

Employee Perceptions of Quality Management: Effects of Employee Orientation Training

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This empirical study examines employee perceptions of quality management at three different time periods. New employees at a large United States manufacturing organization were surveyed regarding their perceptions of their organization's quality management practices before they attended a new employee orientation training, immediately after the new employee orientation training, and a month after the new employee orientation training. A description of the study, as well as findings and conclusions, are presented.

Keywords: Quality Management, Training & Development, Human Resource Development

The importance of quality in organizations today is paramount. Smith (1993) defines quality in this way: "Quality is the goodness or excellence of any product, process, structure or other thing that an organization consists of or creates. It is assessed against accepted standards of merit for such things and against the interests/needs of producers, consumers and other stakeholders" (p. 241). An important aspect of Smith's definition above is the idea that the concept of quality means different things in different organizations. Although definitions may vary from organization to organization, many researchers agree that effective quality initiatives of any sort involve every employee in the organization. Many also agree that training and communication are important factors in organizational efforts to improve quality (Goodden, 2001; Hansson, 2001; Mandal et al., 1998).

"Orientation is the planned introduction of new employees to their jobs, their coworkers, and culture of the organization" (Cook, 1992, p. 133, quoted in Blackwell, 1997). Most organizations offer an employee orientation training program coordinated by the human resource department (Blackwell, 1997). New employee orientations serve many purposes and have many meanings from both an organizational and an employee perspective. Researchers have found that successful new employee orientation programs help new employees become familiar with their organizational environment and help them understand their responsibilities (Robinson, 1998). They have also been found to be positively related to job satisfaction (Gates & Hellweg, 1989) and employee socialization (Klein, 2000), and have been recommended to aid in employee job enrichment and morale building (Kanouse & Warihay, 1980). Research has also shown that employers benefit from new employee orientations in that they receive well-trained, highly motivated new employees as quickly as possible (Robinson, 1998).

How effective is the new employee orientation process in conveying organization-wide issues like quality? Do employees learn from new employee orientations, and is that learning carried back to the workplace? It is difficult to address these questions because of the dearth of research on the topic. Wanous and Reichers (2000) note that "orientation programs have rarely been the subject of scholarly thinking and research" (p. 2). They continue by noting that "the current body of research work (on new employee orientation programs) is too small for meta-analysis" (p. 2), and as a result they changed the methodology used in their 2000 study to descriptive summary (Wanous & Reichers, 2000). Other researchers have come to similar conclusions. While most organizations use formal orientation training, "there is surprisingly little in the academic literature examining the impact or most appropriate structure of these programs" (Klein, 2000, p. 3).

The purpose of this research is to examine new employee perceptions of quality management. The study is unique in its examination of employee perception of quality management over a time period which includes new employee orientation training. Employee perceptions were measured both before and after this training, as well as one month after the conclusion of employee orientation training. Mandal et al. (1998) note that "companies committed to TQM (total quality management) invest in training" (p. 88). Bacdayan (2001) concurs: "Training costs may be justified as a long-term investment in TQM skills at the grassroots level" (p. 596). This paper examines the results and findings of this study. Based on the results and findings, conclusions are made and recommendations are presented.

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Theoretical Framework

This study set out to examine new employee perceptions regarding quality management in their organization. It was conducted during a time that included new employee orientation training and time spent in the workplace. Surveys were used to gauge these perceptions. As such, this study employed a theoretical framework based on adult learning theory and quality management theory.

Adult learning theory is important in this study, as the study set out to gauge learning about organizational vision and leadership. Adult learning orientations that form the theoretical basis for this study include cognitivism and its emphasis on information processing, storage and retrieval, learners' needs, learning styles, and the organization of learning activities to meet those varying needs and styles (Robinson, 1994). Social learning theory was also used as the basis for the theoretical framework of this study. As defined by Bandura and Walters (1963), social learning theory focuses on learning from the observation of people in social settings, mentoring, socialization, and guiding. Elements of constructivism, which include group learning, experience, and reflection (Von Glaserfelt, 1995) were included in the theoretical framework of this study as well.

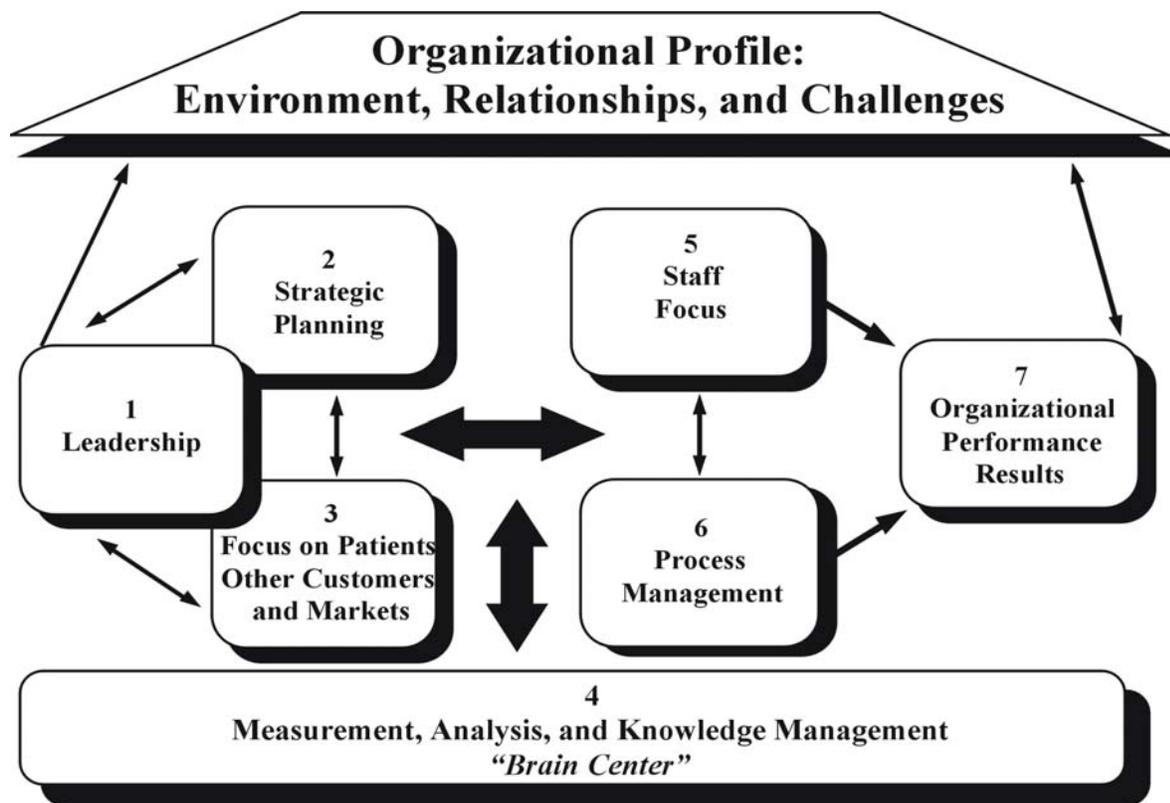


Figure 1. Organizational profile for quality management

A holistic theory of quality management is yet to be developed and tested. However, Anderson, Rungtusanatham, and Schroeder (1994) provide the initial stages of a theory of quality management based on Deming's fourteen-points (1993), and other quality advocates including Juran and the Baldrige criteria. Their proposed theory posits seven concepts underlying quality management and their interrelationships. Using the Delphi method, they operationalized and statistically tested the measures of the concepts for reliability, and their interrelationships were tested using path analysis. Their study presents these different concepts underlying the Deming management method. These concepts are: visionary leadership, internal and external cooperation, learning, process management, continuous improvement, employee fulfillment, and customer satisfaction. They concluded that visionary leadership had strong positive influence on cooperation and organizational learning. Internal cooperation among employees, departments, and units as well as external cooperation with suppliers positively influenced process management, which in turn affected continuous improvement and employee fulfillment. The

study further suggests potential direct effects of visionary leadership, cooperation, and learning to both continuous improvement and employee fulfillment. The study also concludes that there is strong direct effect of employee fulfillment on customer satisfaction. The results of their study provide strong empirical evidence and potential implications for quality management and performance improvement in long-term healthcare organizations, particularly in the two areas, employee fulfillment and customer satisfaction. App's (1994) leadership theories also stressed the importance of quality in every activity at every level, and the importance of communication and education in all quality initiatives. Senge's (1990) concepts of the learning organization and quality management were used in the theoretical framework of this study as well. Figure 1 illustrates the organizational profile for quality management (Baldrige Criteria, 2006).

Research Questions

This study investigates the following research questions:

- How does new employee orientation training affect employee perceptions of quality management?
- What is the effect of time spent back in the workplace when examining employee perception of quality management after the training?

In order to address these questions, the following hypotheses were tested:

1. H_0 There is no significant difference on the perceptions of trainees about quality management between Phase I and II.
 H_1 There is a significant difference on the perceptions of trainees about quality management between Phase I and II.
2. H_0 There is no significant difference on the perceptions of trainees about quality management between Phase II and III.
 H_1 There is a significant difference on the perceptions of trainees about quality management between Phase II and III.
3. H_0 There is no significant difference on the perceptions of trainees about quality management between Phase I and III.
 H_1 There is a significant difference on the perceptions of trainees about quality management between Phase I and III.

Methodology

Using a repeated measures design, this study surveyed trainees at three different time intervals to measure effectiveness of training to help new employees understand and adapt to the organization's philosophy on quality. This study is about the ability of training programs to help employees learn about quality management. The survey method used in this study utilized a survey instrument on quality adopted from the self-assessment tool developed and validated by United Kingdom, the Department for Education and Skills (2006). The survey included 13 items on quality management.

Description of the Sample

This study employed the use of convenience sampling because the nature of the study involved measuring the effectiveness of new employee orientation training programs. The organization studied is a major United States manufacturer based in the Midwest. It employs approximately 9,000 people at facilities located in nine states around the country, and at several international locations. All new employees at United States locations attend the orientation training, which is held at the corporate headquarters.

As is the case with many manufacturing organizations, this organization has placed an emphasis on the importance of quality in product and service offerings. The organization has been on the forefront of quality initiatives such as participatory management, employee empowerment, the use of quality circles in manufacturing, and just-in-time manufacturing. In a recent annual report, one executive observed that it might be impossible for an organization to improve quality, safety, productivity, and flexibility, and reduce costs all at the same time. This executive, however, noted that it's something the organization is getting more skilled at every day.

The organization has seen tremendous growth over the last several years. Its orientation program has also grown substantially. In the past, orientations were the responsibility of each individual location. Each orientation was different, and some locations did not provide employee orientation at all. Several years ago, it was determined

that employee orientation would be consolidated at the corporate location, managed by the corporate human resource department, and offered at the corporate headquarters for employees at all locations.

New employee orientations are held in the organization’s corporate conference center, which is attached to its corporate headquarters. Presenters are top executives at the organization, subject-matter experts, and employees in the human resource department. The orientation itself is a two-day session in which new employees are introduced to the organization’s products and services, as well as its mission, culture, history, values, philosophy, leadership, and vision. The organization’s philosophy on quality is woven throughout all aspects of the orientation. Orientation activities and presentations are conducted in a wide variety of formats.

Employees attending this training had some degree of tenure on the job, albeit small. Because the new employee orientation is offered once per quarter, and the organization hires employees on a daily basis, most employees attending new employee orientation training will have already been working at their jobs for a period of days, weeks, or even months. Furthermore, new employee orientation training is only offered to permanent employees of the organization. Interns, temporary, or contract employees who are then hired by the organization as permanent employees may have worked for longer periods of time within the organization before attending new employee orientation. The response rate for the survey was 111 of 125 (89%). A majority of respondents were between 30 and 49 years of age. One third of all respondents were between 30 and 39; 27% were between 40 and 49. The majority of the trainees (86%) were male, and most (80%) were Caucasian. With regard to the highest level of formal education achieved, 18% had completed high school, 23% held Associate degrees, 47% held Bachelor’s degrees, and 11% held Master’s degrees. Forty percent of respondents had worked at the company for less than three months, while 22% had worked at the company for more than six months.

Validity and Reliability

The study used a survey that was adopted from an instrument developed by the Department for Education and Skills in the U.K. (2006). For the overall quality management reliability, Cronbach’s coefficient alpha values for the 13 scales was + .91 for Phase I, +.89 for Phase II, and +.91 for Phase III respectively. Cronbach’s coefficient alpha values for all scales of measure reported high inter-item correlations; as a result, it was considered substantial evidence that the items are reliably measuring the same underlying constructs. In addition, factor analysis was conducted to discover if the observed variables can be explained largely or entirely in terms of factors. Table 1 illustrates questionnaire items and factor loadings.

Table 1. *Questionnaire Items and Factor Loadings*

<i>Scale and Item</i>	<i>Factor</i>				
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
Strategic Management					
Has a corporate quality strategy to guide our work	.64				
Clearly promotes improved outcomes for our products and services	.68				
Regularly identifies risks to achieving our objectives and targets	.69				
Reviews and evaluates the effectiveness of the quality strategy against outcomes of our products and services	.68				
Customer Focus					
Knows what our clientele basis is		.64			
Knowledge Management					
Asks our clients about our company and its products and services			.60		
Uses research findings and best practice guides to inform the design and delivery of our products and services			.63		
Has a process to ensure that learning from complaints, audits, and reviews improves practice and planning across the company			.62		
Process Management					
Has a published set of standards for our products and services				.58	
Regularly reviews the design and delivery of our products and services				.63	
Undertakes detailed mapping of all systems and processes which manage quality across the organization				.69	
Has a process to check that the intended outcomes are achieved				.70	
General HR Functions					
Defines and locates responsibilities for ensuring that the quality system is operating across the organization					.79

Data Collection

The trainees were given the surveys three times throughout the study. The first was completed the morning of the first day of new employee orientation training, but prior to the start of the orientation. The second was completed after the second day, or at the end of the training. The third was completed approximately one month after the last day of the training. The first and second surveys were distributed manually to participants by the researchers. Participants were asked to complete and return the survey immediately (respondents were given 15 minutes during the orientation to do so). The third survey was sent via interoffice mail to all participants in the training. Participants were asked to complete the survey and return it within a week of receipt to the researchers via a confidential return envelope. In order to be able to match the three surveys from each respondent yet keep respondents anonymous, a coding system was used. Participants were asked to mark each survey they completed with a pass code consisting of their date of birth and the first letters of their mother's and father's first names. The use of this pass code allowed the researchers to match the first, second, and third surveys by respondent without knowing who the respondent was.

Data Analysis

To test the research hypotheses, the study used several methods of data analysis, including descriptive statistics, paired-samples t-test, independent-samples t-test, and ANOVA. The frequency of responses was conducted to assess the distribution of the participant demographics. Means and standard deviations were calculated for each item and scale to assess potential central tendencies. Cronbach's alpha was used to conduct reliability analysis to determine the reliability of all scales adopted in the study. The obtained alpha scores were then compared to the reliability estimates existing in the literature. The level of significance was set at $p < .01$ and $.05$ respectively.

Results and Findings

The purpose of this study was to investigate the effectiveness of new employee orientation training to help employees understand and adopt organizational philosophies on quality management. The results of the study indicate that the training program has been effective overall, yielding significant results especially after Phase II. Nevertheless, this trend of increase did not continue until Phase III, although the results of Phase III are still considered significant. The ANOVA test, however, did not yield any significant results between groups.

When we measured the trainees' perception on quality management at Phases I, II, and III, we found that the mean differences were significant for all cases. We found that perceived learning positively increases between Phase I and II. However, the trend did not continue in Phase II. This clearly indicates that the organization needs to evaluate its quality management practices on the job so as to find out what prevents successful transfer of training for quality management among new employees. Table 2 shows the trainees' perceptions about quality management throughout all phases of the study.

Table 2. *Quality Management Mean Scores and t-Test Results*

<i>Phases</i>	<i>Mean (SD)</i>	<i>N</i>	<i>Mean Difference (SD), p-value</i>		
			<i>2-1</i>	<i>3-2</i>	<i>3-1</i>
Phases I	36.03 (11.22)	79	3.76 (.006), $p < .001$	5.7 (.005), $p < .01$.068 (.097), $p < .05$
Phase II	40.25 (8.68)	77			
Phase III	36.56 (11.14)	63			

Conclusions

New employees increased their learning about quality management when examined before and after employee orientation training (both immediately after and one month after orientation). However, in examining the time period immediately after to one month after orientation, that perceived learning decreased. During this time period, the employee was working in the organization on a daily basis. The learning that took place during employee orientation training did not continue once the employee entered the workplace.

Learning about quality in an organization is important for both the new employee and for the organization. New employee orientation is a good way for organizations to start teaching new employees about quality-related organizational philosophies and initiatives. It ensures that all employees start out on the same page, and receive the same messages from the organization regarding these topics. Akdere (2006) argues that successful implementation of quality management initiatives positively affects employee achievement and output, customers' product acceptance, and organizational survival. Organizations should be proactive in teaching prospective and new employees about issues regarding quality. Organizations should also recognize that employee orientation is a starting point for this type of training.

For new employees, understandings about an organization's quality philosophies and efforts change over time. New employee orientation training is an important venue for addressing this issue. What is learned in orientation, however, does not all stay with the new employee once that employee is on the job. One of the major reasons for this is related to the ideal versus the reality. Landau et al. (2006) note that there can be gaps between an organization's vision and its actual operating conditions. It is very possible that new employees did not find the organization's quality beliefs and efforts within their respective departments and units as described in the training program. It is not uncommon that new employees find themselves in situations where they receive training, return to their workplace, and are told that things do not work that way (Azevedo & Akdere, 2005).

Recommendations

Organizations should continue to address quality in new employee orientation training. The results of this study show significant differences in the understanding of the topic before and after new employee orientation. New employee orientation training is an important venue for addressing organizational beliefs on quality. However, it should be noted that the value of teaching this topic to new employees may be limited if what is being taught is not practiced across the organization.

Learning about an organization's quality efforts does not end after orientation training. Many researchers (Bacdayan, 2001; Hansson, 2001; Mandal et al., 1998) note the value of training in the management of quality management; however, the importance of ongoing training for all employees throughout their careers with the organization is not specified. Organizations should continue to teach employees about quality-related topics on an ongoing basis. Both upper level management and Human Resource professionals in the organization should work together on these efforts to ensure that issues of quality management efforts are understood at all levels within the organization. This study showed that new employees decreased in their perceived learning about quality management in the month that immediately followed the orientation training. New employees learn a lot about quality in new employee orientation. In this study we also identified the workplace environment as a possible cause of the changed attitude over time and we suggest that the organization explore the current organization climate and investigate how employees, in general, view quality management and how their overall view differs from that of the organization's. Organizations should build on that learning by continuously teaching employees about quality management. This could be done through ongoing training of both a formal and informal nature that specifically addresses these topics, or by weaving them through existing training and development initiatives within the organization.

Implications for Human Resources

The results of this study suggest that new employee orientation is the first step to thoroughly communicate the organization's culture and approach to quality management. The results of this study indicate that employee orientation training programs successfully conveyed the organization's message on quality management initiatives, and employees learned a great deal about quality management practices within the organization. The issue, however, is that transfer of learning did not take place at the desired levels after the employees returned back to their work stations. This is a conventional challenge with quality management practices, which may be why theoretical bases for quality management stress the importance of visionary leadership, continuous improvement, and cooperation among employees, departments, and divisions. Without the complete support of leadership at all levels, and without the buy-in of all employees, both on ongoing bases, quality management initiatives may not necessarily yield to targeted outcomes. Human Resource (HR) professionals are in important positions to monitor these efforts to ensure that all employees and departments as well as management are in agreement as to quality management and how it will be achieved and sustained.

Quality management is an essential HR strategy in creating and maintaining a quality-oriented culture (Armstrong, 2006, p. 114). Quality management philosophy involves providing the means to achieve an objective

which can be achieved through continuous improvement that requires all employees to receive training on quality management philosophy and the application of quality management tools (Graham, 1995, p. 88). Consequently, training new employees on the organizational philosophy of quality management contributes to the implementation of quality management tools throughout the organization. That learning does not stop when the training session ends, however. The theoretical bases for this research address issues of where and how people learn. HRD practitioners must be aware of the learning environment in the overall organization, as employees learn from many different sources, at different times, and in different ways. In order for a consistent quality management philosophy to be “lived” by an organization’s employees, lessons learned should be consistent, regardless of time and source. HR professionals who understand this have the ability to help the management and all employees consider quality management as a core business strategy and part of HR’s organizational bottom-line contribution.

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