The validity of the Performance Environment Perception Scales: Environmental predictors of citizenship performance

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Abstract

This research examined the validity of the Performance Environment Perception Scales (PEPS), a new instrument designed to assess performance-relevant aspects of the work environment. A sample of 156 employees of an Australian university completed the PEPS and their supervisors rated their task and citizenship performance. Confirmatory Factor Analysis showed the PEPS to have a valid factor structure, and the PEPS were found to be significantly correlated with citizenship performance, but not with task performance. Although this finding is consistent with theoretical predictions, the PEPS are apparently the first measures of work environment perceptions that have confirmed this. Thus the PEPS show promise as measures for use in future research and organizational development projects that focus on relationships between the work environment and performance. Limitations of the research and implications for the validity of the PEPS, as well as for future research and practice, are discussed.

Keywords: Performance Environment Perception Scales; Citizenship Performance; Task Performance; Validation Study
Performance in the workplace is one of the most important constructs in organizational behavior (Austin & Villanova, 1992), largely because managers and organizations value staff performance so highly (Campbell, 1999). Given this, the identification of factors that help to predict and contribute to performance is a key concern of both researchers and practitioners. A substantial body of research has developed that attempts to predict performance on the basis of characteristics of individual workers, such as personality (Barrick, Mount, & Judge, 2001) or intelligence (Ree & Carretta, 2002), but there has also been considerable work examining the influence of environmental factors such as justice (Cohen-Charash & Spector, 2001) and relationships with leaders (Ilies, Nahrgang, & Morgeson, 2007), as well as broader work environment factors.

The manner in which employees perceive these environmental factors mediates much of the influence of the work environment on individual behaviour (James, Choi, Chia-Huei, McNeil, Minton, & Wright, 2008). Shared perceptions of formal and informal components of the organizational environment have been referred to as organizational climate, which has been found to have a reliable influence on a range of organizational outcomes, including work attitudes, motivation and performance (Parker, Baltes, Young, Huff, Altmann, LaCost, & Roberts, 2003). However, the range of factors within the work environment that can vary is substantial, including relationships, leadership, development, support, pressure, innovation and physical features of the workplace (Turnipseed & Murkison, 2000). Consequently, one of the challenges for organisational researchers and practitioners is the identification of which environmental factors should be focused on when attempting to understand environmental influences on performance. Various authors have adopted different solutions to deal with this: D’Amato and Zijlstra (2008) reconstructed data based on a ten-scale instrument into three factors based on groups of organizational stakeholders; Parker et al.’s meta-analysis (2003)
used a five-factor model designed to reflect cognitive representations of the work environment; and Carr, Schmidt, Ford and DeShon’s (2003) meta-analysis used three factors that were intended to reflect a comprehensive model of the work environment. These solutions have been helpful in understanding the nature of climate overall. Unfortunately, this comprehensiveness makes it more difficult to investigate specific relationships, such as the relationship between perceptions of the work environment and performance.

The failure to find factors that match specific theoretical expectations has more than theoretical consequences – managers and organizational development practitioners would benefit from having practical tools to guide their attempts to address performance issues. One approach to resolving the problems of organizational climate measurement has been to refocus measures of organizational climate in order to make them more specific (Carr, et al., 2003), effectively making them “climate for something” (D'Amato & Zijlstra, 2008: p. 33) such as safety, quality or innovation. It was with the purpose of identifying a brief, practical assessment of environmental factors that affect performance that the Performance Environment Perception Scales (PEPS) were developed (Ripley, 1998, 2003). In order to develop the PEPS, Ripley (1998; 2003) identified items that were theoretically related to staff performance before subjecting these to a factor analysis. This resulted in four oblique factors of workplace environmental perceptions, namely Communication and Participation, Person-Job Fit, Work Organization and Design, and Person-Work Group Fit (Ripley, 2001). Subsequent cross-cultural research with the PEPS showed the structure of these scales remained concordant across diverse cultures, including Korea, Taiwan, Singapore, Australia and the USA (Ripley, Hudson, & Turner, 2006). Thus, the PEPS appear to be cross-culturally consistent measures of staff perceptions of work environment.

Despite this, no research has confirmed the PEPS factor structure since they were initially developed. Given the fact that the PEPS displayed a high degree of concordance in different
cultural settings, it seems reasonable to expect that these scales will have a valid factor structure, so the first hypothesis for this research was:

**Hypothesis 1:** The PEPS will display a valid factor structure when assessed using confirmatory factor analysis.

Although the PEPS appear to have good internal and cross-cultural reliability, they have yet to be adequately tested for their predictive validity, which is especially important considering that they were designed to predict workplace performance. Previous research has found that psychological climate can have significant effects on a range of outcomes (Parker et al., 2003). Most relevant of these is that staff perceptions have been shown to correlate with both organisational (Neal, West, & Patterson, 2005) and staff performance (Parker et al., 2003; Turnipseed & Murkison, 2000).

However, just as measures of organizational climate have evolved in recent times, so conceptions of performance have also been progressively refined. A number of authors have proposed diverse models of performance, distinguishing performance dimensions as specific as gun maintenance or as general as productivity and compliance (Campbell, Gasser, & Oswald, 1996; Viswesvaran, Ones, & Schmidt, 1996). One of the longest-standing and best-verified of performance distinctions is that between task and citizenship performance. Task performance refers to those components of work performance that are tied to the technical core of a job or occupation, the features of which are typically reflected in formal job descriptions (Motowidlo, 2003). In contrast, a separate component of performance has been identified that includes activities that provide a supportive context for task performance, whether by way of making effort, helping other workers, or generally supporting the organization. These activities have received a variety of labels over the years, such as organizational citizenship behavior (Smith, Organ, & Near, 1983), prosocial behavior (George, 1991) and contextual performance (Borman & Motowidlo, 1993). More recently,
Coleman and Borman (2000) proposed the term *citizenship performance* as a means of integrating these various labels; the rest of this article will follow this usage.

There has been much debate about the nature of citizenship performance, with some authors arguing that it is a set of activities that are not rewarded and purely discretionary (e.g., Smith et al., 1983) while others have found this requirement to be unnecessary (Coleman & Borman, 2000). This is because citizenship behaviors, although often discretionary, are in fact required components of work performance in some jobs, especially service occupations. So, it appears that citizenship differs from task performance not in the degree to which it is discretionary, but instead with respect to the degree to which citizenship supports the core technical component of work (N. P. Podsakoff, Whiting, Podsakoff, & Blume, 2009).

Citizenship performance has come to be one of the most researched components of work performance, with hundreds of published research articles incorporating this construct (P. M. Podsakoff, MacKenzie, Paine, & Bachrach, 2000). In practical terms, one of the reasons for its prominence is the contribution of citizenship performance to overall work performance as well as to organizational performance. A recent meta-analysis showed that citizenship performance accounted for a proportion of variance in measures of overall performance similar to task performance (N. P. Podsakoff, et al., 2009). Average citizenship performance within a work unit is also significantly related to unit-level costs, productivity, efficiency and customer satisfaction (N. P. Podsakoff, et al., 2009). From a theoretical perspective, citizenship performance has an important role as the performance component predicted to be most closely linked to features of the work environment (Ilies, et al., 2007; Smith, et al., 1983). If this position is correct, and at the same time the PEPS are valid measures of work environment perceptions, then the PEPS should be associated with citizenship performance.

This argument led to the second hypothesis:
**Hypothesis 2:** PEPS scores will be positively correlated with citizenship performance.

Taking this argument further, the PEPS should be more closely associated with citizenship than with task performance. In their earliest writings on the topic, Borman and Motowidlo (1993) argued that citizenship and task performance were linked to different antecedent factors, namely motivational and ability factors respectively. On this basis, they later argued that personality was more closely linked to citizenship than task performance, while the reverse held true for ability factors such as knowledge and skills (Motowidlo, Borman, & Schmit, 1997). Consistent with this, meta-analyses have found that personality has higher correlations with citizenship than with task performance (Hurtz & Donovan, 2000), and while citizenship has negligible correlations with ability, experience and training (average correlation = .008, based on correlations reported by N. P. Podsakoff et al., 2009), performance measures generally have much stronger correlations with these factors (with job knowledge: .48; with training & experience: .45; Schmidt & Hunter, 1998).

If, in contrast, motivational factors are more closely associated with citizenship than with task performance, then motivational work environments should be especially linked to citizenship performance. However, there is little research evidence that both speaks directly to this prediction and supports it. In their meta-analysis of perceived organizational support, Rhoades and Eisenberger (2002) estimated the true-score correlations with task and citizenship performance at .18 and .22 respectively, which were not significantly different. This lack of discrimination in statistical prediction of task versus citizenship performance could represent a flaw in the theoretical analyses that led to the formulation of the citizenship performance construct. Alternatively, it could be the result of complications with the construct examined by Rhoades and Eisenberger (2002). For example, perceived organizational support has been observed to be strongly associated with perceived levels of
political behavior ($r = .83$: Rhoades & Eisenberger, 2002). But political behavior affects not only perceptions but also access to the resources that are needed for effective task performance, and political behavior can have profound effects on performance appraisals generally (Kozlowski, Chao, & Morrison, 1998). So, the fact that Rhoades and Eisenberger (2002) did not find different correlations of organizational support with task and citizenship performance may well be due to confounding political behavior with perceived organizational support, rather than flaws in the theoretical distinction between task and citizenship performance.

Measures of organizational climate have rarely been correlated with citizenship performance. Two recent meta-analyses have reported modest correlations of climate measures with overall performance (Carr, et al., 2003; Parker, et al., 2003) but did not report estimates of association with either citizenship or task performance. A recent study that did so (D'Amato & Zijlstra, 2008) found different correlations of measures of climate with citizenship performance and performance quality. Unfortunately, all of the measures, including the performance measures, were self-rated so it is difficult to know whether or not this correlation reflects the participants’ conceptions of the likely relationships between the measures. Thus, there appears to be no definitive evidence to date as to whether measures of climate are particularly associated with citizenship as opposed to task performance.

The development of the PEPS provides an opportunity to revisit the question of whether perceptions of the organizational environment are differentially related to task and citizenship performance. Consequently, on the basis of the theoretical analyses that led to the initial development of the citizenship performance construct, the third hypothesis for this research is:

*Hypothesis 3: PEPS scores will have higher correlations with citizenship performance than with task performance.*
Method

Data collected for this study were obtained as part of a larger investigation into factors affecting ratings of performance, including self- and other-rated personality measures.

Participants

Participants in this study were non-academic staff and supervisors from a multi-campus tertiary education institution in Queensland, Australia. A total of 238 staff from the relevant sections agreed to participate, but complete data for this study was available for only 156 participants. The average of the participants was 37.8 years, and 77.3% were female. These figures are comparable with those for all non-academic staff within the university (average age of 41.5 years of whom 72% were female). So, the sample who participated in this study is largely representative of non-academic staff within the university.

Measures

Performance Environment Perception Scales (PEPS)

As mentioned previously, the PEPS consist of four scales for assessing perceptions of the work environment. The first scale, Communication and Participation, has items assessing the degree to which staff believe they are informed about what is required of them and are able to make decisions about their performance standards. The second scale, Person-Job Fit, measures the degree to which staff like their job and consider it be important. Work Organization and Design, the third of the PEPS, is intended to identify the degree to which staff have the resources, technology, flexibility and work organization needed to support performance. The final of the four PEPS, Person-Work Group Fit, assesses the extent to which staff believe that the social environment in which they work is inclusive and supportive of work performance. Each of the PEPS is composed of four items and participants were asked to rate their agreement with each item on a scale from one to seven,
with seven being the maximum degree of agreement. A copy of the PEPS is presented in an appendix to this article, with the kind permission of its author, Dr David Ripley.

**Citizenship Performance**

Citizenship Performance was assessed using a scale reported by Poropat & Jones (in press). This scale has six items, for each of which supervisors are required to assign a number from one to five, according to how accurately they think each item describes the relevant staff member. Example items from this scale include: Cooperates fully with others by willingly sacrificing own personal interests for the good of the team; Avoids performing any tasks that are not normally a part of own duties by arguing that they are somebody else’s responsibility (Reverse scored). This scale was designed to measure citizenship performance as a unifactorial construct, in line with recent research on the underlying dimensionality of citizenship performance (Hoffman, Blair, Meriac & Woehr, 2007; LePine, Erez & Johnson, 2002). When compared with the previously developed measures of citizenship performance of Job Dedication and Interpersonal Facilitation (Van Scotter & Motowidlo, 1996), the unifactorial scale was found to be superior with respect to both internal factor structure and external validity (Poropat & Jones, in press).

**Task Performance**

Task performance was assessed using a two-item measure, based on descriptions provided by Viswesvaran et al. (1996). The first item asked supervisors to rate their staff on productivity (the quantity or volume of work they produce), while the second item asked for ratings on the quality of their work (how well their tasks are done in terms of accuracy, lack of errors and thoroughness). The relative percentile method (Wagner & Goffin, 1997) was used to rate staff on these items. This method requires supervisors to assign staff members a rating from 1 to 100 to indicate their relative performance compared with all other staff within the organization. To provide a guide, supervisors are asked to compare their staff with
an average worker within the organization, the best worker in the organization and the worst still-employed worker. An average worker should receive a rating of 50, while the best and worst workers should receive ratings of 100 and 1 respectively. This method was used because it tends to show higher validities and lower leniency and severity biases than alternative performance rating methods, such as behaviorally-anchored rating scales and behavioral observation scales (Wagner & Goffin, 1997).

**Procedure**

Participation in this research, by both supervisors and staff, was voluntary. The only rewards provided were that all participants received feedback on results of the research project as well as a brief summary of their individual personality scores, which were collected for a separate part of the research (not reported or discussed here). Once formal approval had been granted for the research project, supervisors were approached to participate, and all who were invited agreed to do so. Staff were subsequently approached, either in meetings or individually, and a description of the research project, including confidentiality protections, was provided to them. Both staff and supervisors were told that the research was an investigation into the relationships between perceptions of the organization, personality and performance. Staff who agreed to participate were given copies of the PEPS to complete. Supervisors were then informed about which staff were participating so that they could provide ratings of task and citizenship performance for those staff. Staff did not see the ratings provided by supervisors, nor did supervisors see any ratings provided by staff.

The university’s Human Research Ethics Committee granted ethical approval to the research prior to any data collection. Staff were informed that their managers would be providing ratings of their task and citizenship performance and that these ratings would not be shared with staff or kept for any reason apart from research purposes. However, staff were
also informed that they could withdraw their participation at any time up until the point at which data had been de-identified, at which point it would no longer be possible to identify and delete their data. No participants requested to withdraw from the research. Questionnaires have been stored securely using locked cabinets, in order to maintain confidentiality.

Results

The PEPS were subjected to a confirmatory factor analysis using the AMOS 6.0 program (Arbuckle, 2005). Hu and Bentler’s (1998; 1999) recommendations for assessing fit were followed, namely that Chi-Square, Standardized Root Mean Residual (SRMR) and Comparative Fit Index (CFI) were used to evaluate the fit of the hypothesized factor model, using the following cutoff criteria: SRMR ≤ .08; CFI ≥ .95 (Hu & Bentler, 1999).

The results of the confirmatory factor analysis are reported in Table 1. The overall model included all items for all four scales and the four scales were allowed to correlate. This model showed good fit, with the values for both SRMR and CFI satisfying Hu and Bentler’s cutoff criteria. Each of the models for the individual scales also showed satisfactory fit when tested against Hu and Bentler’s criteria, with two of the scales, Work Organization and Design, and Person-Work Group Fit, also producing non-significant values for Chi-Square. Thus, the PEPS have a valid factor structure as assessed by confirmatory factor analysis, confirming Hypothesis 1.

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Insert Table 1 about here

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Table 2 presents the means, standard deviations, internal reliabilities (Cronbach Alphas) and intercorrelations for each of the measures in this study. Each of the measures reported in Table 2 were moderately negatively skewed, a finding that is consistent with what has long
been observed about performance measures generally (cf., Bretz Jr., Milkovich, & Read, 1992). Consistent with the recommendations of Schmidt and Hunter (1996), both uncorrected and corrected correlations are reported. The measure of task performance used in this study showed particularly high internal reliability, despite consisting of only two items, while the internal reliability for each of the other scales ranged from acceptable to good. The Cronbach Alphas for the PEPS were lower than those reported previously (.915 and above: Ripley, et al., 2006), but still indicate a satisfactory level of reliability, a point that is emphasized by the confirmatory factor analysis. The various PEPS showed moderate to strong correlations, which is consistent with the fact that the PEPS were developed using oblique factor rotations (Ripley, 1998).

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With the exception of Person-Work Group Fit, each of the PEPS was correlated with citizenship performance, so the results of this study are largely consistent with Hypothesis 2, that PEPS scores will be positively correlated with measures of citizenship performance. It was also predicted that the PEPS would be more strongly correlated with citizenship performance than with task performance. The uncorrected correlations were compared using Olkin’s z-test for comparing dependent correlations (May & Hittner, 1997). Although the correlations of Person-Work Group Fit with both performance measures were not significant, Schmidt and Hunter (1996) argued that it is still appropriate to compare two non-significant correlations. Each of the correlations between the PEPS and citizenship performance was significantly greater than the corresponding correlations between the PEPS and task performance ($p < .05$, one-tailed), so the results of this research were consistent with
Hypothesis 3. In summary, the PEPS appear to be valid predictors of citizenship performance and to differentially predict citizenship as opposed to task performance.

Discussion

This study has shown both that the PEPS have a sound factor structure and that they measure aspects of the work environment that are related to citizenship performance. It is noteworthy that the PEPS are correlated with citizenship but not task performance, an effect that was particularly clear with the Communication and Participation scale. This means that the PEPS appear to be valid additions to the range of measures researchers can use to understand and predict citizenship performance.

This research showed that the PEPS scales were significantly related to citizenship performance but at the same time showed no significant correlation linking the PEPS to task performance. It may be that there are underlying relationships between the PEPS and task performance, but these relationships may be relatively modest and so did not appear in this study. Although the sample size used in the present study has enough power to find a predicted correlation as small as .14, this is not sufficient power to find correlations of the magnitude of most of those found by Parker et al. (2003). So, the PEPS may, in reality, be correlated with task performance but at a low enough level that a larger sample size is needed to find these correlations.

Nonetheless, the failure of the present study to produce a significant correlation between the PEPS and task performance implies that any correlation between these measures must be smaller than the correlations with citizenship performance, so the PEPS would still act as predictors that are specifically linked to citizenship performance. If this conclusion is supported by later research, it would represent an unusually specific linkage between an environmental variable and performance criteria, contrasting with observed correlations
between performance and perceived organizational support (Rhoades & Eisenberger, 2002). Just as personality appears to have a stronger relationship with citizenship performance while ability appears to be related more closely to task performance (Motowidlo, 2003), the results of this research support the idea that environmental factors may have a corresponding pattern of influence. This conclusion gives support to the conceptualization of citizenship performance as being particularly related to environmental perceptions, as proposed by the originators of the construct (Borman & Motowidlo, 1993; Smith et al., 1983).

Nonetheless, similar research conducted among different work populations would allow greater confidence in the pattern of correlations discussed here. It would also be useful to explore the divergent validity of the PEPS by testing their relationships with other measures of the workplace environment. An important part of this would be to examine whether the PEPS provided additional statistical prediction of citizenship performance beyond that provided by perceived organizational support. From a different perspective, it is also necessary to further explore the construct validity of the PEPS. Comparing independently-obtained assessments of features of the employment environment that should be associated with performance environment perceptions will enable a test of whether the PEPS measure what they are purported to measure. Such a test will enable both researchers and practitioners to better consider the most appropriate use of this new instrument.

In practical terms, it would be a mistake to undervalue the results reported here on the basis that the correlations of the PEPS with citizenship performance do not appear to be particularly large. This is because these correlations are likely to under-estimate the construct-level association between these measures because they are based on ratings from different sources. Although use of ratings from staff and supervisors has the advantage of eliminating common-method biases (P. M. Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), it introduces other biases that tend to deflate associations. This can be readily seen in the
relatively low level of correlation between performance ratings obtained from staff and supervisors when both have been produced using identical measures (e.g., Allen, Barnard, Rush, & Russell, 2000 obtained a staff-supervisor correlation of .20 for citizenship performance). Consequently, the correlations between the PEPS and citizenship performance are likely to represent a lower-bound estimate of their true relationships. The observed correlations between citizenship performance and the PEPS are of similar magnitude to correlations with perceived organisational support (.22: Rhoades & Eisenberger, 2002), and leader-member-exchange (.32: Ilies et al., 2007). So, the findings presented here are of similar strength to those obtained using comparable predictors of performance.

These other variables have been shown to be practically valuable in organizational management, so it seems likely that the PEPS too are likely to be useful for future researchers and practitioners. Specifically, practitioners might use the PEPS diagnostically to determine which perceptions of the work environment were scoring lower or higher, and designing interventions on the basis of this information. The PEPS may also prove useful for evaluating the effectiveness of organizational development activities designed to improve the performance environment. More generally, practitioners should consider how organizational conditions and interventions are likely to affect citizenship performance by altering perceptions of communication, person-job fit, or work organization and design. Management strategies and interventions could then be revised accordingly to optimize their effects on performance. Thus, the findings of this research provide managers and organizational development practitioners with additional tools for enhancing staff performance.

In conclusion, this research provided a test of the factorial integrity and the predictive validity of the PEPS with respect to its role as an instrument for assessing perceptions of environmental contributors to performance. It has been shown that the PEPS are valid measures of performance-relevant perceptions and fulfill the purpose for which they were
designed. Consequently, the use of the PEPS as tools for assessing the work environment, as well as for monitoring and guiding efforts to ameliorate staff perceptions, should be further explored. In particular, it would be valuable to determine the extent to which changes in the workplace affect scores on the PEPS, and whether the PEPS mediate the relationship between workplace changes and any subsequent changes to performance. The role of the PEPS as predictors of performance appears to be limited to citizenship performance, which should prove to be a strength when it comes to understanding the nature and causation, as well as the management of citizenship performance.
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References


Appendix

Scale 1: Communication and Participation
1. We often receive feedback about our work.
2. We are involved in setting goals for our jobs here.
3. We normally get clear instructions about what’s expected of us.
4. We routinely participate in decisions about our jobs.

Scale 2: Person-Job Fit
5. My job is an important responsibility.
6. Part of our job is to get involved in solving problems.
7. I like most things about my job.
8. There is enough variety in my job to satisfy me.

Scale 3: Work Organization and Design
9. Resources to do the job are available when needed.
10. We are able to take advantage of the technology available to us.
11. Our work schedule gives me flexibility when I need it.
12. We are well organized for the work we have to get done.

Scale 4: Person-Work Group Fit
13. There are a lot of “cliques” here, that don’t get along with each other. (N)
14. Co-workers interfere with me being able to do my job. (N)
15. We have an atmosphere that most people feel comfortable working in.
16. Many of our employees aren’t cut out for the jobs they are doing. (N)
Table 1

*Confirmatory Factor Analysis of Performance Environment Perception Scales.*

<table>
<thead>
<tr>
<th></th>
<th>$\chi^2$</th>
<th>df</th>
<th>$p$</th>
<th>SRMR</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Model</td>
<td>132.0</td>
<td>98</td>
<td>.013</td>
<td>.050</td>
<td>.960</td>
</tr>
<tr>
<td>Communication &amp; Participation</td>
<td>8.4</td>
<td>2</td>
<td>.015</td>
<td>.034</td>
<td>.970</td>
</tr>
<tr>
<td>Person-Job Fit</td>
<td>7.4</td>
<td>2</td>
<td>.025</td>
<td>.045</td>
<td>.959</td>
</tr>
<tr>
<td>Work Organization &amp; Design</td>
<td>.15</td>
<td>2</td>
<td>.930</td>
<td>.005</td>
<td>1.000</td>
</tr>
<tr>
<td>Person-Work Group Fit</td>
<td>1.4</td>
<td>2</td>
<td>.495</td>
<td>.018</td>
<td>1.000</td>
</tr>
</tbody>
</table>

* N = 156.

*Note.* $p$ = probability for $\chi^2$; SRMR = Standardized Root Mean Residual; CFI = Comparative Fit Index.
Table 2

Descriptive Statistics and Intercorrelations.\(^a\)\(^b\)

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>S.D.</th>
<th>Skew</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Task Performance</td>
<td>127.6</td>
<td>54.1</td>
<td>-.82***</td>
<td>.96</td>
<td>.27</td>
<td>-.02</td>
<td>.00</td>
<td>-.08</td>
<td>-.12</td>
</tr>
<tr>
<td>2. Citizenship Performance</td>
<td>17.2</td>
<td>4.21</td>
<td>-1.43***</td>
<td>.24**</td>
<td>.85</td>
<td>.31</td>
<td>.23</td>
<td>.17</td>
<td>.17</td>
</tr>
<tr>
<td>3. Communication &amp; Participation</td>
<td>19.2</td>
<td>4.95</td>
<td>-.55**</td>
<td>-.02</td>
<td>.26***</td>
<td>.82</td>
<td>.73</td>
<td>.74</td>
<td>.64</td>
</tr>
<tr>
<td>4. Person-Job Fit</td>
<td>22.1</td>
<td>3.72</td>
<td>-.87***</td>
<td>.00</td>
<td>.18*</td>
<td>.56***</td>
<td>.71</td>
<td>.42</td>
<td>.52</td>
</tr>
<tr>
<td>5. Work Organization &amp; Design</td>
<td>20.5</td>
<td>4.61</td>
<td>-.91***</td>
<td>-.07</td>
<td>.14*</td>
<td>.59***</td>
<td>.31***</td>
<td>.78</td>
<td>.71</td>
</tr>
<tr>
<td>6. Person-Work Group Fit</td>
<td>21.1</td>
<td>4.32</td>
<td>-.55**</td>
<td>-.10</td>
<td>.13</td>
<td>.49***</td>
<td>.37***</td>
<td>.54***</td>
<td>.71</td>
</tr>
</tbody>
</table>

\(^a\)\(^N\) = 156. Cronbach Alphas for each scale are listed on the diagonal.

\(^b\) Raw correlations reported below the diagonal; correlations corrected for scale reliability reported above the diagonal.

* \(p < 0.05\); ** \(p < 0.01\); *** \(p < 0.001\). One-tailed tests.