The Project-Oriented Matrix and Instructional Development Project Management

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Abstract. Instructional developers create instructional systems by means of a collaborative process: the team approach. Academic organizations typically expect instructional developers to manage an interdisciplinary ID team with little formal authority or supervisory responsibility. The subject-matter specialists and technical specialists that work with instructional developers are assigned to projects by functional managers. Supervision of team members remains with functional managers; yet the developer is responsible for managing the individual’s contribution to the project. This ambiguous management system is typical in an organizational design called the project-oriented matrix. A project-oriented matrix is an organizational structure where technical specialists are supervised by functional managers, but are assigned to work on various projects, managed by different persons. This paper defines the project-oriented matrix and describes specific management strategies that instructional developers can use to solve common ID management problems.

Organizations have two simultaneous needs that are often at odds with each other: freedom and order. Freedom springs from intuition and leads to innovation. Order stems from intelligence and provides efficiency. (Davis & Lawrence, 1977)

Instructional development (ID) is an approach to solving instructional problems by means of an interdisciplinary team comprised of experts from various instructional and technical support areas within an educational organization. The goal of the ID team is to solve instructional problems within a project framework. The role of the instructional developer is to serve as technical expert on the application of instructional development and as project manager of the interdisciplinary team.

The purpose of this paper is to:
1. describe organizational factors that influence most ID projects and relate them to the features of the project-oriented matrix; and
2. list and explain specific matrix management strategies that instructional developers can use to solve common management problems.

Organization Designs

Functional Design

The organizational approach used by most educational institutions generally follows traditional forms of function and authority. People are grouped together according to their common expertise and function. The employees within these groups or departments recognize the authority of the manager or chairperson who has supervisory responsibility and controls resources. The manager has similar background and experience as the employees. The advantages of this traditional approach are obvious in terms of the organization of the skills and expertise of groups of specialists. The persons within the groupings are also provided with clear career paths. This type of approach works well when the institution expects the particular groups of specialists to perform their tasks independently (Galbraith, 1971). Thus, they are not dependent on other groups within the institution to contribute to their effort. This is usually the case for most of the instructional areas of an academic institution. The chemistry department is responsible for offering the chemistry courses, the history department is responsible for the history program, etc. Figure 1 is a typical organizational chart.

Project Design

An alternative organizational approach to the functional system is the product or project form of organization. It is commonly used by large, technical
The matrix structure is useful, theoretical, and practical system that has application to a wide variety of organizational settings. Instructional developers often encounter projects that exhibit the primary characteristics of a project-oriented matrix, even if the institution does not subscribe to that exact organizational design. By recognizing the ID situation as one that is similar to the matrix design, the developer can be better prepared to deal with the managerial and organizational issues that are inevitable.

**ID Project Management Issues**

**Divided Allegiance**

Issue. Greiner and Schein (1981) cite the issue of divided allegiance as a primary concern for the matrix manager. It is a particularly important problem for the instructional developer. The individuals assigned to an ID team are educated professionals who come to the team from a variety of high-skill disciplines. They see themselves as members of their professions first, and contributors to an ID team effort second. They judge themselves against their peers in other organizations. Their loyalty is to their work, not to a project or organization.

**Strategy.** The ID project manager needs to recognize that the total ID project is not nearly as interesting or important to the specialist as is the specific
area of the specialist’s work. It is important that the developer capitalize on the team members’ loyalties to their professions and provide them with the opportunity to perform the required ID tasks in a manner that will both enhance their professional standing and improve the final ID product.

For example, a television producer/director may have very little interest in the instructional objectives of a proposed ID project, but may be extremely interested in creating a series of television programs that could be aired on a community cable system. If the developer is willing to allow the producer/director to explore the opportunities for public distribution of the television product, the results will undoubtedly be positive. It is important to recognize that it is easy for the developer to overlook the professional needs of the team member in favor of a rigid outcome expectation. Flexibility in terms of allowing team members to maximize their contributions will usually enhance the degree to which team members support a project.

Another, but more difficult, strategy for divided allegiance is to work with functional managers of specialists to be certain that team members’ contributions to ID efforts are recognized through formal performance appraisals. Team members are traditionally evaluated by functional managers of like discipline. If an arrangement is made with the supervisors of team members to recognize a person’s contribution to a development project in the appraisal process, the specialists would probably consider project assignments in a more positive manner.

A means of allowing the team member to be active within his/her profession must be established and promoted by the ID project manager and the organization. Respect should be given to the professional needs and interests of the team member. Specialists must see that their contributions to an ID project yield both positive rewards to the organization and to each specialist’s career goals.

Authority and Responsibility Confusion Issue. Greiner and Schein (1981) discuss a major problem when managing a project using the matrix design: “Who is responsible for what?” ID project leaders rarely have complete control of the individual team members’ time. Team members usually work on a number of projects at the same time, with different project managers. Yet they still report to their functional supervisor and have assignments they must complete within their functional area. Within an ID team, a major problem is often encountered when a technical specialist requires a decision regarding a technical aspect of the ID project. Who decides—the functional manager or the project manager?

Strategies. When there is this type of problem on a project, it is often due to a “latent” matrix system (Davis and Laurence, 1978). The latent matrix is frequently encountered in ID project management and causes considerable confusion. People need to be told how the matrix-project management system works before and during the life of the project. People need to know that they are working on a project that utilizes a matrix organizational design. The rationale for the matrix system needs to be traditional organizational structure for ID projects.
Power or control, to create a form of "democracy" within the project. People, striving to have their point-of-view accepted, often will campaign for their ideas within the group, seeking additional support. If given the opportunity, they will press for group consensus in order to force a decision on the project manager. Obviously, group process is the great strength of instructional development. How can the developer control the team so that the project moves along according to the collective direction of the team, without relinquishing control?

Strategies. The instructional developer can do several things to create a distinction between group decision making and project management. The best way to insire that team members understand the decision making process is to explain the process at the start of the project. The explanation should be delivered by the functional managers prior to the team building stage. The decision-making process should be reinforced throughout the project by both the project managers and functional supervisors. When explaining decision making relationships, the managers should emphasize that the responsibility for getting decisions made and maintaining momentum rests with the project leader. However, each specialist should be given the autonomy to determine the most effective/efficient activities for their area of specialization.

It is critical that project leaders make the best use of meeting time. A tone for meetings should be set at the start of the project and maintained. Agendas are a very effective way of controlling the time spent in meetings. Invite only those persons who need to be there. Encourage discussion during meetings. Promote an open exchange of ideas. A group leader should summarize and attempt to bring issues to closure. It is critical that the project leader does not default or relinquish the leadership position at the summary stage of discussion.

Conclusion

The existence of matrix characteristics in ID project management is inevitable. The two-boss situation surfaces very quickly during the team building stage of a project. The developer and the functional manager are the two bosses who share the technical specialist. The functional manager, due to resource and supervisory power, is usually the stronger partner. That is, the functional manager is given the power by the
organization; the instructional developer gains power as a result of applying technical and managerial expertise to completing the assigned tasks mandated by the organization and through the cooperation of functional managers.

To be successful, the developer must be able to gain managerial power and control over the team that is formed by the matrix structure. This power is gained through an understanding of the dynamics of the matrix system and through successfully motivating the creative and technical specialists that collaborate on a project.

References