Assessing Head Teachers' Distributed Leadership Practices in Public Secondary Schools of Kathmandu Valley

Rajan Kumar KC[1], Hemant Bahadur Thapa[2]

[1]Kathmandu University, Schgool of Education
Email: rajankc.kc@gmail.com; http://orcid.org/0009-0007-7687-2023
[2] Teacher, Tri-Padma Vidyashram Secondary School, Lalitpur
Email: hemantthapa2020@gmail.com; https://orcid.org/0009-0004-6295-6312

Abstract

This study examines the distributed leadership practices of head teachers in public secondary schools within the Kathmandu valley. The objective of study was to assess relationship between demographical variables of head teachers and their distributed leadership. In doing so, the study adopted survey research approach within a quantitative research design based on the post-positivism philosophical paradigm. Required data for the study were collected from 165 head teachers; including 97 from Kathmandu, 41 from Lalitpur and 27 from Bhaktapur selected randomly by using self-administed survey questionnaires. The research instrument comprised two sections: a demographic questionnaire and a 43-item five-point Likert scale measuring five distributed leadership attributes—sharing (9 items), collective (9 itmes), collaborative (8 items), co-leader (7 items), and democratic practices(10 items)—adapted from previous studies. The study foregrounds significant differences between head teachers' distributed leadership practice and demographic variables in qualification and training status. The training status was found significant difference in collaborative, coleader, collective and distributed leadership where p- value was found < 0.05. The level of HTs' found moderate in gender, experience in position, districts wise leadership, teaching experience, training days and attributes wise leadership. The Head Teachers' distributed leadership supports the holistic schools' productivity and progress in terms of quality education. Head Teachers can no longer do their jobs alone. The Head Teachers' distributed leadership can enhance the better result of Schools.

Keywords: Distributed Leadership, Public S. Schools, Kathmandu Valley, Demographical Variables, Quality education

Introduction

Distributed leadership perform by head teachers is a key determinant of quality education. UNESCO (2015) Education-2030 framework stressed strengthening international cooperation and developing teacher qualifications through inclusive management. Distributed leadership emphasizing communication between school teachers and head teachers as they collaboratively develop knowledge and enhance human capacities, leading to instructional innovations (Harris & Spillane, 2008; Mayrowetz, 2008; Spillane & Healey, 2010). Danielson (2007) concluded that expanded activities develop teacher ability by utilizing head teachers' sources. The traditional model of leadership by a single individual is diminishing, potentially increasing inclusive democracy in schools (Yukl, 2010; Pierro et al., 2020). Harris (2008) defined distributed leadership as sharing similarities with participatory, democratic, and collaborative leadership concepts. Elmore (2000) suggested

that multiple persons in schools should develop through distributing leadership attributes.

Goksoy (2016) found that shared leadership encompasses activities where head teachers and teachers in which head teachers and teachers collaborate through both formal and informal decision-making processes. Spillane (2006) categorized distributed leadership into four components: (1) communication for tackling school development tasks; (2) alignment between teachers' claimed actions and head teachers' actual practices; (3) appropriate distribution of responsibilities; and (4) leadership distribution through coordinated, collective, or collaborative approaches. Group work strengthens head teachers (Marzano et al., 2005). Byfield (2007) recommended shifting from traditional leadership toward collaborative decision-making. Maltempi et al. (2019) emphasized that teachers and staff must develop trust cultures enabling risk-taking and shared accountability. Teacher leaders transform school culture when they communicate and collaborate, creating inclusive democratic environments (Luff, 2011). Hattie (2009) found teachers perform significant roles in distributed work structures that helped to ensure quality education.

Leadership divides into different bases - some leaders share and collaborate, others follow democratic behaviors, while some focus on group leadership (Shava & Tlou, 2018). Distributed leadership represents an ancient notion that has gained contemporary prominence (Day et al., 2007). Northouse (2007) noted leaders must perform multiple roles through communication processes. DeFlaminis (2013) emphasized leadership functions requiring cooperation, participation, and teacher commitment within school culture. Constitution of Nepal (2015), Article 31, guarantees free basic education through government-aided schools. Nepal Education Sector Analysis (2017) highlighted head teachers' essential skills in distributing duties across local, provincial, and federal systems. SSRP (2009-2015) aimed to enhance

school learning through strengthened leadership capacities and teacher competencies (Ministry of Education, 2009). SSDP (2016-2023) identified challenges including teacher management, unbalanced distribution, inadequate monitoring, and insufficient training implementation (MOE, 2016). National Education Policy (2019) emphasized leadership strengthening, parent ownership, and active participation for transforming public education.

In global context, Aboudahr (2019) found strong associations between school DL and teacher performance. Pierro (2020) demonstrated positive student outcomes through distributed practices, though DL did not significantly impact NJSLA scores despite high principal perceptions. Goksoy (2016) found medium-level leadership attributes across all dimensions. Velasquez (2021) identified demographic variations in teacher perceptions of DL. In Nepal, Subedi (2017) found positive associations between head teachers' leadership attributes and school climate, though gaps existed between desired and actual situations. Rai (2019) demonstrated head teachers' leadership plays vital roles in school improvement, recommending reviews of education policies focusing on leadership roles. Kandel (2020) found community school teachers demonstrated high organizational commitment, with transformational leadership predicted by age and education level. Dulal (2020) identified transformational leadership practiced at higher levels in community schools, though correlation with student achievement remained low (r = 0.091 to 0.164). Previous Nepali studies (Subedi, 2017; Rai, 2019; Kandel, 2020; Dulal, 2020) addressed leadership attributes, school climate, and organizational commitment but did not specifically examine relationships between head teachers' distributed leadership and students' learning achievement in public secondary schools.

The Secondary Education Examination (SEE) Report (2022) indicates inconsistent achievement in public schools. Mathema (2007) identified

teacher irregularity, inadequate training, and low motivation as contributing factors. Nepal High Level Commission (2018) noted challenges in school management, leadership selection, authority, and accountability without specifically addressing distributed leadership. This study addresses the gap by examining head teachers' distributed leadership and its relationship with student achievement in public secondary schools of Kathmandu, Lalitpur, and Bhaktapur districts, responding to Bolden's (2011) call for meaningful connections between DL theory and practitioner experiences within Nepal's federal education system.

Objectives and Methodology

The objective of this study is to examine the relationship between head teachers' distributed leadership practices and their demographic variables, and to assess the extent to which these leadership practices are demonstrated in public secondary schools. The study used quantitative research design grounded in the post-positivism paradigm to examine the relationship between head teachers' distributed leadership and students' learning achievement in public secondary schools of Kathmandu, Lalitpur, and Bhaktapur districts. A cross-sectional survey approach was used, with data collected from 165 head teachers including 97 from Kathmandu, 41 from Lalitpur and 27 from Bhaktapur selected through simple random sampling from a total population of 281, determined using Yamane's (1976) formula at a 5 percent margin of error.

The research instrument comprised two sections: a demographic questionnaire and a 43-item five-point Likert scale measuring five distributed leadership attributes—sharing (9 items), collective (9 itmes), collaborative (8 items), co-leader (7 items), and democratic practices(10 items)—adapted from previous studies (Bolden, 2011; Pierro, 2020; Subedi, 2017; Velasquez, 2021) and refined through expert consultation. Pilot testing with 17 head teachers (10% of the sample) established reliability with Cronbach's Alpha values ranging from 0.62 to 0.94 across

attributes, meeting acceptable thresholds (Cohen, 2018). Content, construct, and criterion validity were established through expert judgment, statistical procedures, and comparison with similar studies (Kumar, 2011). Data were analyzed using SPSS version 25, employing descriptive statistics, correlation coefficients, and regression analysis to test relationships between independent variable (social demographics) and dependent variable (distributed leadership). Ethical protocols including informed consent, confidentiality, and voluntary participation were strictly maintained throughout the research process.

Results and Discussions

This section presents demographic information of the head teachers related to their qualifications, age, gender, teaching experience, subject specialization, tenure as head teacher, and training completed.

Qualification and Subject Specification

This section provides a descriptive analysis of head teachers' qualifications alongside their corresponding distributed leadership practices scores, demonstrating how leadership attributes differ across varying levels of educational attainment (Table 1).

Table 1. Head Teachers' Qualifications

Qualification	Frequency	Mean	SD
SLC	2	3.20	0.09
BEd	6	3.44	0.12
BBA	1	3.31	-
BSC	2	3.28	0.23
BA	11	3.41	0.16
MEd	78	3.52	0.19
MA	29	3.51	0.19
MBA	6	3.46	0.16
MSC	17	3.42	0.14
MPhil	12	3.55	0.15
PhD	1	3.47	-
Total	165	3.49	0.18

The above table shows the academic qualifications of head teachers' ad their average scores in distributed leadership practices. Out of total 165 respondents, most head teachers have an M.Ed. degree (78), followed by M.A. (29) and M.Sc. (17), which indicates that the majority hold master's level qualifications. The average leadership scores range from 3.20 to 3.55 across different qualification groups. Head teachers with an M.Phil. Degree have the highest average score (3.55), followed those with M.Ed. (3.52) and M.A. (3.51). This indicates that head teacher with higher academic degrees tend to show slightly better distributed leadership practice that those with bachelor's degree (B.Ed. 3.44 and B.A. 3.41). The small standard deviation values (between 0.09 and 0.23) show that responses within each qualification group are quite similar. However, results for categories with very few respondents such as SLC 2, BBA 1 and PhD 1 should be interpreted carefully because they may not represent the wider population. Overall, the findings suggest a positive relationship between higher academic qualifications and stronger distributed leadership practices among head teachers.

Demographic Characteristics

This section presents a descriptive analysis of these demographic variables based on their corresponding distributed leadership practice scores thereby illustrating how leadership attributes vary across different demographic categories (Table 2).

Table 2. Head Teachers' Characteristics

Characteristic	Category	N	Mean	SD
Gender	Male	138	3.47	0.18
	Female	27	3.54	0.17
Age	30-40 years	6	3.52	0.21
	40-50 years	34	3.51	0.20
	50-60 years	125	3.48	0.17
Training (Days)	1-90 days	30	3.38	0.15
	91-180 days	129	3.51	0.18
	181-270 days	3	3.61	0.24
	270-365 days	3	3.59	0.32

Analysis of demographic characteristics reveals notable patterns in distributed leadership practices among the 165 head teachers surveyed. Female head teachers (n=27) demonstrated slightly higher distributed leadership scores (Mean=3.54, SD=0.17) compared to their male counterparts (n=138, Mean=3.47, SD=0.18) thereby suggesting women may employ more collaborative approaches despite being significantly underrepresented in leadership positions. Regarding age distribution, head teachers aged 50-60 years constituted the majority (n=125, Mean=3.48, SD=0.17), while the smaller 30-40 years age group (n=6) exhibited marginally higher scores (Mean=3.52, SD=0.21), indicating younger leaders might be more receptive to distributed practices. Most notably, training duration represents a positive association with distributed leadership, as head teachers with 181-270 days of training achieved the highest mean score (Mean=3.61, SD=0.24), followed closely by those with 270-365 days (Mean=3.59, SD=0.32), while those with minimal training (1-90 days) scored lowest (Mean=3.38, SD=0.15), underscoring the value of extended professional development in fostering collaborative leadership approaches, though findings for higher training categories require cautious interpretation due to small sample sizes.

Leadership duration and Teaching Experience

This section presents a descriptive analysis of two experience categories and their distributed leadership practice scores. It shows leadership qualities differ at different level of professional experience. (Table 3).

Table 3. Head Teachers' Experience

Experience Type	Years	N	Mean	SD
Teaching Experience	11-20 years	2	3.55	0.09
	21-30 years	21	3.53	0.21
	31-40 years	76	3.47	0.18
	41+ years	66	3.49	0.17

Position Experience	1-10 years	2	3.45	0.11
	11-20 years	115	3.49	0.18
	21-30 years	34	3.50	0.18
	31-40 years	12	3.43	0.20
	41+ years	2	3.39	0.19

The analysis shows different patterns of distributed leadership practices based on head teachers' professional experience. In terms of teaching experience, head teachers with 11-20 years (n=2, Mean=3.55) and 21-30 years (n=21, Mean=3.53) have highest leadership scores. Those with 31-40 years of experience (n=76, Mean=3.47) have slightly lower scores thereby suggesting a small decline in collaborative practices after many years of teaching. Regarding experience in the head teacher position, those serving for 11-20 years (n=115, Mean=3.49) and 21-30 years (n=34, Mean=3.50) show the highest scores. Head teachers with very low (41+ years, n=2, Mean=3.39) and very short experience (1-10 years, n=2, Mean=3.45) have lower scores. This indicates that distributed leadership is strongest during mid-career stages. Overall, moderate levels of experience support better distributed leadership practices, but results from groups with very small sample sizes should be interpreted carefully.

Distributed Leadership Attributes Based on Demographic Information

This section describes five attributes of head teachers' distributed leadership: sharing, collective, collaborative, co-leader, and democratic practices. A 43-item questionnaire with a five-point Likert scale (Strongly Agree to Strongly Disagree) was administered to 165 head teachers in Kathmandu, Lalitpur, and Bhaktapur districts. The instrument comprised 9 items for sharing, 9 for collective, 8 for collaborative, 7 for co-leader, and 10 for democratic attributes. The data were collected to examine the relationship between distributed leadership attributes and the demographic characteristics of head teachers in public secondary schools.

Assumption Tested for Parametric Test

This section presents the normality tests conducted to ensure the data met the assumptions for parametric statistical analysis (Table 4). Normality testing is essential for determining whether data follows a normal distribution, which is a prerequisite for statistical tests such as t-tests and ANOVA (Sujianto, 2009).

Table 4. Normality Test of Attributes Using Skewness and Kurtosis

Attributes	Z Value of Skewness	Z Value of Kurtosis
Sharing	-1.81	-0.93
Collective	-0.80	-1.40
Collaborative	1.02	-1.99
Co-leader	1.96	0.27
Democratic	-1.48	0.97
Distributed Leadership	0.89	-0.91

The Z-values for both Skewness and Kurtosis for all attributes fell within the acceptable range of +2 to -2 thereby confirming that the collected data were normally distributed (Garson, 2012). This normal distribution justifies the use of parametric tests for further analysis. The random selection of 165 head teachers from a population of 281 in three districts satisfied additional parametric assumptions, including random sampling and equivalent variance across populations (Wilcox, 1995; Hecke, 2010). Notably, collaborative attribute showed kurtosis of -1.99, while co-leader attribute showed Skewness of 1.96, both remaining within acceptable limits.

Attribute-Wise Test of Homogeneity of Variances

This section presents the attribute-wise analysis of head teachers' distributed leadership practices across the five components: sharing, collective, collaborative, co-leader, and democratic attributes (Table 5). Based on data collected from head teachers across Kathmandu, Lalitpur, and Bhaktapur districts, mean scores and standard deviations were calculated to determine the level

of distributed leadership demonstration. The level classification follows Lindell's (1997) criteria to categorize the extent to which head teachers practice distributed leadership in their schools. The following table provides a comprehensive overview of the mean scores for each attribute and overall distributed leadership.

Table 5. Attribute-Wise Level of Head Teachers' Distributed Leadership

Attributes	Mean	SD	Level
Sharing	3.61	0.220	Moderate
Collective	3.42	0.262	Moderate
Collaborative	3.43	0.239	Moderate
Co-leader	3.47	0.167	Moderate
Democratic	3.48	0.296	Moderate
Distributed Leadership	3.45	0.232	Moderate

Note: Low (1.00-2.33), Moderate (2.34-3.66), High (3.67-5.00) (Lindell's, 1997)

The table shows the mean scores and standard deviations for the five attributes of distributed leadership along with the overall distributed leadership composite score. All attributes fall within the moderate level based on Lindell's (1997) classification criteria (2.34-3.66). Among the five attributes, sharing shows the highest mean score (3.61) thereby indicating the head teachers most frequently engage in practices related to distributing responsibilities and sharing leadership roles with teachers. It suggests that sharing leadership tasks is the most developed aspect of distributed leadership in public secondary schools. Conversely, collective leadership shows the lowest mean score (3.42), implying that head teachers are relatively less inclined toward fully collective decision-making processes where all staff members participate equally in leadership functions. Collaborative (3.43), co-leader (3.47), and democratic (3.48) attributes cluster closely together, reflecting consistent moderate engagement across these dimensions. The overall distributed leadership mean of 3.45 confirms that head teachers demonstrate a moderate level of distributed leadership practices. The standard deviations, ranging from 0.167 to 0.296, indicate relatively consistent responses among head teachers, with co-leader showing the least variation and democratic showing the most variation in practice. These findings suggest that while head teachers have embraced the concept of distributed leadership to some extent, there remains considerable opportunity for strengthening collaborative and collective leadership practices to achieve higher levels of distributed leadership in public secondary schools.

District-Wise Level of Head Teachers' Distributed Leadership

This section deals with the district-wise analysis of head teachers' distributed leadership in Kathmandu, Lalitpur, and Bhaktapur districts. The following table presents the mean scores, standard deviations, and level of distributed leadership for each district (Table 6):

Table 6. District-Wise Level of Head Teachers' Distributed Leadership

District	N	Mean	SD	Level
Kathmandu	97	3.45	0.16	Moderate
Lalitpur	41	3.52	0.23	Moderate
Bhaktapur	27	3.56	0.15	Moderate
Total	165	3.49	0.18	Moderate

The district-wise analysis reveals that head teachers across all three districts demonstrate a moderate level of distributed leadership, with mean scores ranging from 3.45 to 3.56. Bhaktapur district exhibits the highest mean score (3.56), suggesting that head teachers in this district practice distributed leadership slightly more frequently than their counterparts in Lalitpur (3.52) and Kathmandu (3.45). The lower standard deviation in Bhaktapur (0.15) indicates greater consistency in distributed leadership practices among head teachers in this district. Lalitpur shows the highest standard deviation (0.23), reflecting somewhat greater variability in leadership practices. Kathmandu, despite having the largest sample size (97), records the lowest mean score (3.45). It indicates relatively less engagement in distributed leadership practices.

Despite these minor variations, all districts fall within the moderate range thereby confirming that distributed leadership is neither exceptionally high nor critically low across the three districts. The overall mean of 3.49 reinforces that head teachers in the Kathmandu Valley have adopted distributed leadership to a moderate extent, with opportunities for further development toward higher levels of collaborative leadership practices.

Demographic Variable-Wise Level of Distributed Leadership

This section presents the demographic variable-wise analysis of head teachers' distributed leadership across gender, position experience, teaching experience, and training duration. The following table displays the mean scores, standard deviations, and level of distributed leadership for each demographic category (Table 7):

Table 7. Demographic Variable-Wise Level of Distributed Leadership

Variable	Category	N	Mean	SD	Level
Gender	Male	138	3.48	0.18	Moderate
	Female	27	3.54	0.17	Moderate
Position Experience	1-10 years	2	3.45	0.11	Moderate
	11-20 years	115	3.49	0.18	Moderate
	21-30 years	34	3.50	0.18	Moderate
	31-40 years	12	3.43	0.20	Moderate
	41+ years	2	3.39	0.19	Moderate
Teaching Experience	11-20 years	2	3.55	0.09	Moderate
	21-30 years	21	3.53	0.21	Moderate
	31-40 years	76	3.47	0.18	Moderate
	41+ years	66	3.49	0.17	Moderate
Training (Days)	1-90 days	30	3.38	0.15	Moderate
	91-180 days	129	3.51	0.18	Moderate
	181-270 days	3	3.61	0.24	Moderate
	270-365 days	3	3.59	0.32	Moderate

The demographic analysis shows moderate level of distributed leadership across all variables. Female head teachers (Mean=3.54) shows slightly higher practices than male head teachers (Mean 3.48). Position experience follows an inverted U-shaped. Head teachers with 21-30 years of experience have the highest score (3.50), while those with over 41 years have the lowest (3.39). Teaching experience shows a similar trend, with 11-20 years (3.55) and 21-30 years (3.53) having the highest averages. Training duration has a positive relationship with distributed leadership. Head teachers who received 181-270 days of training have the highest score (3.61). Those with only 1-90 days of training have the lowest score (3.38). This highlights the importance of longer professional training. However, results from groups with small sample sizes should be interpreted carefully.

Discussions of the Findings

The findings postulate the significant differences in distributed leadership practices across two demographic variables: qualification and training status. Academic qualification shows the significant differences in collective leadership (p=.035), co-leader attribute (p=.022), and overall distributed leadership (p=.046). Teachers training status shows significant differences in collaborative (p=.000), collective (p=.005), co-leader (p=.027), and overall distributed leadership (p=.003). These findings align with Triegaardt (2013), who reported that 85 percent of respondents supported distributed leadership as sharing responsibilities to achieve school goals. Similarly, Goksoy (2016) identified significant relationships between sharing leadership and distributed leadership scales. The significant relationship between collective and collaborative characteristics with distributed leadership corroborates findings by Grenda (2011), who found that collaborative nature of middle schools supports distributed leadership, and Chamverland (2009), who emphasized that distributed leadership plays a vital role in school environments where staff select meaningful roles connected to teaching and learning. The co-leader attribute's significance (p=.022) supports Triegaardt's (2013) assertion that distributed leadership enhances school performance through co-leader interaction. However, this finding contradicts Bolden (2011), who emphasized democratic leadership's significance with

distributed leadership. These results connect with Spillane's (2006) assertion that concurrent practice by administrators and teachers yields affective organizational performance. Elmore (2000) emphasized strong leader influence on teachers, while Leithwood (2008) measured teachers' abilities producing acceptable outcomes. Grootemboer (2018), drawing from Gronn (2002), supported distributed leadership as mediating school leadership functions.

The study concluded that head teachers moderate levels of distributed leadership across all attributes: sharing (Mean=3.61), collective (3.42), collaborative (3.43), co-leader (3.47), democratic (3.48), and overall distributed leadership (3.45). District-wise analysis showed Bhaktapur highest (3.56), followed by Lalitpur (3.52) and Kathmandu (3.45). Gender analysis revealed female head teachers (3.54) scored slightly higher than males (3.48). Training duration positively correlated with distributed leadership: head teachers with 181-270 days training scored highest (3.61), while those with 1-90 days scored lowest (3.38). These levels were classified using Lindell's (1997) criteria: Low (1.00-2.33), Moderate (2.34-3.66), and High (3.67-5.00). These findings align with Goksoy (2016), who reported medium-level positive perspectives on distributed leadership. Subedi (2017) similarly found head teachers' leadership attributes at an acceptable level in Nepali public schools. The Educational Policy Analysis and Strategic Research (2018) study with 462 teachers concluded moderate level distributed leadership. Velasquez (2021) also observed moderate status levels of distributed leadership and demographic attributes. However, contrasting findings emerged from Dulal (2020), who found community school head teachers in Kathmandu practicing transformational leadership at higher levels. Oyugi and Gogo (2019) noted that autocratic leadership was preferred over democratic styles in some contexts, though democratic styles produced significantly better results. Achimugu and Obaka (2019) found authoritarian leadership dominant in public schools, suggesting this might explain moderate rather than high distributed leadership levels.

The study revealed that democratic leadership style was not prominently practiced across the three districts. While democratic leadership correlates with better student outcomes (Oyugi & Gogo, 2019), its limited application may contribute to inconsistent student achievement in public schools. Schools exercising democratic participation demonstrated better performance in the SEE 2022 examinations. Multiple factors influence student achievement beyond head teachers' leadership. Misty and Laura (2011) emphasized socioeconomic status impacts academic achievement. Chiu and Khoo (2005) advocated for equal opportunities in learning facilities, noting that privileged students achieve higher outcomes. Gratz and Wiborg (2022) demonstrated associations between parents' economic resources and children's school grades. Private schools generally possess better infrastructure, resources, and student selection mechanisms, contributing to their superior performance compared to public schools. Chang (2021) found distributed leadership positively influenced both academic optimism and student learning achievement. This study similarly identified low positive correlation between distributed leadership and achievement in public secondary schools. Chukwusa (2018) cautioned that autocratic leadership prevents creative problem-solving, suggesting leaders should exercise restraint in its use. For public schools where head teachers lack authority over teacher appointment, termination, and salary—key motivational factors present in private schools—distributed leadership becomes crucial for motivating teachers through shared responsibilities and leadership opportunities.

Conclusion and Policy Implication

This study examined distributed leadership among head teachers in public secondary schools and its relationship with students' learning

achievement. Distributed leadership includes five key attributes: sharing, collective, collaborative, co-leader, and democratic practices. Head teachers play an important role school leader who apply these practices according to national education policies and constitutional provisions. The findings shows that female head teachers practiced distributed leadership at slightly more than male teachers. Head teachers aged 30-40 showed slightly higher leadership practices than other age groups. Significant differences were found between distributed leadership and academic qualificaiotns, especially in co-leader practices. However, no significant difference was found between distributed leadership and teaching experience. Overall, distributed leadership levels in Kathmandu, Lalitpur, and Bhaktapur districts were moderate. All categories by attribute, gender, position, teaching experience and training also showed moderate levels. The relationship between distributed leadership and students' learning achievement was positive but moderate, meaning leadership helps student performance but other factors also play a role. Strengthening distributed leadership practices may help improve students' learning achievement in public secondary schools.

The findings of this study have important implications for educational policy and school leadership practice. For policy implication, this study provides useful ideas for policymakers in Nepal's Ministry of Education to strengthen distributed leadership among head teachers. Current policies, such as the Education Act, regulations, and teacher code of conduct, address some duties of head teachers, but more detailed provisions are needed. The results can help policymakers review the present conditions of school leadership and develop policies that promote distributed leadership. Such policies should give head teachers sufficient authority under government supervision to achieve national education goals and improve student achievement. Policies should also support head teachers in sharing leadership roles with teachers. For school leadership practice, this study is helpful for head teachers who want to improve their leadership skills. The findings support head teachers in understanding school challenges and developing policies that align with government programs. The study also helps them prepare annual academic plans and solve leadership related problems. Distributed leadership promotes positive relationships among head teachers, teachers, and students, which can improve academic achievement. head teachers can work collaboratively with School Management Committees and Parent-Teacher Associations to implement plans and government regulations. By creating clear rules and sharing leadership responsibilities, head teachers can use school resources effectively and support sustainable school improvement and better student outcomes.

References

Aboudahr, S. (2019). The relationship between distributed leadership and teachers' organizational commitment in Guangzhou city, China. *Journal of Educational and Management Studies*, 9(1), 1-5.

Bolden, R. (2011). Distributed leadership in organizations: A Review of theory and research. *International Journal of Management Reviews*, *13*, 251-269.*to results*. John Wiley & Sons.

Byfield, F. C. (2007). *Distributive leadership: Perceptions of elementary principals and teacher leaders on sharing leadership responsibilities to support student achievement* [Unpublished doctoral thesis]. University of La Verne.

Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education* (8th ed.).

Constitution of Nepal. (2015). *Nepal ko sambidhan (Constitution of Nepal)*.

contexts. *School Leadership and Management*, *28*(1), 5-25.

Creswell, J. W. (2015). *Educational research: Planning conducting mixed methods*

research

Creswell, J.W. (2020). *Educational research: Planning, conducting, and Evaluating Quantitative and Qualitative Research* (3rd ed.). Pearson Publication.

Danielson, C. (2007). *Enhancing professional practice: A framework for teaching.* ASCD.

Day, C., Sammons, P., Hopkins, D., Leithwood, K., & Kington, A. (2008). *Research into the impact of school leadership on pupil outcomes: Policy and research.*

DeFlaminis, J. A. (2013). The implementation and replication of the distributed leadership program: More lessons learned and beliefs confirmed. In *annual meeting of the American educational research association, San Francisco, California.*

Department of Education. (2011). *A study on effectiveness of community managed school.*

District Education Coordination Unit.

Dulal, K. (2020). *Head teachers' leadership behaviors and students learning achievement*

Education International. (2017). Policy paper on education: Building the future through quality education. *8th EI Asia-Pacific Regional Conference* (pp.1-20), *Educational International Asia-Pacific Region. Educational Research and Reviews*, *6*(7), 522-527.

Elmore, R. F. (2000). Building a new structure for school leadership. *Albert Shanker Institute.* https://eric.ed.gov/?id=ED546618

Garson, G. D. (2012). *Testing statistical assumptions.* Statistical Publishing Associates. *51.*

Goksoy, S. (2016). Analysis of the relationship between shared leadership and distributed leadership. *Eurasian Journal of Educational Research, 16*(65), 295–312.

Government of Nepal. (2015). *Nepal ko sambidhan (Constitution of Nepal).* Kanuni Kitab Bebastha Samitee.

Government of Nepal. (Flash report-II, 2021). *Teachers description executing in Lalitpur,*

Government of Nepal. (Flash report-II, 2021). *Teachers description executing in Bhaktapur*, District Education Coordination Unit.

Harris, A., & Spillane, J. (2008). Distributed Leadership through the Looking Glass. *British Educational Leadership, Management & Administration Society, 22,* 31-34. https://doi.org/10.1177/0892020607085623

Harris, A. (2008). Distributed leadership: According to the evidence. *Journal of Educational Administration and History, 46*(2)*,* 172–188

Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analysis relating to achievement.* Sage Publications.

Heck, R., & Hallinger, P. (2010). Testing a longitudinal model of distributed leadership effect on school improvement. *Leadership Quarterly, 21,* 867-885. http://doi.org/10.1016/j.leaqua.2010.07.013

Hecke, T. V. (2010). Power study of anova versus Kruskal-Wallis test. *Journal of Statistics and Management Systems, 15*(2), 241–247. https://doi.org/10.1080/09720510.2012.10701623

Kandel. S. (2020). *Contribution of Head Teacher's Transformational Leadership to Teacher's Organizational Commitment* [Unpublished MPhil dissertation]. Kathmandu University.

Kathmandu, District Education Coordination Unit.

Kumar, R. (2011). *Research methodology.* Sage Publication.

Luff, J. (2011). Fostering teacher leadership: Transforming learning and leading to

enhance school culture. *Theses and Dissertations*. 519. https://rdw.rowan.edu/etd/519

Marks, H. M., & Printy, S. M. (2012). Principal leadership and an integration of instructional leadership. *Educational Administration Quarterly*, *39*(3), 370-397.

Marzano, R. J., Waters, T., & McNulty, B. A. (2005). *School leadership that works: From research to results.* ASCD.

Mathema, K. B. (2007). Crisis in education and future challenges for Nepal. *European Bulletin of Himalayan Research*, *31*, 46-66.

Mayrowetz, D. (2008). Making Sense of Distributed Leadership: Exploring the Multiple Usages of the Concept in the Field. *Educational Administration Quarterly, 44*, 424-435. http://dx.doi.org/10.1177/0013161X07309480

Ministry of Education of Nepal. (2009). *Reform of Nepalese education structure: Decision of the government of Nepal*.

National Education Policy of Nepal. (2019). *Ministry for Education, Science and Technology.*

Northhouse, P. G. (2015). *Leadership: Theory and practice.* Sage Publication.

Northouse, P. G. (2007). *Leadership: Theory and practice* (4th ed.). Sage Publication.

Pierro, J. M. (2020). *Using distributed leadership to impact students' achievement*

Rai, H. S. (2019). *Leadership role of head teachers in public schools* [Unpublished MPhil dissertation]. Kathmandu University.

Secondary Education Examination Result. (2022). *Description of Public Secondary Schools*.

Shava, G. N., & Tlou, F. N. (2018). Distributed leadership in education, contemporary issues in educational leadership. *African Educational Research Journal*, *6*(4), 279-287.

Spillane, J. (2006). *Distributed leadership*. Jossey-Bass.

Spillane, J., & Healey, K. (2010). Conceptualizing school leadership and management from distributed perspective: *The Elementary School Journal*, *11*(2), 253-281.

Subedi, B. P. (2017). *Relationship between head teachers' leadership attributes and school climate in community schools of Nepal* [Unpublished doctoral thesis]. Kathmandu University.

UNESCO. (2016). Education 2030 framework for action for the implementation of sustainable development goal 4, *Incheon Declaration, 5*(24).

UNESCO. (2017). *United Nation Educational Socio-Cultural Organization world conference Denmark' Copenhagen.*

Velasquez, A. M. C. (2021). *The relationship between demographic and teachers' perceptions of distributed leadership* [Unpublished doctoral thesis]. Grand Canyon University.

Wilcox, R. R. (1995). Testing the hypothesis of independence between two sets of variates. *Multivariate Behavioral Research*, 30(2), 213-225.

Yukl, G. (2010). *Leadership in organizations* (7th ed.). Pearson Prentice Hall.