



RESEARCH PAPER

Impact of Organizational Learning Culture on School Improvement at Secondary Level

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ABSTRACT

Organizational learning culture is a key indicator of improving schools. The main purpose of this study was to examine the organizational learning culture through teachers' perceptions on quality indicators and school improvement. Organizational learning culture consists of norms, beliefs, manners, and rituals that design the rules of thinking, approaches, and actions inside an organization and ultimately influence secondary schools' improvement. The researchers selected 723 male and female SSTs from 145 boys and girls secondary schools in Gujranwala division by using a multistage sampling technique. The School Improvement Questionnaire (SIQ) was developed by the researchers; its reliability (Cronbach Alpha) was established at 0.91. The Organizational Learning Culture Questionnaire (DLOQ) was adopted for the study. Linear regression was used to compute the association between organizational learning culture and school improvement, while independent samples t-test was applied to compare the mean score of male and female secondary school teachers on organizational learning culture and school improvement. The results showed a positive moderate effect of organizational learning culture on school improvement with ($r^2 = 0.659$, $p = .000$). The study results also indicated that male teachers perceived their learning culture significantly higher than their female counterparts. The study recommended that results of current study can be used to bring positive improvements in our public school system.

KEYWORDS Organizational Learning Culture, Secondary Schools, School Improvement

Introduction

Organizational learning culture plays a significant part in school improvement. Organizational learning culture may be proved to be the vital determining factor of measuring academic success at secondary stage of school provided that factors which are directly or indirectly linked to academic achievement. The investigation on learning culture expanded from the United States to European and developing countries. The key points about the learning culture are the building safe environment and availability, learning thoughts, developing agile leaders, feedback and the practice of resources. It is simplified that if learning culture is not efficient and appropriate then, connection between learning culture and the following impact upon school achievement loses its importance and value. In Pakistan, yet, there are many big flaws and inefficiencies in the excellence of the education system of the country.

Organizational learning culture is a vital aspect of a school's overall framework. It encompasses the nature of school life, including its principles, rules, and the collaboration among staff members. The learning culture reflects the shared principles, rules, and cooperative instructional and learning practices among school teachers and the organizational structure of the institute, which collectively define the school climate. According to Wahlstrom and Louis (2008), a strong school learning culture is built on

principles, ethics, and expectations that enable the school community to work collaboratively while ensuring a physically and psychologically safe environment. In a healthy learning culture, teachers engage in instructional activities and receive recognition for their efforts.

Learning culture is composed of some components that influence school improvement (Amjad et al., 2025). These school components according to Balog (2018) consist of people; teaching resources, practical tools, and the learning resources; curriculum, physical activity, instruction, and corporal setting. Hoy and Miskel (2020) reported that the learning culture of the schools is the quality allied to the school's environment that discriminates that school from other schools and influences the performance of each one of that school. Intuitional culture is compound practices distinct from each school. The relationship between learners and faculty members produces a bond enhancing self-discipline in learners and builds a helpful learning environment (Clendaniel, 2006).

Allocating school resources for documents and inquiry is obligatory to link up challenges and draw up impending improvement schemes (Arar & Nasra, 2020). Monitoring and evaluation are sources to reeving and hastening improvement as collected facts will impart to decision-making practice (Paragoso & Borazon, 2019; Taj, 2019).

School improvement is a comprehensive and multifaceted routine that requires both time for implementation and a clear understanding of the leadership role (Khachatryan & Parkerson, 2020). Consequently, prioritizing school leadership for improvement has turned into a key plan internationally, with Pakistan being no exception (Arif, Asghar & Mukhtar, 2020). School improvement embraces emerging performance and inaugurating the ability to deliberately improve the students' outcome and ensure students' realization is reliable. The effect of improvement of school is exploited when the system is adapted to school's requisites (Hopkins, 2020)

This study explores the impact of organizational learning culture on school improvement in Pakistan. The learning culture was measured through teacher assessment. Thus, the present study was instigated to observe the scope of organizational learning culture at secondary school level in Gujranwala division and its influence on school improvement.

Literature Review

Education is multifaceted action that comprises the relationship of teaching, students' impetus, physical services and abilities regarding the demands of teaching and syllabus. The accessibility of learning possessions therefore boosts the efficacy of schools as basic resources to carry out a virtuous educational routine for learners. Learning culture should be helpful for teaching and learning process and also should be supplied and designed for positive learning (Lyons, 2012). School learning culture, according to Mattos (2016), is an expectation, beliefs, principles and practices that form the norms for a school and administrate the work of educators inside it. Many reviews have observed school learning culture as the best significant factor in school improvement. According to Peterson and Deal (2011), different reviews enlightened that school culture is an important factor in stimulating school improvement.

A study was conducted by Fonseca and Conboy, (2006) to determine the encouragement of the physical settings and organization of school facilities on the successful culture of the school. They carried out the research on various aspects of school failure among 10th grade science students from eight institutions in Portugal having a sample of 346 participants. They studied the key factors of failures among learners. In a large-scale study conducted by Voight, Austin and Hanson (2013) in the US context, it was investigated that creates a school effective and successful. In view of the teachers' perceptions, it was found that the school learning culture was related to the engagement of instructors. The study used statistics from 1,700 public elementary and high schools of California, 40 institutes were identified that constantly represented better than expected on standard based tests of English language and math.

Organizational culture is a main indicator for school improvement and also all actions of the school (Habib et al., 2024; 2024a). Its impact is more significant at secondary level (Zeb, Zeb & Ullah, 2022). In their quantitative study data was explored through the sample of 118 head teachers' in district Swat. They found a positive impact of organizational culture on school improvement. In another study, Hasan (2020) described how organizational learning predicts the performance of the workforce and organizational learning culture. Culture and performance could be explained through organizational learning. A positive school learning culture would be necessary for any school. Some positive school learning cultures are linked to the teacher and student motivation, job satisfaction, commitment, collaboration and constructing school community (Kythreotis, Pashiardis, & Kyriakides, 2010). Seemingly, attaining a positive school learning culture would be possible through effective school leadership. Research declared that the positive school learning culture is influenced by strong headship (Rhodes, Stevens, & Annette, 2011).

Dimensions of Organizational Learning Culture

Learning culture of an organization is an obligatory component of school. The perception of the organizational learning culture has given growing consideration in the ground of institutional studies. Culture is a collective form of common human awareness; moralities, attitudes, intentions, and practices (Robbins, 2002). Correspondingly, Schein (2010) worked on the main principles of the organizational learning culture, which function instinctively and which deeply define "theory" of an organizational vision and its surroundings. This is the fundamental of learning culture and what makes it so challenging to realize and transformation.

Organizational Learning cultures as "an organization that facilitates the learning of all its members and continuously transforms itself in order to meet its strategic purposes". The extents of organizational learning culture (DLOQ) computes central reforms in the organizational environment, principles, structures, and arrangements that encourage the individual's learning. During many years, an indicative tool to extent changes in school functioning culture, the model of DLOQ has been established. Watkins and Marsick (1996) acknowledged that the seven-dimensional model is interrelated with learning culture at specific, team, and administration level. These dimensions include: a) Create continuous learning opportunities; b) Dialogue and Inquiry; c) Establish system to share learning; d) Encourage collaboration and team learning; e) Empower People; f) System connection; g) Strategic leadership.

The first dimension of this model, continuous learning represents the institutional efforts to promote these opportunities for all of its members. Culture is designed to work,

so that people can learn on the job; providing them the chances for continuing learning and progression. The second dimension, dialogue and inquiry, discusses the organizational efforts in creating and promoting a culture of inquiring, views, and experimentation. People attain productive reasoning skills to express their views and the capacity to listen and inquire into the views of others. The third dimension, collaboration, reflects the spirit of collaboration and the collaborative skills that sustain the effective use of teams (Watkins & Marsick, 1996). Work is planned to use groups to access different modes of thinking; groups are expected to learn together and work together; collaboration is valued by the culture and rewarded. The fourth dimension, people empowerment, points out the organizational process to produce and share a collective vision and get feedback from its members about the gap between the current condition and the new vision. The fifth dimension, system setting, specifies the efforts to support systems to capture and share learning. Capture and share learning both high- and low-technology systems to share learning are created and combined with work; access is provided; systems are maintained. The sixth dimension, system association, reveals the global thinking and engagements to join the institution to its internal and external surroundings. Individuals are assisted to determine the influence of their exertion on continuous tasks; generally, they examine the surroundings and practice material to change exertion practices; the institution is linked to the societies. Last and seventh dimension, planned guidance, confirms the point to which school heads consider purposefully and use learned knowledge to make variation and to direct the institution in advanced positive orders.

The construction of the organizational learning culture typically involves the continuous learning characteristics. The learning culture, in distinction, designates collective educational proficiencies used to acquire awareness. Watkins and Marsick (1996) framework assisted as the academic base for the study. In short, this model not merely categorizes the dimensions but also assimilates them in a conceptual framework by stating their relationships.

School Improvement

School improvement can be understood as the degree to which the learning, administrative and institutional goals are achieved. School improvement is characterized by clear goals, orderly evaluation, supportive school environment, excellence, and whole progress of learners. School improvement stresses on single teacher or group of teachers and it deliberates on school practices (Reynolds, Hopkins & Stoll, 1993).

In this sense school improvement is about increasing students' realizations through learning process and the settings which support it. School improvement should set up with openly, explicit and measurable goals (Marsh 2012; Schildkamp & Poortman 2015). The transformation as the result of school improvement should not only reveal the execution of policy, but also familiarize the change of better learning procedure and setting that carries significant impact on school teachers and learners (Nair, 2019).

Dimensions of School Improvement

Instructional program: Instructional program involves in goals setting, curriculum management, lesson planning, monitoring, resources allocation and regularly teacher's evaluation to encourage learner learning and development. It offers support to keep focus on improving learning in a consistent mode. The school should

reflect the instructional needs of learners through strategies, assessable, results-oriented, and time bound goal lines. Zmuda & Kuklis, 2004).

Involvement of stakeholders: The learning organization has to establish equally valuable relationships with local and extensive communities and express the purpose of students improving outcomes. Staff collaborates successfully with associates to design, implement, supply, and sustain trust enterprises.

Assessment: The school makes use of various appraisal and assessment approaches to observe and modify instructions to provoke the needs of students and support skilled learners. The school deals with its resources to keep the physical setting. Some certain education places are used productively to enable student's learning.

Functioning facilities: Learning phase is also appreciated; attendance rate is high and instruction-based settings are fecund. Dealings between school staff, learners, student's families and members from community are reliably helpful and honorable. Student's families are greeted as associates in their child's education. Selective plans are in place to support students' and their families' connection to school.

Learning environment: Learning environment provides a variety of school resources which are unceasingly presented to learners. This provides the opportunity to encourage interests and practice to the learners. Helpful environment has a positive impact on a learner's behavior.

Personal development: The institute also offers evidence-based outcomes, focused professional progress prospects for its staff and implements execution evaluation processes to increase teaching and learning. Teaching is an important responsibility, which needs skills of discipline, engagements, and educational understanding with all students (György, 2018).

Hypothesis

Ho. There is no teachers' gender-wise significant impact on school improvement.

Conceptual Framework of the Study

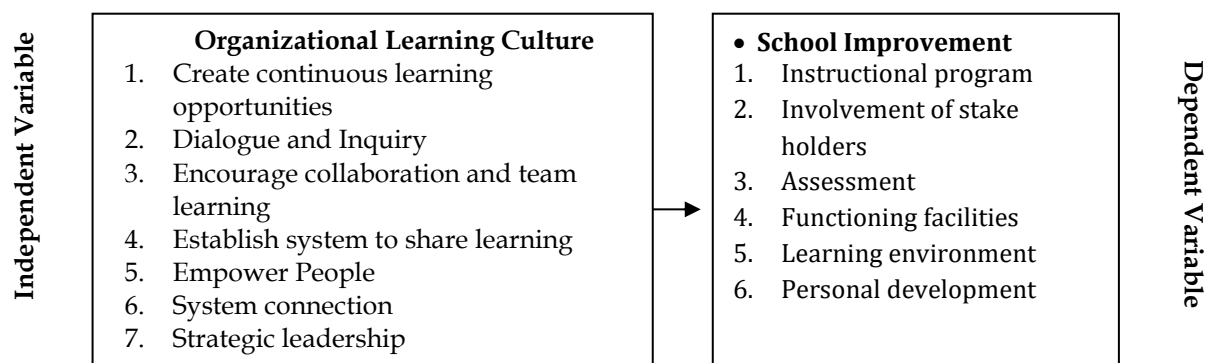


Figure 1: Conceptual Framework of the Study

A conceptual framework was used to help the selection of variables in the study. In this framework the independent variable was organizational learning culture and school improvement was as the dependent variable.

Research Methodology

The research employed a quantitative approach with a causal comparative design. The research identifies the impact of organizational learning culture on school improvement. The independent variable is organizational learning culture, which is the most significant variable to perceive the variations in school performance; the dependent variable is school improvement.

Population and Sample of the Study

The population of this study contained of all secondary schools' teachers (N=7613) from boys and girls public schools (1378) in Gujranwala division. The researchers selected the sample (723) by using the multistage sampling technique.

Table 1
Sample of the Study

Name of Districts	No of Schools		No of Teachers (SSTs)	
	Boys	Girls	Male	Female
Gujranwala	18	14	90	70
Sialkot	14	19	70	94
Hafizabad	04	03	20	15
Mandi Bahauddin	10	10	50	50
Gujrat	17	16	84	80
Narowal	10	10	50	50

Table 1 describes the district wise and gender wise sample of the study. It contained both male (364) and female (359) secondary school teachers' from public sector of Gujranwala division. Overall sample was 723 teachers from six districts of Gujranwala division. The gender wise sample is determined using the Yamane's formula with 5% precision.

Research Instruments and Data Collection

1. Dimensions of Organizational Learning Culture Questionnaire (DLOQ)
2. School Improvement Questionnaire (SIQ)

Organizational Learning Culture Questionnaire (DLOQ) by (Watkins & Marsick, 1996) was adopted. The model has capability to facilitate learning and organizational change. This independent variable was obtained from teachers' responses. The instrument contained 43 statements relating to its seven indicators/domains.

The second instrument "School Improvement Questionnaire" (SIQ) was developed by the researchers. It contained about six indicators. Statements were mentioned on five points Likert scale. Validity of the questionnaire was ensured through expert opinions while reliability was made sure using Cronbach alpha by conducting a pilot study on an appropriate sample in twenty boys and girls schools of district Gujranwala which were not involved in the tangible sample of this study. The range of alpha values was from .83 to .86; however the whole scale was .93.

The researchers personally visited the sample schools of Gujranwala division, met the head teacher of every school, and acknowledged endorsement. After taking the assent from the concerned school heads, the researchers met the contributor's secondary school teachers and requested them to take part in this research. After filling these questionnaires the respondents returned to the researchers. The researchers also collected the data through friends to approach the sampled schools and upload on the Google form. After receiving data the researchers entered and rechecked to make sure that the data is correctly entered and analyzed.

Results and Discussion

To accomplish the impact of learning culture on school improvement, both descriptive data analysis (Mean and Standard deviation) and inferential data analysis (Linear regressions) were used. To determine the gender-wise difference, independent samples t-test was applied. The 666 responses out of 723 found valid for data processing, which constituted 92% of the returned surveys. Among these valid responses, an equal figure of male SSTs (333) and female SSTs (333) reported the gender. This balanced distribution ensures that the perspectives of both male and female teachers are well-represented in the study.

Table 2
Gender Wise Teachers' Perceptions about Organizational Learning Culture and School Improvement

	Gender	Mean	SD
OLC	Male	158.24	23.4
	Female	153.95	28.76
SI	Male	124.8	15.96
	Female	122.11	19.49

Table 2 shows that male teachers reported a higher mean perception (158.24) of organizational learning culture as compared to female teachers (153.95). However, female teachers reported higher standard deviation value that shows the variability in their responses. It shows that in terms of school improvement, male teachers had slightly higher mean values (124.8) as compared to female teachers (122.11). The standard deviations values of female teachers (19.49) and male teachers was (15.96) show variability in female teachers' perceptions, implying a broader range of opinions among female respondents.

Table 3
Descriptive Statistics of Organizational Learning Culture Factors (N=666)

Factors	Mean	SD
Create continuous learning opportunities	3.68	1.05
Dialogue and Inquiry	3.66	1.05
Encourage Collaboration and Team Learning	3.67	1.05
Establish system to share learning	3.61	1.03
Empower People	3.49	1.14
System connection	3.55	1.12
Strategic leadership	3.71	1.00
Overall	3.63	1.06

Table 3 shows that the Mean and SD of DLOQ along with all of its seven factors, clearly representing that the factor strategic leadership (Mean = 3.71, SD = 1.00) got higher value than any of other six factors, and the factor empower people (Mean = 3.49, SD = 1.14) reported lowest value.

Table 4
Descriptive Statistics of School Improvement Factors (N=666)

Factors	Mean	SD
Instructional program	3.90	0.93
Involvement of stake holders	4.07	0.93
Assessment	4.01	0.93
Functioning facilities	4.06	0.92
Learning environment	3.97	0.95
Personal development	3.87	1.00
Overall	3.98	0.94

Table 4 shows descriptive statistics of school improvement scale. It shows that the highest Mean value (M= 4.07, SD= 0.93) was found for Involvement of stakeholders' factor. The lowest mean value through teachers' perception was found for Personal development factor (M =3.87, S.D. =1.00).

Table 5
Gender Wise Difference in Organizational Learning culture as Perceived by SSTs

Gender	N	Mean	SD	t-value	df	Sig.(2- tailed)	Mean difference.
Male	333	158.24	23.4	2.11	664	0.035	-4.29
Female	333	153.95	28.76				

Table 5 shows that in terms of organizational learning culture, male teachers (M = 158.24) report higher perceptions compared to female teachers. The independent sample t-test yields the t-value of 2.11 and a significance value of 0.035, which is less than 0.05. This concludes that the difference in perceptions of organizational learning culture between male and female SSTs is statistically significant. Mean score of male SSTs is higher than female SSTs; presenting the depiction that OLC of male secondary schools is better than their female secondary schools.

Table 6
Gender Wise Difference in School Improvement as Perceived by SSTs

Gender	N	Mean	SD	t-value	df	Sis.(2- tailed)	Mean difference
Male	333	124.8	15.96	1.95	664	0.05	-2.69
Female	333	122.11	19.49				

Table 6 shows the gender-wise difference in school improvement perceptions. For school improvement, male teachers (M = 124.8) also perceive greater improvement compared to female teachers (M = 122.11). The t-value is 1.95, and P-value is 0.05, which is right on the significance onset. This shows that the difference between male and female teacher's perceptions regarding school improvement are slightly significant, with male SSTs viewing school improvement more positively.

In this study, we aim to investigate the impact of organizational learning culture on school improvement. Learning culture refers to the collective practices within an institution that promote continuous learning, team collaboration, and strategic leadership. Prior research has highlighted the role of organizational culture in improving educational outcomes by fostering a supportive environment for learning and development. However, its direct effect on overall school improvement remains an area requiring empirical investigation.

By employing a linear regression model, this study evaluates how different dimensions of organizational learning culture contribute to school improvement outcomes. These findings will provide valuable insights into how school administrations can leverage organizational learning culture to enhance school improvement.

Table 7
Regression Analysis about the Impact of OLC on School Improvement

Model	Unstandardized Coefficients		Standardized Coefficients		F	t	Sig
	R	R ²	B	Std. Error			
1(Constant)	0.635	0.659	1.3711	0.087	27.95	15.744	0.000
Organizational Learning Culture							
a. Dependent Variable: School Improvement							

P<.005

Table 7 shows that the regression analysis revealed that organizational learning culture significantly explains school improvement, accounting for 65.9% of the variance ($R^2 = 0.659$) with an adjusted R^2 of 0.635. The overall model fit was confirmed with an F-statistic of 27.95 ($p < 0.001$), indicating that the organizational learning culture indicators are important predictors of school improvement.

Several indicators of organizational learning culture were found to significantly impact school improvement: The intercept has a value of 1.3711 ($t = 15.744$, $p < 0.001$), representing the baseline level of school improvement when all other variables are zero.

Impact of Teachers' Gender on School Improvement

Among various determinants, gender plays a critical role in shaping educational conclusions. This study focuses on investigating how teachers' gender impacts the overall school improvement. The last objective of the research is to empirically measure the impact of a teacher's gender on the outcomes of school improvement. Specifically, we aim to quantify the effect of gender on school improvement using independent samples t-test.

Table 8
Impact of Teacher's Gender on School Improvement

Variable	R	R ²	Coefficient	F	t	p-value
Intercept	0.028	0.030	4.2179	10.42	56.538	0.000

Table 8 shows that the results of gender significantly impact the school improvement. The intercept (4.2179, $p < 0.001$) represents the standard of school improvement score when gender is set to zero. Gender: The coefficient for gender is 0.1107 ($t = 2.494$, $p = 0.013$), indicating that male teachers are related with a slightly higher school improvement score compared to female teachers. The value of R-squared 0.030 stipulates that the model designates 3% of the variance in school improvement.

Organizational learning culture as an independent variable the mean score 3.63 and standard deviation associated with all the factors ranges from 1.03 to 1.14, showing moderate variations in the perceptions of participants. Overall, the mean score of (M= 3.63, SD= 1.06) indicates a moderately positive perception, reflecting that schools foster a reasonable level of organizational learning culture. DLOQ factor, strategic leadership (Mean = 3.71, SD = 1.00) got higher value than any of the other six factors. DLOQ factor, create continuous learning opportunities (Mean = 3.68, SD = 1.05) calculated the second highest Mean score. DLOQ factor, empower people (Mean = 3.49, SD = 1.14) reported lowest value.

Gender wise data analysis of secondary schools' head teachers made the following fallouts. In terms of organizational learning culture, male teachers (M = 158.24)

report higher perceptions compared to female teachers ($M = 153.95$). The independent sample t-test yields the t-value of 2.11 and a significance value of 0.035, which is less than 0.05, suggests that the difference in perceptions of organizational learning culture between male and female teachers is statistically significant and male teachers perceived it more positively.

For school improvement, male secondary school teachers ($M = 124.8$) perceive greater improvement compared to female secondary school teachers ($M = 122.11$). The received t-value is 1.95, and the p-value is 0.05, which is right on the significance threshold. The results for OLC on SI explains that 65.9% of the variance in SI ($R^2 = 0.659$), with an adjusted R^2 of 0.635, and the F-statistic of 27.95 ($p < 0.001$) indicates that the model fits the data well.

The study generally focused to observe the impact of organizational learning culture on school improvement according to the objectives established for this study. To inquire the perceptions of secondary school teachers about learning culture and its relative influence on school improvement, mean and SD were employed. The effort was on seven indicators of learning culture at secondary schools which included continuous learning opportunities, dialogue and inquiry, collaboration and team learning, establish system to share learning, empower people and system connection are comprehensively discussed in the literature.

The study outcomes show that organizational learning culture as an independent variable was demonstrating moderate variations in respondent's perceptions. Overall, the mean score indicates a moderately positive perception, reflecting that schools foster a reasonable level of organizational learning culture which is aligned with previous study of Mortimore (2003) found relative to the improvement of the school under the inspiration of its learning culture gained by controlling various backgrounds of students and schools.

The starring role of learning culture in accomplishing at school improvement is stressed in this relationship. The inferences indicate that there is a significant link between OLC and SI. This advocates that the OLC is a significant and momentous variable in the relationship. School learning culture constructs a chance to exchange knowledge through a cooperative vision and professional principles in a collective and shared situation. It provides the valuable insights into how school administrations can leverage organizational learning practices to enhance school improvement.

Organizational learning culture refers to the collective practices within an institution that promote continuous learning, team collaboration, and strategic leadership. Further, the study results showed that the learning culture perceived by their secondary school teachers clarified about 65% variance in the school improvement. The findings of the study conducted by (Yasin, Ramly, Pihie, & Basri, 2017) are consistent with this finding in similar components revealed that in order to school improvement; it is needed to have a supportive learning culture. This proves that the schools which foster a culture of positive learning accomplish higher levels of achievement for the overall school performance. It indicates that teaching, learning process is better when the organizational learning culture is positive. It means to have a positive learning culture that gives everyone the power to work towards common goals that make the school improved.

These findings are supported by prior research (Collie, Shapka, & Perry, 2012; Petrie, 2014) highlighted the function of organizational culture in increasing educational outcomes by fostering a supportive environment for learning and development. However, its effect on overall school improvement remains an area requiring empirical investigation. For this purpose, it's important that school teachers and administrators attain necessary skills to create collaborative learning environment. Learning environments should be based on mutual trust, cooperation, and mutual support. School improvement initiatives should effort on the learning culture and in what way, the schools are working.

Consequently, this research study also expresses that there is a strong bonding concerning organizational culture and school improvement. According to these findings, school administration should construct and encourage learning culture to improve their schools. The findings also indicating that the organizational learning culture indicators are important predictors of school improvement.

This study also focuses on gender's level impact to the overall school improvement. The findings find that gender significantly impacts the school improvement. The gender coefficient is indicating that male SSTs are associated with a slightly higher school improvement score as compared to female SSTs that were consistent with various research studies (Burki, 2000; Korpi, 2000) found that the gender-based perceptions about school improvement were found significant.

In the present exploration, male and female respondent's view about school improvement has suggestions for the researchers, policy makers and administration in schooling. Murillo and Townsend (2007) stated that there are various social, cultural, financial and environment related issues that influence the school improvement. Consequently, while making educational policies all these matters should be kept in mind.

Conclusion

The role of organizational culture indicates a moderately positive perception, reflecting that schools foster a reasonable level of OLC. The perception of OLC between male and female teachers is statistically significant and male teachers perceived it more positively. The coefficient for gender indicates that male teachers are associated with a slightly higher school improvement score compared to female teachers. School improvement is associated with the perceived functions of the learning culture of secondary schools. There is a moderate relationship between organizational culture and school improvement, the relationship is higher between OLC factors, strategic leadership with school improvement.

Recommendations

1. This study will be significant for the researchers, policy makers and administration to perceive their role in improving secondary school education.
2. In developing countries, such as Pakistan, the results of current study can be applied to bring constructive developments in the public schools.

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