A Framework for Investigating Consultation in Instructional Development

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Abstract: Instructional developers often work in conjunction with subject matter experts. The consulting relationship that is established has gone largely unexplored. A framework for examining this relationship includes four consultation models. Two dimensions of the instructional developers task environment that may influence the use of these models of consultation are identified and discussed. The results and implications of a study using this framework are reported.

The instructional developer (IDr) employs various strategies of instructional development when working with a subject matter expert (SME) to solve some type of instructional problem. In most cases in higher education, the SME, and not the IDR, will implement the solution to the problem. This type of relationship can best be categorized as a "consulting relationship" following Steele (1975) who defined consulting as: any form of providing help on the content, process, or structure of a task or series of tasks where the consultant is not actually responsible for doing the task itself but is helping those who are. Steele also pointed out that the recipient of such help—the client—has the option to freely reject it at any time. In addition, Steele also made it clear that consulting is not necessarily a "strict occupational role" but rather a function that can be applied to many areas. It is a set of skills within a number of different frame-works or models which reflect different professional points of view.

The IDR may thus be considered a consultant because help is provided to a SME who has the option to accept or reject such help. In addition, following Steele, the IDR is not concerned with doing the task (such as teaching or running an autotutorial lab) but rather with helping the SME implement the task and solve an instructional problem more effectively.

In establishing a consulting relationship with the SME, two systems will function concomitantly: the instructional development system and the human system (Arnn & Strickland, 1975). Normally, the primary emphasis during an instructional development effort is the instructional development system. The use of this system does not necessarily guarantee an appropriate and successful solution to an instructional problem. It is also necessary that the human system be considered in the instructional design effort. In thinking about the instructional development process, considerations about the human system of interaction between the IDR and the SME have unfortunately been omitted. It is through the establishment of a consulting relationship that the human system can be effectively managed toward the attainment of a desired goal.

An extensive amount of research completed in recent years has directly influenced the instructional development process. Such research has involved inquiry into many topics, including aptitude—treatment—interaction, learning hierarchies, concept formation, and message design (Baker, 1973). In contrast, it appears that little information is available beyond heuristic guidelines to aid the IDR in establishing a relationship with the SME (Haney, Lange, & Barson, 1968, and Kemp, 1971). A review of many of the texts used by IDRs also reveals little about the consulting relationship (Briggs, 1977; Davis, Alexander, & Yelon, 1974; Gagné & Briggs, 1974; Gerlach & Ely, 1971).

The purpose of this paper is to explore various aspects of consultation as it pertains to instructional developers, propose a framework that may prove useful in exploring this important area, and discuss the implications of initial research using this framework.

Consulting and Instructional Development

With the increased formalization of instructional development, the role of the IDR emerged. It is obvious that the IDR will use the instructional development process to solve instructional problems. The question then arises as to how this process might be used; that is, will the process be used by the IDR alone or in concert with another IDR? Certainly, the instructional development process is not the exclusive property of the IDR in terms of use. Figure 1 presents a number of possible configurations that might exist when instructional development is used. Though cells 2, 3, 4, and 7 are possible and may exist, for the purposes of this paper the relationships that stem from cells 5, 6, 8, and 9 will provide the focus for further discussion.

The notion of the IDR working with a SME was first mentioned by Faris (1968) in a “futuristic” job description. From his perspective, the IDR is a person to work with faculty members in the development of instruction, including the analysis, design, and evaluation of instructional practice. He also concluded that the IDR must be capable of guiding the activities of an interdisciplinary team in the performance of the above tasks. This is a clear indication that some notion of consulting, or at least helping, is indigenous to the role of the instructional developer.

Engel (1969) found support for this idea in a survey he conducted to assess the activities of IDRs in higher educa-
It is important to note that Price used what could best be labeled a "collaborative model" in his study. Employing this model implies certain assumptions about a consulting relationship. It appears, from the lack of research in the areas of consulting and instructional development, that it may be somewhat early to presume that this is the model. A reanalysis of Price's data by the author revealed that when IDRs encountered a variety of instructional problems (to be discussed below), they responded verbally in remarkably diverse ways. Though Price found some support for a collaborative model, his results also lead one to ask if other models of consultation are used by the IDR and if the instructional problem that confronts the IDR has any influence on the use of a certain model. We will first examine a number of models that may prove useful for describing the IDR's consulting behavior. Considering the potential effect instructional problems may have upon consulting behavior, an examination of the IDR's task environment will be undertaken.

Models of Consultation

Consulting is not a strict occupational role, as pointed out above, but rather various skills set within a framework or model that reflects professional points of view (for example, Argyris, 1970; Havelock, 1973; Brokes, 1975; Kurpius & Brubaker, 1976; Klein, 1977; Caplan, 1970; Schein, 1969). These points of view are nothing more than assumptions made by the profession about the role of the consultant and client within the consulting relationship. Davies (1975) has suggested that a number of different assumptions may form the foundation of a relationship, but normally a few will dominate and enable us to classify such relationships. Tilles (1961) identified three such classes of assumptions as purchase-sale, doctor-patient, and constructive. Schein (1969) suggested a similar set of consulting relationships and identified them as purchase, doctor-patient, and process. Davies (1975) identified them as product-oriented, prescription-oriented, and product/process-oriented. In this paper the relationship assumptions are labeled product, prescription, and collaborative/process. In addition, a fourth set of assumptions have been identified that are more relationship-oriented and less task-oriented than the other three.
ollowing the ideas of Blake and Mouton (1964, 1978) this last set of assumptions will be labeled **affiliative**. The labels used in this paper were adopted because it was felt they communicate more precisely the role of the IDr. These four models and their underlying assumptions now will be discussed.

**Product model assumptions**

Under this set of assumptions the consultant is viewed as a seller who is approached by a buyer with a problem. It is assumed the client has correctly identified the problem and the appropriate form of the solution and can also determine the conditions for delivery. The consultant is expected to “deliver the goods” as requested, which will usually take the form of information, a service, or a product; e.g., provide books on behavioral objectives, design a test, or produce a filmstrip.

This relationship may be appropriate when there is little question of the articulated need because of the client’s expertise or when it is simply expedient on the part of the IDr to “go along with” the client. If one goal of the relationship is to influence the long-term behavior of the client, a number of reservations about this model must be raised. With this model it can safely be assumed that the normal routine of the client will not be disrupted while the product or service is being developed. Some long-term behavioral changes may take place as a result of information flow between the consultant and client, but whether this information leads to “constructive, purposeful, and effective activity” on the part of the client is questionable (Tilles, 1961). The effectiveness of the product developed must also be questioned because it may be something beyond the sophistication of the client.

**Prescription model assumptions**

Within this set of assumptions, the role of consultant and the client are reversed in terms of problem identification and solution. The client initiates the relationship by stating a concern about an existing situation; e.g., “My students don’t seem to enjoy my lectures any more,” or “I think my class needs more audiovisual aids.” The client does not have the skills to diagnose the problem and thus it is up to the consultant to carry out the analysis and diagnosis of the concern to identify the underlying problem (Schein, 1978). The assumptions underlying this model are that the consultant has the authority and skills to carry out a diagnosis and that the solution will be accepted by the client. This model obviously stems from the field of medicine and also appears to be a popular mode of action in the area of management consulting (see Klein, 1977).

Such a relationship has a number of advantages. The most obvious is that the consultant has the upper hand in the relationship, and the authority of a specialist involved in an effort to help the “sick” client. The consultant may emerge from each relationship with new or refined skills of analysis. The client may develop both an increased awareness of the existing situation and knowledge that may prove useful for examining similar situations in the future.

A relationship based upon these assumptions also has a number of disadvantages. When the IDr enters the setting to help the client with the perceived concern, the first thing to be considered is the basis for this concern and if it is the “true concern.” The situation is compounded if the size of the client group is large, because it may also be necessary to determine the true client. The client may also be unable, or at best reluctant, to accept or implement the suggested solution. As a result, any long-term effects upon the client may be minimal.

**Collaborative/process model assumptions**

The logical manner in which to start talking about consultation is to raise the issue of desired results from the consulting relationship (Tilles, 1961). In the case of the purchase model, the desired results stem from the need for some type of information, product or service by the client. The prescription model requires that the results take the form of a prescription to solve an existing concern of the client. With the specification of the results, the client and the consultant are locked into certain role behaviors with concomitant expectations for each other’s behavior. The same can be said for the product model.

The collaborative/process model makes no a priori assumptions concerning the desired results of the relationship which may lead to a relatively fixed set of behaviors. Rather, it involves a system of decisions, which are reached by agreement, concerning what is expected in terms of the results to be achieved, the nature of the help required, and the changing roles that will be exercised (Davies, 1975).

Within this model it can be assumed that the client is aware of an existing problem but may need help in further clarification of that problem. The IDr and the SME bring to the relationship certain expectations arising from their respective professional roles. It can also be assumed that the variance in their expectations concerning the relationship can be negotiated to the mutual satisfaction of both parties. This may result in a variety of roles emerging to fit the requirements of the various project outcomes.

The goal of this model is to realize the intended instructional outcomes in terms of either increases student achievement or more effective use of available resources (Davies, 1975). A secondary goal, though one of no less importance, is that the client will be able to apply skills learned during the instructional development process to future instructional problems. For the IDr, this may not mean a reduction in the need for instructional development expertise but rather the promise of a more sophisticated relationship with the client in the future.

“In establishing a consulting relationship with the SME, two systems function concomitantly: the instructional development system and the human system. . .”

This relationship also has a number of drawbacks. The scope of the project or the available time may not lend itself to the use of this model. Also, the client may not be receptive to the openness that is demanded of such a relationship, or conversely, the IDr may not feel comfortable using this model.

**Affiliative model assumptions**

Under this set of assumptions, it is necessary that the consultant emphasize good interpersonal relations with the client to be effective. This will be done
even at the expense of task accomplishment. The consultant is concerned with ensuring that the client is satisfied and that a well-ordered environment is maintained. The consultant seeks approval of the client by using ingratiating behavior to increase the chances of approval and reduce the risk of confrontation and rejection (Blake & Mouton, 1978).

It is entirely possible that the consultant will work very hard. Unfortunately, the motivation for this hard work is to gain approval from the client rather than to solve an instructional problem. The result will be a high-work-level with low productivity.

When a consultant operates under these assumptions, a number of conditions will exist in the relationship: there is little or no conflict, the client's suggestions and ideas are totally accepted by the consultant, and the desires and wishes of the client are anticipated. These conditions would appear primarily to benefit the client. However, if productivity is not an issue in the particular environment in which this model is practiced, such conditions may be acceptable.

Phases in Consultation Models

A consulting relationship passes through different stages or phases. The exact identification of these phases is still subject to dispute. An analysis of the consulting models of Brokes (1975), Kurpius and Brubaker (1976), Davies (1975), Schein (1969, 1978), Argyris (1970), Havelock (1973), and Caplan (1970) revealed at least three phases that were held in common. These phases are entry, analysis-diagnosis, and problem solution.

In the entry phase the major concerns are with the client and consultant getting to know one another, establishing the nature of the problem, and identifying methods and procedures for solving the problem. In the analysis-diagnosis phase data may be collected to further clarify the nature of the problem. This may lead to revisions in the problem and procedures for solving the problem and changes in estimates for needed resources. During the problem solution phase the plan for reaching certain goals or solving an instructional problem is finalized and implemented. During this phase the relationship may be reexamined and terminated.

Kurpius and Brubaker (1976) have noted that most consulting models share at least those phases identified above. They have also suggested that differences between models will lie with the emphasis placed upon a particular phase within a certain model. This difference in "emphasis" is manifested in the consultant's behavior during the phase. These behaviors can probably be identified and classified based upon the assumptions associated with each model discussed above. The matrix in Figure 2 displays the interrelationships between phases and consultation models.

The Task Environment of Instructional Development

The IDr employs a variety of procedures in the process of designing a learning environment. These processes include task analysis, learner analysis, determination of teaching strategies, and evaluation. These procedures and others are brought to bear on the instructional problem with which the developer is faced. It is these problems that constitute the tasks with which the developer must deal. The task environment of instructional development thus consists of all tasks with which the developer is confronted in the design of a learning environment. However, in the area of consultation in instructional development, little work has been done to specifically identify the elements that compose the IDr's task environment and little more than a tentative picture can be drawn.

Engel (1969) noted that most of the work of the programs he surveyed occurred at the unit or course level. Hoban (1973) was also concerned with the level at which IDrs concentrate their effort. He found, like Engel, that the majority of an IDr's time is spent on tasks at the course level with a lesser amount of time on both the single lesson (unit) and "sequence of courses" (curriculum) level.

Alexander and Yelon (1972) identified the service, research, and teaching functions of a number of instructional development organizations in higher education. Their work also provides a more detailed picture of the task environment:

1. Conduct workshops.
2. Assist departments in the analysis, planning, and design of curriculum.
3. Assist faculty in the development of instructional materials.
4. Help write internal publications; i.e., handbooks, project reports, etc.
5. Consult with individual faculty members.

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<th>Consultation Models</th>
<th>Collaborative</th>
<th>Affiliative</th>
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<td>Product</td>
<td>Prescription</td>
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**FIGURE 2. Consultation models by phases matrix.**
6. Provide test scoring and analysis services.
7. Provide instructional TV services.
8. Administer and score standardized tests.
10. Maintain reference library on instructional development topics for higher education.
11. Maintain laboratories for faculty research and development in instruction.
12. Provide administration with technical advisory services regarding instructional development.

A review of the individual organizational descriptions included with the final report failed to specify the nature of the consulting activities in which the IDR engaged with faculty members.

The problems brought to the IDR in the Price (1976) study were not considered in the analysis of the data. These problems are listed below and provide further insight into the task environment of instructional development:

1. Design curriculum for 4-H.
2. Design 4 half-hour workshops on menopause.
3. Improve graduate education course.
4. Improve a course with media.
5. Evaluate and field test instructional package.

7. Develop course objectives and improve teaching methods.
8. Improve course effectiveness.

The majority of instructional problems in the Price study appear to be at the curriculum and course level. The types of activities with which the IDR is concerned involve writing objectives, test design, evaluation, media design and production, and content reorganization.

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The results of Engel (1969), Hoban (1973), Alexander and Yelon (1972), and Price (1976) converge to provide us with a preliminary view of the instructional developer's task environment. It appears that most design tasks are at the course level though the IDR will encounter some on unit or curriculum levels. These design tasks will call for either some type of instructional strategy design or the introduction of media as a possible solution to the instructional problem. The instructional design modifications involve such activities as writing objectives, designing tests, reorganizing content, and evaluating. The introduction of media usually involves television, slides, or overhead transparencies.

Davis, Abedor, and Witt (1976), drawing upon their experiences with the Educational Development Program at Michigan State University, constructed a matrix to organize the instructional tasks with which they were confronted. They have identified "as a first approach" that most instructional development projects range along two dimensions: (a) size or scope of the system under development; e.g., several courses or a curriculum, one whole course or part of a course (unit); and (b) the type of innovation or improvement requested by the client; e.g., revision of instructional strategies or an infusion of some type of instructional media or technology that does not constitute revision of the entire course. The matrix in Figure 3 illustrates these two dimensions of system scope and innovation type.

FIGURE 3. System level by innovation type matrix.

The Task Environment and Consultation

Consulting consists of a complex array of skills that must be appropriately matched to a given problem setting for certain desired outcomes to be achieved. Such matching involves a complex set of decisions on the part of the consultant. A basis for the consultant's decision-making process has been proposed by Gallesch (1974). She contends that the decision as to which services will best serve client needs is crucial. Yet, explicit and truly discriminating choices are probably rare. The decision-making process used by the
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The way other members of the university community responded to the same situations. Using the model of managerial leadership and change of Blake and Mouton (1964) as a framework, the prevalent model with student personnel administrators was identified as the "team leader" style which has a strong collaborative and participative emphasis. The next most popular model identified was the "country club leader" style which emphasizes people relationships with a minimal emphasis on goal and task attainment. Arbes suggested that student personnel administrators may "fall back" to this style when the first does not work or they are under some type of pressure. His research did not examine the changes that might occur during the consulting relationship.

Clark (1975) suggested that although the collaborative approach has been advocated, there is evidence of success with other strategies. However, the "core problem," as he points out, appears to hinge upon the identification of the conditions under which different strategies (or models) are appropriate. The work of Dunn and Swierczek (1977) in the area of grounded theory in planned change has provided empirical support for the collaborative model, but they also noted that "the exclusive effectiveness" of such a model is still in doubt.

Conclusions and Directions

A number of consulting models exist that provide a basis for classifying and describing the consulting behavior of the IDr. Whether the IDr holds a preference for any of these models is not known. It has also been established that the task environment in which the IDr operates is complex. Little research has been carried out to determine the aspects of this environment. Some preliminary evidence indicates that at least two dimensions comprise the task environment: system level and innovation type. It appears that variations in these dimensions may result in the differential selection of a consulting model (Price, 1976). Whether this behavior stems from either the framework of a general consulting model or in response to particular aspects of the task environment is not known.

Rutt (Note 2; 1980) used the framework discussed in this paper to examine the consultation styles of 83 IDRs throughout the country through the use of the Instructional Development Consultation Style Survey. This instrument employed the matrix in Figure 3 to compose six scenarios. The matrix in Figure 2 was used as the basis for writing the 12 responses (3 x 4) for each scenario. The following conclusions were reported which begin to shed light on the nature of consultation in instructional development:

1. The IDRs in this study equally favored the product, prescriptive, collaborative/process, and affiliative models.

2. The task environment influences the type of consulting model the IDr chose with the system level exhibiting slightly more influence than innovation type.
   a. When an instructional problem was at the curriculum-system level, and especially if it involved instructional strategy changes, the IDRs chose to employ the product model.
   b. When the instructional problem was at the unit-system level, and if it involved media augmentation, the IDRs in this study chose to employ the collaborative/process model.

3. The IDRs in this study chose to move from a product model orientation to a more collaborative/process model orientation in working with the client as the relationship progressed. This is somewhat moderated when the instructional problem was at the curriculum-system level.

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Implications

One dimension not "controlled" in the study reported above was that of the client dimension. The type of client could possibly influence the IDR's selection of a consultation model. Coscarelli, Stonewater, and Shrock (Note 3) have suggested a typology of client styles that may prove useful in studying this dimension. Until this dimension is examined, it is impossible to estimate the effect of the client on the consulting relationship.

It is important to note that the size of the project influenced the model selected by the IDR: At the higher level, the IDR thought it appropriate for the client to determine the problem, and at the unit level, the IDrs selected a model that would have them working as equals. The reason underlying the selection of a model that allows the client to determine the problem may, in part, be due to both a lack of experience and consulting skills for coping with projects of this scope. With projects at the unit level that involve media, the IDR may feel more comfortable with such projects and therefore are willing to become more assertive and establish a collaborative relationship with the client.

It is interesting to note that under no circumstances was the prescriptive model selected. It would seem that at certain times during the consulting relationship it would be appropriate to tell the client the best course of action. It is possible that this model is used but does not dominate during a phase of the relationship. Perhaps it is not used because of some feeling on the part of the IDrs that it is not the professional responsibility of the IDR to tell the client anything or, alternatively, do not feel professionally secure in doing so. One thing is abundantly clear: If IDrs are to improve their professional effectiveness, more work is needed to understand the nature and effects of the consulting relationship in instructional development.

References


Clark, P. Organizational design: A review of key problems. Administration and Society, 1975, 7, 213-256.


