# SCHOOL LEADERSHIP AND ITS ORGANIZATIONAL EFFECTS ON EDUCATIONAL IMPROVEMENT PROCESSES

## LIDERAZGO ESCOLAR Y SUS EFECTOS ORGANIZACIONALES EN PROCESOS DE MEJORA EDUCATIVA

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## ABSTRACT

This research presents the analysis of the leadership practices of directors within their educational establishments in Chile, from their self-perceptions and the opinions of the teachers under their charge to show if these types of leadership are related to the organizational effects in improving educational processes. The non-experimental design of a correlational and cross-sectional study allowed us to analyze the data collected after the application of two instruments: Bass and Avolio's Multifactorial Questionnaire on Transformational Leadership and the Instructional Leadership Inventory proposed by Alig-Mielcarek, to then compare the relationships between these leaderships independently and integrated with the organizational effects. Among the results, it stands out the finding that transformational leadership presents a significant relationship with the organizational effects as well as instructional leadership and that both present very similar figures both independently and integrated, therefore it was found that they do not present significant differences in the assessment of the respondents regarding the relationships of the two school leaders with the organizational effects, on the contrary, the two leaders are integrated. It was concluded that the importance of this research lies in the fact that it allowed us to contribute with reliable evidence regarding the influence exercised by directors, who develop the categories of instructional leadership style and/or transformational leadership style, both independently as well as in an integrated and synergistic way when relating to the processes of educational improvement and with the important organizational effects for the processes of change.

## RESUMEN

Esta investigación presenta el análisis de las prácticas de liderazgo de directores al interior de sus establecimientos educacionales en Chile, desde sus autopercepciones y las opiniones de los profesores a su cargo para evidenciar si estos tipos de liderazgo se relacionan con los efectos organizacionales en procesos de mejora educativa. El diseño no experimental de estudio correlacional y transversal permitió analizar los datos recogidos después de la aplicación de dos instrumentos: Cuestionario Multifactorial sobre Liderazgo transformacional de Bass y Avolio y el Inventario de liderazgo instruccional propuesto por Alig-Mielcarek, para luego comparar las relaciones entre estos liderazgos de manera independiente e integrada con los efectos organizacionales. Entre los resultados, resalta el encontrar que el liderazgo transformacional presenta una relación significativa con los efectos organizacionales al igual que el liderazgo instruccional y que ambos presentan cifras muy similares tanto de manera independiente e integrada, por ende se halló que no presentan diferencias significativas en la valoración de los encuestados con respecto a las relaciones de los dos liderazgos escolares con los efectos organizacionales por el contrario los dos liderazgos se integran. Se concluyó que la importancia de esta investigación reside en que permitió contribuir con evidencia fidedigna con respecto a la influencia que ejercen los directores(as), que desarrollan las categorías del estilo de liderazgo instruccional y/o del estilo de liderazgo transformacional tanto de modo independiente como de modo integrado y sinérgico al momento de relacionarse con los procesos de mejora educativa y con los efectos organizacionales importantes para los procesos de cambio.

## A LIDERANÇA ESCOLAR E OS SEUS EFEITOS ORGANIZACIONAIS NOS PROCESSOS DE MELHORIA EDUCACIONAL

## RESUMO

Esta investigação apresenta a análise das práticas de liderança dos directores nos seus estabelecimentos de ensino no Chile, a partir das suas autopercepções e das opiniões dos professores responsáveis, a fim de mostrar se estes tipos de liderança estão relacionados com os efeitos organizacionais nos processos de melhoria educacional. A concepção não experimental de um estudo correlacional e transversal permitiu-nos analisar os dados recolhidos após a aplicação de dois instrumentos: O Questionário Multifactorial de Bass e Avolio sobre Liderança Transformacional e o Inventário de Liderança Instrucional proposto pela Alig-Mielcarek, para depois comparar as relações entre estas lideranças de forma independente e integrada com efeitos organizacionais. Entre os resultados, destaca-se a conclusão de que a liderança transformacional

apresenta uma relação significativa com efeitos organizacionais bem como a liderança instrucional e que ambas apresentam figuras muito semelhantes tanto de forma independente como integrada, pelo que se verificou que não existem diferenças significativas na avaliação dos inquiridos no que diz respeito às relações das duas lideranças escolares com efeitos organizacionais, pelo contrário, as duas lideranças estão integradas. Concluiu-se que a importância desta investigação reside no facto de nos ter permitido contribuir com provas fiáveis relativamente à influência dos directores que desenvolvem as categorias de estilo de liderança instrucional e/ou estilo de liderança transformacional, tanto de forma independente como integrada e sinérgica quando se relacionam com os processos de melhoria educacional e com os efeitos organizacionais que são importantes para os processos de mudança.

**Palavras chave:** liderança, estilo de liderança, liderança escolar, liderança transformacional, liderança instrucional, efeitos organizacionais, eficácia de gestão, melhoria educacional, esforço extra.

## 1. INTRODUCTION

The specialized literature agrees on defining school leadership as the competence to influence others with the purpose of developing actions that contribute to achieving group goals and objectives that improve school results (Li and Liu, 2020; OECD, 2008; Robinson and Gray, 2019; Robinson, 2007); that is, "Achieving results through others is the essence of leadership" (Hallinger and Heck, 1996, p. 39). In the same sense, a great deal of research has confirmed that the leadership of the school principal influences other educational actors and the school environment; particularly, in variables related to teachers' attitudes in the classroom and those involved in student learning, as well as in improving academic performance and school autonomy (Gümüş et al., 2020; Sepúlveda and Volante, 2019). Therefore, it is affirmed that the influence of educational leadership on student performance is statistically and educationally significant (Goddard et al., 2019); however, this impact can be positive or negative on school achievements.

Thus, the Stanford Educational Leadership Institute identified three important aspects of educational leadership: 1) providing support to teachers; 2) generating learning through curriculum management; and 3) achieving transformed schools with good teachers and learning experiences (Chabalala and Naidoo, 2021). In this context, the review of existing theoretical and empirical backgrounds in national and international academic literature allows us to identify the leadership style that the director develops when managing as one of the main factors that influence the improvement of processes in educational establishments (EEs) and therefore in the entire education system in general (OECD, 2008). Thus, the director becomes the educational leader who professionally assumes the direction of the EE and as such communicates and interacts with others to mainly develop institutional management and make decisions, but seeking to engage other educational actors with their vision and influence them to achieve goals and objectives (Robinson and Gray, 2019; Robinson et al., 2008).

Bolívar et al. (2014) and Mora-Ruano et al. (2021) confirm that school leadership indirectly but decisively influences the improvement of educational processes and results by promoting motivation and the development of professional competencies among teachers, contributing to the improvement of institutional climate and effective communication, which in turn serve as mediators for better academic performance and student learning (Demerath and Louis, 2017; Pont et al., 2009). In this context, theoretical and empirical antecedents give greater importance to school leadership, which is already an important part of educational policy proposals in many countries (Vaillant, 2015); that is why educational studies identify it within the school as the second factor with the most impact on learning processes after teaching strategy (Leithwood and Mascall, 2008; Robinson, 2007; Robinson et al., 2008; UNESCO, 2014); moreover, other studies indicate that the type of leadership explains 25% of learning effects or achievements (Cifuentes-Medina et al., 2020; Sepúlveda and Volante, 2019). Studies conducted in Chile indicate that, in relation to school effectiveness, leadership explains 11% of the variance in basic education and 7% in secondary education (Volante, 2010).

One of the most impactful studies regarding leadership is a meta-analysis of 27 studies on school leadership that allowed for the recognition of two leadership styles: instructional and transformational, as approaches to school leadership (Robinson et al., 2008), because their practice leads to successful results in general, and especially in the educational aspect, reaffirming their important contribution not only to improving school results but also to increasing the motivation of educational actors to improve their performance; all of this within a conducive institutional climate. In this sense, the relevance of transformational and instructional leadership is evident in the multitude of studies on this topic, providing further justification for the focus of this research.

The theory of Transformational Leadership was proposed by Bass (1985) as a universal leadership approach that could be developed by all organizations to improve the relationship between leaders and their followers, based on mutual trust and team spirit, without neglecting the achievement of individual expectations and changes (Beachum and Gullo, 2020; Moral, 2018). In this regard, Bass himself stated that "a leader who sets goals and objectives in an attempt to make his follower a leader is transformational" (Bass, 1985, p. 29). This proposal motivated Leithwood and his team of researchers to develop studies on the advantages of developing transformational leadership in schools and its importance. Thus, studies that identify the effects of the development of transformational leadership style in institutions are of special importance for researchers and educational agents (Villa, 2019). The findings indicate that the effects of developing transformational leadership are positive in different aspects such as school climate or environment and relationships between teachers; moreover, it indirectly affects the improvement of students' performance (Anthony and Hermans, 2020; Kwan, 2020). Thus, this leadership style is assumed by many organizations in different fields, not only in the financial sector for which it was initially proposed but also as an educational or school leadership style (Bass, 1998; Verona and Young, 2001). Therefore, for this study, the conceptual model of Bass and Avolio, 2000 is assumed.

Regarding Instructional Leadership (IL), it is known to be a key factor in explaining the centrality of the principal, the curriculum, the supervision, and the effectiveness of learning strategies for achieving school improvement (Bada et al., 2020; Goddard et al., 2019; Hallinger, 2003; Hallinger and Wang, 2015). According to Robinson et al. (2008), the leader who develops IL has a greater effect on student academic performance than transformational leadership, and this is explained because the instructional leader focuses on achieving academic objectives and uses supervision, training, staff development, and constant communication of instructions to guarantee their influence on the thinking and practice of teachers (Ismail et al., 2021), highlighting the monitoring of the learning process in the Instructional Leadership Model proposed by Hallinger and Murphy in 1985, as having the greatest influence on improving learning outcomes. Therefore, in this study, the conceptual model of Hallinger is also assumed.

Regarding integrated leadership, Marks and Printy (2003) argue that it involves the shared development of both the dimensions of transformational leadership and instructional leadership, which together effectively contribute to improving learning outcomes (Volante, 2010). The theoretical and empirical antecedents support the hypothesis that effective leadership development involves combining strategies from both instructional and transformational leadership (Day et al., 2016). However, regarding the analysis of the effects on student performance, studies are still limited (Greb, 2011). Leaders who develop integrated leadership (Klinginsmith, 2007) are called effective leaders because they assume their successes and/or failures as a response to their efforts, practices, or motivation, not due to external factors they cannot control. Furthermore, according to Bellibaş et al. (2021), school principals who develop this style maximize student performance through their teachers' learning and better address the demands and changes that educational reforms entail.

Regarding the organizational effects, also known as outcome variables, which are recognized as effects of transformational leadership, the following are considered: 1) director's efficacy (EFIC) in managing the school organization, which involves resolving school difficulties; 2) satisfaction (SAT) of other educational actors in working with a director who achieves good results, and 3) extra effort (Ee), which implies that other educational actors feel motivated to work with the director to achieve institutional success beyond what they had planned (Ganga-Contreras et al., 2016b, 2018).

Theoretically, it is known that there is no single model to determine the effects of leadership in educational organizations (Álvarez-Botello et al., 2016), and that the divergence between the transformational leadership (TL) and instructional leadership (IL) styles has persisted for several years (Hallinger, 2003; Robinson et al., 2008; Shatzer, 2009); mainly in relation to the effects of each of these two styles considered as school leaderships (Day et al., 2016; Klinginsmith, 2007; Kwan, 2020; Marks and Printy, 2003; Shonubi, 2014), a situation that is perceived in the organizational scenarios of Chilean schools where a dichotomous perspective still prevails.

However, other authors find similarities between instructional leadership and transformational leadership (Shatzer et al., 2014). This controversy constitutes one more reason for both leadership styles to be the focus of this research, especially if it

is understood that their importance leads to the need for "educational policymakers to improve the quality of school leadership and make it viable" (Pont et al., 2009, p. 9) to ensure the effects on educational improvement processes.

This study aims to contribute to the improvement of educational processes by analyzing the influence practices of principals within their schools, based on their own self-perceptions and the perceptions of teachers under their leadership, to determine whether instructional leadership (IL) and/or transformational leadership (TL) are related to organizational effects. Therefore, this study seeks to answer research questions (RQ) regarding: Is there a significant relationship and/or difference between instructional leadership and/or transformational leadership styles and the three organizational effects, namely, whether other educational actors perceive 1) satisfaction in working with the principal, 2) effective management, and therefore decide to give 3) extra effort to achieve improvements in educational processes?

## 2. OBJECTIVES

### 2.1. General objective

To establish the relationship and/or significant differences between the instructional leadership style and/or the transformational leadership style with the organizational effects of director effectiveness, teacher satisfaction, and extra effort in educational improvement processes.

### 2.2. Specific objectives

1-Identify the predominant school leadership style, either LT or LI, in educational establishments implementing educational improvement processes.

2-Analyze the significance of the level of relationships between LT and/or LI and organizational effects.

3-Compare the significance of the differences between the relationships of LT and/or LI and organizational effects.

## 3. METHODOLOGY

A quantitative study was conducted on 12 educational establishments that implement improvement processes or cases following a non-experimental correlational and cross-sectional design (Creswell, 2014), which allowed for the comparison of significant relationships and differences between LT and organizational effects, LI, and the same organizational effects, and LT and LI with the same three effects. All this was done by interrelating the information collected using two adapted instruments: the Multifactorial Leadership Questionnaire of the MLQ-5X-short form version and the Inventory of Instructional Leadership.

### 3.1. Population and sample

The sample was composed of 240 teachers and 12 principals working in 12 Secondary Education Institutions (EE) selected from a total of 246 Basic Education institutions

that had secondary education in the Metropolitan Region of Santiago (Chile). Each case was composed of all the teachers and their respective principals. The main selection criterion was that they had a similar performance in math and language in the standardized tests of the National System for Quality Measurement of Education (SIMCE). The final sample of the study was 240 teachers and 12 principals as indicated in Table 1.

**Table 1.** *Sample data by course and area of knowledge.*

| Data of the educational establishment (EE) | | | | Information of the principal | | | |
|---|---|---|---|---|---|---|---|
| EE | No. of students | SIMCE Results | | Gender | Years of service | Years in EE | Level of Education |
| | | Mat | Len | | | | |
| Case 1 | 696 | 257 | 262 | F | 12 | 8 | Postgraduate Diploma |
| Case 2 | 967 | 266 | 259 | F | 29 | 7 | Master's degree |
| Case 3 | 720 | 285 | 288 | F | 40 | 40 | Postgraduate Diploma |
| Case 4 | 3480 | 220 | 232 | F | 12 | 8 | Postgraduate Diploma |
| Case 5 | 751 | 281 | 277 | F | 20 | 19 | Postgraduate Diploma |
| Case 6 | 962 | 241 | 246 | M | 41 | 41 | Postgraduate Diploma |
| Case 7 | 1093 | 256 | 252 | M | 12 | 3 | Master's degree |
| Case 8 | 1407 | 277 | 282 | F | 12 | 1 | Postgraduate Diploma |
| Case 9 | 1090 | 268 | 273 | F | 34 | 5 | Master's degree |
| Case 10 | 2565 | 254 | 257 | M | 20 | 3 | Master's degree |
| Case 11 | 1495 | 255 | 244 | M | 45 | 38 | Postgraduate Diploma |
| Case 12 | 719 | 234 | 246 | M | 16 | 1 | Postgraduate Diploma |

**Source:** Author's Own work.

## 3.2. Instrument

From the quantitative methodological approach, the presence of transformational leadership in the management that the director develops in the EE was measured using the Multifactor Leadership Questionnaire proposed by Bass and Avolio (2000), second edition, short version and translated, which in English is called MLQ-5X-short form. The adaptation of this instrument to the Chilean context was carried out by Thieme (2005), but it still maintains the basic structure; its validity presents a high index of reliability (Cronbach's alpha of 0.97). The three dimensions attributed to the construct of transformational leadership allowed the adaptation of two questionnaire formats: one that measured the director's leadership from the director's own perception (leader form), which was taken as a reference for this study, and another questionnaire that also measured the director's leadership, but from the perceptions of the teachers (rader form). This same instrument included the items that evaluate the three organizational effects: leader effectiveness, satisfaction, and extra effort, so the

instrument has 22 items.

To measure instructional leadership in the management of directors, the adaptation of the "Instructional Leadership Inventory" instrument by Volante (2010) was applied, with 28 items, originally proposed by Alig-Mielcarek (2003). This instrument was validated twice by Chilean teachers and directors, presenting high internal reliability with a Cronbach's alpha index of 0.96.

By combining the LT instrument with 22 items and the LI instrument with 28 items, the informants responded to 50 items.

## 3.3. Data collection and analysis procedure

The application of the instruments was carried out by a group of peer expert researchers recognized for their accredited trajectory in innovation and pedagogical leadership. A meeting was held with all the teaching staff of each selected EE to explain the purposes of this research and their voluntary participation was requested, ensuring the anonymity of their perceptions. The application was carried out at the end of the school year. According to the established research objectives, the study was developed through the following phases:

Phase 1. Standardization to a Z value using SPSS 25 software, which ensures the reliability of statistical analyses, was necessary because the instruments for each of the styles did not have the same number of items or response alternatives (LT=22 items with alternatives from 0 to 4 and LI=28 items with alternatives from 0 to 6).

Phase 2. Analysis of the perceptions collected through the Multifactorial Leadership Questionnaire MLQ-5X-short form in the presentations: leader form and rader form, and of the "Inventory of Instructional Leadership" instrument through t-test and descriptive statistics regarding the LT and/or LI developed by the director of the EE.

Phase 3. Descriptive analysis of the existing relationships between LT and/or LI and organizational effects through the comparison of means and standard deviations.

Phase 4. Level of relationships between LT and/or LI and organizational effects according to the Pearson linear correlation coefficient.

Phase 5. Significance of the existing relationships between LT and/or LI and organizational effects according to one-way analysis of variance (ANOVA) to confirm and validate the previous results.

The quantitative analysis obtained results by relating the scores reached by each study variable and then examining the correspondences between each leadership style and each of the organizational effects variables, which resulted in a good approximation.

## 4. RESULTS

The results addressed the existence of significant relationships and/or differences between instructional leadership (LI) and/or transactional leadership (LT) with the effectiveness of managerial effects, satisfaction, and extra effort among teachers in

school improvement processes. The results provide a novel and unprecedented finding that instructional leadership, like transactional leadership, is significantly related to organizational effects; something that was previously considered exclusive to transformational leadership.

What style of school leadership predominates in the United States in improvement processes?

The results regarding the leadership styles that predominate among the directors of the 12 states under study that implement improvement processes were obtained by analyzing the mean scores of both instructional leadership (LI) and transactional leadership (LT) in Z score through the corresponding descriptive statistics. When categorizing the states, a value of 0 was established for the state that did not show any predominance of LI or LT styles but the integration or combination of LT and LI; a value of 1 was assigned to the state where LT predominated, and a value of 2 was assigned to the state where LI predominated. The results were confirmed by the data comparison test: student's t-test, which indicated as a result 3 leadership groups:

i) Group LT + LI: consisting of 7 states with directors who develop an integrated leadership style, composed of both transformational and instructional styles, without showing a preference for one over the other.

ii) Group LI: composed of 3 states with 2 female directors and 1 male director who develop instructional leadership with greater preference, but also exhibit some practices that characterize transformational leadership style.

iii) Group LT: composed of 2 states with female directors who develop instructional leadership with greater preference.

These results coincide with reports that suggest that the dichotomy of "LI or LT" is not always present and that the trend is rather towards the integration of both styles, that is, "LI and LT," as corroborated by the perceptions and results analyzed in this research. Similarly, there is evidence of better learning outcomes that students gradually achieve as a result of the direct and/or indirect management of directors who develop the leadership style composed of LT and LI (Day et al., 2016), which Klinginsmith (2007) recognizes as effective leaders.

Regarding the significance of the relationships and differences found between LT and/or LI and the organizational effects:

The results of Table 2 support the relationships of each of the 3 leadership groups found with the organizational effects, which show little variability. The means and standard deviations of the organizational effects show similar values associated with each of the three leadership groups found.

**Table 3.** *Comparison of means and standard deviations for each leadership group found with each of the organizational effects.*

| Group of establishments according to the predominance of leadership style | | Mean Effectiveness of the principal/director. | Mean satisfaction. | Mean Extra Effort |
|---|---|---|---|---|
| Group LI 3 cases | N | 63 | 63 | 63 |
| | Mean | 2,738 | 2,730 | 2,778 |
| | Typical deviation | 11,425 | 11,353 | 10,917 |
| Group LT 2 cases | N | 42 | 42 | 42 |
| | Mean | 3,071 | 3,012 | 2,988 |
| | Typical deviation | ,8007 | ,8868 | 10,505 |
| Group LI y LT 7 cas | N | 147 | 147 | 147 |
| | Mean | 2,816 | 2,813 | 2,735 |
| | Typical deviation | 11,151 | 11,619 | 12,224 |
| Total Group 12 cases | N | 252 | 252 | 252 |
| | Mean | 2,839 | 2,825 | 2,788 |
| | Typical deviation | 1,0781 | 1,1137 | 1,1628 |

**Source:** Adapted from Alcaide, L. (2017, p. 208).

In the same table, it can be observed that 17% of those surveyed perceive that the management of the two principals in the LT group is effective (M = 3.071), which indicates that they influence other educational actors to achieve greater participation and better coexistence. This suggests that there is a good institutional climate that contributes to achieving effective school organization (Bass et al., 2003).

The LI group shows that 25% of those tested indicate that the management of the 3 leaders has a greater relationship with the effect of extra effort from other educational actors, with a mean score of M = 2.778, indicating that they feel motivated to work successfully, more than they had anticipated.

The LI and LT group shows, the highest percentage, that 58% of respondents perceive their principals to lead the school effectively (Bellibaş et al., 2021) because they influence other educational actors to believe that the school organization is effective (M = 2.816).

The analysis of the total group or the three groups presents 100% of the perceptions of the informants, which confirms the analyses carried out by each leadership group. It is inferred that teachers and principals consider that the leadership style developed by their principal, whether LI or LT or LI and LT, is related to the three organizational effects (Ganga-Contreras et al., 2016a), and that these relationships show similar values. There were no significant differences found between the ratings of the means of the three organizational effects, nor differences in the estimable variability between the standard deviations.

Table 3 shows the values that reflect the relationship between leadership styles and the three organizational effects of managerial effectiveness, satisfaction, and extra effort of educational agents, based on the Pearson correlation coefficient r results that confirm the previous findings.

**Table 3.** *Matrix of correlations of zero order "r of Pearson", of the transformational leadership (LT), instructional leadership (LI), and Integrated Leadership (LI+LT) with the organizational effects.*

| Effects | LT | LI | LT + LI |
|---|---|---|---|
| SAT | 0.924** | 0.766** | ,900** |
| EFIC | 0.827** | 0.702** | ,845** |
| EE | 0.882** | 0.679** | ,848** |

**Source:** Alcaide, L. (2017, p. 210).

Table 3 confirms the positive relationship between the variables since the values of the Pearson correlation coefficient indicate so; in the same sense, the significance of the values does not show any notable difference. Thus, the following analyses confirm the percentage differences found in the correlation coefficient values for each leadership group with each of the organizational effects:

-In the satisfaction (SAT) effect, it was found that the highest relationship exists between LT and SAT (r= 0.924, p<0.01)=2.6%, which is even higher than that between LI+LT and SAT (r= 0.900, p<0.01), and is 17.1% greater than the relationship found between LI and SAT (r= 0.766, p<0.01). Similarly, the relationship between LI+LT and SAT is 14.9% higher than between LI and SAT (r= 0.766, p<0.01).

-In the extra effort (Ee) effect, it was found that the highest relationship exists between LT and EE (r= 0.882, p<0.01)=3.9%, which is even higher than that between LI+LT and Ee (r= 0.848, p<0.01), and is 23% greater than the relationship found between LI and Ee (r= 0.679, p<0.01). Similarly, the relationship between LI+LT and Ee is 20% higher than the relationship between LI and Ee (r= 0.679, p<0.01).

-In the effectiveness (EFIC) effect, the values are lower but still significant. It was found that the highest relationship exists between LI+LT and EFIC (r= 0.845, p<0.01)=2.1% compared to the others, such as LT and EFIC (r= 0.827, p<0.01), which is 17% greater than the relationship found between LI and EFIC (r= 0.702, p<0.01). When comparing the relationships between LT and EFIC (r= 0.827, p<0.01) and LI and EFIC (r= 0.702, p<0.01), it was calculated that the relationship presented by LT is 15.1% greater than that of LI.

The one-way ANOVA analysis is presented in Table 4, showing the results of comparing the means of the variance of one factor that confirm the previous analyses regarding the significance of the relationships and differences among the school leadership groups found with the organizational effects. In the same table, the three organizational effects are observed with the factor variable "predominance of leadership style," which includes the three school leadership groups found.

**Table 4.** *Significance of relationships and differences between groups of leadership types and organizational effects.*

| ANOVA table | | Sum of squares | gl | Mean squared | F | Sig. |
|---|---|---|---|---|---|---|
| Med_SAT * Predominance of leadership | Inter-groups (combined) | 2,055 | 2 | 1,028 | ,827 | , 438 |
| | Intra-groups | 309,262 | 249 | 1,242 | | |

| by style | Total | 311,317 | 251 | | | |
|---|---|---|---|---|---|---|
| Med_EFIC * Predominance of leadership by style | Inter-groups (combined) | 2,986 | 2 | 1,493 | 1,287 | ,278 |
| | Intra-groups | 288,755 | 249 | 1,160 | | |
| | Total | 291,741 | 251 | | | |
| Med_EE * Predominance of leadership by style | Inter-groups (combined) | 2,106 | 2 | 1,053 | ,777 | ,461 |
| | Intra-groups | 337,286 | 249 | 1,355 | | |
| | Total | 339,392 | 251 | | | |

**Source:** Alcaide, L. (2017) (p. 213).

Table 4 shows results that confirm that the relationships found between the three leadership styles and the organizational effects do not present significant differences. The following relationships were observed:

-The three leadership styles with the SAT effect=(2, 249) = 0.827, p= 0.438); indicate that the perceptions among teachers do not differ significantly when considering that the school leader develops a leadership style that makes them feel satisfied because, like with the other educational actors, their way of working is friendly and acceptable.

-The three leadership styles with the EFIC effect= (F(2, 249) = 1.287, p= 0.278) indicate that the perceptions of teachers do not differ significantly when appreciating that their leaders achieve effective institutional management.

-The three leadership styles with the Ee effect= (F(2, 249) = 0.777, p= 0.461) indicate that teachers do not differ significantly in their perception of considering that their director or principal encourages other educational agents to do more than they had planned and also increases their desire to succeed.

In summary, the statistical analyses showed results that confirm the relationship between each of the leadership groups found (factor variable) and the organizational effects. Thus, they confirm the values presented in Table 4 in the Significance column (sig > 0.05), which also suggests that these relationships do not show significant distinctions or differences.

## 5. CONCLUSIONS AND DISCUSSION

After analyzing the results, it is concluded that the overall objective was achieved since no significant differences were found when establishing a comparison between the LI and LT leadership styles. This implies that there are relationships between transformational and/or instructional leadership and the organizational effects of director effectiveness, teacher satisfaction, and extra effort in educational improvement processes, both independently and synergistically and integrated by both styles, when instructional leadership is combined with transformational leadership, which is evidenced when directors develop these leadership styles within the framework of change and educational improvement processes (Ganga-Contreras et al., 2016a).

Regarding the first specific objective, it was possible to identify that, although, in some of the analyzed cases, there was a certain tendency towards LI and in others towards LT, the greater tendency was towards the integration of LI and LT styles. Therefore,

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it is concluded that the "leadership style" factor does not show a predominance of one school leadership style in educational institutions that are in school improvement processes, since both transformational and instructional leadership do not present significant differences between them that justify it, which is again confirmed when associating them with the three organizational effects or outcome variables.

Regarding the significance of the level of relationships between LT and/or LI and organizational effects, which the second specific objective refers to, it is concluded that since there is no predominance of transformational leadership style over instructional leadership style or vice versa, a combination or integration of both leadership styles is observed, which is called integrated leadership. This study does not intend to generalize but rather confirms what Greb (2011) points out regarding the effective relationship between the two leadership styles of LT and/or LI and the improvement of academic performance, which when combined, enhance each other. Therefore, it can be proposed that the integrated leadership style is a good option for effective management, not only for directors, who can implement and develop a leadership style that shows the best selection of both instructional and transformational leadership strategies to combine and develop according to the situation that arises during management. Therefore, integrated leadership ensures the effectiveness of leaders (Klinginsmith, 2007); and, whether directly or indirectly, it contributes to the progressive improvement of learning outcomes (Day et al., 2016).

Regarding the comparison of the significance of the differences between the relationships of LT and/or LI and organizational effects, as stated in the third specific objective, it is confirmed that the relationships found between the three groups of leadership styles and organizational effects do not present significant differences. This coincides with the theoretical-empirical background that emphasizes that organizational effects, also known as outcome variables: leader effectiveness, the feeling of great job satisfaction, and willingness to put in extra effort or work longer hours, are recognized as effects of transformational leadership on other collaborators or educational actors, which contributes to achieving changes and improving educational management processes significantly (Hurtado, 2008; Thieme, 2005; González et al.,2013, Ganga-Contreras et al., 2016b;). In the same vein, it agrees with Bass (1988, p. 30), who concludes: "Only transformational leadership can make doing a task well or contributing to a good cause rewarding and make people feel satisfied with themselves."

This conclusion is strengthened by the novel contribution that this study provides regarding perceptions of instructional leadership, which also indicates its relationship with the organizational effects of leader effectiveness, satisfaction, and extra effort. This result contributes to reliable and original evidence, as previous studies did not report similar results (Nurabadi et al., 2021; Volante, 2010), and these organizational effects are only attributed to transformational leadership. This is perceived when principals develop instructional leadership or transformational leadership either independently or when both leadership styles are integrated. This conclusion is considered a new contribution and a precedent that invites further studies to strengthen the development of better educational policies and innovation of selection processes for educational leaders in general and to reshape institutional management

where the exercise of leadership effectively contributes to improving the school system and the Chilean educational proposal, as proposed by Volante (2010).

In conclusion, when comparing the differences between the relationships of LT and/or LI and organizational effects, there are no significant differences between them, either independently or integrated. Like the transformational and instructional leadership styles, integrated leadership by LT and LI also relates to the three organizational effects and values that place it between transformational and instructional leadership. All of this, in the framework of leadership evaluation, is increasingly generating interest in developing empirical research on the integration of transformational and instructional leadership since in the educational field, theorizing these leadership styles continues to present dichotomous tendencies (Shaked & Benoliel, 2020).

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