

How Interdisciplinary Training Pays Off

the trained team is a winning team

D.M. Schrello

Remember the last time you saw a professional football team go all the way for a touchdown? How did they reach their goal playing against another capable, professional team determined to prevent that score? The answer almost certainly was — *better execution!*

We'll discuss how remarkably this factor applies to business a little later. Meanwhile, let's develop the football side of the analogy.

Most probably, the offensive team called a good play at the appropriate time and then executed its offense better than the defensive team executed its defense.

Even if the play is not "the right play at the right time," better execution produces first downs which keep the offensive team marching toward the goal. The well-trained football team keeps possession of

the ball and makes the gains which finally result in the net yards sufficient to reach the goal line. And when you watch carefully, you can see good execution. Execution is the reason the plays work: precision blocking, split-second timing, faultless ball handling.

Poor execution, on the other hand, is why the plays don't work: missed blocks, backfield confusion, dropped balls. The losses from these errors make the strongest argument for better execution.

Now how does a winning team achieve this better execution? First, the team acquires the best talent it can find. To be chosen for the team, players must have all of the skills required for playing their positions and be very good at executing them. In short, they must know their own disciplines: line-

man, runner, receiver, kicker, quarterback.

Next, the team practices these football disciplines together — intensively. The practice sessions are held repeatedly so that every player knows each play, knows his assignments, and knows what his teammates are going to do.

The objective in football practice is to get all the disciplines working together with an intense desire to win the next game — as a team.

This training among the football disciplines, which we refer to as interdisciplinary training, goes on continuously. It doesn't stop until the end of the season.

This way, the football team continues to strive for better execution. It knows competition is doing the same thing, so interdisciplinary training becomes a way of life.

So, having examined football as a popular example of interdisciplinary training, we turn to business. We ask, "How can interdisciplinary training pay off for business?"

"Business Contest"

To answer, we can start with the proposition that every company is in a business contest which never stops.

In the business contest, a company's success is largely dependent on the quality of the daily execution of its diverse skills. There is the constant challenge of coordinating business disciplines such as research, marketing, production, distribution and finance. Further, this challenge is compounded by changing market and economic conditions, new personnel, retirements, promotions and new technology. Yet at all times the company must maintain strong skills in each of its disciplines. But more than that, it must cause all of these disciplines to execute well together. That is, it must achieve a high level of *team* performance.

To achieve a high level of business team performance, interdisciplinary training is a necessity. Getting recognition of this need from the separate disciplines, each of which is immersed in its own responsibilities, is often a problem. But it is usually solved when top management clearly backs a program of interdisciplinary training.

Frequently, there is another problem, one that is easily forgotten in the intensity of the business contest. The members of the various disciplines spend so much time in their specialties that when they must come together to function as a team, they don't know how. Obviously, situations like this can be enormously costly to a company.

Interdisciplinary business training solves this problem by training people from different disciplines together as teams. They practice in a structured, controlled

environment, the kind of interactions they must have to be truly effective. Interdisciplinary training of this type has scored remarkable successes.

Space Program

One of the most highly publicized and successful examples of such interdisciplinary training is the space program. In that indescribably complex program, hundreds of different disciplines are required to work together smoothly to get astronauts into space and safely returned. The moon walks would not have been possible if rigid interdisciplinary training had not taken place. But, as a result of the intensive training, space program interdisciplinary teams recorded unparalleled successes.

So, as in the space program and in football, the payoff of interdisciplinary training for business lies in the achievement of greater team effectiveness.

More specifically, interdisciplinary training helps a company get increased performance from its business team in three areas:

- 1) Better application of skills
- 2) More emotional commitment
- 3) Greater organizational effectiveness

A good way to see how performance can increase in these areas is to consider the teamwork required in new product decisions.

Regarding *application of skills*, take a typical scenario. The research and marketing people have decided what they want to do and now a financial analysis is needed. Top management won't make a decision until profits and return on investment are known.

In the usual case, the financial representative is brought in at the tail end, not knowing much about the product, its intended market, or what marketing and research are trying to do with it. So, the financial representative computes the numbers and sends them back to marketing and engineering.

But what has been accomplished? The financial representative doesn't know what lies behind the information he or she was given, and the marketer and researcher don't know what assumptions the finance representative had to make in order to compute the numbers. All the information is there, but no one really knows what it means.

Interdisciplinary training would have prevented this situation because it would have required that the finance representative be brought into the team at the beginning so he or she could suggest financial options. For example the rep might say, "Well, instead of buying that building, we ought to lease it." The rep can do this because he or she understands how the numbers fit into the company's profitability equations. And, if the rep understands the significance of the data given, he or she can give advice and interpretation on how to get better results for the new product. By this means, the financial representative's skill can be directly applied to the development of the financial plan for the new product from the earliest stage.

A similar thing can happen between research and marketing. The researchers get enamored with their new technology and think up a "great new application." Without some marketing analysis, a lot of time and money could be lost developing something nobody wants to buy. However, if research personnel can simply sit down with marketing and ask, "Can we sell it?", marketing gets a chance to understand the opportunity. Marketing personnel can apply marketing skills to help evolve from the new technology a product which is really needed.

Emotional Commitment

An *emotional commitment* to a new idea is necessary by all the team members. Consider the financial representative again. The

numbers come back to him or her for the Nth time. Suppose the numbers are different from what is expected? If the financial rep believes in the effort, he or she will put out the extra energy to ask, "What's changed?", rather than merely grinding out financial numbers again. The financial rep will do this if he or she is involved and motivated to have the new product be a success.

But it's in the third area, *organizational effectiveness*, that the benefits of interdisciplinary training can be so strongly demonstrated.

As one large company president recently put it, "I believe in this interdisciplinary training, all right! I know we've got to work as a team. What I want is to get my departments talking to each other."

This is a clear statement of a fundamental problem which all companies have in some degree. There are communication roadblocks which are built up among the disciplines. Sometimes a roadblock occurs because of antagonisms and rivalries. Other times it occurs because of ignorance — one group simply does not know the functions and responsibilities of the other group.

Frequently, these roadblocks build up simply because the individual business disciplines are concentrating so heavily on their own areas of responsibility. Each of the disciplines makes its own unique contribution to the success of the business. Each has a body of knowledge and professional skills it must keep up with. When the people in these business disciplines are working in their own area of competence (for which they have been extensively trained) they are confident and creative. They communicate well with their associates.

No Common Objectives

But in many of the problems that face companies today — fast changing markets, new technolo-

gies, threats of competition, new government regulations — decisions have to be made which require many disciplines to work together. It's a situation in which they don't feel comfortable. They don't have practice at focusing on common objectives.

This happens because so much time has been spent in adversary positions wrangling about critical items such as design releases, shipments, new orders, backlog and a host of other operational issues.

A problem that demands effective interaction among the disciplines is the *major opportunity decision* such as: building a new plant, developing or acquiring a new product, shifting business strategy or the elimination of a product line. Often, such major opportunity decisions require inputs from marketing, finance, production, research, purchasing, administration, legal and other even more specialized departments.

A group representing this many disciplines, though essential, can be costly and unproductive if the members are not trained to work together in a commonly understood information-gathering and decision-making process.

Workshop Environment

We have found that the way to effective interaction is to place the individuals representing the different disciplines in a *workshop environment* where they practice working as multidisciplinary teams. The workshop provides an opportunity to present a structured approach to practicing *interdisciplinary decision-making*.

An effective workshop of this type begins with a case study to illustrate the methodology of interdisciplinary decision-making and then moves on rapidly to applying the methodology to the participants' own real-life cases.

One experience has shown that the classical case study approach should be avoided in interdisci-

plinary training because it is artificial in that all the information required for analysis and decision-making is provided to each participant. Things do not work out that way in real business situations! What usually happens is much of the needed information is not readily available. Often in the real-life case, the most difficult part of the decision-making process is *getting the information*.

So, our interdisciplinary training workshop focuses directly on the problem of getting the information needed to make current real-life decisions — results a company can use immediately. To be concrete, the workshop concentrates on a carefully developed and generalized decision-making methodology for product evaluation and planning. The interdisciplinary training team practices applying this methodology to the real-life product decisions, marketing decisions or other types of business decisions they face in their own organization.

The workshop's decision-making methodology poses three fundamental questions for any business opportunity:

- 1) Is it real?
- 2) Can you win?
- 3) Is it worth it?

From these three fundamental questions, 20 independent but all-inclusive questions are developed. These questions are referred to as the 20 "*Business Decision Factors*." Then, a thorough technique is presented for answering these questions. To accomplish this, the technique provides a method of "tailoring" the 20 questions to a more detailed level referred to as "*considerations*."

These "considerations" directly identify the facts required for the team's specific decision. The "tailoring" step assures that some vital consideration isn't overlooked in the team's analysis.

Once the workshop team agrees on the questions to be asked it be-



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comes evident that the responsibilities for getting answers to the questions can be delegated clearly and definitely. By mutual agreement, the questions are then delegated to the members on the basis of who has the best information or skills to answer the question. Next, a complete process for collecting, "nuggetizing," evaluating and presenting the information is analyzed and practiced.

Scoring Rationale

The process culminates in a human-oriented "scoring rationale" in which a system of plus, zero, and minus weightings is used to pinpoint the factors which most seriously influence the decision. This "tip of the iceberg" effect simplifies the presentation of the critical factors. It avoids the tendency to make a decision on the basis of "one number." But at the same time, it preserves all of the data which underlie the critical

factors for any further review and analysis which may be needed. No "tracks" in the decision-making process are ever lost. And decisions get made faster.

But it should be stated that this decision-making methodology does not make the final decision. In fact, it does not attempt to do that. What the methodology does do is this:

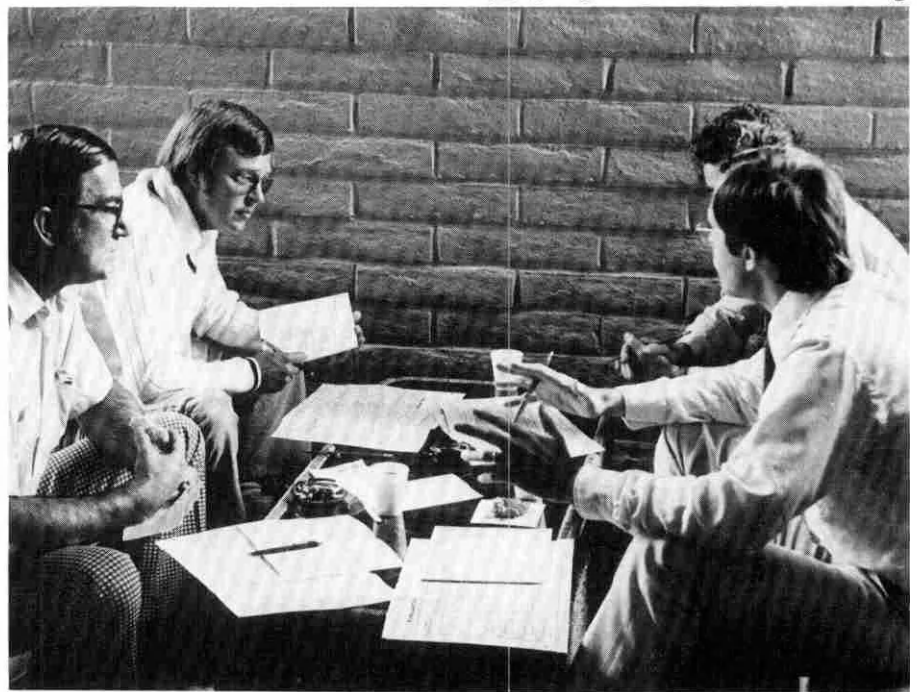
1) Pinpoints the critical decision that must be made — and lays out the major alternatives open to the company.

2) Assures all of the "right" questions are asked about the decision, and that nothing essential is missed in the process.

3) Organizes and summarizes the information in a form convenient for managers to analyze.

4) Provides a rational basis for making the decision and implementing it.

The interdisciplinary training gained by the members of the various business disciplines in applying this decision-making



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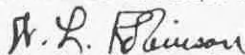
—Training director
"Results of the program have been impressive—in terms of both cost reduction and personal development."

—Training director

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W. L. Robinson, Vice President
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methodology to real problems currently facing the company produces some remarkable results.

Organizational Benefits

The organizational benefits are found in faster decision-making the leader does before and after the actual training session, as well as his or her role in actually conducting the workshop. Beforehand, the leader selects the right people for interdisciplinary training; those who must work together as a team. The leader can draw upon company experience to make sure these teams select the most pertinent examples to make the workshop real to them. After the workshop, the leader follows up to assure the techniques are being used and documents the results of the interdisciplinary training so that the dollar impact of the training can be objectively evaluated.

For the training director, the interdisciplinary training workshop licensing program provides an opportunity to train more people for less cost. And because the program is under company control, it is applicable, repeatable and transferable. All of this makes licensing of the interdisciplinary training workshop an attractive means of augmenting a company's in-house training program.

The licensed workshop leader in the interdisciplinary training workshop is the organizational "bridge" who gives to life the program within the company, by what with less effort and elimination of interdisciplinary friction. Moreover, better execution results from the team having practiced a commonly accepted methodology and having gained confidence in their ability to "win" together.

However, in the long run, these benefits need reinforcement. That is why we have started licensing the interdisciplinary training to companies. This allows company training directors to adapt the workshop specifically to their com-

pany's needs. A capable individual from the company is given an intensive course in the decision-making methodology, teaching techniques and workshop planning. The workshop leader then conducts interdisciplinary training workshops at company locations as often as needed using the materials we provide.

The payoff of interdisciplinary training for business is this: Greater organizational effectiveness is gained because the business disciplines have deliberately trained to achieve better execution in their interdisciplinary interactions as a team. As with the football team and the space program, the members of the various business disciplines begin to take pride in working and winning together. For the company, this means enhanced team effectiveness and increased profits.

One of our interdisciplinary training workshop participants put it this way: "Now we've got a decision-making system we can agree on. We practiced the system, and it doesn't miss anything. We know all the questions that go into making the total decision so we can slice up the pie easily. I know what answers I'm assigned to get, and I don't have to worry about the others. I know what information they have to produce, and I'm sure they can do it."

"And we've got a simple way to fit the answers back together to make sense. Besides that, we've got a good format for presenting all the decision factors when we walk into management. We never had that before."

"The best thing of all is we can use the same system every time."

D.M. (Don) Schrello has been in the field of planning for the last 20 years and has held senior management positions in many fields. His activities have resulted in the development of a unique and proprietary product and marketing decision-making process. He holds the Ph.D. from Ohio State University.