Factors Associated With Employee Appraisals of Adherence to Learning Organization Principles and Practices

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Abstract

The relationship between different person and environmental (work-related) variables and early childhood and family support program employees’ appraisals of adherence to learning organization principles and practices was examined. The study was conducted with 44 employees in an early childhood and family support program that adopted Senge’s learning organization principles for engaging staff in continuous individual and collective learning. Results showed that a sense of personal responsibility for individual and organizational learning was the best predictor of employees’ judgments of their organization. The more employees assumed personal responsibility for their job-related knowledge, skills, and performance, the more they judged their program as operating in a manner consistent with the principles of a learning organization. Implications for organizational learning and development are described.

The extent to which different person and environmental factors (Bronfenbrenner, 1995) influenced early childhood and family support program employees’ judgments of adherence to learning organization principles and practices (Bennett & O’Brien, 1994; Ismail, 2005; Senge, 1990a; Senge, Kleiner, Roberts, Ross, & Smith, 1994) constituted the focus of the study described in this paper. A learning organization “continuously inquires, tests, evaluates, and reflects on its experiences; translates the lessons learned from these experiences into knowledge that is useful to the organization; and uses this knowledge to inform attainment of the organization’s purposes and goals” (Dunst & Watson, 2010, 2010, p.3).

Different models and theories of learning organizations are almost always characterized as having multiple elements and factors (Daft & Weick, 2001; Ismail, 2005; Yeo, 2005). Likewise, different learning organization theorists and enthusiasts tend to explain the adoption and adherence to learning organization principles and practices as multiply determined (Bennett & O’Brien, 1994; Senge, 1990a). Available evidence indicates that the ways in which employees assess or judge their organizations is also multiply determined (Appelbaum & Goransson, 1997; Goh, 2001; Harvey & Denton, 1999; Hernandez, 2001; Yeo, 2005) and that systems models and theories best explain the factors influencing those appraisals (Harvey & Denton, 1999; Phillips, 2003; Schwaninger, 2000; Senge, 2006).
One factor that has been posited as influencing employees’ judgments of the extent to which their organization or program operates in ways consistent with learning organization principles and practices is personal mastery (Gardner, 1996) or personal responsibility (Giesecke & McNeil, 2004). Senge (Gardner, 1996; Senge, 2006) noted that personal commitment to continuous learning and the individual contributions of employees to organizational change is a factor that bridges personal learning and organizational learning. According to Giesecki and McNeil (Giesecke & McNeil, 2004), a sense of personal mastery “requires that individuals accept the personal responsibility of seeking learning opportunities in order to move forward in their worklife” (p. 63). Smith and Sharma (Smith & Sharma, 2002) argued that the opportunities afforded employees by management be used to encourage and develop personal responsibility for both individual and organizational learning.

The study described in this paper was conducted to determine if personal responsibility, as well as several other individual and work-related factors, influenced employees’ appraisals of adherence to learning organization principles and practices. The organization where the study took place was an early childhood education and family support program that has a long history of continuous improvement and cutting-edge practice (Dunst, 2004; Dunst & Trivette, 1988, 2005; Family Infant and Preschool Program, 2002). The main focus of the program is building and strengthening family-capacity to obtain the resources and supports needed to both meet family needs as well as promote child learning and development. Program management adopted Senge’s (Senge, 1990a; Senge et al., 1999; Senge et al., 1994) learning organization principles and practices to create an organizational climate conducive to continuous learning and improvement. Multiple kinds of learning experiences and opportunities were provided employees in order for them to acquire the knowledge and skills needed to work with children and their families in ways consistent with the mission and vision of the organization (www.fipp.org).

Despite the many opportunities afforded employees, the authors observed that some staff did not avail themselves of the learning opportunities and that some employees either overtly or covertly did not or would not take responsibility for their own learning. In some cases, employees communicated either implicitly or explicitly that the onus of responsibility for their work-related performance rested with management and the organization rather than themselves. The extent to which variations in employees’ judgments of personal responsibility were related to variations in their appraisals of the program as a learning organization was the main focus of investigation.

METHOD

Participants

The participants were 44 early childhood and family support program employees working with young children birth to eight years of age and their families. The 44 staff represented 92% of all personnel employed in the organization at the time the study was conducted.1 The majority of employees (70%) worked for the organization two or more years, and one third (35%) of the employees worked for the organization five or more years.

All employees had some college-level education, with 79% completing at least a four-year university degree. More than one third (37%) of the employees had graduate degrees. Employee who completed undergraduate or graduate school received their degrees in early childhood education, early childhood special education, speech and language pathology, occupational therapy, physical therapy, psychology, social work, nursing, or another child- or family-related field.
The majority of employees (70%) worked directly with children and families in one or more capacities. Most employees worked either individually with children and families in their homes (30%) or at Family Resource Centers (40%). Some of the employees worked with children and their parents both in the families' home and at Family Resource Centers. Seven (16%) employees worked in some type of supervisory or management capacity and seven employees (16%) functioned as support personnel. 

**Measures**

The participants completed an adapted version of the *Learning Organization Practices Profile* (O'Brien, 1994a, 1994b) and an investigator-developed personal responsibility measure. The participants also completed adapted versions of Hart and Wearing's *Hassles and Uplifts Scales* (Hart, Wearing, & Headey, 1994a, 1994b).

**Learning Organization Practices Profile (LOPP)**

A short-form version of the LOPP (O'Brien, 1994a) was used to measure employees' appraisals of adherence to learning organization principles. The adapted version included 32 items organized into 12 subscales (Dunst & Watson, 2010). Table 1 includes definitions for each subscale. The 12 subscales correspond to ones that Bennett and O'Brien (Bennett & O'Brien, 1994) consider the building blocks of a learning organization and are closely aligned with the five disciplines articulated by Senge and his colleagues (Senge, 1990a, 2006). Each item on each subscale was rated on a 6-point scale ranging from *strongly disagree* to *strongly agree* that each statement characterized the employees' program and organization (e.g., "Employees routinely provide management feedback on the quality of the support and guidance managers provide us"). Principal components factor analyses of each set of subscale items produced single factor solutions ($\alpha = .83$ to .94). The mean score on each subscale was used as the measure of the degree of adherence to the different sets of learning organization principles and practices.

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**Personal Responsibility Index**

Four personal responsibility scale items were developed specifically for the study, measuring either individual or collective employee responsibility for learning expected organizational knowledge, skills, and practices (e.g., "I take responsibility for learning the knowledge and skills needed to do a better job"; "My colleagues and myself participate in group learning activities to improve our job performance"). The six items were randomly embedded among the LOPP items to reduce response bias. Each item was rated on a 6-point scale ranging from *strongly disagree* to *strongly agree* with regard to the onus of responsibility for personal and organizational learning. A principal components factor analysis of the scale items produced a single factor solution ($\alpha = .69$).

**Hassles and Uplifts Scales**

Short-form versions of the *Daily Hassles and Uplifts Scales* (Hart et al., 1994a, 1994b) were used to measure internal and external work-related factors that might influence employees' judgments of their organization. This particular instrument was selected because it measures multiple kinds of everyday work-related experiences. Hassles are everyday experiences perceived to be irritating, upsetting, or bothersome, whereas uplifts are everyday experiences considered favorable, desired, or pleasurable (Kanner, Coyne, Schaefer, & Lazarus, 1981). The original version of the scale included 112 hassles items ($\alpha = .91$) and 82 uplifts items ($\alpha = .77$).
A second-order factor analysis of the complete set of scale items performed by Hart et al. (Hart et al., 1994a) produced a four-factor solution: Organizational uplifts, organizational hassles, operational uplifts, and operational hassles. The organizational items index experiences related to the internal ecology of the work environment, whereas the operational items index experiences related to the performance of job duties.

The adapted versions of the scale included 19 hassle items (α = .78) and 17 uplift items (α = .82). Items from the original scale were selected based on their relevance to the early childhood and family support program, and were reworded to be applicable to employees' everyday work experiences. Second order factor analyses of the two sets of items each produced factor solutions of internal and external program hassles, and internal and external program uplifts. The internal program hassle items measure peer- and supervisory-related annoyances (e.g., "Being told what to do by other staff is irritating"), and the external program hassle items measure job-related stresses imposed by individuals or groups outside the program or organization (e.g., "We have too much 'red tape' imposed upon us by others"). The internal program uplift items measure peer- and supervisory-related encounters deemed desirable (e.g., "Having support from my peers or supervisors makes my day-to-day work enjoyable"), and the external program uplift items measure job-related encounters with people outside the organization which are judged positive (e.g., "Giving parents good news about their child's progress makes me feel good about my work"). The sum of the ratings for items making up each subscale was used as work-related measures.

Methods of Analysis

The extent to which variations in person and work-related variables were related to employees' appraisals of adherence to learning organization principles and practices was determined by both correlational analyses and multiple regression analyses. The patterns of correlations between the predictor variables and the 12 LOPP subscales were examined to determine the nature of the relationships among variables. The regression analyses included the total LOPP scale score as the dependent measure (sum of all mean subscale scores) and 13 person and work-related variables included in the study as the predictors. We performed two regression analyses: (1) A stepwise regression analysis where the variables entered into the analysis was selected according to the amount of variance accounted for in LOPP scores by the predictor variables, and (2) a hierarchical multiple regression analysis by sets (Cohen, Cohen, West, & Aiken, 2003) where variables within sets were entered into the analysis if they accounted for a significant amount of variance in the outcome measure. The order of entry sets into the analysis was: (1) Staff background variables, (2) staff position, (3) personal responsibility, (4) work setting, and (5) hassles and uplifts. Based on the findings from both the correlational and regression analyses, follow-up comparisons were made to determine if the variable that covaried the most with LOPP scores was also associated with differences on each of the 12 learning organization subscale measures.

RESULTS

Correlational Analysis

Table 2 shows the correlations between the 13 predictor variables and the 12 LOPP subscale scores. Several patterns of covariation are present among the correlations showing that both personal and work-related factors covaried with employees' judgments of adherence to learning organization principles and practices.²

Insert Table 2 about here
Employees' judgments of personal responsibility for organizational learning were related to 11 of the 12 LOPP subscale measures. In each instance, a greater sense of personal responsibility was associated with higher LOPP scores.

Supervisory staff were more likely to report stronger organization adherence to certain LOPP practices (management practices, program climate, individual and team development, performance goals and feedback, and staff rewards and recognition). More educated employees reported stronger adherence to the vision and strategy, management practices, and individual and team development LOPP principles and practices.

Both internal and external program uplifts were related to several LOPP subscale scores. Both types of uplifts were associated with staff reporting stronger adherence to the vision and strategy, supervisory practices, and performance goals and feedback principles and practices. Internal program uplifts were also related to higher work processes scores.

Regression Analyses

Stepwise Regression Results

The stepwise multiple regression analysis predicting the total LOPP scores from the individual predictor variables produced an $R^2 = .52$, $F(3, 40) = 14.69, p < .0001$. Three predictor variables accounted for significant amounts of variance in the outcome measure: Personal responsibility (33%, $F[1, 42] = 20.52, p < .0001$; internal program uplifts (11%, $F[1, 41] = 8.27, p < .01$), and external program hassles (8%, $F[1, 41] = 7.00, p < .05$). A greater sense of personal responsibility for individual and organizational learning and higher ratings of internal program uplifts were both related to higher LOPP scores. In contrast, a greater degree of external program hassles was related to lower LOPP scores.

Hierarchical Regression Results

The hierarchical multiple regression analysis by sets produced a $R^2 = .53, F(4, 39), p < .001$. Two personal characteristics variables and two work-related variables accounted for significant amounts of variance in the total LOPP scores. The changes in $R^2$ for the four variables in the order of entry in the regression analysis were 10% for the supervisory staff measure, $F(1, 42) = 4.70, p < .05$; 24% for personal responsibility, $F(2, 41) = 14.57, p < .0001$; 11% for internal program uplifts, $F(1, 40) = 8.34, p < .001$; and 8% for external program hassles, $F(1, 39) = 6.85, p < .05$. Supervisory staff were more likely to report greater program adherence to learning organization principles and practices. Both personal responsibility and internal program uplifts were associated with higher LOPP scores, whereas external program hassles were associated with lower LOPP scores. The addition of the supervisory variable to the regression analysis reduced the variance explained by the personal responsibility measure from 33% to 24%, but nonetheless personal responsibility remained the best predictor of variations in LOPP scores.

Sizes of Effects for Personal Responsibility

Both the correlation and regression analyses clearly indicated that personal responsibility was the best predictor of LOPP scale scores. The extent to which the relationship between personal responsibility and LOPP scores was global or subscales specific was determined by a series of 12 between group ANCOVAs with LOPP subscale scores as the dependent measures. A median split of the personal responsibility scores was used to constitute low responsibility and high responsibility groups. The supervisory measure was used as a covariate in each analysis since it was the only variable that reduced the amount of variance accounted for in total LOPP scores.
scores by personal responsibility. The analyses produced significant between group differences for 10 of the 12 subscales, $F(s)(1, 42) = 3.98$ to $10.13$, $p < .05$ to .01.

The adjusted mean scores for the two contrasting personal responsibility groups are shown in Figure 1. Cohen’s $d$ effect sizes for the differences in the mean scores were used to ascertain the magnitude of the differences in LOPP subscale scores for the low vs. high personal responsibility group. Effect sizes rather than statistical significance are now the recommended metric for substantive interpretation of between group differences (Vacha-Haase & Thompson, 2004; Valentine & Cooper, 2003). The Cohen’s $d$ effect sizes for the two different responsibility groups are shown on the graph. These were calculated as the adjusted mean score for the high responsibility group minus the adjusted mean score for the low responsibility group divided by the pooled standard deviation for all subscale scores combined. The majority (75%) of effect sizes were between 0.59 and 0.77, indicating that the differences between groups were moderate to large (Cohen, 1977). The remaining four effect sizes (25%) were small and ranged between 0.39 and 0.48. The sizes of effects nonetheless are considered practically important inasmuch as the differences between groups was larger than a standard deviation for all comparisons (McCartney & Rosenthal, 2000). The results, taken together, showed that staff personal responsibility was associated with differences on all LOPP subscale scores. In every case, the high responsibility group reported stronger adherence to learning organization principles and practices compared to the low responsibility group.

DISCUSSION

Results showed that both personal and work-related factors were associated with variations in employees’ judgments of adherence to learning organization principles and practices but that personal responsibility clearly stood out as the most important predictor of employee’s judgments of their program and organization. The findings confirmed the authors’ observations that personal responsibility beliefs about individual and collective learning was a factor influencing employees’ appraisals of the organization constituting the focus of investigation. The findings also showed that work-related factors, including both internal and external program uplifts, were related to positive staff judgments of the extent to which their program and organization operated in ways consistent with learning organization principles and practices. These findings suggest that the supports provided by managers and peers contributed to a positive work environment climate (internal program uplifts) and that the personal rewards derived from practicing one’s craft (external program uplifts) also influenced employees’ belief appraisals of their program. In addition, both kinds of positive work-related experiences offset the influences of negative work-related experiences (external program hassles).

There is disagreement as to whether a sense of work-related personal responsibility is a personal trait that is not easily changed (Oreg, 2006) or is a malleable characteristic that can be altered as a function of management and organizational practices (Giesecke & McNeil, 2004; Smith & Sharma, 2002). The majority of evidence suggests that under the proper conditions, and with the necessary management and organizational supports, most employees sense of work-related personal responsibility can be nurtured and strengthened (Dovey, 1997; Smith & McLaughlin, 2003). There are, nonetheless, situations where certain employees, for various reasons, have entrenched beliefs that they either have little or no responsibility for continuously improving their job performance (Cordery, Sevastos, Mueller, & Parker, 1993; Porac, Ferris, &
Fedor, 1983) or behave as if the onus of responsibility is with management or the organization for whom they work (Stajkovic & Luthans, 1998). In the organization constituting the focus of investigation in this paper, there were some, but fortunately few, employees who resisted the idea of personal and organizational learning and who responded to continuous programmatic change and improvement as an indication of personal failure or a threat to their self-competence.

One set of factors that has been implicated as important for nurturing and supporting the development of personal responsibility for work-related continuous learning and improved performance is the belief that one is a lifelong learner (Longworth & Davies, 1996; Senge, 2006; Smith & McLaughlin, 2003) and employment in a program or organization that supports and encourages continuous learning (Ismail, 2005; Senge, 1990b; Senge et al., 1999). Persons who consider themselves lifelong learners are more likely to be reflective practitioners (Schon, 1983, 1987) who use their existing knowledge and skills, and their work-related experiences, as sources of information to identify areas for individual and collective performance improvement. Managers who are supportive of this kind of person-centered learning, and who afford employees opportunities for further learning, are more likely to find improvements in individual and collective organizational learning (Dickover, 2002; Dovey & White, 2005; Ismail, 2005). Some combination of personal responsibility and manager-facilitated employee learning therefore is likely to benefit both employees and the organization.

The importance of the interplay between personal factors and supportive experiences was highlighted in a recently completed meta-analysis of adult learning methods and practices. Findings showed that optimal learner benefits were realized when coaches or mentors (instructors, trainers, supervisors, etc.) positively engaged learners in acquiring new knowledge and skills, the coaches or mentors facilitated learner reflection on their experiences, and engaged the learners in self-assessment of personal mastery (Dunst & Trivette, 2011; Dunst, Trivette, & Hamby, 2010). Results also showed that the combined use of on-the-job learning experiences, coach or mentor guided learner evaluation of those experiences, coach or mentor and learner reflective discussions and dialogue, and learner use of performance standards as benchmarks for assessing personal mastery had the greatest effects on learner outcomes (Dunst & Trivette, 2011).

**Conclusion**

Managers that use learning organization principles and practices (Bennett & O'Brien, 1994; Senge, 2006; Yanow, 2001) for engaging employees in individual and collective learning to promote continuous employee performance improvement need to recognize and consider the fact that employees' sense of personal responsibility can play a significant role in either enhancing or impeding individual and organizational growth. These include, but are not limited to, employee responsibility appraisals in terms of the kinds of learning opportunities afforded employees, the methods and strategies used to build a strategic organizational vision and mission, and the management and organizational practices used to nurture and support the development of a personal sense of work-related responsibility. Theory, research, and practice provide the kind of guidance needed to bridge individual and organizational learning (Goh, 2001; Lim, Tan, & Platts, 2005; Phillips, 2003; Schwaninger, 2000; Senge, 2006; Yanow, 2001) and to create the kind of work environment conducive to promoting a deeper sense of employee personal responsibility (Dymock & McCarthy, 2006; Porac et al., 1983; Youssef & Luthans, 2007). In the absence of a heightened sense of employee personal responsibility, the support provided by and learning opportunities afforded employees by managers, are not likely to result in either individual or collective organizational learning (Smith & Sharma, 2002). The idiom that
you can lead a horse to water but you cannot make it drink perhaps best captures this kind of situation.
Footnotes

1 The authors' responses to the study questionnaires were excluded from the analyses reported in this paper.

2 Each predictor measure would be expected to be significantly related to one of the 12 LOPP subscale scores by chance (12 x .05 = .60). In instances where there was a significant correlation between a predictor measure and only one LOPP subscale score, we considered this occurrence random and uninterpretable.

3 The pooled standard deviation was 0.945. The standard deviations for the individual subscale scores ranged from 0.594 to 1.090. Using the largest standard deviation to calculate more conservative effect size estimates, the sizes of effect for 75% of the between group differences were all moderate (0.51 to 0.67).
References


Figure Caption

Figure 1. Mean learning organization subscale scores for staff having low and high degrees of personal responsibility for individual and collective organizational learning. (NOTE.--Numbers on the bars are the Cohen's $d$ effect sizes for the between group differences.)
* $p < .05$. ** $p < .01$. 


Figure 1.
Table 1

Definitions of the Twelve Learning Organization Practices Profile Subscales

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vision and Strategy</td>
<td>Vision refers to the desired goals of an organization, and strategy refers to the commitment and methods used to achieve stated changes or improvements.</td>
</tr>
<tr>
<td>Management Practices</td>
<td>Managerial practices involve day-to-day modeling of desired behavior by senior staff consistent with the organization's values and priorities.</td>
</tr>
<tr>
<td>Supervisory Practices</td>
<td>Supervisory practices include those that encourage staff's organizational learning and development with an emphasis on deep understanding and insights about desired performance.</td>
</tr>
<tr>
<td>Program Climate</td>
<td>Climate refers to the &quot;sum of the values and attitudes of everyone in the organization regarding the way people are [expected] to behave as they go about their work&quot; (Bennett &amp; O'Brien, 1994, p. 44).</td>
</tr>
<tr>
<td>Organizational/Job Structure</td>
<td>Structure refers to the connectedness of organizational goals, the fluid and changing duties and responsibilities of staff, and the individual and collective contributions of staff to achieving desired organizational changes or improvements.</td>
</tr>
<tr>
<td>Information Flow</td>
<td>Flow refers to the methods and procedures used to promote the exchange of needed information to and from, and between staff and management, in order to focus attention on what is important to the organization.</td>
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<tr>
<td>Individual and Team Practices</td>
<td>These practices refer to the ways in which individuals behave and groups work together to continually examine their practices against organizational principles emphasizing continuous learning.</td>
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<tr>
<td>Subscale</td>
<td>Definition</td>
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<tr>
<td><strong>Work Processes</strong></td>
<td>Work processes refer to the day-to-day practices that use organizational principles as standards for encouraging and supporting learning in ways consistent with desired goals.</td>
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<tr>
<td><strong>Performance Goals/Feedback</strong></td>
<td>Goals refer to the desired outcomes for the recipients of the organization's products or services, and feedback refers to the methods used to help staff judge how closely their actions are aligned with achieving these benefits.</td>
</tr>
<tr>
<td><strong>Training and Education</strong></td>
<td>Training and education refers to the formal learning opportunities that help staff examine their practices and experiences against organizational standards and goals, and which provide staff opportunities to improve their on-the-job performance.</td>
</tr>
<tr>
<td><strong>Rewards and Recognition</strong></td>
<td>Rewards and recognition refers to the ways in which feedback systems &quot;support the philosophy and practices of organizational learning...where staff are recognized and rewarded for continuous learning and change&quot; (O'Brien, 1994b, p. 15).</td>
</tr>
<tr>
<td><strong>Individual/Team Development</strong></td>
<td>The development of individual and team capacity refers to the participatory opportunities that are embedded into the fabric of an organization that makes day-to-day practices contexts for continuous learning.</td>
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</table>

*a Adapted from Bennett and O'Brien (1994) and O'Brien (1994b).*
Table 2
Correlations Between the Predictor Measures and Learning Organization Practices Profile Subscale Scores

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<th>Predictor Measures</th>
<th>VS</th>
<th>MP</th>
<th>SP</th>
<th>PC</th>
<th>JS</th>
<th>IF</th>
<th>ITP</th>
<th>WP</th>
<th>PGF</th>
<th>TE</th>
<th>RR</th>
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<td>25</td>
<td>06</td>
<td>11</td>
<td>07</td>
<td>28*</td>
<td>18</td>
<td>23</td>
<td>05</td>
<td>06</td>
<td>18</td>
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<tr>
<td>Years Working In</td>
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<td>29*</td>
<td>06</td>
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<td>41*</td>
<td>09</td>
<td>26*</td>
<td>11</td>
<td>-04</td>
<td>45**</td>
<td>20</td>
<td>31*</td>
<td>06</td>
<td>45**</td>
<td>07</td>
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<td>38**</td>
<td>56***</td>
<td>23</td>
<td>46**</td>
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<td>39**</td>
<td>34*</td>
<td>51***</td>
<td>39**</td>
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<td>06</td>
<td>45**</td>
<td>11</td>
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<td>11</td>
<td>02</td>
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<tr>
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</tbody>
</table>

*VS = Vision and strategy, MP = Management practices, SP = Supervisory practices, PC = Program climate, JB = Job structure, IF = Information flow, ITP = Individual and team practices, WP = Work processes, PGF = Performance goals and feedback, TE = Training and education, RR = Rewards and recognition, and ITD = Individual and team development.

NOTE.--Decimal points are omitted from the correlations.

* p < .05.
** p < .01.
*** p < .001.