing human decision making and in information integration theory (Anderson, 1974a, 1974b).

The characteristics which appear most potent in affecting variability in individual readiness for instructional innovation include the following:

1. **ATTITUDES**, which are positive toward self, teaching and change.
2. **VALUES**, which place importance on teaching and student learning.
3. **BELIEFS**, that instructional improvement is possible and worthwhile.
4. **SKILLS**, in organizing and delivering information.
5. **KNOWLEDGE**, of subject matter, innovations, and teaching methods and strategies.

Each of these five characteristics acts like a filter for the individual — letting some information in, keeping some information out, distorting other information.

How would one recognize a faculty member who was ready to adopt an instructional innovation? At this point in time, a functional measurement model does not exist which can assess the combined influence of individual characteristics on an individual's decision to innovate. However, unless an individual possesses some minimal value of each of the above characteristics, it is unlikely that he will attempt to innovate since that void would act as a strong blocking force to innovation. It is possible, though, that a small "deficit" in one characteristic can be compensated for by an "excess" of another characteristic. For example, if a faculty member values research over teaching (low value on teaching) then it is unlikely he or she would innovate unless some other characteristic compensated, such as a strong belief that the improvement of teaching would result in a desirable payoff such as more time for research. However, the critical combination of prerequisite characteristics also requires readiness in the organization to which the individual belongs and into which the innovation will be adopted.

ORGANIZATIONAL READINESS

Organizational readiness is a variable defined as a combination of characteristics which influence the acceptance or tolerance of an innovation in the organization. These organizational characteristics combine with individual characteristics to form the critical combination of prerequisite characteristics necessary for the adoption of an instructional innovation.

The idea of a number of characteristics interacting to influence organizational decision making has been suggested by several writers including Hage (1974) and Rogers and Agarwala-Rogers (1976). The characteristics which appear most potent in affecting variability in organizational readiness to innovate include the following:

1. **STRUCTURE**, which allows open and free communication and group problem solving.
2. **REWARDS**, for teaching or related activities.
3. **NORMS**, that support innovation.
4. **RESOURCES**, to support innovation.
5. **POLICIES**, that permit trial of innovations.

Unless the structure permits open and free communication, there will be resistance to the innovation because faculty are not aware of potential benefits and have inaccurate information about it. Or, if the norms do not support innovation in general, the introduction of innovations is

likely to be controlled by a few senior faculty acting as gatekeepers. The existence of restrictive policies and/or lack of resources are likely to constrain acceptance of instructional innovations. Lack of rewards for teaching-related activities will probably have a negative influence on faculty who otherwise might explore instructional innovations.

The effect of the interaction of these five characteristics is to create an organizational climate which influences, either positively or negatively, the adoption of an instructional innovation by one or more of its members. If the organizational influence is positive, it can be said that the organization "accepts" a member's innovation. If the influence is negative, it "rejects" a member's innovation.

How does one recognize an organization which is ready to accept an innovation? Again, at this point in time, a functional measurement model does not exist which can accurately assess the combined influence of each of the above characteristics to ascertain an organization's particular level of readiness.

As with individuals, it is also possible that a small "deficit" in one organizational characteristic can be compensated for by an "excess" in another. For example, a restrictive organizational policy requiring that all instructional changes be approved by a curriculum committee may be overcome or changed by faculty norms supporting innovations and an open structure which allows the faculty to exert pressure consistent with those norms.

The next section describes how individual faculty and organizational characteristics contribute to the overall level of readiness and how this level of readiness influences the nature of the innovation which is likely to be adopted.

THE OVERALL LEVEL OF READINESS

The overall level of readiness is the total combination of prerequisites, composed of the individual faculty and organizational characteristics, which must be present to facilitate the adoption of a particular innovation. If there is not a sufficient level of readiness, then that particular innovation must be modified to be adopted. That is, innovations most likely to be adopted and used on a long-term basis are those which only create changes consistent with the existing level of readiness. This relationship is illustrated in Figures 1, 2, and 3 where the *hypothetical* level of readiness necessary for different degrees of change from the status quo and the actual level of readiness are shown along the vertical axis, and the levels of individual faculty and organizational readiness and the contribution to readiness made by each characteristic are shown by the bar graphs.

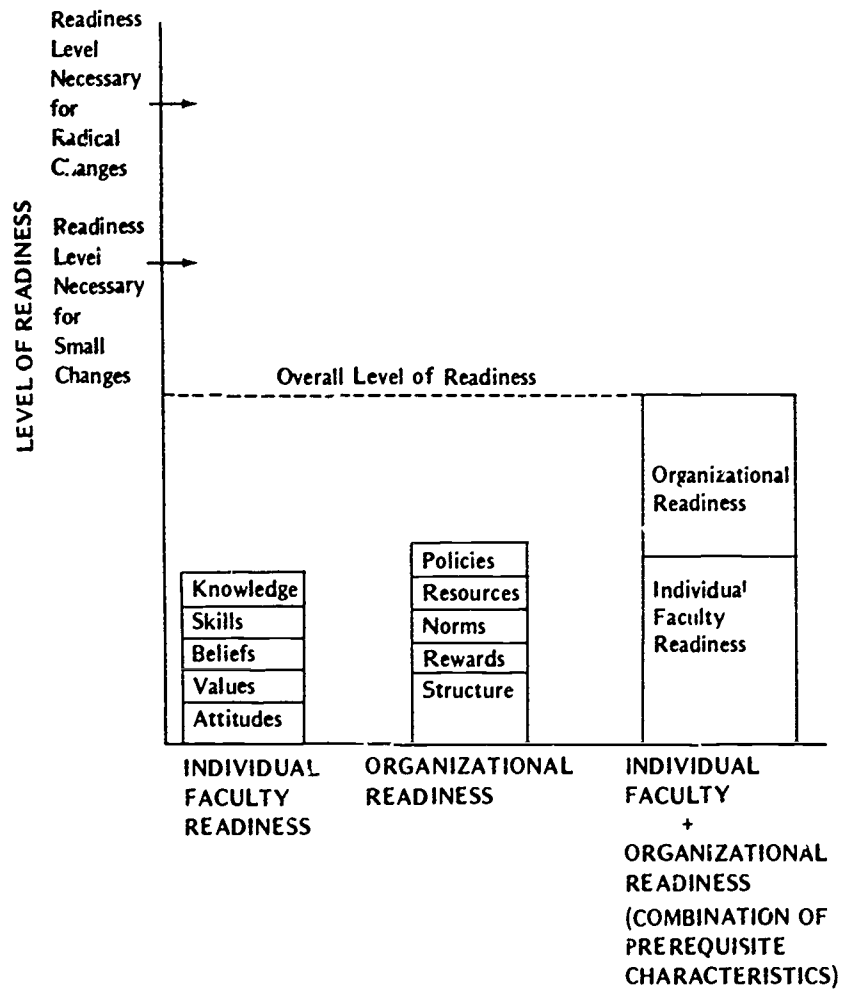


Figure 1. Readiness Profile: Unlikely to Innovate

Figure 1 illustrates a case where innovation of any type is unlikely. The values of the variables Individual Readiness and Organizational Readiness do not form the overall level of readiness needed for the adoption of innovations regarded as a small change from the status quo. Looking more carefully at Figure 1, the individual faculty's values, beliefs, and knowledge contribute very little to overall readiness and there is not sufficient compensation by the other two characteristics. Such an individual might be typified by a recent Ph.D. who feels positively about teaching, has read books to develop instructional skills, but is relatively inexperienced in the course to be taught. Furthermore, he values research more than teaching because he believes research will receive greater rewards than will teaching.

The faculty member's department in Figure 1 appears to be moderately supportive of change, though its resources do not contribute much to readiness. This situation is typical of many departments that have an open structure along with rewards, norms and policies that do not overtly restrict instructional innovation, but do not overtly encourage innovation either. In sum, Figure 1 shows a situation in which the adoption of an innovation would only be possible if the individual or the organization or both were more ready or, in other words, if there was a higher overall level of readiness.

Figure 2 illustrates a case in which there is a sufficient overall level of readiness for innovations that are radical changes from the status quo. The individual in this situation has positive attitudes and values toward teaching, and firmly believes that improving teaching is worthwhile and possible. This individual has a strong foundation of skills and knowledge with which to analyze and organize the course's subject matter.

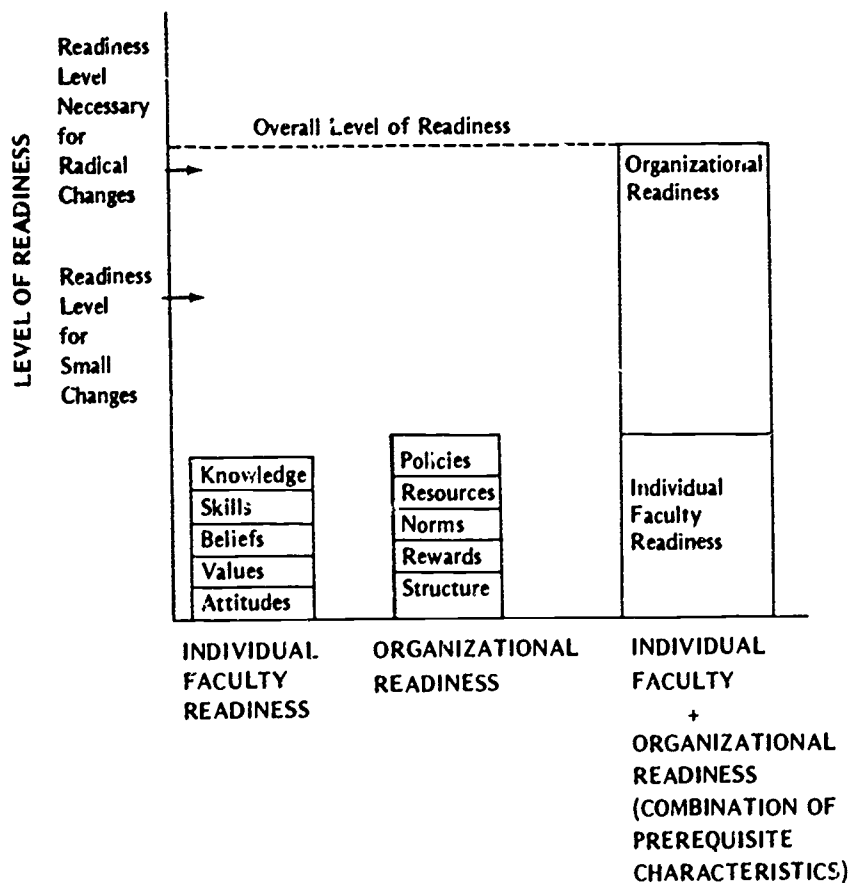


Figure 2. Readiness Profile: Ready for Drastic Change

The department depicted in Figure 2 appears to be strongly supportive of innovation in every respect except perhaps policies. These policies may reflect somewhat restrictive university or college policies, though even at that, these policies may be sufficiently flexible to permit trial of some innovations. The high contribution to readiness provided by the rewards, norms and resources of this department probably encourages the individual to undertake a larger scale innovation than might otherwise be indicated by the individual's values and attitudes. This is an example of how the various characteristics can compensate for each other.

In the final case, which is illustrated in Figure 3, there is a sufficient overall level of readiness for some innovations but not for others.

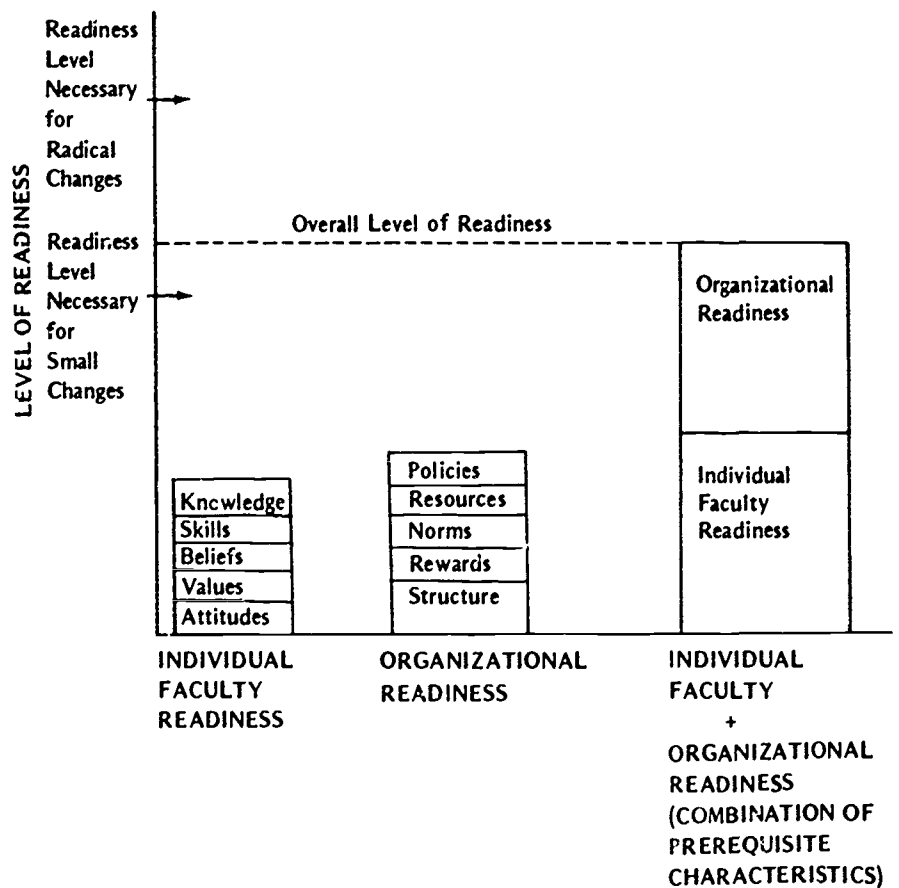


Figure 3. Readiness Profile: Ready for Some Change

In this situation, it would be necessary to carefully assess the nature of the innovation which might be considered and to focus on those which required less radical changes, therefore requiring less readiness. A less radical innovation may not let the faculty member achieve the same goals as the more radical innovation. However, if too radical an innovation is selected, it might not be adopted which also means the initial goals would not be achieved. Successful experience with a selected innovation might then improve the individual's attitudes toward change, beliefs, and instructional skills. This success might even cause the individual to place greater value on teaching. The effect of these changes would be to increase the individual's level of readiness.

These three examples illustrate the relationship of variations in the level of readiness to the nature of innovations likely to be adopted. While some degree of innovation is usually possible, what if the level of readiness is too low for a particular innovation? What can be done to make the adoption of that innovation more likely? The next section will show that it is possible to *increase* Individual Faculty Readiness and Organizational Readiness through Faculty Development (FD) and Organizational Development (OD) activities.

RELATIONSHIP OF FD AND OD TO READINESS

Previous sections of this chapter have suggested that teaching and learning can be improved if an appropriate instructional innovation is adopted by individual faculty and accepted by their organization. In order for the innovation to be adopted successfully, both the individual and organization must be ready. It was pointed out that if a sufficient overall level of readiness did not exist for a particular innovation, that innovation would either be modified to fit the level of readiness that did exist or would not be adopted at all. If the modified innovation is adopted and is successful, readiness is likely to increase. Then, through adoption of several of these less radical innovations, overall readiness could be increased.

For example, if there was not a sufficient level of readiness to support the adoption of Audio-Tutorial modularized instructional units (a fairly radical change from conventional lectures) a faculty member might be willing and able to adopt the innovation of a slide/tape program to substitute for a regular lecture. If this innovation proved successful, the faculty member would be likely to extend the use of slide/tape programs to other lectures. In this way, the individual and organization could eventually achieve a level of readiness which would support the original innovation, i.e., Audio-Tutorial modularized instructional units. However, there are more direct ways to increase individual faculty and organizational readiness. These ways involve the use of FD and OD.

Examining FD and OD programs suggests that some of their outcomes directly affect individual readiness and organizational readiness. This is not to say that the objectives of FD and OD programs are strictly to increase readiness. Rather, FD and OD are the *processes* through which readiness for innovation can be increased.

In *A Handbook for Faculty Development*, Berquist and Phillips (1977) state:

An effective faculty development program often causes a faculty member to re-examine his own life goals and *values*. He may also try to improve his interpersonal skills and his ability to be creative and risk-taking in his design and execution of course programs.

(p. 199) (*Italics added*)

Similarly, Freedman (1973) suggests that important consequences of faculty development are increased autonomy in accord with newly internalized *values* and goals; and Gaff (1975), in describing faculty development principles, indicates that such programs will have more impact if they emphasize changes in *attitudes, values, skills*, and sensitivities. (*Italics added*)

While recognizing that FD programs across the country can and do have a variety of outcomes, it is apparent that these outcomes affect those characteristics previously identified as components of Individual Faculty Readiness — attitudes, values, beliefs, skills and knowledge.

A comparable argument may be made for the relationship between Organizational Development and Organizational Readiness. Previously, it was pointed out that organizational readiness is influenced by the five characteristics: structure, rewards, norms, resources, and policies. In describing OD, Boyer and Crockett (1973) write in terms of structure, leadership and methods of organizational operation. Berquist and Phillips (1977) suggest that important foci for organizational development include departmental reorganization (structure), use of space and time (resources), and faculty reward system (rewards). Once again, while recognizing that OD programs across the country have a diversity of planned outcomes, these outcomes nevertheless affect the characteristics which define the organizational readiness.

It should be emphasized that while FD and OD both influence Individual and Organizational Readiness, FD and OD need not occur in any particular sequence with respect to each other. Instead, FD and OD are probably symbiotic — each reinforcing and stimulating the other. For example, a department may have been involved in a self-study of its organization and policies (OD). As a result of this study, faculty clearly expressed frustration with excessive teaching loads due to an open enrollment policy. This frustration led to an increase in faculty

interest in making their instruction more efficient. To address this interest, faculty attended workshops on alternative teaching strategies (FD). As a result of these workshops, their readiness for adoption of instructional innovation was increased. In addition, the increase in individual faculty readiness stimulated additional OD activities, in this case, a study of the allocation of resources in the department. In this way, FD and OD interact to stimulate each other.

In sum, an important outcome of FD and OD activities is an increase in the level of readiness. The actual adoption of the innovation, however, requires more than just readiness as it is also necessary for all parties to become involved with the innovation. During this involvement stage, ID is an important event.

RELATIONSHIP OF ID TO FD AND OD

ID is defined as a systematic process for selecting, adapting or creating (e.g., developing) an instructional innovation having the potential for improving teaching or learning. As a process, ID is usually considered to focus on the development of the instructional innovation itself (e.g., new method of teaching) rather than on the larger instructional innovation process including readiness to innovate. ID models, in fact, reveal a surprising paucity of information relating to the antecedent conditions necessary for successful implementation of the process. Twelve popular ID models reviewed by Stamas (1972, 1973) contained virtually no provision for either assessing or creating individual or organizational readiness for instructional change. These models apparently either assume that necessary readiness has been achieved prior to beginning ID activities or else simply ignore the concept of readiness altogether.

Therefore, ID may be dependent on FD and OD activities to produce the level of readiness necessary for a particular innovation. If that innovation is successful, readiness increases slightly and makes adoption of a second, more radical innovation more likely. To ensure an adequate level of readiness for the second innovation, additional FD and OD may also be employed, etc.

This spiral relationship can be seen in the case of a faculty member who achieved a high level of readiness through such activities as attending presentations at professional meetings, visiting with innovative colleagues at another university, and participating in several workshops held by the university's instructional improvement agency. Also, the faculty member's department reorganized following the chairman's retirement and was sufficiently open and supportive to accept a modest degree of instructional innovation; and it even provided a meager budget to support the production of instructional materials. The result was an overall

level of readiness appropriate for the development and use of three instructional innovations: self-graded student quizzes using the latent image technique (to allow students to get frequent and immediate feedback on their progress in the class); a training program prior to the start of classes for all graduate teaching assistants involved with the course; and a detailed set of course objectives including statements of criteria and standards. Admittedly, in their initial form these innovations were not elaborate, although assistance from ID personnel was necessary for their development. During the term, the faculty member noticed marked improvements on exams and fewer complaints about the graduate assistants. This information was communicated informally to his colleagues. Having experienced a modicum of success, the instructor began to explore other things which could be done in the course. After consultation with ID specialists, it was agreed that the mastery model would be the next innovation developed. However, the organization did not appear sufficiently ready to accept this level of change nor did the faculty member himself possess sufficient skills to implement this innovation. Therefore, the faculty member did some readings on the topic and attended a workshop on mastery instruction sponsored by the instructional improvement agency. Then, in collaboration with ID personnel, he held a departmental seminar on mastery instruction to gain acceptance of this innovation. Due to this instructor's predilections and departmental resistance, a pure mastery model was not adopted. Instead, a modification which was locally acceptable was developed. Since then, other instructors in that department have expressed an interest in trying some new things in their courses, also.

Did FD and OD precede ID? Did ID precede FD and OD? It is hard to tell since it depends on which innovation is being considered. In any event, FD and OD activities such as workshops for the department and individual faculty, travel and departmental reorganization, contributed to readiness for innovation. The success of the innovations produced by the ID process also contributed to the readiness needed for additional innovation. Therefore, the innovation process flows in a spiral which links FD and OD to ID.

In sum, it is the faculty member who must ultimately select an innovation to improve teaching and learning. If the innovation selected requires a level of individual and organizational readiness which exceeds the existing level, then clearly FD and OD activities are warranted. If the faculty member selects an innovation for which he or she is ready, but for which the organization is not ready, there are three possible outcomes. First, the innovation may fail due to lack of departmental acceptance. Second, the innovation may be modified to conform with the department's existing level of readiness. Third, OD activities may

be conducted concurrently with ID activities to ensure acceptance of the innovation. On the other hand, a faculty member may select an innovation for which the existing level of organizational readiness is sufficient for immediate acceptance. In the latter case, the success of the innovation itself may stimulate additional readiness which will facilitate further innovation.

CONCLUSION

This chapter has addressed three questions regarding the relationship between FD, OD, and ID:

What is their relationship to each other?

Is there some sequence or hierarchy among the three?

Must an instructional improvement program encompass all three?

It was suggested that there is a spiral relationship between FD, OD, and ID. FD and OD can create readiness for the innovations produced by ID. In turn, success with these innovations creates some additional readiness for more radical innovations. Therefore, FD, OD, and ID each contributes to increasing the level of readiness which in turn allows more radical changes from the status quo.

This chapter also pointed out that FD and OD are not sequential, they are symbiotic. Each contributes to the level of readiness necessary for instructional innovation to occur. Furthermore, deficiencies in one or more characteristics of readiness may be compensated for by excesses in other characteristics.

Deciding whether an instructional improvement program must encompass FD, OD, and ID was more difficult to answer. In order for instructional innovation to occur there must be a particular level of readiness (formed by a combination of prerequisite characteristics) and different innovations require different levels of readiness depending on the degree of change involved. The more radical the change, the greater the level of readiness needed. Therefore, instructional improvement agencies may accept readiness as it exists (hopefully, above a threshold that allows minimal innovations) and only undertake innovations consistent with the pre-existing level of readiness. On the other hand, instructional improvement agencies may attempt to *increase* the level of readiness such that a greater degree of change becomes possible. The methods for accomplishing this increase are FD and OD. This leaves the choice of whether to encompass all three – FD, OD, and ID – up to the individual agency, depending on how it wishes to operate.

The perspective on the process of instructional improvement presented in this chapter will undoubtedly be controversial since there is little direct evidence to support or refute it; but hopefully, it will

stimulate a dialogue among professionals which can result in a better understanding of how FD, OD, and ID can be utilized to bring about the improvement of teaching and learning.

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