

## Close the Deal and Deliver the System: Sales Training for IS Developers



**ABSTRACT:** The communication gap between IS developers and end users poses a key problem in IS development efforts. While a variety of tactics have been suggested to bring developers and users together to enhance communication and create a positive impact on system development efforts, the gap still remains. This paper proposes the implementation of an IS developer training program based on the fundamental principles of sales and sales training programs. The sales model is compared to models of change which closely represent the IS implementation process. Parallels are drawn between the roles of the IS developer and the sales agent, and the roles of the user and the sales customer. The sales training program is adapted to the environment of the IS developer, and recommendations are offered for the implementation of the program. Potential impacts of the training program for IS development efforts are also discussed.

**KEYWORDS:** *IS Training, Sales Training, IS Developer/User Relations*

### INTRODUCTION

The communication gap between information system (IS) developers and end users is frequently cited as a key problem in IS development efforts (Joshi, 1992; Murray & Willmott, 1991; Franz & Robey, 1984; Kling & Scacchi, 1982; Bostrom & Heinen, 1977). Developers are charged with having inadequate knowledge of business operations, while users are accused of having inadequate understanding of technology and its potential business use (Nelson, 1991). Relations between developers and users also may be strained by differences in power and influence between the groups (Smith, 1989; Markus, 1983). Recently, competitive pressures and the emerging role of information technology as an enabler of corporate change have led to an increasing demand for IS professionals to get in

touch with business problems and become more responsive to user requests. As a result, technical skills alone are no longer adequate. Many companies are demanding that IS professionals at all levels enhance their "soft" business skills (Davis, 1993).

A variety of approaches and tactics have been suggested to bring developers and users together in an attempt to bridge the communication gap and improve system development efforts. Nelson (1991) supports training and education programs that foster the exchange of information and increase understanding between the two groups. These programs may include group discussions, exchange of personnel between functional areas, or cross-functional development teams. However, awareness and understanding of differences do

not necessarily support the development of new values and skills which will facilitate communication and enhance the effectiveness of ongoing system development efforts.

Recognizing the critical role of user participation in the system development process, Bock and Joyner (1992) support a participative IS design approach that brings users and developer together in appropriately defined roles. While this technique attempts to leverage the skills of both parties in an effort to improve development projects, it does not address the communication difficulties experienced within project teams. Joshi (1992) offers a detailed discussion of interpersonal skills for the development of cooperative user-analyst relationships. The skill set is based on persuasion tactics, including friendliness, bargaining, reason, assertive-

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ness, appeal to higher authority, and coalition. The work falls short of describing how IS professionals might acquire the desired skill set.

This paper presents a communication and training model for developer and user interactions based on techniques borrowed from sales models and sales training programs. Following a discussion of IS development as a change process and the role of the IS developer as change agent, the sales model is developed and compared to several popular change models. The components of a sales-based training program for IS developers are identified. The paper concludes with a brief discussion of the potential impacts for the sales training approach on IS development efforts and organizations.

### IS DEVELOPER: CHANGE MANAGER OR SALES AGENT?

The role of the IS developer is one of choice: a technician or a manager of change (Ginzberg, 1979). As a technician, the role of the IS developer focuses on solving the immediate problem of the user and providing a "quick fix" as opposed to developing an integrated solution to a business problem. However, as a manager of change the IS developer moves beyond the role of technician. The manager of change views the user's problem as a stepping stone to the development of an integrated system. He/she takes responsibility for coordinating the complex technical, people, and organizational factors involved in system implementation.

An organizational philosophy that casts the IS developer as the manager of change creates an environment where the user is a customer of the IS developer; that is, to fully ensure success (user satisfaction) of the system, the user's needs, wants, requirements, and business, must be fully understood. The IS developer is now **dependent** on the user for his/her performance success. This relation-

ship between developer and user is very similar to the relationship between a sales agent and the customer. To succeed in sales, a sales agent must correctly identify the needs of the customer and present the benefits of a product to the customer to close a sale. A level of mutual understanding is required by both parties to reach an agreement, and to fully satisfy the customer.

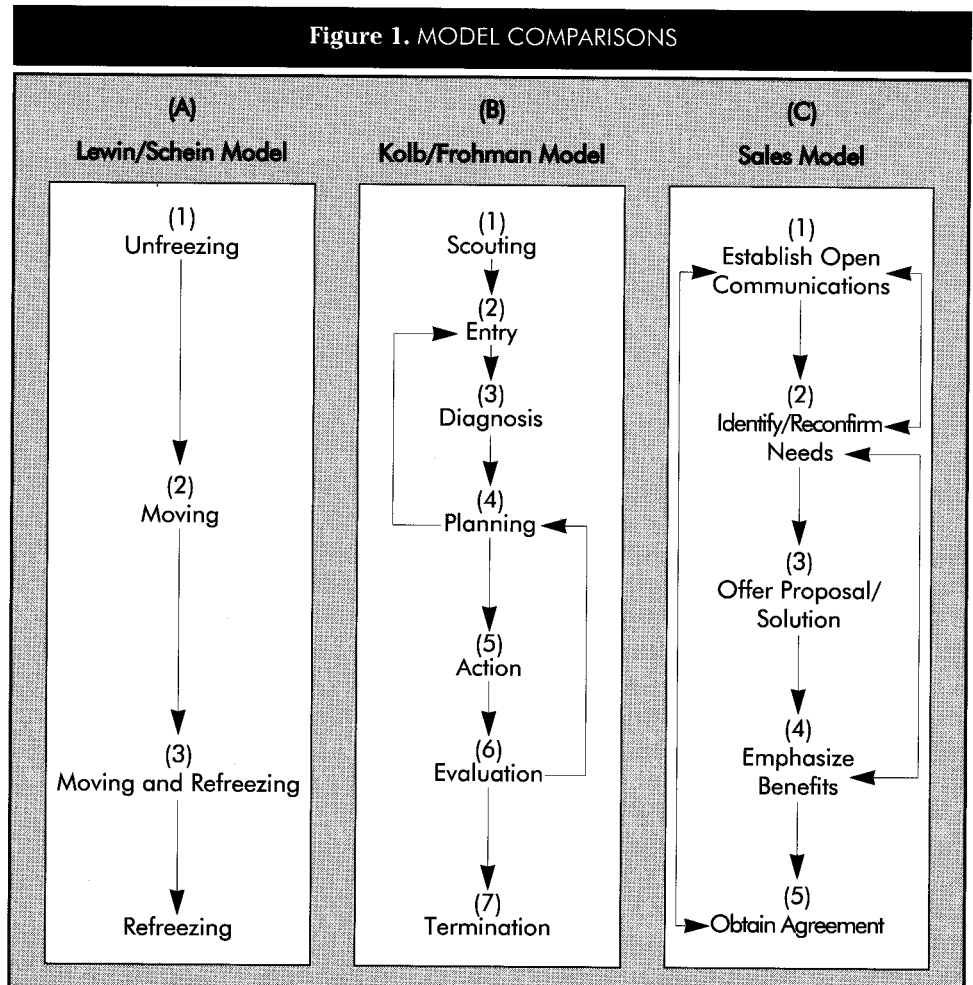
### CHANGE MODEL VS. SALES MODEL

Ginzberg's (1979) research into the implementation process develops and supports the characterization of the implementation process as a process of change. The Kolb and Frohman model, anchored to Lewin and Schein's view of change, forms the basis for the characterization (Kolb &

Frohman, 1970). Lewin and Schein discuss change in terms of a three stage process: Unfreezing, Moving and Refreezing. The three stage process is illustrated in Figure 1(A). Unfreezing consists of a set of actions and processes that prepare the customer for change. Moving is making a change in existing behaviors or processes, and Refreezing is embedding the change into the organization.

Kolb and Frohman (1970) operationalized this theory for the consultation process, and expanded it to seven stages as depicted in Figure 1(B). Ginzberg (1979) parallels the implementation process with the Kolb and Frohman view of change, and contends that IS developers should begin to view themselves as managers of change.

Figure 1. MODEL COMPARISONS



Many similarities exist between the Kolb and Frohman model and the Sales Model shown in Figure 1(C). Kolb and Frohman's **Scouting** and **Entry** phases correspond to the **Establish Open Communications** phase of the Sales Model. These phases are concerned with the initial development of a relationship between the client and consultant, or sales agent and customer, and include an assessment of each other's needs and abilities. The development of the initial statement of problems, goals and objectives, and the development of mutual commitment and trust typically occur at this time.

Kolb and Frohman's **Entry** and **Diagnosis** phases focus on establishing a "felt need" for change, gathering data to define client's problems and goals, and assessing available resources. This correlates with the **Identify and/or Reconfirm Needs** stage in the Sales Model.

The **Planning** phase of Kolb and Frohman's model is closely paralleled by the **Offer Proposal/Solution** and **Emphasize Benefits** stages of the Sales Model. The focus is on examining alternatives, potential impacts on the organization, and developing an action plan.

The **Action**, **Evaluation** and **Termination** phases of Kolb and Frohman's model are concerned with defining what the change will be and putting it into action, and institutionalizing the change in the organization. These phases are closely aligned with the **Obtain Agreement** in the Sales Model.

The Kolb and Frohman model identifies specific issues at each phase which must be resolved before the process can continue (Ginzberg, 1979; Kolb & Frohman, 1970). These issues involve the need for continual review with the client in light of diagnosis and planning activities (the loop from **Planning** to **Entry** in Figure 1(B)), and the need for evaluation of previous steps to make appropriate modifications (the loop from

**Evaluation** to **Planning** in Figure 1(B)). These feedback loops in the Kolb and Frohman model correspond to check points in the Sales Model. The check points at each phase ensure that the goals of the previous step have been accomplished. If a check-point reveals that a goal has been left unmet, the previous step must be revisited. The purpose of the check points is to ensure that the sales agent and the customer have a full understanding of what has been communicated, and that the information gathered is accurate. Check points also greatly simplify the "close" (**Obtain Agreement** stage), providing the salesperson has reached agreements with the customer at each check point throughout the call.

To summarize, many similarities and parallels exist between the Kolb and Frohman model and the Sales Model shown in Figure 1. These commonalities suggest that sales techniques and sales training would be valuable to the IS developer.

## SALES TRAINING FOR IS DEVELOPERS

Like the sales agent, the IS developer is required to have a special skill set to accomplish the goals of the system development effort and satisfy users. Table 1 provides a summary of the specific skills that are taught in sales training programs, and where these skills can support the IS developer in the system development life cycle (SDLC). Skills commonly taught in sales training programs include: questioning techniques, problem/need identification tasks, benefit identification and presentation skills, tactics for gaining commitment, overcoming objections, and listening techniques.

Training in questioning techniques focuses on the various modes of questioning: direct, reflective, or open-ended. The kind of information that can be expected from each type of question, and how and when the question should be presented are covered. Questioning skills are

Table 1. IS DEVELOPER SKILL REQUIREMENTS

SYSTEM DEVELOPMENT PHASE	SKILL REQUIREMENTS
REQUIREMENT DEFINITION	Questioning Techniques Problem/Needs Identification Benefit Identification Gaining Commitment Overcoming Objections Listening Skills Versatility
DESIGN	Benefit Presentation Gaining Commitment Overcoming Objections Versatility
CODING	(Technical Skills)
TESTING (Including Usability)	Problem/Need Identification Listening
IMPLEMENTATION	Benefit Presentation Overcoming Objections Listening Versatility
POST-IMPLEMENTATION	Listening Problem/Needs Identification

extremely useful to the IS developer during the requirements definition and testing phases of the SDLC.

The various tasks comprising the requirements definition phase also increase the need for skills in problem/needs identification. Problem/needs identification processes utilize questioning techniques and stress the importance of recognizing both personal and business needs. Personal needs which may hamper the communication processes during requirements definition and subsequent phases include ego needs and the need for recognition by superiors. Personal needs may be in conflict with business needs, and awareness of these conflicts may facilitate more effective completion of the system design and post-implementation follow-up phases of the SDLC.

For sales agents, benefit identification training includes the specification of customer "hot buttons", and the features of the product, service, idea, or system that push those buttons. The hot buttons are closely related to user needs, but are ranked somewhat higher by the user than by the system developer. User hot buttons must be identified in the requirements definition phase to allow IS developers to incorporate them into the design of the system. Training in benefits identification incorporates questioning techniques and listening skills.

Benefit presentation skills support the conversion of the features of the system into a benefit statement, and capitalize on the satisfaction of hot buttons. A benefit is presented clearly to express "What the feature means to YOU [customer]". Benefit presentation skills are useful for IS developers when completing the requirements definition phase or conducting walk-throughs during the system design phase. These skills are also particularly useful for performing implementation activities, such as user training sessions and system roll out.

Sales agents use specific question-

ing techniques and focus on key benefits in order to gain commitment from the customer. Gaining commitment from users during a system development effort is crucial when decisions regarding the scope of the project and the final system design are made. Skills and techniques for gaining commitment also are required at the end of each phase of the SDLC. At these "check points", the IS developer must gain commitment to the next stage of the project in order to continue development. In addition, the IS developer needs these skills to gain the commitment of top management to support the IS development project.

Another skill required of both sales agents and IS developers is in overcoming objections. Objections from customers are often viewed as "opportunities" in the sales arena. The sales philosophy states that if there is an objection, there is a need that the sales agent has not clearly identified and/or satisfied with a proposal. An objection is a signal that communication may have failed. This skill clearly comes into play at the requirements definition, design, and implementation phases of the SDLC.

Listening skills are an extremely powerful tool for helping both sales agents and IS developers identify needs, problems, and key benefits (or hot buttons) of customers and users. Listening well is also the strongest message that can be sent to a user that the developer cares about what the user is saying, and that user participation in the process is really important to the IS developer. This skill is critical throughout the SDLC, but most important in the requirements definition and implementation activities.

Finally, sales training programs frequently address the need of the sales agent to be versatile. The versatility concept involves changing communication patterns and content to adjust to the social style of the customer. IS

developer versatility is a useful skill in all phases of the SDLC. Versatility training teaches the developer to identify the social style of the user, and alter communication patterns to address the specific needs of each social style type.

### **IMPLEMENTING SALES TRAINING PROGRAMS FOR IS DEVELOPERS**

It is obvious that the skill set required for the IS developer as the manager of change goes well beyond the technical. Change agent skills are similar to those of sales agents. The change agent role demands skills that enhance developer/user communication, motivate users to become actively involved in the system development effort, facilitate the identification of user needs, allow developers to satisfy those needs through appropriate system solutions, and to "sell" the users on the benefits of the new system. Sales agents are taught these skills to accomplish their goals in the sales process. IS developers can be taught the same set of skills to accomplish their goals, namely achieving user-satisfaction, in the system development process.

Sales training programs offer a plethora of tools and techniques to increase communication skills, to increase the quality of information gathered, to gain commitment and mutual understanding, to bring problems and needs to the forefront, and to present solutions to those problems and needs in a convincing, non-threatening manner. The sales process focuses on keeping customers involved in identifying their own problems and needs. Most sales training programs use a sales model similar to that in Figure 1(C) (Learning International, 1983; Wisconsin Bell, 1992; American Cyanamid Corporation, 1983).

Questioning, listening, and needs identification training have already begun in the IS industry. However,

benefits identification/presentation, social styles/changing presentations accordingly, gaining commitment and objection handling training has not gained a foot-hold in IS training programs. The ideal situation would be to have a professional sales training company team up with a corporation who currently engages in development for internal customers. As a team, they would design a comprehensive training program which incorporates the techniques taught in sales training programs into the implementation model for a complete training program for IS developers. Ideally, the training would be conducted by an IS professional with extensive training and/or experi-

ence in sales, communications, or training program presentations. This would give additional credibility to the program if IS professionals were being taught by an IS professional. The training would be presented to all levels of the IS department so that upper managers can support and coach subordinates in their efforts. Evaluations and rewards may need to be modified to recognize the efforts and performance of IS developers in this new area. This would encourage the use of the techniques and the achievement of the goals of the training.

An outline of a training program for IS professionals based on the sales training model is depicted in Table 2.

The program covers the key skills discussed above. The outline and topics covered could be modified to support both industry and academic training needs.

## CONCLUSIONS

The implications of the sales model and the sales training program for IS development and implementation are numerous. The sales-based training approach offers an opportunity for IS professionals to develop a broader perspective of organizational issues and the user environment. IS developers would get to "know their customer" in terms of needs, attitudes, expectations, and benefits. Organizations would get a staff of IS professionals that can "sell" to top management and communicate more effectively with members at all organizational levels. Narrowing the communication gap between developers and users will enhance user participation in the development process and foster cooperation among management, users, and developers. Ultimately the reach of development teams will be extended and the outcome of development efforts will improve.

**Table 2. IS DEVELOPER TRAINING OUTLINE**

### Introduction to Integrate Sales Relationship into IS Development

- Users = Customers
- Customers have needs and hot buttons

### Planning for IS Development Process

- Who is(are) the customer(s)?
- Known customer characteristics (political structure, attitudes, key individuals, etc.)
- Anticipated objections

### Questioning Techniques for IS Developer

- Open Ended: Less control; solicits more participation and information from customer.
- Close Ended: More control; limits information gained (aka: Direct Questions)
- Reflective: Assures understanding

### Listening Skills for IS Developer

- Be ready to listen.
- Focus on customer (non-verbal and verbal communication)
- Hear what is being said AND listen to the message.

### Needs Identification During IS Development Process

- Listen for key phrases: "We need..." "I wish..." "We are interested in..."

### Benefits Identification and Presentation Techniques for the IS Developer

- Need satisfaction; determine which features satisfy needs
- Benefit = Value of feature to the customer
- Feature  $\Rightarrow$  bridge  $\Rightarrow$  Benefit (bridge = "What this means to you...")

### Gaining User Commitment

- Ask! Ask for the commitment
- Watch for signs of readiness to commit (non-verbal and verbal)
- Summarize benefits, Create action plan
- Signoffs

### Overcoming User Objections

- Objections mean a need has not been satisfied or a misunderstanding exists
- Use questioning techniques to clarify or re-visit needs

### IS Developer Versatility

- Know yourself and your customer(s)
- Personality types (derived from level of responsiveness and assertiveness)

## AUTHORS' BIOGRAPHIES

Theresa Breunig-Silbernagel is an independent business analyst and a project leader at a life insurance company in Milwaukee, Wisconsin. Prior to pursuing her IS career, Theresa spent five years in sales/marketing in service-oriented sales organizations. This unique set of experiences has provided a foundation for her research and interest in user involvement and IS developer skill requirements in the system development process. Her own successes and experiences in IS have proven the value and need for "soft" skills and sales techniques in the IS arena. Theresa will receive her MS in Management Information Systems from the University of Wisconsin-Milwaukee in December, 1994.

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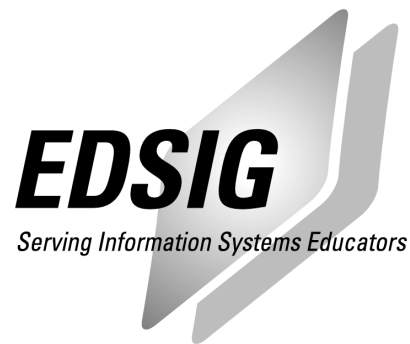
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ISSN 1055-3096