A study examined the impact of a communication training program on the productivity ratings and end-user satisfaction ratings of User Support Professionals (USPs). Subjects, 30 USPs whose training level qualified them to respond to problem solving calls received by a large centralized Help-desk facility located in the southwestern part of the United States, were randomly assigned to the experimental group or the control group. Three measures of success were collected both pre- and post-treatment. A two-day training session (focusing on listening, altercentrism, interaction management, composure, and expressiveness) served as the basis for the treatment. Results indicated a positive impact of the training program in terms of supervisory productivity ratings, productivity merit ratings, and satisfaction of users. While these results are not likely to startle anyone in the communication discipline, those in the information systems discipline were unwilling to give the idea of an interdisciplinary study of a communication training program's effectiveness more than a "passing glance." Although communication educators and professionals realize that effective communication skills are necessary to increased productivity and satisfaction, that knowledge is not necessarily widespread. (Contains nine references and three tables of data.) (RS)
Customer Satisfaction: Communication Training and the Help-desk Hot-line

Presented at the annual conference of the National Communication Association
Chicago, November 1997

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The consumer metaphor has pervaded American culture in recent years. Businesses, non-profit organizations, and even academic administrations emphasize the need to satisfy the customer. Help-lines and customer support services are no longer the exception, they are the rule. My recent purchase of a new printer resulted in my "cry for help" to that company's support service. The support staff member led me through my problem in a very empathetic, careful, and successful manner. In addition to support for the external consumer, there is also support intraorganizationally. With the proliferation of computer usage in organizations by users of various skill levels, the need for user support within the organization has increased. Hence, a growing number of "consumers" exist within organizational structures. In order to keep the structure strong and productive, the help-desk has emerged as a key mechanism to provide that support via telephone interaction. The communication skills and behavior of the User Support Professional (USP) are central to the effectiveness of that support.

In an effort to identify the relationships between the USP's communication skills and productivity, Robert Breshears, a doctoral candidate at the University of North Texas, approached Karin McCallum, Marilyn Woods, and me, Charla Markham Shaw, to conduct the communication training program to be used in his study of USPs in a large retail organization's Help-desk. According to Breshears, there had been no previous empirical research in the organizational computing [Information Systems (IS)] Help-desk /telephone environment measuring impact of communication skills and behavior on productivity and
consumer satisfaction. My colleagues and I agreed to develop a training program that would act as the treatment in his experiment. It is this training and the resulting effects that will be discussed in the present essay.

The Help-desk

The Help-desk resides within a unique communication environment (Muns, 1991). The users or "consumers" are usually geographically dispersed, while the USP is centrally located in a communication center in order to meet organizational needs. Interactions between users and USPs generally occur over the telephone. In Breshears study, the site was a large centralized Help-desk facility located in the Southwestern part of the United States. The organization is a large retail merchandiser. The Help-desk's customers are the management and staff of its stores, as all cash registers and other equipment are now computerized. The 51 USPs serve more than 1,600 stores nationwide. Labeled the "Hot-line" by the organization, it operates 16 hours a day (6:00 am through 10:00 PM) Monday through Saturday, and 8 hours (10:00 am through 6:00 PM) on Sunday.

Communication Competence

Breshears proposed that several relationships may exist between the communication behavior of USPs and their success on the job. He constructed the concept of communication competence based on Spitzberg's (1993) model. Specifically, Breshear identified five concepts to be covered in the training: (1) listening, (2) altercentrism, (3) interaction management, (4) composure, and (5) expressiveness.

The first concept included in the training was listening. As a result of the integral nature of listening to the Help-desk environment, Breshears felt that it was an important concept to include. Hopper (1992) identified listening as one of the key communication
skills involved in the telephone environment. An already frustrated user does not want to feel as though he/she is not being listened to as time and time again the user must repeat his/her problem.

Altercentrism was the second concept integrated into the training program. Spitzberg (1990) defines altercentrism, or other-orientation, as a "tendency to be attentive to, involved with, and responding to the other person(s) in conversation" (p. 42). Spitzberg (1993) and Spitzberg and Cupach (1989) found a relationship between altercentrism and communication competence. According to Spitzberg (1990), "if you want the other person to enjoy and be satisfied with your conversations, you need to be perceived as altercentric in your communication style (p. 43).

Interaction management, identified by Spitzberg as a synonym for communication coordination, was the third concept incorporated into the program. Interaction management is "an ability to engage in and maintain smooth turn-taking by avoiding discordant or abnormal pauses and responses" (Spitzberg, 1990, p. 42). This is an especially interesting concept in light of the present study. The USPs have to develop strong paralanguage and language skills to manage the conversation effectively, as visual nonverbals are unavailable to them.

The fourth concept included was composure. Spitzberg (1990) defines composure as relaxation (a lack of anxiety) and confidence (assertiveness and forcefulness). He goes on to point out, however, that one can behave in a relaxed and confident manner and still be very anxious. Hence, composure is a measure of external behaviors, not internal states.

Finally, expressiveness was the last concept incorporated into the training program. Spitzberg (1990) identifies expressiveness as a "display of meaningful variability
in one’s communication behavior and an ability to communicate one’s feelings” (p. 43).

Expressiveness can be displayed via nonverbal kinesic and paralinguistic behaviors.

Given the unique communication environment of the Help-desk, Breshears set out to discover whether communication training would impact the communication behavior of USPs and, in turn, result in increased job success. Breshears offered the following hypotheses:

H1: Information System User Support Professionals (USPs) who receive training in effective communication behavior will have higher productivity ratings than USPs who do not receive such training.

H2: Information System User Support Professionals (USPs) who receive training in effective communication behavior will have higher end-user satisfaction ratings than USPs who do not receive such training.

Methodology

Subjects

The population for this study was 51 USPs, either temporary or permanent employees, whose training level qualified them to respond to problem-solving calls over the Hot-line phones. Of these 51, 21 did not participate as the result of workload or personal/medical reasons. The final sample consisted of 30 USPs, 16 randomly assigned to the experimental group and 14 to the control group. Demographic information was collected from study participants:

Experimental Group

<table>
<thead>
<tr>
<th>Age</th>
<th>32.6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time w/ company</td>
<td>4.7 years</td>
</tr>
<tr>
<td>Time w/ Hot-line</td>
<td>2.2 years</td>
</tr>
<tr>
<td>Time in position</td>
<td>2.9 years</td>
</tr>
</tbody>
</table>

Control Group

<table>
<thead>
<tr>
<th>Age</th>
<th>31.7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time w/ company</td>
<td>4.9 years</td>
</tr>
<tr>
<td>Time w/ Hot-line</td>
<td>2.4 years</td>
</tr>
<tr>
<td>Time in position</td>
<td>3.2 years</td>
</tr>
</tbody>
</table>
All subjects were informed that the training program would be set up in two parts, one month apart, due to workload and scheduling problems. The training was described in this manner to insure that the subjects of both the control and experimental groups would perceive that the groups had been assigned in this way based on schedule and workload issues rather than for experimental reasons.

**Pre-treatment/Post-treatment**

In order to measure the success of the treatment, communication training, three measures of success were collected both pre- and post-treatment. The first measure, the Hot-line Performance Questionnaire (HPQ), is a 27 item questionnaire that employs a 7 point Likert scale. The HPQ was developed for this study based on user satisfaction research by Bailey and Pearson (1983) and Doll and Torkzedah (1988), and communication behavior research by Spitzberg and Hurt (1987). In the present study, the Hot-line computer system identified closed incidents each day which met the following criteria: 1) the incident required a minimum of 10 minutes on the telephone, 2) the problem was resolved, and 3) the problem was significant (i.e., the problem consisted of more than forwarding calls to hardware vendors, etc.). Based on the report of closed incidents, a packet was assembled and forwarded to the organizational users/consumers. The packet included user and incident identification information, directions, and the HPQ. Questionnaires were mailed to the users as soon as possible following the incidents' closure; confidentiality of responses was emphasized both in the cover letter and the directions for the completion of the HPQ. The return rate for the HPQ was 64%. The packets were mailed until a minimum of 30 useable questionnaires
were received for each USP participating in the study. This procedure was followed both pre- and post-treatment.

The second measure used both pre- and post-treatment was the Job Performance Questionnaire (JPQ). The JPQ is a 23 item instrument that employs a 5 point Likert scale. This questionnaire provides a general measure of Hot-line USP job performance as perceived by the USP’s direct supervisor. The JPQ is a subset of a longer instrument used by the organization; items removed related to long term goals and planning. The managers performing these evaluations were first-line supervisors. Their knowledge of the research project was that it was “a project to improve customer service.” They did not know that the study was oriented toward communication behavior.

The final measure employed in the pre- and post-treatment stages of the present study was the Job Performance Metrics (JPM). The JPM is a 20 item set of metrics collected by the Hot-line computer system as a regular part of the organization’s evaluation process. These 20 items were summarized into one performance measure, “Calls Per Hour.” These metrics were collected for the 30 days preceding and the 30 days following the treatment.

Treatment

A two day training session served as the basis for the treatment in the present study. The training consisted of five main sessions: listening, altercentrism, interaction management, composure, and expressiveness. Each session was divided into three parts: introduction, theory, and practice. A training manual was provided for each subject.

The first day of training began with an introductory session and a brief introduction from the organization’s Hot-line Director; he emphasized the importance of the training
program and his appreciation for the USPs participation. After an introduction to the communication process via the basic model, listening was the first major session of the day. Interaction management and altercentrism were also included in the first day's agenda. The second days topics were composure and expressiveness. The training session ended with a thorough overview of all five major concepts.

The approach to the development of this training session was very specific: apply basic communication concepts to the Hot-line situation. All five concepts were introduced in much the same manner that they would be presented in basic introductory communication courses. In addition, activities were created to exemplify the concepts and allow participants to actively engage in the learning process. For example, the expressiveness session began with participants listening to an audio-tape of a one-sided conversation; they were listening to a “hot-line USP” as he/she worked with an “end-user.” The trainer had asked four performance students to read a transcript of a Hot-line USP's responses in a particular manner: courteous/professional, condescending, bored, in a hurry. Training participants were then asked to journal brief impressions following each audio-taped segment. A discussion followed concerning the importance of vocal cues on the creation of image and delivery of message. The main concepts included in this session were articulation, pronunciation, and vocal variety. Several activities followed as the participants put the concepts into action. One activity required volunteers to “perform” a provided statement in a directed way while the rest of the participants guessed what the directions said. Other activities required participants to work in dyads, role-playing as USPs and users. During, and following, each main session, participants were directed to journal. For example, “List the strengths you discovered in your vocal expressiveness.
List the areas you need to work to improve” was a journal stimulus in the expressiveness session. The other sessions followed a similar format.

Results

The first hypothesis predicted that USPs who received communication training would have higher productivity ratings than USPs who did not receive the training. The two instruments used to measure productivity were the Job Performance Questionnaire (JPQ) and the Job Performance Metrics (JPM). Tables 1 and 2 illustrate the results for each of the two instruments employed. As predicted by the hypotheses, nonparametric P-values for the experimental group were significant.

Table 1
Job Performance Questionnaire Ratings

<table>
<thead>
<tr>
<th>Group</th>
<th>P-Value</th>
<th>Pre-Treatment Mean</th>
<th>Post-Treatment Mean</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>0.100</td>
<td>10.36</td>
<td>10.64</td>
<td>2.69%</td>
</tr>
<tr>
<td>Experiment</td>
<td>0.000*</td>
<td>10.94</td>
<td>12.81</td>
<td>14.63%</td>
</tr>
</tbody>
</table>

* = Significant results at α = .05

Table 2
Job Performance Metrics Ratings

<table>
<thead>
<tr>
<th>Group</th>
<th>P-Value</th>
<th>Pre-Treatment Mean</th>
<th>Post-Treatment Mean</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>0.490</td>
<td>4.13</td>
<td>4.11</td>
<td>-0.44%</td>
</tr>
<tr>
<td>Experiment</td>
<td>0.003*</td>
<td>4.10</td>
<td>4.82</td>
<td>14.87%</td>
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</tbody>
</table>

* = Significant results at α = .05
The second hypothesis tested the satisfaction construct using the user/consumer satisfaction variable. Hot-line user satisfaction was operationalized using the Hot-line Performance Questionnaire. The sum of all 30 incident responses for each USP was used as the unit of analysis. The results of the analysis are presented in Table 3. As predicted, ratings for USPs who participated in the training were significantly higher than the ratings of those who did not participate in the treatment.

Table 3
Hot-line Performance Questionnaire/User Satisfaction Ratings

<table>
<thead>
<tr>
<th>Group</th>
<th>P-Value</th>
<th>Pre-Treatment Mean</th>
<th>Post-Treatment Mean</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>0.802</td>
<td>535.40</td>
<td>539.10</td>
<td>0.69%</td>
</tr>
<tr>
<td>Experiment</td>
<td>0.000*</td>
<td>505.81</td>
<td>566.56</td>
<td>10.72%</td>
</tr>
</tbody>
</table>

*= Significant results at a = .05

Discussion

The present study hypothesized that exposure of USPs to communication effectiveness training would result in increased productivity and higher end-user satisfaction. The experimental sample within this field experiment did respond positively to the training provided. A significant positive impact was found in terms of supervisory productivity ratings, productivity metric ratings, and satisfaction of users.

Breshears identified two interesting patterns in the data regarding group performance means. The control group post-treatment means were not significantly different from the pre-treatment means. This suggests that the Hot-line environment was somewhat stable and did not seem to influence the performance measures. A second
pattern was identified regarding the experimental group post-treatment means. The experimental group post-treatment means showed significant change over the pre-treatment means. Given that the environment did not significantly influence a pattern of change in the control group, the consistently significant improvement of the experimental group suggests that the treatment could be responsible for the change.

Although these results are not likely to startle anyone in the Communication discipline, it is important to point out that this is somewhat ground-breaking in the world of Information Systems. When Breshears approached professionals and academics in IS concerning his interdisciplinary research idea, he found many were unwilling to give it more than a "passing glance." Breshears states, "The common response was that each discipline should proceed alone rather than mount a joint effort... this researcher found a reticence to seek an interdisciplinary solution to the problem of developing 'soft' skills for IS professionals" (1996, p. 181). Breshears goes on to explain that the literature surveyed identified a clear need for IS professionals to develop communication skills and to "make the development of effective communication behavior an endogenous variable to IS solutions" (p. 181). Hence, although it is clear to communication educators and professionals that effective communication skills are necessary to increased productivity and satisfaction (for both organizational members/employees and consumers), that knowledge is not necessarily widespread. Even those who believe that effective communication skills are essential often contend that they are somewhat innate or, if not innate, accomplished through the "doing." Even in the world of academe this philosophy colors the perception of our discipline. Recently a Liberal Arts committee, created to determine how computer competency, writing competency, and communication
competency should be evaluated and integrated into the curriculum, agreed that all students should complete Computer Science and English courses (or exemption testing), but did not agree with the Communication Department’s contention that all students should complete a basic communication course. The overall attitude was “Students do a presentation in our ____________ course. Everybody teaches communication. We don’t need a course requirement.” Knowing our own value is clearly not enough.
References


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<td>Charla L. Markham Shaw</td>
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<td>Corporate Source:</td>
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