Organizational Learning and Teacher Performance in Public Educational Institutions in a District of Lima

Gloria Susana Méndez-Ilizarbe¹; Ricardo Edmundo Ruiz-Villavicencio²; Jenny Milagros Melchor Canevaro³; Julia Huaringa Inga⁴; Magaly Chirihuana Torres⁵; Ricardo Iván Vértiz-Osores⁶*

¹Escuela De Posgrado, Universidad César Vallejo, Perú.
²https://orcid.org/0000-0001-9919-2003
³Escuela De Posgrado, Universidad César Vallejo, Perú.
⁴https://orcid.org/0000-0002-1353-1463
⁵Universidad César Vallejo, Perú.
⁶https://orcid.org/0000-0002-5660-0908
⁷Universidad César Vallejo, Perú.
⁸https://orcid.org/0000-0002-6611-0099
⁹Universidad César Vallejo, Perú.
¹⁰https://orcid.org/0000-0002-0803-3152
¹¹Universidad César Vallejo, Perú.
¹²rivertizv@ucvvirtual.edu.pe, https://orcid.org/0000-0003-1223-2784

Abstract
The relationships and differences between organizational learning and the performance of teachers in five public educational institutions in a district of Lima were determined. It was a quantitative study with a comparative correlational, non-experimental design. 145 teachers were surveyed with two validated questionnaires. The Tau-b-Kendall correlation test was used for correlation analysis. For score comparisons, the normal Z test, analysis of variance and a Scheffe test were used. Significant associations were found between the variables, and it was also determined that there were differences between the average scores of the teachers by educational level (initial, primary and secondary), with greater associations between teachers at the initial and secondary levels. Finally, the promotion of learning is an aspect that would require greater attention for the better performance of regular basic education teachers, and more aggressive strategies should be established from the institutional directions to promote more and better organizational learning as a work philosophy in these professionals in a social context where knowledge and technology interact at the level of mimicry in a structure that requires competitiveness at the human evolutionary level.
Key-words: Continuous Learning, Teaching Performance, Organizational Culture, Quality of Education.

1. Introduction

Faced with the inexcusable need to be competitive, it is essential for organizations to apply creativity based on what is previously known (Evans et al., 2020; Kapo et al., 2020), thanks to which it generates innumerable benefits for the entity as well as for its employees (Khorasani & Zamanimanesh, 2020). Thus, employees become 'learning vehicles' providing value to the organization through their skills, knowledge and talent (De Vos et al., 2019). In this sense, it is a great challenge for organizations to facilitate the continuous learning of their employees and to permanently transform themselves in the self-sustainability of their competitive advantages (Sinclair, 2017). Only organizations that learn from themselves, from their virtues, from their mistakes, from their successes and failures, are prepared to adapt to the evolving business world of this time and of the future (Barba Aragón et al., 2014; Basten & Haamann, 2018).

There are many reasons to attribute to universities a fundamental role in the training of professionals that meet the needs demanded by the current globalized market that is governed under social needs, entrepreneurship and entrepreneurial vision (Paraschiva & Draghici, 2019; Tito Cárdenas et al., 2020). However, there are some reasons where a coevolution is not distinguished according to modern trends that force to train professionals with multidisciplinary skills (De Vos et al., 2019) essential to have the competitiveness required for the survival of the entity. Therefore, in the improvement process, organizations must always learn something new, otherwise, they would only be repeating old practices and the changes achieved would only be superficial and short term (Guevara et al., 2021). Therefore, the entity assumes the responsibility of motivating its collaborators to specialize and be at the forefront of structural and functional changes in the market.

Despite scientific and technological achievements, in the educational field no substantive changes have been observed in the three decades, evidenced, above all, in a freezing of student evaluation processes in which methods from 50 years ago are used (Cuesta-Santos, 2010), situations that make notorious the precariousness in the achievement of the indicators of reading comprehension, mathematical reasoning and analytical skills (Sánchez et al., 2020; Villacis, 2020), causing labor unrest for teachers in teachers (Vértiz-Osores et al., 2019) who fall into facilism to 'achieve' the minimum indicators required by the Ministry of Education (Minedu, 2020). For this reason, professional teaching performance is a key element that should be addressed and
strengthened, which would guarantee not only the fulfillment of subject content goals, but also the adoption of a methodological approach and evaluation of results in pedagogical practice and, by extension, in the knowledge society (Cuesta-Santos, 2010).

Organizational learning is the capacity to develop intelligence. It is a process that abstracts a series of data (cognitive level) and information that has a meaning (procedural level) (Kolb et al., 1984). From the ordered, classified and systematized information, knowledge is arrived at. These assertions serve as models of behavior, theoretical or practical understanding of a subject or result in applied information, by which it is compared with other and combined to establish meaningful relationships or models, which are used by a person to interpret, predict, and respond appropriately to the outside world (Huber, 1991). A kind of social phenomenon that cannot be reduced to individual organizational learning processes (Choo, 1996; Handy, 1996; Marengo, 1996).

In the perspective of professional development, the incidence of the results of science in its reciprocal interaction with technology and the changing pace of social demands that impact the world of work accelerate the need for human resources teachers working in the educational sphere to require a transformation to assume new demands for training, learning and socialization aimed at achieving better results (Abubakar et al., 2019; Brix, 2017). Achieving these demands requires transformations, not only in the material order of schools but also in the application of management styles and the professional behavior of teachers, aimed at an effective improvement of their professional performance to meet the challenge for the quality of education (García & Castro, 2012). This includes technical expertise, technical preparation plus accumulated experience, effectiveness in decisions, skill in the execution of procedures and good interpersonal relationships (Abualoush et al., 2018; Annosi et al., 2020; Nisar et al., 2019; Sheng, 2017). Because of this, this research aimed to determine the relationships between organizational learning and the performance of teachers in five (05) public educational institutions in a district of Lima, also determining the differences between the average scores of both variables by sex and by educational levels (initial, primary and secondary). The purpose was to contribute to the elucidation of the fulfillment of the teacher's tasks in the current social context of Lima, which is conditioned to the acquisition and consolidation in the various stages of training that allude not only to the needs of knowledge and professional competence, but also to the attitudes and values that characterize the good educator in the broader field of their relationships with children and adolescents, with families and with the social environment of the school. Thus, the study makes it possible to establish probable relationships that may exist between organizational learning and the professional performance of teachers in educational institutions in a district of Lima.
in order to find viable alternatives to improve the quality of the educational process and adapt it to the demands of today's world.

2. Method

Of quantitative approach, comparative correlational, non-experimental cross-sectional correlational design (Hernández-Sampieri & Mendoza, 2018). A total of 145 teachers from five educational institutions in a district of Lima were surveyed. For the measurement of organizational learning, the Organizational Learning Test (Cronbach's alpha = 0.88; Kaiser-Meyer-Olkin sampling adequacy measure = 0.85; Bartlett's test of sphericity = 518.697) of the Universidad Autónoma de Madrid, of 28 items (Conde & Castañeda, 2014; Durán & Castañeda, 2015) from which six dimensions (individual learning, group learning, learning in the organization, organizational culture, information transfer and training) are derived that assess the organizational learning that occurs regularly in an institution, both at the level of information acquisition and transfer as well as information facilitation. To measure teaching performance, the 34-item Teaching Job Performance Inventory (Bazo, 2007) was used (Cronbach's alpha = 0.94; Kaiser-Meyer-Olkin sampling adequacy measure = 0.89; Bartlett's test of sphericity = 925.922), considering seven dimensions (attendance and punctuality, promotion of learning, evaluation of learning, cooperative learning, use of educational materials, interpersonal relations and teaching methodology) that evaluate the work performance presented by the teachers of the different educational institutions in their classrooms. The Tau-b-Kendall correlation test was used for statistical analysis. For comparisons of scores by sex, the normal Z test was used. Finally, for comparisons of scores by educational level (initial, primary and secondary), a one-factor analysis of variance was used, complemented by a Scheffe test to identify homogeneous subgroups. All levels of significance were compared at 0.05.

3. Results

Analysis of the Relationships of the Variables

The results revealed that of the 56 contrasts, only four (4) were not statistically significant. Of those four, three were located among the 'Promotion of learning' dimension of teacher performance, which would indicate that most likely the links of this dimension with 'organizational learning', 'learning culture' and 'information transfer' are not strong enough to show associations. What is most
interesting about this same result is that again it was the 'organizational learning' dimension of the variable of the same name that also had no links with the 'interpersonal relationships dimension of teacher performance. The details are shown in Table 1.

Table 1 - Tau - b- Kendall Analysis between Organizational Learning and Teaching Quality

<table>
<thead>
<tr>
<th>Variables / Dimensions</th>
<th>Attendance punctuality</th>
<th>Promotion of learning</th>
<th>Learning assessment</th>
<th>Promotion of learning</th>
<th>Use of materials</th>
<th>Interpersonal Relationships</th>
<th>Teaching Methodology</th>
<th>Teaching performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual Learning</td>
<td>0.590***</td>
<td>0.355***</td>
<td>0.425***</td>
<td>0.434***</td>
<td>0.612***</td>
<td>0.208*</td>
<td>0.491***</td>
<td>0.636***</td>
</tr>
<tr>
<td>Grupal Learning</td>
<td>0.312**</td>
<td>0.290***</td>
<td>0.397***</td>
<td>0.296**</td>
<td>0.446***</td>
<td>0.362***</td>
<td>0.308**</td>
<td>0.433***</td>
</tr>
<tr>
<td>Organizational learning</td>
<td>0.621***</td>
<td>0.080</td>
<td>0.499***</td>
<td>0.452***</td>
<td>0.353***</td>
<td>0.093</td>
<td>0.446***</td>
<td>0.470***</td>
</tr>
<tr>
<td>Learning Culture</td>
<td>0.610***</td>
<td>0.017</td>
<td>0.458***</td>
<td>0.378***</td>
<td>0.773***</td>
<td>0.162*</td>
<td>0.421***</td>
<td>0.560***</td>
</tr>
<tr>
<td>Information Transfer</td>
<td>0.688***</td>
<td>0.120</td>
<td>0.507***</td>
<td>0.420***</td>
<td>0.310**</td>
<td>0.284**</td>
<td>0.280**</td>
<td>0.544***</td>
</tr>
<tr>
<td>Formation</td>
<td>0.304**</td>
<td>0.323**</td>
<td>0.456***</td>
<td>0.359***</td>
<td>0.415***</td>
<td>0.360***</td>
<td>0.345**</td>
<td>0.477***</td>
</tr>
<tr>
<td>Organizational Learning</td>
<td>0.594***</td>
<td>0.308**</td>
<td>0.578***</td>
<td>0.484***</td>
<td>0.604***</td>
<td>0.395***</td>
<td>0.537***</td>
<td>0.693***</td>
</tr>
</tbody>
</table>

* p < .05; ** p < .01; *** p < .001; N = 145

Comparative Analysis

Scores by Sex

Comparisons were made independently for each variable and its respective dimensions, using the sex of the teachers surveyed as a criterion for comparison. In the 'organizational learning' scores, it was observed that there were no differences in most of the dimensions, except for the 'individual learning' dimension, where men showed a higher average than women, although the differences in variability were not so great between the two groups. Thus, for males the variability was 23.11% (D.E/mean*100 ~ 3.09/13.37*100) and for females it was 22.11% as can also be seen in Table 2. On the other hand, in the comparative analysis of the scores obtained in the variable 'teaching performance' there was no significant difference, observing that, statistically, the scores for each dimension of the variable and for the variable itself were similar in both males and females.
The comparative analysis of 'organizational learning' by educational levels in which the evaluated teachers of the five public educational institutions work revealed significant differences in six of the seven contrasts, being very interesting to observe that among the scores obtained by the teachers there were homogeneous subgroups (a, b, c) as in the case of the dimensions 'learning culture', 'information transfer' and the same variable 'organizational learning', presenting similarity between the 'Initial' and 'Secondary' levels, contrary to what was expected. In the other contrasts, it was observed that the averages were distinguished for each of the levels. Only the 'group learning' dimension did not show differences between the groups compared, as shown in Table 3.

Similarly, in the contrast of the variable 'teacher performance', differences were also observed between the average scores according to the educational levels, except in the dimension 'promotion of learning', which showed equality of averages. Likewise, it was observed that in four of the seven dimensions and in the same variable analyzed, there were two subgroups formed by the 'initial' and

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**Table 2 - Z-test for Comparison of means of the 'organizational Learning' Scores by Gender**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Male N = 61</th>
<th>Female N = 84</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>D.E.</td>
<td>M</td>
</tr>
<tr>
<td>Individual Learning</td>
<td>13.37</td>
<td>3.09</td>
<td>12.35</td>
</tr>
<tr>
<td>Grupal Learning</td>
<td>18.80</td>
<td>3.38</td>
<td>18.76</td>
</tr>
<tr>
<td>Organizational Learning</td>
<td>18.62</td>
<td>3.31</td>
<td>17.79</td>
</tr>
<tr>
<td>Learning Culture</td>
<td>17.27</td>
<td>3.72</td>
<td>16.92</td>
</tr>
<tr>
<td>Information Transfer</td>
<td>13.83</td>
<td>2.76</td>
<td>13.42</td>
</tr>
<tr>
<td>Formation</td>
<td>16.42</td>
<td>4.35</td>
<td>16.73</td>
</tr>
<tr>
<td><strong>Organizational Learning</strong></td>
<td>98.34</td>
<td>16.65</td>
<td>96.01</td>
</tr>
</tbody>
</table>

* p < .05; ** p < .01; *** p < .001; N = 145

Scores by educational level.

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**Table 3 - Analysis of Variance of 'organizational Learning' by Educational Level Specialty**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Initial N = 28</th>
<th>Primary N = 82</th>
<th>Secondary N = 35</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>M</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>Individual Learning</td>
<td>13.07b</td>
<td>12.06c</td>
<td>14.25a</td>
<td>7.75***</td>
</tr>
<tr>
<td>Grupal Learning</td>
<td>19.07a</td>
<td>18.69a</td>
<td>18.74a</td>
<td>0.14</td>
</tr>
<tr>
<td>Organizational Learning</td>
<td>20.07a</td>
<td>17.21c</td>
<td>18.77b</td>
<td>8.41***</td>
</tr>
<tr>
<td>Learning Culture</td>
<td>18.50ab</td>
<td>16.17c</td>
<td>18.05ab</td>
<td>4.92**</td>
</tr>
<tr>
<td>Information Transfer</td>
<td>14.89ab</td>
<td>12.70c</td>
<td>14.65ab</td>
<td>7.97***</td>
</tr>
<tr>
<td>Formation</td>
<td>19.57a</td>
<td>14.97c</td>
<td>18.05b</td>
<td>12.63***</td>
</tr>
<tr>
<td><strong>Organizational learning</strong></td>
<td>105.17ab</td>
<td>91.82c</td>
<td>102.54ab</td>
<td>9.13***</td>
</tr>
</tbody>
</table>

* p < .05; ** p < .01; *** p < .001; N = 145; gl = 2

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'secondary' levels that had statistically similar averages and the 'primary' level that remained independent. In the remaining three dimensions, mean differences were observed in the three educational levels. The details are shown in Table 4.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Initial N = 28</th>
<th>Primary N = 82</th>
<th>Secondary N = 35</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance and punctuality</td>
<td>20.67b</td>
<td>18.90c</td>
<td>21.54a</td>
<td>8.41***</td>
</tr>
<tr>
<td>Learning promotion</td>
<td>20.21a</td>
<td>18.78a</td>
<td>20.00a</td>
<td>2.39</td>
</tr>
<tr>
<td>Learning assessment</td>
<td>19.25b</td>
<td>17.82c</td>
<td>20.77a</td>
<td>8.09***</td>
</tr>
<tr>
<td>Group learning</td>
<td>20.32ab</td>
<td>17.98c</td>
<td>19.17ab</td>
<td>3.12*</td>
</tr>
<tr>
<td>Use of materials</td>
<td>20.07ab</td>
<td>18.32c</td>
<td>20.68ab</td>
<td>7.23***</td>
</tr>
<tr>
<td>Interpersonal relationships</td>
<td>20.92ab</td>
<td>19.37c</td>
<td>20.77ab</td>
<td>3.12*</td>
</tr>
<tr>
<td>Teaching methodology</td>
<td>20.17ab</td>
<td>18.10c</td>
<td>20.71ab</td>
<td>6.62**</td>
</tr>
<tr>
<td>Teaching Performance</td>
<td>141.64ab</td>
<td>129.31c</td>
<td>143.65ab</td>
<td>6.09**</td>
</tr>
</tbody>
</table>

* p < .05; ** p < .01; *** p < .001; n = 145; gl = 2

4. Discussion

Both organizational learning and teaching performance had much relationship, evidencing direct links, however, the non-significance observed between the dimensions 'promotion of learning' and 'interpersonal relationships' of 'teaching performance' with the dimension 'organizational learning' of the variable of the same name marks an interesting point of analysis, the same that leaves an opening to conjecture about the emphasis placed on these aspects, since perhaps the difficulty lies in the strategy used to generate that promotion of learning (Fields et al., 2018), which allows us to discuss the dimension 'interpersonal relationships' that also did not have significance despite the fact that the literature reports the great relevance of this aspect as a support point for the construction of socially good environments for teaching and learning (Barry et al., 2017; Schonert-Reichl, 2021). On the other hand, the hierarchical component of public educational entities has a fundamental role in promoting and boosting the improvement of professional skills and competencies by regulating evaluation processes not only in accordance with regulations (Bertoldi et al., 2018; Muñoz Juárez, 2019; Manco-Chavez et al., 2020) but with the level of advancement that these professionals have within their historical sociocultural context (Wahyuni & Ariyanti, 2020), although, under the current conditions of sanitary measures by Covid-19 are diverse perceptions that externalize regarding the teaching process (De Smul et al., 2020) and challenges in the evaluation (Vértiz et al., 2020)
however, it is also an excellent opportunity to improve skills and, consequently, their competitiveness (Cardichon et al., 2020).

On the other hand, in the comparisons, greater statistical similarities were observed between the groups of teachers who belonged to the initial and secondary levels of education, which undoubtedly leads to a paradigm that has been reviewed long ago (Bolivar, 2000; Braslavsky, 1999) and, precisely, it is associated with the satisfaction of professionals with their training in educational sciences, where those who work at the initial level show higher levels of satisfaction, declaring that they enjoy their work more than teachers at the primary level, who show higher levels of dissatisfaction and dissatisfaction not only with their daily tasks but also with the externalities linked to their work. On the other hand, teachers at the secondary level also show good levels of satisfaction with their professional careers, having the additional advantage of working in specific and different subject areas, such as specialists in mathematics, natural sciences, social sciences, etc. Thus, the formation of the subgroups of the results visualized in Tables 3. and 4. are not so illogical now. This determination could be a good opportunity to emphasize the need to reformulate the approach to teaching performance at the primary level, leaving aside the one-teacher classrooms that are still seen in many primary schools in Peru, and specializing teachers at that level in different areas, as occurs at the secondary level, and providing the opportunity to share roles with other teachers in the same classroom. This educational scheme is not new in many private educational institutions in Lima, but it is only partially implemented in public schools. As a final reflection, it is not only important to analyze the teaching-learning processes, where there is much to talk about, but it is also relevant to focus on the organizational aspect that is not being observed in this type of state institutions, which should adopt a mystique of rapid learning that, according to (Guns, 1996), has three strategies: the managerial impulse, human resources management and transformation based on each of the members of the organization and work teams, otherwise, the educational casuistry will continue to be reported, having only the temporary context as a scenario for change.

5. Conclusion

The promotion of learning was an aspect that would require more attention for the better performance of regular basic education teachers, and more aggressive strategies should be established from the institutional directions to promote more and better organizational learning as a work philosophy in education science professionals, seriously considering the relevance of the integral strategic development of these people as the most effective engine in the continuous improvement of
these entities in a social context where knowledge and technology interact at the level of mimicry in a structure that requires competitiveness at the human evolutionary level.

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