
A CAUSAL COMPARATIVE STUDY OF LEADERSHIP COMPETENCIES AND SCHOOL CULTURE OF SECONDARY SCHOOLS IN PUNJAB

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ABSTRACT

The aim of the study is to describe the influence of principals' leadership competencies on the culture of secondary schools. It also explored that which leadership competency is highly affecting the school culture. This study followed the positivist paradigm, therefore Retrospective casual comparative design of quantitative approach was employed. The population was comprised of all the public secondary school teachers of Punjab. Multi-stage random sampling techniques was used and a sample of 597 participants were selected as sample. Data were collected by using two instruments. The Competency Approach Survey (TCAS) questionnaire was consisted on 14 statements under 7 factors with Cronbach's Alpha value of 0.79. Similarly, The School Culture Survey (TSCS) questionnaire has 41 statements under 7 factors with Cronbach's Alpha value of 0.91. Study revealed the positive and moderate correlation exists between the leadership competencies and school culture with ($r=.672$, $p=.000$). Similarly, the results of regression showed a positive moderate effect of leadership competencies on school culture with ($r^2=.451$, $p=.000$) Furthermore, male and female teachers have significant differences in their perceptions about leadership competencies and school culture. Cultivate a shared belonging were the most significant leadership competency while students and teachers was the most significant factor of school culture.

KEYWORDS

Leadership competencies, school culture, quantitative research, secondary school

teachers.

INTRODUCTION

School heads, principals, District Education Officers (DEOs) and Chief Educational Officers (CEOs) in Pakistan are facing many challenges to improve the educational sector and for balancing the increasing demands at federal, state and local level. Amin and Ch. (2021) emphasized on the inevitability of paradigm shift in education and calls for reforms at leadership level to meet the unforeseen challenges within local and international communities.

School leaders should focus on their position as leaders by leading, modelling, and teaching the school's primary stakeholders, including teachers, students, and parents (Adams, Donnelly, & Smith 2012; Evans, 2014). By creating a school culture that supports the requirements of all stakeholders, school leaders are accountable for student progress and professional advancement of teachers and whole faculty members (Adams et al., 2012; Rueter, 2009).

According to Peterson and Deal (2009) leadership competencies and school culture are two major components that take necessary part in the improvement of students' achievement. To fulfil the requirements at federal, state and local level, a school head must understand the relationship between leadership competencies and school culture (Leithwood, Day, Sammons, Hopkins, Haris & Wagner, 2006). According to Schein (2004) leadership competencies and school culture are two parts of a coin and if one of them is disappeared the other cannot be understood. To lead a school successfully, it is necessary for a school head to understand the leadership competencies and school culture at the first priority (Adams et al, 2012; Johnson, 2004).

Many studies have looked at the impact of leadership competencies on school culture, as well as the link between the two (Bolton, 2013; Jeon, 2011; Jones, 2012; Karada, 2009). Positive disposition, Cultivate a shared belonging, Support social relationships, Communication and Interaction, Focus of vision, Enhance trust, Rituals, Ceremonies and Symbolic Actions are the competencies of a school head which contribute for a school culture that leads a school towards progress (Balay & İpek, 2010; Deal & Peterson, 2009; Roby, 2011; Wagner, 2006).

Empirical researches for the relationship between leadership competencies and school culture are continuously increasing are also a proof and few researchers have critically examined the nature of leadership competencies and school culture (Cimen & Karadağ, 2019; Holden, 2017; Karadağ, 2009; Kaya, 2015). Research conducted by Cimen and Karadag in 2019 on leadership competencies, school culture, and academic success of the school also found a positive relationship between leadership competencies and

school culture.

School heads are responsible for the development of school culture and major component of school culture are (V/M/V), (S&T), (L), (T&L), (BC), (C&CR) (E/C/T) (Baig, 2010; Turan & Bektas, 2013). As school heads in Pakistan are responsible for the achievements of the students. Mostly leaders of public sectors in Pakistan are not aware of their leadership role because of the lack of training and their Bachelor and Master degrees do not have any practical implication in the improvement of school culture (MOE, 2015). These degrees are related to teaching and learning process only.

Moreover, Arts degrees possessed by school heads do not indicate any kind of competency related to leadership (Rizvi, 2010). Pakistan education statistics for 2019-2020 indicated that government high schools have 63% enrollment only (MOE, 2021). Thus it is indicating an ineffective role played by the heads of the public schools. Currently in Pakistan, there is little research work on leadership competencies especially in the field of education. A few researches have conducted on leadership competencies in the field of banks and industries (e.g. Ali et al., 2016; Rizvi, 2010; Simkins, Sisum, & Memon, 2003).

Existing studies suggested that leadership competencies significantly influenced the school culture ultimately which influenced outcome of students (Shahini & Daftarifard, 2010). Some researchers have also identified school leadership as one factor that influenced school culture (Ali El-Hajji, 2010; Devos et al., 2014; Dumay & Galand, 2012). While existing literature on leadership competencies focused mainly on the relationship between principal's leadership competencies and school culture (Seashore et al., 2010), there was still a lack of knowledge and clarification regarding how principal leadership competencies influences school culture at secondary level.

School culture, as an influential factor, was identified by Devos et al. (2014) as important in organizational effectiveness and recommended it to be empirically examined. A quantitative study of how principal leadership competencies influence school culture may reveal best leadership practices and organizational culture that foster an increase in students' achievements. This study focused on secondary school. Keeping in mind the problem statement, study had following objectives.

LITERATURE REVIEW

To construct leadership competencies, a variety of theoretical methods have been studied. These include assessments of the leadership process, the role that influence the leadership, the fact that leadership happens in a group setting, and the fact that leadership competencies include goal achievement (Northouse, 2004). Theoretical

studies are frequently conducted to get a better understanding of leadership competencies, including what they are, what they possess, and how to acquire or enhance their competencies.

Defining leadership competencies, on the other hand, is a crucial component for developing a theory or model that analyses or explains it further. By using different sources of information a comprehensive information was gathered regarding leadership competencies and school culture. Those sources of information are Google Scholar, ProQuest Research Library, OATD, ERIC, science Direct and so on.

Leadership

Northouse (2016) observed that "there are almost as many diverse conceptions of leadership as there are people who have tried to define it" (p. 2). Although defining leadership is challenging, Northouse finally came to the conclusion that "leadership is a process by which one individual inspires a group of people to achieve a common goal" (p. 6). This idea will be utilized in this research to examine the impact of school administrators' leadership qualities, with a focus on their capacity to affect school culture and student achievement.

School Culture

School culture, according to Mattos (2016), is "the assumptions, beliefs, values, and practices that form the norm for the school and govern the work of the educators inside it" (p. 8). Hanson (2001) expanded on the concept of a school's culture. "Schools have distinct cultures formed on a certain blend of values, beliefs, and feelings," Hanson discovered (p. 641). "A school where students feel good about going and instructors feel good about teaching," Bartell (1990) characterized an excellent school culture. The entire crew collaborates to establish a caring environment" (p. 126). Principals were also referred to as cultural leaders by Barth.

According to Marzano et al. (2005), a good leader creates a favourable culture in the school for instructors, who may subsequently create a positive culture for students. Leithwood and Riehl (2003) expanded on the concept of a leader creating a culture through others, saying: "Leaders act through and with other people. Leaders sometimes do things, through words or actions, that have a direct effect on the primary goals of the collective, but more often, their agency consists of influencing the thoughts and actions of other persons and establishing policies that enable others to be effective (p. 8)."

According to Marzano (2003), school leaders are responsible for encouraging employee cohesion, fostering a sense of well-being among staff, generating a shared vision of what the school could be, and developing a common vision of what the school

could be."The number one factor for teachers' judgments about whether to stay in a school is the quality of administrator support and it is the leader who must establish this organization," Darling-Hammond (2007) concluded in their study on the impact of school culture (p. 17). Principals, according to Waldron and McLeskey (2010), play a critical role in school reform, including "creating a supportive school culture for teachers" (p. 51).

A relationship between leadership competencies and school culture was found after the deep study of literature. Three theorists contribute to the understanding of the study's purpose in the theoretical framework. Effect of culture on the organization was explored by Schein (2004). Efforts for leadership competencies were done by Deal and Peterson in 2009. Christopher Wagner had added his contributions about school culture in 2006. This study is based on the following conceptual framework.

Leadership Competencies	School Culture
Positive disposition	Vision/Mission/Values
Cultivate a shared	Students and Teachers
belongings	Leadership
Support social relationships	Teaching and learning
Communication and	Building community
Interaction	Communication and conflict
Focus of vision	Resolution
Enhance trust	Events/celebrations/traditions
Rituals, Ceremonies,	
Symbolic Actions	

RESEARCH OBJECTIVES

1. To explore the views of teachers about their heads' leadership competencies.
2. To identify the perceptions of teachers about the culture of school of secondary level.
3. To identify the existence of relationship between school culture and leadership competencies.
4. To identify the influence of leadership competencies on school culture.
5. To explore the deviation in teachers' opinion based on demographic (male/female, arts/science group).
6. To describe the variation in teachers' views based on demographics (male/female, arts/science group).

RESEARCH HYPOTHESIS

1. Leadership competencies do not have any effect on the culture of school.

RESEARCH METHODOLOGY

Apropos to the research objectives, the study followed the positivist paradigm, therefore, quantitative research approach was used. It is evident from the researches that for theory testing, quantitative research is more appropriate (Williams, 2011).

Population and Sample size

All teachers who were teaching in public schools of secondary level in Punjab were considered as population of the study. By using multi-stage sampling technique, a sample of 597 teachers (selecting 20% from public strata) were selected.

Instruments

The researcher used two questionnaires. One of them was adopted with the permission of author while other was adapted. Survey has two parts, A & B (The Leadership Competencies Approach and The School Culture Survey).

Reliability and Validity of the Instruments

The tools' validity was confirmed when five educational professionals in related fields were consulted. Content, face, and language validity were tested on the instruments, and they were completed after receiving fast input from specialists. The instruments were piloted with n=448 teachers after the content, language, and structure of the survey were verified (other than sample). The reliability for the survey was found as follows:

Table 1: Sub-factors of the Competency Approach Survey and Reliability (n= 445)

Sub-Factors	Statements	Alpha
Positive Disposition	2	.960
Cultivate a Shared Belongings	2	.976
Support Social Relationships	2	.980
Communication and Interactions	2	.983
Focus of Vision	2	.981
Enhance Trust	2	.981
Ritual, Ceremonies, Symbolic Actions	2	.967
Scale	14	.939

Table 2: Reliability of sub-factors of The School Culture Survey (n=445)

Sub-Factors	Statements	Alpha
Vision / Mission / Values	7	.860
Leadership	11	.789
Communication and Conflict Resolution	6	.855
Building Community	5	.753
Students and Teachers	4	.725
Teaching and Learning	4	.803
Events/Celebration/Traditions	4	.722
	41	.932

Data Collection and Analysis

Google survey was created for data collection from the teachers and invitations were sent to all participate of the study. It was requested to all the teachers to share the Google survey link with their colleagues.

Table 3: Response Rate of the study

Gender	Frequency	Percent
Male	181	40.7
Female	264	59.3
Total	445	100

ANALYSIS OF DATA AND RESULTS

Screening and cleaning of data was done after the collection of data. Descriptive statistics and inferential statics (Correlation and Linear Regression test) were used to ensure the normality of data Ethical considerations were considered and discussed with the study's respondents prior to data collection.

Background information

These figures show the percentage of respondents' information with respect to gender and group. Female respondents were almost more than males. There were 2 groups of teachers and results showed that science teachers were more than the arts teachers.

- i) Distribution of gender
- ii) Distribution of group



Descriptive analysis

To understand the Mean value for each factor, mean value is computed and interpreted according to following criteria (Kaur & Embi, 2011).

Table 4: Criteria for Mean Value

Frequency of Use	Beliefs	Mean Scores
High Level	Very Strong	4.5 - 5.0
	Strong	3.5 - 4.4
Moderate/medium Level	Moderate	2.5 - 3.4
Low Level	Weak	1.5 - 2.4
	Very Weak	1.0 - 1.4

Table 5: Analysis of Mean Score of Leadership Competencies Approach Survey and Sub-Factors, (n=445)

Scale and Sub Scales	M	SD
Communication and Interaction	3.80	.87
Support Social Relationships	3.78	.92
Cultivate a Shared Belongings	3.73	.94
Positive Disposition	3.68	.85
Rituals, Ceremonies and Symbolic Actions	3.59	1.16
Focus of Vision	3.53	1.02
Enhance Trust	3.50	.96

Leadership Competency Approach	3.66	.64
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Table 5 presented the measurement of descriptive statistics of leadership competencies approach survey. The mean score for this scale was (M=3.66, SD=.64). Similarly, it also described the descriptive of sub scale. The most significant factor was communication and interaction with highest mean score (M=3.80, SD=.87). The least significant factor was enhance trust with lowest mean score (M=3.50, SD=.96) among all factors.

Table 6: Analysis of Mean Score of the School Culture Survey, (n=445)

Scale and Sub Scales	M	SD
Vision/Mission/Values	3.77	.68
Students and Teachers	3.75	.64
Leadership	3.72	.60
Teaching and Learning	3.62	.66
Building Community	3.60	.77
Communication and Conflict Resolution	3.71	.67
Events/Celebrations/Traditions	3.79	.74
School Culture Survey	3.63	.48

Table 6 was about the analysis of mean score of school culture survey. The mean score for this tool was (M=3.63, SD=.48). Similarly, mean score of sub factors was also measured. The most significant factor was events/celebrations and traditions with highest mean score (M=3.79, SD=.74). Moreover, least significant factor was building community with lowest mean score (M=3.60, SD=.77) among all measured sub factors of school culture survey

Hypotheses Testing

Inferential statics were used to evaluate both hypotheses. The strength of the relationship between leadership competencies and school culture was determined using Pearson's correlation.

H₀₁=There is no relationship exists between leadership competencies and school culture

Table 7: Co-relation between Leadership Competencies, School Culture

Variable	Mean	r	Sig.
Leadership Competencies	3.66	.672**	.000
School Culture	3.63		

**p < .005 (2-tailed)

The above table show that leadership competencies and school culture had a significant positive moderate relationship (r=.672, p=.000). The strength of the correlation between leadership competencies and school culture was .672 which show a positive moderate relationship between the two variables.

Keeping in view the positive moderate relationship between two variables, the next stage was regression analysis. Through this technique it can be found that how much one variable affects the other variable. Linear regression analysis was used by considering this bivariate study.

Table 8: Regression Analysis

Predictor	$\beta 1$	R^2	df	F	Sig
Constant	72.281	.451	444	364.219	.000
Leadership Competencies	1.496				

Dependent variable: School Culture

To explore the influence of leadership competencies on school culture it was necessary to use simple regression analysis. The findings indicated a significant and positive effect $F(1, 444) = 364.219, p=.000, R^2 = .451$ of leadership competencies on school culture. It was evident that any improvement in leadership competencies may improve the culture of secondary school through regression coefficient (B=1.496).

Lastly, Independent sample t-test was used to analyze the difference of the leadership competencies (TCAS) and School Culture (TSCS) with respect to gender and group,

Table 9: Examination of Mean Score of Leadership Competencies on the basis of Female/Male Teachers

Gender	N	M	SD	T	Df	P
Female	264	51.81	8.98			

				-1.482	443	.139
Male	181	50.53	8.96			

* Significant at 0.05 level

The p-value .139 showed an insignificant difference in the mean score about the views of teachers based on gender about their head's leadership competencies. Mean score of both male and teachers was (M=50.53, SD=8.96) and (M=51.81, SD=8.98) respectively. Thus, null hypothesis was accepted as p-value (.139) was greater than 0.05 the level of significance.

Table 10: Examination of Mean Score of Leadership Competencies on the basis of Arts/Science Group

Group	N	M	SD	T	Df	P
Arts	208	50.87	8.537	-.917	443	.360
Science	2378	51.65	9.37			

* Significant at 0.05 level

The table showed that p-value .360 showed an insignificant difference in mean scores about the opinions of arts and science teachers about the leadership competencies of their head. Mean score of arts and science teachers was (M=50.87, SD=8.53) and (M=51.65, SD=9.37) respectively. Thus, null hypothesis was accepted as p-value (.360) was greater than 0.05 the level of significance.

Table11: Examination of Mean Score of the Culture of School on the basis of Female/Male Teachers

Gender	N	M	SD	T	Df	P
Female	264	149.56	19.85	-.721	443	.471
Male	181	148.17	20.26			

* Significant at 0.05 level

The p-value .471 described an insignificant difference in mean score of teachers' perceptions about the culture of schools of secondary level. Therefore, the mean score of male and female teachers about secondary school culture was (M=148.17,

SD=20.26) and (M=149.56, SD=19.85) respectively. Hence, it was obvious that both male and female teachers had same views about the culture of their school because p-value'' (.471) is greater than the 0.05 the level of significance. So, null hypothesis was accepted

Table 12: Examination of Mean Scores of Leadership Competencies on the basis of Arts/Science Group

Group	N	M	SD	T	Df	P
Arts	208	148.59	18.42			
				-.396	443	.059
Science	237	149.35	21.33			

* Significant at 0.05 level

The p-value .059 indicated an insignificant difference in the mean score about the view of arts teachers and science teachers about the culture of secondary school. Mean score of arts teachers was (M=148.59, SD=18.42) and science teachers had the mean score (M=149.35, SD=21.33). Thus, null hypothesis was accepted as p-value (.059) was greater than 0.05 the level of significance.

DISCUSSION

The study aimed to see the influence of leadership competencies on the culture of schools of secondary level in Punjab. In addition, the relationship between two variables was investigated. Each participant was asked to score their view of each of the seven competencies investigated in this study as existing in current leadership at each of their school sites.

When sub-factors of leadership competencies were compared, it was found that out of all types of competencies the highest mean is referred to cultivate a shared belonging by school principal with a mean of 3.97. While the competency ranked the least observed in principals with teacher is Positive Disposition with a mean of 3.82 as reported by ((Picucci, Brownson; Kahlert, & Sobel, 2002). The reason for the higher level of cultivate a shared belonging is perhaps, this allows heads to connect to the school and connects heads to the school culture (Lattimer, 2007).

When different sub-factors were compared, a substantial difference between sub-factors was discovered for (V/M/V), (S&T), (L), (T&L), (BC), (C&CR) (E/C/T). The findings are aligned with the studies of (Gulcan, 2012) and Muhammad (2014). There was also a considerable variation in attitudes between scientific and arts teachers, according to the study. The findings of this study are consistent with those of other

researchers (Al-Issa, 2007; Borman & Kimball, 2009).

This study also revealed that there is a significant difference regarding sub-factors of School Culture Survey. There were seven factors of school culture and the most important factor was students and teachers with highest mean of 4.25. Similarly, the least important factors were leadership, communication and conflict resolution with mean of 3.56 as studied by (Glover, 2015). There are several studies in the literature that support the goal of this research. The principal's leadership has an impact on the school culture. According to a study by Johnson et al., school reform and culture are critical for instructors (2012).

This study's findings demonstrated that principals have the potential to impact a school's culture, as a significant effect of leadership competences on school culture was identified, comparable to prior research' findings (Deal & Massey, 2013). The conclusions of this study are backed up by the findings of a number of other researchers. (Akram, 2018; Borman Darling-Hammond & Rothstein, 2012; Harris & Twiname, 2012).

RECOMMENDATIONS

The study recommended that there is a need for school heads to improve all those competencies which have least means like positive disposition and support social relations. It is also important to work on all those factors of culture which have least means. There is a need to arrange workshops and seminars to improve the competencies of school heads as well as teachers.

REFERENCES

- Akram, U., Khalid, M., & Shafiq, S. (2018). Optimal sizing of a wind/solar/battery hybrid grid-connected microgrid system. *IET Renewable Power Generation*, 12(1), 72-80.
- Ali Chughtai, A. (2016). Can ethical leaders enhance their followers' creativity?. *Leadership*, 12(2), 230-249.
- Al-Issa, A., & Sulieman, H. (2007). Student evaluations of teaching: perceptions and biasing factors. *Quality Assurance in Education and Family*, 75(1), 252-258.
- Anthony, E. L., Daniels, S. R., & Hall, A. V. (2017). Social exchange theory: A critical review with theoretical remedies. *Academy of management annals*, 11(1), 479-516.
- Amin, H., Ch. A. H. (2021). Implications of pentagon theory of contextualized multiple intelligences (CMI) for future job prospects of university students. *Pakistan Journal of Educational Research*, 4(3), 223-244. <https://doi.org/10.52337/pjer.v4i3.268>

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- BALAY, R., & İPEK, C. (2010). Teachers' perception of organizational culture and organizational commitment in Turkish primary schools. *Zeitschrift für die Welt der Türken/Journal of World of Turks*, 2(1), 363-384.
- Bolden, R., & Gosling, J. (2006). Leadership competencies: time to change the tune? *Leadership*, 2(2), 147-163. <https://doi.org/10.1177/1742715006062932>
- Bolton, P., Brunnermeier, M. K., & Veldkamp, L. (2013). Leadership, coordination, and corporate culture. *Review of Economic Studies*, 80(2), 512-537.
- Borman, G. D., & Kimball, S. M. (2005). Teacher quality and educational equality: Do teachers with higher standards-based evaluation ratings close student achievement gaps? *The elementary school journal*, 106(1), 3-20.
- Boyd, D., Grossman, P., Ing, M., Lankford, H., Loeb, S., & Wyckoff, J. (2011). The influence of school administrators on teacher retention decisions. *American Educational Research Journal*, 48(2), 303-333. <https://doi.org/10.3102/0002831210380788>
- Cardy, R. L., & Selvarajan, T. T. (2006). Competencies: Alternative frameworks for competitive advantage. *Business Horizons*, 49(3), 235-245. <https://doi.org/10.1016/j.bushor.2005.09.004>
- Chen, Y., & Hoshower, L. B. (2003). Student evaluation of teaching effectiveness: An assessment of student perception and motivation. *Assessment & evaluation in higher education*, 28(1), 71-88.
- Çimen, B., & Karadağ, E. (2019). Spiritual leadership, organizational culture, organizational silence and academic success of the school. *Educational Administration: Theory and Practice*, 25(1), 1-50.
- Coelli, M., & Green, D. A. (2012). Leadership effects: School principals and student outcomes. *Economics of Education Review*, 31(1), 92-109. <https://doi.org/10.1016/j.econedurev.2011.09.001>
- Darling-Hammond, L. (2015). *The flat world and education: How America's commitment to equity will determine our future*. Teachers College Press.
- Darling-Hammond, L., Amrein-Beardsley, A., Haertel, E., & Rothstein, J. (2012). Evaluating teacher evaluation. *Phi Delta Kappan*, 93(6), 8-15.
- Darling-Hammond, L., LaPointe, M., Meyerson, D., & Orr, M. (2007). Preparing school leaders for a changing world: Executive summary.
- Day, C., Sammons, P., Hopkins, D., Harris, A., Leithwood, K., Gu, Q., & Kington, A. (2009). The impact of school leadership on pupil outcomes. Final report.
- Deal, T. E., & Peterson, K. D. (2015). *Shaping school culture, pitfalls, paradoxes, and promises*. San Francisco, CA: John Wiley & Sons.
- Devita, M. C., Colvin, R. L., Darling-Hammond, L., & Haycock, K. (2007). *Educational leadership: A bridge to school reform*. New York, NY: The Wallace Foundation.

-
- Devos, D., Moreau, C., Devedjian, J. C., Kluza, J., Petrault, M., Laloux, C., & Bordet, R. (2014). Targeting chelatable iron as a therapeutic modality in Parkinson's disease. *Antioxidants & redox signaling*, 21(2), 195-210.
- Devos, G., Tuytens, M., & Hulpia, H. (2014). Teachers' organizational commitment: Examining the mediating effects of distributed leadership. *American Journal of Education*, 120(2), 205-231.
- Dretzke, J., Barlow, J., & Day, C. (2013). Do evidence-based interventions work when tested in the "real world?" A systematic review and meta-analysis of parent management training for the treatment of child disruptive behavior. *Clinical child and family psychology review*, 16(1), 18-34.
- Dumay, X., & Galand, B. (2012). The multilevel impact of transformational leadership on teacher commitment: Cognitive and motivational pathways. *British Educational Research Journal*, 38(5), 703-729.
- Dumay, X., & Galand, B. (2012). The multilevel impact of transformational leadership on teacher commitment: Cognitive and motivational pathways. *British Educational Research Journal*, 38(5), 703-729.
- El-Hajji, M. (2010). Teachers' demographic characteristics, attributes and students' cognitive dimensions: a correlation analysis. *International Journal of Educational Administration*, 2(4), 603-608.
- Evans, L. (2014). Leadership for professional development and learning: Enhancing our understanding of how teachers develop. *Cambridge journal of education*, 44(2), 179-198.
- Gardner, W. L., Coglisier, C. C., Davis, K. M., & Dickens, M. P. (2011). Authentic leadership: A review of the literature and research agenda. *The leadership quarterly*, 22(6), 1120-1145.
- Glover, V. (2015). *A study of the influence of leadership competencies on a school culture organization* (Doctoral dissertation, Pepperdine University).
- Gosling, S. D., Ko, S. J., Mannarelli, T., & Morris, M. E. (2006). A room with a cue: personality judgments based on offices and bedrooms. *Journal of personality and social psychology*, 82(3), 379.
- Green, K. W., Zelbst, P. J., Meacham, J., & Bhadauria, V. S. (2012). Green supply chain management practices: impact on performance. *Supply Chain Management: An International Journal*.
- Gruenert, S., & Whitaker, T. (2015). *School culture rewired: How to define, assess, and transform it*. ASCD.
- Habegger, S. (2015). The Principal's Role in Successful Schools: Creating a Positive School Culture. *Principal*, 88(1), 42-46.
-

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- Hallinger, P., & Heck, R. H. (2011). Collaborative leadership and school improvement: Understanding the impact on school capacity and student learning. In *International handbook of leadership for learning* (pp. 469-485). Springer, Dordrecht.
- Harris, T., & Twiname, L. (2012). Student evaluations of teaching: The students' perspective. *Studies In Learning, Evaluation, Innovation & Development*, 9(1).
- Haycock, P. C., & Burgess, S. (2016). Consistent estimation in Mendelian randomization with some invalid instruments using a weighted median estimator. *Genetic epidemiology*, 40(4), 304-314.
- Holden, T. E. (2017). Spiritual leadership, school climate, and teacher collective efficacy in Asian international schools.
- Horton, S. (2002). The competency movement: Competency management in the public Iranian context. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 2(1), 29-37.
- Jabeen, T. (n.d.). Effect of Leadership Competencies on School Culture and Performance at Secondary Level in Punjab. Lahore, Pakistan.
- Jeon, K. S. (2011). The relationship of perception of organization performance and spiritual leadership, workplace spirituality, and learning organization culture in the Korean context. The Pennsylvania State University.
- Johnson, A. M., Vernon, P. A., Harris, J. A., & Jang, K. L. (2004). A behavior genetic investigation of the relationship between leadership and personality. *Twin Research and Human Genetics*, 7(1), 27-32.
- Karada, E., & Öztekin, O. (2018). The effect of authentic leadership on school culture: A structural equation model. *International Journal of Educational Leadership and Management*, 6(1), 40-75.
- Karadag, E. (2009). Spiritual Leadership and Organizational Culture: A Study of Structural Equation Modeling. *Educational Sciences: Theory and Practice*, 9(3), 1391-1405.
- Karakose, T. (2016). The perceptions of primary school teachers on principal cultural leadership behaviors. *Educational Sciences: Theory & Practices*, 8(2), 569-579. <https://hdl.handle.net/20.500.12438/5982>
- Kimball, S. M., & Milanowski, A. (2009). Examining teacher evaluation validity and leadership decision making within a standards-based evaluation system. *Educational Administration Quarterly*, 45(1), 34-70.
- Kythreotis, A., Pashiardis, P., & Kyriakides, L. (2010). The influence of school leadership styles and culture on students' achievement in Cyprus primary schools. *Journal of Educational Administration*.
- Lattimer, J. M., & Prakash, M. (2007). Neutron star observations: Prognosis for equation of state constraints. *Physics reports*, 442(1-6), 109-165.
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- Leithwood, K., & Sun, J. (2012). The nature and effects of transformational school leadership: A meta-analytic review of unpublished research. *Educational Administration Quarterly*, 48(3), 387-423.
- Louis, K. S., Dretzke, B., & Wahlstrom, K. (2010). How does leadership affect student achievement? Results from a national US survey. *School Effectiveness and School Improvement*, 21(3), 315-336. <https://doi.org/10.1080/09243453.2010.486586>
- Łukasik, J. M., & Piłkuła, N. G. (2015). The Selected Aspects of School Culture in Teachers' Perception. *Pedagogy*, 1, 78-92.
- Lynch, A. D., Lerner, R. M., & Leventhal, T. (2013). Adolescent academic achievement and school engagement: An examination of the role of school-wide peer culture. *Journal of youth and adolescence*, 42(1), 6-19.
- Mattos-Parreira, M. (2016). Cultural Citizenship, Education and Media Literacy on the Imagined European North-South Axis: Finland And Portugal in Context. *Interdisciplinarity in Social and Human Sciences*, 5, 402.
- Mitgang, L. (2012). *The making of the principal: Five lessons in leadership training. Perspective*. Wallace Foundation.
- Ngang, T. K. (2011). The effect of transformational leadership on school culture in male primary schools Maldives. *Procedia-Social and Behavioral Sciences*, 30, 2575-2580.
- Northouse, P. G. (2004). *Leadership Theory and Practice* (3rd ed.). Thousand Oaks, CA: Sage Publications.
- Northouse, P. G. (2016). *Introduction to leadership: Concepts and practice* (p. 352). SAGE Publications, Incorporated.
- Picucci, A. C., Brownson, A., Kahlert, R., & Sobel, A. (2002). *Driven to Succeed: High-Performing, High-Poverty, Turnaround Middle Schools. Volume I: Cross-Case Analysis of High-Performing, High-Poverty, Turnaround Middle Schools*.
- Quin, D. (2017). Longitudinal and contextual associations between teacher-student relationships and student engagement: A systematic review. *Review of Educational Research*, 87(2), 345-387.
- Rizvi, S. (2010). A transnational approach to educational leadership capacity building: a case study of the Masters of Education programme at Notre Dame Institute of Education, Karachi, Pakistan (Doctoral dissertation, ACU Research Bank).
- Roby, D. E. (2011). Teacher leaders impacting school culture. *Education*, 131(4).
- Rueter, J. L. G. (2009). Evolution of the superintendent's leadership role: How components of the leadership role in the superintendency have changed over time. The University of Texas at Austin. sector. *European Variations on a Theme*, 19(1), 3-12.
- Shahini, A., & Daftarifard, P. (2010). Learners' beliefs of an effective teacher: A case of Iranian context. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 2(1), 29-37.
-

-
- Shahmandi, E., Silong, A. D., Ismail, I. A., Samah, B. B. A., & Othman, J. (2011). Competencies, roles and effective academic leadership in world class university. *International Journal of Business Administration*, 2(1), 44-53.
- Simkins, T., Sisum, C., & Memon, M. (2003). School leadership in Pakistan: Exploring the head teacher's role. *School Effectiveness and School Improvement*, 14(3), 275-291.
- Smith, D. E., Adams, J. S., & Donnelly, T. A. (2012). Superintendent leadership: Focusing on district culture (Doctoral dissertation, Saint Louis University).
- Stolp, S. W. (1994). Leadership for school culture.
- Turan, S., & Bektas, F. (2013). The relationship between school culture and leadership practices. *Eurasian Journal of Educational Research*, 52, 155-168.
- Universitatis Babeş-Bolyai, Negotia*, 64(1).
- Vazirani, N. (2010). Review paper: Competencies and competency model—A brief overview of its development and application. *SIES Journal of Management*, 7(1), 121-131.
- Waldron, N. L., & McLeskey, J. (2010). Establishing a collaborative school culture through comprehensive school reform. *Journal of Educational and Psychological Consultation*, 20(1), 58-74.
- Westuizen, J. H., Swart, K. J., Gibhard, L., Lawrence, N., Dambuza, N., & Wiesner, L. (2015). Efficacy and pharmacokinetic evaluation of a novel anti-malarial compound (NP046) in a mouse model. *Malaria journal*, 14(1), 1-7.
- Wildeman, C., Wakefield, S., & Turney, K. (2013). Misidentifying the effects of parental incarceration? A comment on Johnson and Easterling (2012). *Journal of Marriage*
- Williams, B. K. (2011). Adaptive management of natural resources—framework and issues. *Journal of environmental management*, 92(5), 1346-1353.
- Wooi, C. T., Siddiqui, S. H., Jabbar, H. A., & Nawaz, M. S. (2019). 21 St Century Emerging Leadership Competencies in Malaysian Higher Learning Institutions. *Studia*
- Wren, J. T. (2013). The leader's companion: Insights on leadership through the ages. Simon and Schuster.