Shaking Hands With a Computer: An Examination of Two Methods of Organizational Newcomer Orientation

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The current study investigated the effects of using a computer-based orientation program on organizational socialization and attitudinal outcomes. In a quasi-experimental field study, 261 newcomers either participated in a group, social-based orientation session or an individual, computer-based orientation session. Consistent with hypotheses, results indicated that participation in the computer-based orientation session led to lower levels of socialization in the more socially rich content areas, whereas the more information-based content areas were not affected. Levels of socialization mediated the effects of computer-based orientation on the more distal attitudinal outcomes of affective organizational commitment and job satisfaction. Computer-based orientation participation also negatively affected supervisor ratings of socialization. The results demonstrate the importance of newcomer orientations and socialization outcomes during organizational entry and that training method can be an important moderator of orientation practices.

Keywords: organizational socialization, employee orientation, computer-based training

Starting a job with a company is a complex, challenging, and stressful undertaking for new employees and organizations alike (Wanous & Reichers, 2000). Newcomers are affected by initial socialization experiences in ways that will affect their perceptions, behaviors, and attitudes for the rest of their time in an organization (Fisher, 1986). One of the main ways organizations attempt to help newcomers adjust to their new environment is through the use of orientation programs. Past research has shown that 64%–93% of all organizations use some form of new-employee orientation training to help new employees become comfortable with their new surroundings (Anderson, Cunningham-Snell, & Haigh, 1996; Louis, Posner, & Powell, 1983). Even though orientation programs are prevalent in organizations, relatively little research has been conducted on either their types or their effectiveness during the organizational entry process (Klein & Weaver, 2000; Wanous & Reichers, 2000). This study focused on the effects of two different methods of formal orientation programs, both focused on organizational-level socialization outcomes.

Employee Orientations as an Organizational Socialization Tactic

Socialization is a term used to describe a process in which an individual acquires the attitudes, behaviors, and knowledge needed to successfully participate as an organizational member (Van Maanen & Schein, 1979). It is an interactive process that involves both organizations trying to influence their members and employees trying to determine their acceptable role within an organization (Fisher, 1986; Reichers, 1987). Research has shown that attitudes and beliefs that newcomers develop toward their organization generally form very early and can remain relatively stable (Bauer & Green, 1994; Klein & Weaver, 2000; Ostroff & Kozlowski, 1992; Thomas & Anderson, 1998; Wanous, 1976), highlighting the importance of instilling positive attitudes early in an employee’s relationship with a company.

It is important to distinguish socialization from newcomer-orientation programs. Newcomer orientations are training programs that occur when an employee first begins employment with an organization. These programs are generally designed with the intention of helping newcomers adjust by introducing them to people in the organization, their roles within the organization, and the organization itself (Klein & Weaver, 2000). Orientation programs generally last 1–5 days and happen relatively shortly after a new employee is hired, with most programs occurring during the 1st week of employment (Wanous & Reichers, 2000). Orientation programs can be formal or informal (Louis et al., 1983), cover a variety of information (Anderson et al., 1996), and vary on the level (e.g., job, role, organization) at which they try to orient new employees to their new job and environment (Klein & Weaver, 2000). The current study investigated an orientation program designed with acculturation to the organization in mind as opposed to a program designed to train individuals on the tasks of their jobs.

The general consensus among researchers is that newcomer orientation is a training program that is designed to facilitate the process of socialization. Previous research on newcomer orientation programs has been limited in many ways, including a failure to delineate the conceptual domain of newcomer orientation (Wanous & Reichers, 2000), inconsistency in how to measure its effectiveness (Klein & Weaver, 2000), and a general lack of a
demonstration of its usefulness or effect on any organizational outcomes of interest (Louis et al., 1983; Ostroff & Kozlowski, 1992). Despite the scarcity of studies and what has been a relatively pessimistic view in the academic literature, newcomer orientation remains one of the most common forms of training in organizations (Bassi & Van Buren, 1998), and organizations are highlighted among their peers for doing what is perceived to be a good job of orienting their employees (Martinez, 1992; McGarrell, 1984). There is ample evidence that (a) employers believe that improving orientations will lead to increased productivity and reduced turnover, (b) employers spend a great deal of money on orientation sessions, and (c) there is wide variance in the types and goals of orientation programs even among Fortune 500 firms (Garvey, 2001).

Klein and Weaver (2001), in one of the most recent empirical examinations of newcomer orientations, showed that attendance at an organizational orientation program had a significant effect on the socialization outcomes that the orientation program was designed to affect. Their study was a significant improvement in newcomer orientation research in that they actually measured the learning of socialization content domains rather than simply measuring distal attitudinal outcomes. The absence of reliable measurement of direct criteria for socialization has been noted as one likely reason for a lack of results in previous studies (Chao, O’Leary-Kelly, Wolf, Klein, & Gardner, 1994; Jones, 1986; Ostroff & Kozlowski, 1992).

Chao et al. (1994) developed a measure of learning and assimilation for six key content areas of organizational socialization: organizational goals and values, history, politics, language, people, and performance proficiency. Although these are not all-inclusive dimensions of the things that newcomers will learn or adapt to during the socialization process, they represent a good subset of various content areas that have been studied in previous socialization research. The use of these dimensions and the Chao et al. measurement scale has been encouraged by socialization researchers and yet cautioned against at the same time because of their inappropriateness for every study (Bauer, Morrison, & Callister, 1998; Saks & Ashforth, 1997). Our use of the Chao et al. content dimensions of socialization was advantageous for two major reasons. First, these dimensions were particularly useful for the purposes of this study in that they provide a wide variety of outcomes that are expected to be differentially affected as a result of an organizational training program. Second, although the goals of orientations can differ dramatically between firms, it is important to learn which aspects of socialization organizational-level orientation programs can affect. Because Klein and Weaver (2000) also used them, the use of these dimension here will allow orientation researchers to start to build a common body of knowledge.

Technology, Training, and Newcomer Orientations

One major development in the training field has been the exponential growth of computer-based training (Bassi & Van Buren, 1999; Brown, 2001; Lawless & Brown, 1997). Computer-based training allows trainees to individualize their learning experience (Filipszak, 1996) and causes a shift in responsibility from the instructors of a training course to the individual actually going through the training exercise (Brown, 2001). Consequently, a number of companies have started to make the move from traditional group-based orientation sessions to computer-based sessions (Garvey, 2001). Some of this shift has likely been due to the fact that the capabilities of computer-based training have improved dramatically while the costs have decreased (Berry, 2000).

Although organizational newcomer orientations are similar in many ways to training programs, there are a number of differences (Wanous & Reichers, 2000). One of those differences is that organizational newcomer orientations are generally much more concerned with contextual–organizational factors than with task learning and performance. As evidenced by research on socialization content, newcomers require much more than information about how to perform their job well to adjust to their new organization.

Much emphasis in the training field has been on training design and matching the appropriate training method with the learning outcome of interest (Noe, 1999). Although there are varying dimensions of interactivity within computer-based training, the most popular form of this type of training is multimedia training, in which text, graphics, animation, audio, and video are used through the computer to facilitate learning (Gordon, 1996). Although there are many benefits to multimedia training, including the ability of trainees to move at their own pace (Zemke & Armstrong, 1996), there are a number of drawbacks, including its ineffectiveness for certain training content (Hequet, 1997). Although one might expect advances in computer-based training to be very useful for some aspects of newcomer orientations, there are many reasons to be hesitant to fully endorse computer-based orientation programs. Most common computer programs, such as those used for training purposes, are limited in social richness in terms of their ability to transmit information (Lombard & Ditton, 1997; Vinkatesh & Johnson, 2002). The social richness of a communication method can be seen as its capacity to disseminate social cues and reduce ambiguity in the message being sent. Matching the proper amount of social richness to the equivocality of the message is what makes for successful communication (Daft & Lengel, 1986) and, thereby, successful training.

To some degree, all six content areas of socialization have some aspects that are socially driven and some aspects that are information driven. However, some of the content dimensions are inherently more socially oriented than information oriented. Part of this socially oriented aspect revolves around the development and changing of attitudes rather than the simple acquisition of information. Two dimensions that would be seen as more socially oriented in nature would be people (the establishment of successful and satisfying relationships within the organization and feeling as though one is part of the group) and politics (information regarding both formal and informal power structures and the learning of how to work from within the organization’s culture). In addition, adapting to the organization’s goals and values would be more likely to come from personal interaction or viewing of organizational insiders (modeling) than from the simple presentation of what the company’s goals and values are. For instance, Chatman (1991) found that new employees adopted the values of their organization when they spent more time at social activities. However, the history of the organization (traditions, customs, and stories) can more easily be communicated as information and is not as reliant on social interaction to be acquired. Similarly, much of the language dimension (knowledge of the organization’s acronyms, slang, and jargon) is likely to be information driven rather than
requiring social cues to acquire the content. Assuming that the same information is covered in both types of orientation sessions, we would expect the use of a computer-based orientation program (as opposed to social-based orientation program) to have negative effects on the socialization dimensions that require more social interaction to be acquired (people, politics, organizational goals and values). At the same time, we would not expect changes in dimensions that are more information based (i.e., history and language) or are not covered during an organizational orientation program (i.e., performance proficiency).

Hypothesis 1: The level of socialization in the content areas of people, politics, and organizational goals and values will be lower for newcomers who have participated in a computer-based orientation program than for newcomers who have participated in a social-based orientation program.

Much of the socialization literature to date has focused on socialization tactics’ effects on more distal attitudinal outcomes such as organizational commitment and job satisfaction (Bauer et al., 1998; Saks & Ashforth, 1997). In fact, many studies have found effects between institutionalized socialization tactics and distal attitudinal outcomes (Allen & Meyer, 1990; Ashforth & Saks, 1996; Jones, 1986). Showing a relationship with these more well-grounded attitudes helps to show relevance and create a larger nomological network for more proximal socialization outcomes. On the basis of past research, we would expect to find positive relationships between socialization outcomes and job satisfaction and organizational commitment. Consequently, we would expect that participation in a computer-based orientation session would lead to lower levels of organizational commitment and overall job satisfaction. However, we would expect that the more proximal socialization outcomes, as a group, would mediate that relationship.

Hypothesis 2: The levels of organizational commitment and job satisfaction will be lower for newcomers who have participated in a computer-based orientation program than for newcomers who have participated in a social-based orientation program. These distal attitudinal effects will be mediated by the group of proximal socialization outcomes.

The actual outcomes of socialization should be clear not only in the internal attitudes of employees but also in their behavior and ability to fit with the organization. As such, we would expect that newcomers’ supervisors would recognize the difference in the degree of socialization between those who attended the social-based orientation as opposed to the computer-based orientation after a period of time with the organization. We would expect that attending the computer-based orientation would be negatively related to supervisor ratings of organizational goal and value socialization and the newcomer’s ability to understand their role within the organization. Just as we would not expect a relationship between orientation session and performance proficiency, we would not expect a relationship with supervisor ratings of task performance. As with distal attitudinal measures, we would expect that the more proximal socialization outcomes, as a group, would mediate those effects.

Hypothesis 3: Supervisor ratings of organizational goal and value socialization and role understanding will be lower for newcomers who have participated in a computer-based orientation program than for newcomers who have participated in a social-based orientation program. These effects will be mediated by the group of socialization outcomes.

Method

Participants

The study was conducted using a quasi-experimental cohort design with treatment partitioning and nonequivalent dependent variables (Cook & Campbell, 1979). Saks and Ashforth (1997) noted the “glaring lack of experimental or quasi-experimental studies” in the socialization field, which “seriously restricts the conclusions that can be drawn from socialization research” (p. 259), in their review of the socialization literature. The overall sample consisted of three groups. The first group (previous cohort; n = 92) was a cohort of new employees hired within a 4-month time frame prior to the development and use of the computer-based program. This initial group went through the established 1-week, social-based orientation program. The next two groups were hired during the following 7-month period. The second group (social-based orientation; n = 91) went through the same orientation process as the first group, the only difference between them being the time frame during which they were hired. The third group (computer-based orientation; n = 78) was hired during the same time frame as the second group, the only difference being that the third group went through the computer-based orientation program. Individuals were placed in the third group as a result of their starting employment during off-cycle hiring periods (social-based orientations were held only once a month after the development of the computer-based program). So, although this placement was not completely random, no specific criteria other than orientation availability dates determined placement in groups. Having a
cohort to establish a baseline and multiple dependent variables that we expected differential responses to (i.e., nonequivalent dependent variables) allowed for the removal of numerous threats to internal validity (Cook & Campbell, 1979). There were no significant differences between the social-based orientation groups and the computer-based orientation group in terms of gender (70% vs. 68% male, ns), rank (37% vs. 36% managerial, ns), or age (34.4 vs. 33.9 years, ns).

Procedure

All participants in the study completed three surveys over a 4–5 month time frame. In addition, each participant included in this study had a supervisor provide outcome information during their 4th or 5th month on the job. All surveys were completed over the company’s Intranet, and at no time period did the surveys differ on the basis of group. During their first week on the job, all participants were given initial surveys that measured demographic and other specific new-hire information. A second survey measuring socialization outcomes and requesting the name of their direct supervisor was administered at the 2-month mark. The third survey was filled out during a participant’s 4th month on the job. At the time of each survey, respondents were sent e-mails soliciting their participation and ensuring the confidentiality of their answers. Respondents who did not respond to the survey within 1 week were sent follow-up e-mails. To equalize the socialization process among participants, we eliminated re-hires from the study. Five hundred and sixty-five new hires during an 11-month period were given the opportunity to participate. Of those, 468 newcomers completed the initial survey, 408 completed the second survey, and 339 completed the third survey, resulting in a three-survey response rate total of 60%. Of the 408 supervisors who were sent requests for information 279 (68%) completed the supervisor-based survey. Listwise deletion and mismatching of supervisor and subordinate responses reduced the sample to a final 261 respondents. Nonrespondents, partial respondents, and deletions (n = 304) were not significantly different from those included in the final sample in terms of gender (69% vs. 65% male, ns) or rank (37% vs. 33% managerial, ns), but they were younger in age (30.8 vs. 34.2 years, p < .01).

Measures

Participants’ age, gender (1 = male; 0 = female), and rank (1 = managerial; 0 = nonmanagerial) were collected at Time 1 and verified against company records to be used as control variables. All measures were assessed using a 7-point Likert scale with anchors of 1 (strongly disagree) and 7 (strongly agree) with the exception of the supervisor’s rating of performance, in which a 5-point scale was used to more closely approximate the rating system used in the company.

Socialization outcomes. Socialization dimensions were measured after approximately 2 months on the job. Numerous researchers have found that socialization takes place over a relatively short period of time (Bauer & Green, 1994; Klein & Weaver, 2000; Wanous, 1992), and Morrison (1993) noted that this early socialization seems to be followed by a relatively stable period. As discussed above, we adopted the six content dimensions of socialization and the measure developed by Chao et al. (1994). Although these dimensions are broad in nature and by no means complete (Bauer et al., 1998), they do capture much of what past socialization research has deemed important for newcomers to grasp. Theoretically, these content areas are important for this study because they measure various aspects of socialization that we would expect to be both more and less socially driven. Seven of the scale’s 34 items were slightly modified to change the focus of the question from “work group” to “organization,” because the orientation and outcomes of interest were organizationally based. Understanding of the history of the organization (e.g., “I know the organization’s long-held traditions”) was measured with 5 items (α = .89). Learning of the language of the organization (e.g., “I do not always understand what the organization’s abbreviations and acronyms mean” [reverse coded]) was measured with 5 items (α = .84). The newcomer’s perception of his or her own performance proficiency (e.g., “I have learned how to successfully perform my job in an efficient manner”) was measured with 5 items (α = .82). The adoption of organizational goals and values (e.g., “I would be a good example of an employee who represents my organization’s values”) was measured with 7 items (α = .93). Understanding of the organization’s politics (e.g., “I can identify the people in this organization who are most important in getting the work done”) was measured with 6 items (α = .91). Getting along with the people in the organization (e.g., “Within my organization, I would be easily identified as being ‘one of the gang’”) was measured with 6 items (α = .93). All socialization content dimensions were measured approximately 2 months after hire.

Distal outcomes. After approximately 4 months of employment, newcomers were asked to rate their job satisfaction using a 6-item scale based on a questionnaire constructed by Hackman and Oldham (1975; α = .87). A sample item is “In general, I am satisfied with my job.” Respondents also filled out a 6-item affective organizational commitment scale developed by Allen and Meyer (1990; α = .84). A sample item is “I do not feel emotionally attached to this organization.” Also at 4 months, the newcomers’ supervisors rated each respondent using two of the socialization outcome measures previously described: organizational goal and value socialization (α = .85) and performance proficiency (α = .80). In addition, the supervisors rated their belief about how well their subordinates understood their roles and responsibilities by completing a 6-item measure of role understanding—a modified version of a role ambiguity scale developed by Rizzo, House, and Lirtzman (1970; α = .67). Sample items include “This individual knows what is expected of them” and “This individual recognizes the level of authority he or she has in their job.”

Results

The descriptive statistics and the correlations between the study variables are shown in Table 1. As can be seen in the table, all of the variables had acceptable levels of reliability. As expected, and consistent with previous studies, the six dimensions of socialization all correlated moderately with one another, indicating that although these variables were correlated with one another, they could still be seen as independent constructs. Although age and gender did not significantly correlate with any of the other variables in the study, rank within the organization was significantly correlated with several of the socialization outcomes. These three variables were included as control variables in all analyses.

Hypothesis 1 predicted that the level of socialization in the content areas of people, politics, and organizational goals and values would be lower for newcomers who had participated in a computer-based orientation program than for newcomers who have participated in a social-based orientation program. Table 2 presents the means and standard deviations for each of the six socialization dimensions for our three groups of participants: previous cohort (social based), social-based orientation, and computer-based orientation. Figure 1 shows these mean differences graphically. Newcomer participation in a computer-based orientation has markedly lower means on the socialization content areas of people, politics, and organizational goals and values.

To statistically test the first hypothesis, we conducted a series of analyses of covariance examining the main effect of participation in a computer-based orientation program on each of the socialization dimensions while controlling for age, gender, and rank. Consistent with Hypothesis 1, attending a computer-based orientation program (as opposed to a social-based orientation program) had a significant main effect on the socialization dimensions of organi-
zational goals and values ($\eta^2 = .07, p < .01$), politics ($\eta^2 = .17, p < .01$), and people ($\eta^2 = .13, p < .01$) for organizational newcomers. At the same time, no significant mean differences were found on the more information-based socialization dimensions of history and language or on the dimension of performance proficiency, which was not covered during the orientation session. These results support discriminant validity between the socialization content areas, and they provide support for the effect of newcomer orientation method.

Hypothesis 2 predicted that the levels of organizational commitment and job satisfaction would be lower for newcomers who had participated in a computer-based orientation program and that these relationships would be mediated by the group of socialization outcomes. Following Baron and Kenny (1986), supporting this mediation hypothesis requires the following conditions to be met: (a) participation in a computer-based orientation is significantly related to affective organizational commitment and job satisfaction; (b) participation in a computer-based orientation is significantly related to socialization-level outcomes; and (c) when socialization-level outcomes are controlled for, the relationship between participation in a computer-based orientation and affective organizational commitment and job satisfaction becomes insignificant.

An examination of the correlation matrix in Table 1 and the test of Hypothesis 1 reported above shows that participation in a computer-based orientation program is significantly and negatively related to socialization content areas of organizational goals and values, politics, and people, thus satisfying the second condi-

Table 2

<table>
<thead>
<tr>
<th>Socialization dimension</th>
<th>Previous cohort</th>
<th>Social-based orientation</th>
<th>Computer-based orientation</th>
<th>$F^*$</th>
<th>$\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational goals and values</td>
<td>5.61</td>
<td>5.76</td>
<td>5.20*</td>
<td>10.14**</td>
<td>.07</td>
</tr>
<tr>
<td>History</td>
<td>5.56</td>
<td>5.69</td>
<td>5.49</td>
<td>1.41</td>
<td>.01</td>
</tr>
<tr>
<td>Politics</td>
<td>5.80</td>
<td>5.92</td>
<td>5.12*</td>
<td>26.36**</td>
<td>.17</td>
</tr>
<tr>
<td>Language</td>
<td>5.09</td>
<td>5.07</td>
<td>5.07</td>
<td>0.04</td>
<td>.00</td>
</tr>
<tr>
<td>People</td>
<td>5.88</td>
<td>5.97</td>
<td>5.25*</td>
<td>18.32**</td>
<td>.13</td>
</tr>
<tr>
<td>Performance proficiency</td>
<td>5.16</td>
<td>5.18</td>
<td>5.11</td>
<td>0.48</td>
<td>.00</td>
</tr>
</tbody>
</table>

Note. Previous cohort: $n = 92$; Social-based orientation: $n = 91$; Computer-based orientation: $n = 78$.

*Effect sizes are representative of differences in group membership only. *Group mean is significantly different from both other group means in respective socialization content domains.

** $p < .01$.
tion of the mediation hypothesis. Table 3 shows the results of a two-step regression analysis in which the attitudinal outcomes of job satisfaction and organizational commitment were regressed on computer-based orientation participation (controlling for age, gender, and rank) and then on socialization-level outcomes. The first step of the regression shows that participation in a computer-based orientation program has a significant, negative main effect on job satisfaction \((\beta = -1.4, p < .05)\) and on affective organizational commitment \((\beta = -2.0, p < .05)\). The second step of the regression table satisfies the third condition of the mediation hypothesis by showing that the effects of participation in a computer-based orientation become nonsignificant for job satisfaction \((\beta = -.03, ns)\) and affective organizational commitment \((\beta = -.01, ns)\) once the socialization-level outcomes are entered into the regression. In sum, the results of this regression analyses reveal a mediation effect of some socialization-level outcomes (organizational goals and values, politics and people) in the relationship between newcomer participation in a computer-based orientation and job satisfaction and affective organizational commitment.

Hypothesis 3 predicted that supervisor ratings of organizational goal and value socialization and role understanding would be lower for newcomers who had participated in a computer-based orientation program and that these effects would be mediated by the group of socialization outcomes. Table 1 shows positive and significant correlations between early socialization outcomes and supervisor ratings of organizational goal and value socialization and role understanding. Table 3 shows the results of two-step regression analyses. In the first step, with age, gender, and rank controlled for, newcomer participation in a computer-based orientation program is significantly and negatively related to supervisor ratings of organizational goals and values socialization \((\beta = -.19, p < .05)\) and role understanding \((\beta = -.19, p < .05)\). In addition, participation in computer-based orientation had no effect on supervisor’s perception of their subordinate’s performance proficiency \((\beta = .00, ns)\), indicating a level of discriminant validity. The second step of the regression table shows that the effects of participation in a computer-based orientation become nonsignificant for supervisor ratings of organizational goal and value socialization \((\beta = .00, ns)\) and role understanding \((\beta = -.09, ns)\) once the socialization-level outcomes are entered into the regression, thereby fulfilling the requirements of mediation.

General Discussion

The goal of the present study was to examine the differences between two methods of delivering organizational-based newcomer orientation training. The study used a quasi-experimental design to assess the differences in socialization outcomes that resulted from the use of a group, social-based orientation program and an individual, computer-based orientation program. Strong support was found to suggest that the computer-based orientation program hindered the socialization of newcomers along several
important dimensions in comparison with the social-based program.

In a cohort-based research design, three groups were examined: a previous cohort, who went through a social-based orientation; a second group, who also went through a social-based orientation (differing from the first group only in the time period in which they were hired); and a third group, which was similar to the second group in terms of the time period in which they were hired but differed in that they completed a multimedia, computer-based orientation program. Consistent with hypotheses, the computer-based group had lower levels of socialization in the content areas of people, politics, and organizational goals and values and no significant differences on the dimensions of history, language, and performance proficiency. The previous cohort and the social-based cohort did not significantly differ in socialization on any of the content areas examined. Further analyses showed that these socialization content dimensions were differentially predictive of affective organizational commitment and job satisfaction and that the more proximal socialization outcomes mediated the relationship between orientation method and these distal attitudinal outcomes. Also, consistent with these results is the fact that individuals who participated in the computer-based orientation were rated significantly lower on organizational goal–value socialization and role understanding by their supervisors but not significantly different in terms of performance proficiency. Proximal socialization outcomes also mediated these effects on supervisory ratings.

The results of this study provide support for the idea that the newcomer orientation process can be effective in helping to socialize new employees to an organization. Unlike those in Klein and Weaver (2000), the socialization outcomes of this study did not differ on the basis of attendance of an orientation program but, rather, the training methods of two relatively formal programs. Ideally, this examination would have included a group of employees that went through no orientation process at all or, at most, an informal one. Unfortunately, there was no such group of employees so we are left to wonder what the differences in socialization would have been had employees not been oriented at all. The differences in socialization outcomes on the basis of the types of orientation programs were substantial enough to show the potential effectiveness of orientation programs as a whole while warranting future research on methods of orientation training. Brown (2001) noted that age and computer experience might have significant effects on computer-based training outcomes but found no effects. Although age was included as a control variable in this study with no significant results, the examination of computer experience was impossible because of the nature of the sample. To the degree that computer experience could hinder learning in a computer-based orientation program, the results of this study should be considered conservative.

There are several limitations to the present study. Much of the data collected was self-reported by newcomers. This increases the chances of the percept-percept bias of using a common method to collect data. However, this limitation should be minor given that much of the data (including the treatment) was collected at different points in time and that separately collected supervisor data were consistent with the results found through the use of self-report. A more important limitation of the present study was our inability to fully examine the exact differences between the social-based orientation and the computer-based orientation. Although the organization made every attempt to ensure that the content between sessions was equivalent, there is the possibility that certain topics covered in the social-based programs were not covered during the computer-based programs. However, the degree to which these two types of orientation programs did not match perfectly is part of the reason why using a socially rich medium is more effective. In a similar vein, there was no data collected on trainee motivation during the orientation sessions, which leads to two possibilities that could account for some of the differences. One possibility is that the computer-based orientation participants were resentful of the fact that they did not attend the social-based

Table 3
Results of Regression Analysis for the Consequences of Computer-Based Orientation

<table>
<thead>
<tr>
<th>Step</th>
<th>Job satisfaction</th>
<th>Organizational commitment</th>
<th>Supervisor rating of goals and values socialization</th>
<th>Role understanding</th>
<th>Supervisor rating of task performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Age -0.06</td>
<td>0.00</td>
<td>0.01</td>
<td>-0.06</td>
<td>-0.02</td>
</tr>
<tr>
<td></td>
<td>Gender -0.04</td>
<td>0.04</td>
<td>-0.00</td>
<td>-0.08</td>
<td>0.03</td>
</tr>
<tr>
<td></td>
<td>Rank -0.10</td>
<td>-0.09</td>
<td>-0.09</td>
<td>-0.04</td>
<td>0.06</td>
</tr>
<tr>
<td></td>
<td>Computer-based -0.14*</td>
<td>-0.20**</td>
<td>-0.18**</td>
<td>-0.19**</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>$R^2$ .04*</td>
<td>.05**</td>
<td>.04*</td>
<td>.04*</td>
<td>0.00</td>
</tr>
<tr>
<td>2</td>
<td>Org. goals/values .23**</td>
<td>.21**</td>
<td>.05</td>
<td>.17*</td>
<td>0.10</td>
</tr>
<tr>
<td></td>
<td>History -0.09</td>
<td>.01</td>
<td>.01</td>
<td>.00</td>
<td>-0.09</td>
</tr>
<tr>
<td></td>
<td>Politics .10</td>
<td>.16*</td>
<td>.18*</td>
<td>.06</td>
<td>.16*</td>
</tr>
<tr>
<td></td>
<td>Language -0.14*</td>
<td>.04</td>
<td>.06</td>
<td>.12</td>
<td>.04</td>
</tr>
<tr>
<td></td>
<td>People .15*</td>
<td>.21**</td>
<td>.29**</td>
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<td>-0.03</td>
</tr>
<tr>
<td></td>
<td>Performance prof. .28**</td>
<td>.01</td>
<td>.03</td>
<td>.02</td>
<td>.37*</td>
</tr>
<tr>
<td></td>
<td>(Computer-based) .02</td>
<td>-0.01</td>
<td>.00</td>
<td>-0.09</td>
<td>0.10</td>
</tr>
<tr>
<td></td>
<td>$R^2$ .22**</td>
<td>.23**</td>
<td>.16**</td>
<td>.14**</td>
<td>.20**</td>
</tr>
<tr>
<td></td>
<td>$\Delta R^2$ .18**</td>
<td>.18**</td>
<td>.12**</td>
<td>.09**</td>
<td>.20**</td>
</tr>
</tbody>
</table>


* p < .05. ** p < .01.
orientation. This possibility is somewhat mitigated by the fact that there were many individuals who participated in the computer-based orientation (i.e., no one was "singled out") and that the differences in programs were not highlighted among new employees. Despite anecdotal evidence showing that most organizational newcomers have a high level of motivation to learn about their new organizations, the second trainee motivation issue is the possibility that the computer-based programs were not completely followed. The nonequivalent dependent variable design of the study helps to rule out this possibility. If either trainee motivation situation were a major issue, we would expect all six socialization outcomes to be lower as a result. In this study, only the three hypothesized socialization dimensions were significantly different between groups.

This study makes important contributions in a number of areas. Contrary to some researchers who have concluded that initial orientation sessions are likely to be ineffective in helping newcomers adjust to their new organizations (Anderson et al., 1996; Louis et al., 1983; Ostroff & Koslowski, 1992), this study offers support for the argument that formal orientations can have an impact on important individual outcomes for employees. Continued research certainly needs to be conducted on what it is that helps to make some orientations more successful than others. Orientation programs are designed to help employees “start off on the right foot” and increase initial productivity within the organization. As such, initial socialization into the organization is an important dependent variable and one that research has found to remain stable over time. However, socialization is a continuous process, and future studies might focus on how long it takes newcomers who start out with lower levels of socialization after orientation to catch up to those with higher levels. This study offers continued development of the nomological net of socialization content dimensions. As mentioned by others (e.g., Chao et al., 1994; Fisher, 1986; Ostroff & Koslowski, 1992), socialization researchers should continue to focus on the actual measurement of socialization content rather than focusing solely on distal attitudinal measures that could be affected by a whole host of other factors. Lastly, this study offers new insights into the use of computer-based training and the methods used to orient employees to their new organization.

References


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