



Evaluation of Leadership Development Program for Secondary School Heads: Perceived Satisfaction, Learning and its Implementation

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ABSTRACT

This study intends to evaluate the leadership development program of secondary school heads in Pakistan. The leadership development program consists of the level of learning, perceived satisfaction, and implementation of learning. The population for this study was 334 head teachers of Lahore district. Stratified sampling technique was employed to draw 100 head teachers (both male and female) from five Tehsils of Lahore district. While, quantitative research design was used to conduct this study. A questionnaire was used to collect the data on five points Likert scale. Data were analyzed using SPSS. Findings have shown that satisfaction was found at the top level with 54.40 mean score of the three variables analysis. While, implementation was found at the lowest score of 42.95. Considering different age brackets, learning was at top level, satisfaction was in the middle and implementation was at the lowest level. One-way ANOVA showed that satisfaction was at top level, learning was in the middle and implementation was at the lowest level. Considering gender female showed greater score than male in learning, while male showed greater score than female in satisfaction. On the other hand, implementation was found at the lowest level. Findings imply that a concrete policy of monitoring and implementing the leadership development should be initiated. Additionally, periodic assessment should be introduced to evaluate the implementation of leadership development program. Finally, feedback from teachers regarding the implementation by head teachers should be the part of the policy.



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1. Introduction

Socio-economic development of a country largely depends upon its education system. The quality of education system cannot be ensured without appropriate training and development of school leaders. These leaders can be school principals and school heads. Here, in this article, the term school heads is used with reference to the leadership training. Based on appropriate trainings these heads can prepare themselves to transform schools in the face of challenging situations. Professionally trained heads can engage the teachers actively in academic activities and lead to the development of schools. Studies Brinia, Papantoniou and Roberts (2016); Harris and Jones (2015) have revealed that leadership

training has become an inevitable element for school heads to enable students to deal with upcoming challenges and further studies.

Development of school organization not merely requires effective administrators but also demands technical and attitudinal efficiency of the leaders. Thus, professional leadership training consists of a range of areas. For example, Şenol (2019) is of the view that trained heads can create a supportive environment for the grooming and professional development of teachers. Rizvi and Elliott (2007) found that school heads having technical skills were more capable of conducting different roles than untrained heads. Attitudinal characteristics of heads significantly influence teachers' performance and students' competence and achievement (Kell, 2019). Thus, heads need to play multiple roles and perform various responsibilities managerially from engaging all stakeholders (e.g. teachers, students, parents and school representatives) to practically translating educational policies into practice through shared vision and teamwork (Grissom, Blissett, & Mitani, 2018). This study signifies that the core business of teaching and learning and school development cannot be completed without the commitment and efficiency of professionally trained heads. The discussion establishes the rationale that school heads cannot lead if they are not equipped with the relevant and needed training.

The position of heads has become dynamic as culture and policies are being changed due to the change in information and communication technologies (Valentine & Prater, 2011). This change has made the work of heads more difficult and stressful than ever before. There is also a gap in meeting the challenges that head teachers face in running their institutions. To combat with these challenges, reforms for training are carried out by different institutions in different countries. In Pakistan, the Punjab School Education Department (SED) and Quaid-e-Azam Academy for Educational Development (QAED) work collaboratively under the Government of Punjab. The QAED (with different names) is a premium training institute for the professional development of education leaders and managers working in Punjab.

QAED's sole purpose is to ensure the quality education at school levels in Punjab. The Government has mandated QAED to facilitate teachers' development across the province. To raise the bar of educational leaders' training in Punjab, the SED determined that a total of 15,000 heads of schools from 36 districts of the province of Punjab will undergo leadership training program. The SED assigned this training program of School Leadership Development Program (SLDP), to the QAED. Accordingly, the QAED conducted this program in different phases in one year to train the heads of secondary schools.

School education has been in a state of emerging challenges and trends. Particularly, the secondary school leaders are required to lead and succeed the school organizations. They need not only to equip themselves with the fresh understanding of leadership and its required areas but also create an enabling environment for students' success. Various researches e. g. Castro (2022); Yani, Kristiawan and Martha (2021) have shown that there is a gap between the skills of head teachers they have and the demands in the market and society. It seems that their professional growth especially learning and the implementation of learning have not been tightly aligned with their administrative and academic duties. To address this gap secondary school heads were required to complete the "Leadership Development Program" provided by the QAED, Punjab. This study intends to evaluate the secondary school heads' leadership development program. For this, the following research objectives are aimed to seek in this study.

- To determine the level of perceived satisfaction of secondary school heads on leadership development program.
- To find the level of learning of secondary school heads during leadership development program.
- To investigate the level of implementation of learning of secondary school heads in response to leadership development program.
- To find the differences among secondary school heads in response to leadership development program with respect to demographic variables.

While the following research questions were devised to reach the results.

- What is the level of perceived satisfaction of secondary school heads on leadership development program?
- What is the level of learning of secondary school heads during leadership development program?
- What is the level of implementation of learning of secondary school heads in response to leadership development program?
- What are the differences among secondary school heads in response to leadership development program with respect to demographic variables?

The following section is on the literature review that leads toward the research methodology and data analysis. After that the discussion section is given and then the conclusion and policy recommendations lead toward references.

2. Literature Review

School development and effectiveness are in tandem with the development of school heads. Professional development in various forms such as refresher courses, seminars, webinars, symposiums, and conferences are arranged to keep school heads abreast with the emerging trends and innovations. Doing some courses or attending the conferences and training programs cannot tell how the heads have applied and implemented their learning. Thus, evaluation of these trainings can help to understand the level of school development. This study intends to evaluate the leadership development program of Pakistani secondary school heads and the following literature review sheds light on the subject.

2.1 School Heads

Heads are considered as central pillar, front runner, and backbone who set a shared vision and viable direction to transform instructional and administrative activities for school reforms and development (Sullivan, 2013). They exert influence and power strategically to make the school distinctive in its achievements (Hopkins, 2007). Working on different areas, s/he empowers and facilitates teachers to make teaching and learning process conducive, ensures supporting staff and resources to establish remarkable image of the school, and inspires stakeholders for a positive relationship among higher ups to bridge the gap between school and district authorities (Balyer, Karatas, & Alci, 2015; Sirisookslip, Ariratana, & Ngang, 2015). S/he has also an indirect relation with students in terms of creating an enabling academic environment for them to realize their potential. Thus, an effective school head maintains a balance between the relationship of school, society, and policy implementation (Pina, Cabral, & Alves, 2015).

Karangu and Muola (2011) are of the view that school heads are visionary planners, personnel appraisers and educational guides. Planning to navigate school success and logical and participative decision making to reduce uncertainty are closely associated with their leadership role. Devos and Bouckennooghe (2009) argued that school heads need to develop a team of like-minded persons who cooperate with each other to support shared vision of school and work coherently to achieve organizational objectives. According to Sanchez, Paul and Thornton (2020), the key role of school heads is to deal with the problems amicably and translate these problems into opportunities for school development.

Heads' behavior, personality, mentality, and values have an impact on followers' behavior by making them (employees) dis/satisfied, committed, motivated, and loyal to their jobs (Daniëls, Hondeghem, & Dochy, 2019). These leadership characteristics bring about positive or negative changes and outcomes for school success (Syed, 2015). To regulate the activities smoothly, heads take personal interest to play a leading role in instructional activities by mobilizing resources and improving instructions over a long term for school improvement (Hashim, Nordin, & Othman, 2023; Kirui & Osman, 2012). The review guides us to establish the argument that if heads have leadership training only then they can know the qualities and shortcomings of their team. Additionally, they can train them to meet school expectations and fulfil instructional activities (Cheema, Parveen, & Ahmad, 2022). This needs to explore that to what extent school heads at secondary level in Pakistan are prepared to lead their organizations.

Heads have a significant potential impact on students' achievement through their indirect impact of classroom teachers, school process, and instructional climate (Day, Gu, & Sammons, 2016). Thus, favorable learning environment is direly needed for students. The role of heads specifically at this level is complex and requires of their constant commitment, dedication, patience, vigilance, and appropriate and timely feedback for teachers, students and supporting staff. Their leading role makes them morally strong to embrace the targets. This role leads to establish a dedicated, committed and like-minded team (Bukhari et al., 2021; Lumpkin, 2008). In the context of this study, it is explored that how do secondary school heads use their learning to navigate the path for school success.

Heads at secondary schools are perceived as to supervise instructional activities (curriculum, teaching and learning, teachers, staff), capitalize on human and material resources, maintain quality and collaborate with relevant organizations (Piaw et al., 2014). Thus, they need to be adept in communication, planning, decision making, and performance appraisal skills so that they can develop strategies and procedures to accomplish school objectives for its improvement. Additionally, they have to translate the policy into practice and inform authorities for their performance (Mpaata & Mpaata, 2018). Relatively, such hectic and consistent work is not as much required at primary and elementary schools. This makes them distinctive superman at secondary schools in contributing to the development of a country's education system (Garcia, 2004; Salfi, 2011). However, how they have actually played their role at secondary school level with reference to the training is unexplored and needs to be investigated.

Heads bear the profound responsibility to establish a trustable and collegial relationship with teachers (Hargreaves & Shirley, 2012). Kayıkçı and Yılmaz (2014) argued that heads are needed to identify the areas of improvement among teachers to maintain the quality. Duncan and Stock (2010) said that heads need to play an instructional role by mentoring and guiding the teachers to enable them to perform better. Reviews show that there is a close association between heads and teachers with regard to professional development. Thus, only professionally trained heads can identify and provide appropriate feedback to teachers for effective performance (Salfi Naseer, 2011). In Pakistan, heads at secondary schools are assumed to be accountable for the entire school community where teacher-student ratio is overwhelming and thus quality is compromised. In such scenarios, leadership training and development of heads is inevitable (Garcia, 2004). This study is an effort to explore the impact of their training on school development.

2.2 QAED Leadership Development Program

Professional development is meant to advancement and growth of knowledge, skills, attitude, and practices required by heads to produce exceptional educational conditions for school success (Panagiotopoulos & Karanikola, 2018). Extraordinary development of schools is impossible without the professional development of heads (Dean, Tait, & Kim, 2012). Therefore, professional development is a prerequisite for heads to embrace evidence-based activities, fulfill multiple strategic progress targets, keep themselves up-to-date and succeed in unprecedented times (Earley & Weindling, 2007). An interesting contradiction is though professional development is important yet there is no recommended training for heads (Cowie & Crawford, 2009). It opens up new avenues for learning in one way. However, it is a general consensus that instructional, technical, leadership, managerial, and human skills are the major areas that enable them to discharge their responsibilities effectively (Kyayemagye & Kintu, 2020).

Webber and Scott (2008) stated that to transform a school heads need to be aware of their personal performance. Moreover, they should improve their problem-based learning, as it assists them to know and devise the solutions they face in their headship. According to Chisholm et al. (2009), the focus of on-site professional learning is to create conditions of acquiring competences and completion of the tasks in real-time happenings. Reynolds (2010) argued that on-site professional learning enables heads working in groups, mentoring, career counselling, and envisioning the viable opportunities for school development. Gore et al. (2017) found that professional development can ensure the learning in curriculum development, work-people relationship and teamwork skills if principals are motivated, value

it and learn with the intention of shared development of schools. This review establishes the ground to explore the status of such development training in Pakistan perspectives.

In Pakistan, training conducted by QAED is of great importance. It prepares the heads in the areas of leadership and managerial skills, instructional, curriculum, and pedagogical skills to lead efficiently the secondary schools. Thus, the training enables them to be motivated, face challenges in the state of flux and engage the entire school workforce for better development (Salfi, 2011). The purpose of that training was to bring about quality in the secondary school system. Though the training was completed efficiently, however, it is under-investigated that what the impact was of that training on the performance of heads. In this study, the training conducted by QAED is categorized in three areas: learning, perceived satisfaction and implementation. The following paragraphs present the reviews on these key areas.

2.3 Learning

Learning brings about change in one's behavior in the form of what s/he does, effects and or experiences through practice in response to the faced situation/circumstance or in any other scenario. Thus, learning is a process of construction, reconstruction and unconstruction of concepts for permanent change in behavior (Dirksen, 2015). Psychologically, our brain is not static but is dynamic and constantly evolving our abilities, thus, developing from better to best (Schwartz, 2015). In this way, training is a regular way to update one's skills, knowledge, and abilities.

Training is a focused-form of learning and a planned effort to enable the trainees to learn job-related/ adaptive-centered knowledge, skills and behavior (De Corte, 2010). While, development is an advanced form of training that enables the trainees/individuals to meet the changing demands of job and the customer demands (here, in this study, the development of educated society). Contextually, to lead a secondary school effectively, the Heads need to have cutting-edge ideas in leadership and management that work, disciplinary knowledge and an array of skills in instruction, pedagogy, ICT, economic expertise, emotional intelligence, stress coping strategies, and community interaction. Mastery in these areas seems like of a super-human being but Heads are perceived like that. This discussion helps to explore in depth the level of learning of secondary school heads during leadership development program.

2.4 Perceived Satisfaction

Satisfaction is a subjective term that varies from person to person depending upon psychological and physical factors. Thus, quality of services and products along with satisfaction becomes more relative (Hole, Pawar, & Bhaskar, 2018). Academically, satisfaction of Heads is determined by their professional ethics and performance. Innovations in ICT and greater demands from schools have caused more stress for Heads and satisfaction has become a challenge for them (Szyszka, Tomczyk, & Kochanowicz, 2022). Incorporating new technologies and developments in the set pattern of responsibilities and demands require more to do in tandem with the pace of time. These scenarios shake the conventional concept of management and administration.

Baluyos, Rivera and Baluyos (2019) argued that three factors are related to the job satisfaction of Heads: the coordination and collaboration of the individuals in the organization, human relations, and happiness. Solangi (2016) found that Heads' satisfaction is influenced by absenteeism and attrition of teachers, overall quality of life in society, technological revaluation and greater transparency. Liu and Werblow (2019) explored that Heads' satisfaction is positively related with their role in maintaining a collegial environment for effective instructional management. Their study also provided a guiding point to better understand the relationship of Heads regarding their interactions between leadership/heads' functions and multiple stakeholders. This discussion raises a question that how the school heads become satisfied.

Maeda (2021) is of the view that dealing effectively with the conflict management and stress management can bring about satisfaction to the Heads. It has been observed that Heads' satisfaction is also closely associated with their skills in financial management in order

to capitalize the resources to run the school effectively. In researches Albugami and Ahmed (2015); e.g. Okeke and Dike (2019), literature has enormously revealed that competency in using ICT for teaching and learning and managerial skills, and use of social media for effective outcomes of school have been considered as sources of satisfaction for Heads. The mastery over multi-disciplinary knowledge at secondary school is pivotal, as it provides the students with strong foundations. Thus, it is established that if Heads have such mastery they can better guide and monitor their staff/teachers for effective training of their students. Last but not least, without professional attributes such as professional ethics and manner, Heads cannot be entitled as satisfied leaders. It is a touchstone for their success in the schools. Interestingly, literature e.g. Abdul Wahab et al. (2014); Ghazi and Shahzada (2012), shows that there is lack of research in examining the work on satisfaction of Heads. The above reviewed literature raises a question whether the Heads in Pakistan are satisfied with reference to the leadership development training program. If they are, what is the level of their satisfaction?

2.5 Implementation of Learning

Implementation is the process of organizing learning (theoretical, practical and policy related) and translating it into real-world settings to achieve strategic goals and objectives of school organization (Mitchell, 2011). The study conducted by Powell (2014) highlighted that the purpose of implementation process is to improve the system to bring about sustainability in it. Critically analyzing, without implementation, learning becomes useless and satisfaction of Heads cannot be achieved. This is the stage where application of learning is determined.

Proctor, Powell and McMillen (2013) argued that in implementing their learning, Heads identify the gaps and deficiencies in different areas such as use of ICT, stress and conflict management, decision making, problem solving, and professional training of their staff. Upon this identification, they use appropriate strategies and techniques to make up these deficiencies and raise the bar of their staff training (Bunger et al., 2017). It shows that Heads use the activities to secure new resources, update organizational facilities, form different teams, design and enforce quality control methods, foster development procedures through partners, gain structured agreements, encourage regular collaboration, employ data specialists, and train teachers for the success and sustainability of schools. Studies e.g. Apebende and Ushie (2018); Bafadal et al. (2019) have revealed that the efficiency and competency of Heads is determined by the operationalization and deployment of resources to ensure success of every stakeholder in the context of education. Based on this review, it is established that learning and satisfaction can work only if Heads are good implementers. However, it can be warranted by exploring that how Heads in Pakistan implement the learning from leadership development program in the context of school success.

Literature reviewed in the above paragraphs has proved that head teachers influence the academic performance of teachers and ensure students' success. Moreover, all the internal stakeholders, teaching, non-teaching and supportive staff work on the direction of the school heads. This research attempts to analyze how Leadership Development Program made a difference in the leadership capabilities of the active head teachers. In Pakistan, however, there is lack of research on training secondary school head teachers about their position, professional growth, motivation, learning and execution in the situation during their work. The following section sheds light on the data and methods to address this issue.

3. Data and Methodology

This section deals with the methodological and procedural aspects of the study. Quantitative research approach was used for this study in order to effectively estimate the phenomenon of leadership enhancement at secondary schools (Teo, 2014). As the objective of this research was to evaluate the impact of the Leadership Development Program on Head Teachers, Survey research design was used to investigate Leadership Training Program for Secondary School Heads consisting of Satisfaction, Learning and Implementation in the secondary schools. According to the School Education Department (2017) statistics, the total number of secondary schools in district Lahore was 334, while the total number of male high schools was 155 and the total number of female high schools was 179. Since the head

teachers of these schools were the target population, thus, all 334 male and female head teachers were the total population for this study.

The total population of 334 head teachers was of Lahore district. The district consists of five Tehsils. Considering the representation quality of the sample size, stratified sampling technique was more suitable than any other for this study. Therefore, dividing the whole population (District Lahore) into several strata (Tehsils), the sample size was (n=100) head teachers both male and female. The following Table 1 displays this:

Table 1: Detail of Population and Sample size of the research study

Tehsils	Population		Sample	
	Male	Female	Male	Female
Lahore Cantt	21	25	6	7
Raiwind	15	11	4	3
Lahore City	56	71	17	21
Model town	32	36	10	11
Shalimar	31	36	10	11
Total	155	179	47	53

(School Education Department, 2018)

A closed-ended questionnaire was designed by the researcher to collect the data from respondents to determine the learning, satisfaction and implementation regarding Leadership Development Program in secondary schools of district Lahore. The demographic information of the respondents was comprised of gender, academic qualification, professional qualification and experience as a head teacher. The five-point rating scale (5=Very much, 4=Good, 3=Average, 2=Below average 1=A little bit) was used to measure head teachers' role regarding Leadership Development Program about their learning, satisfaction and implementation during their job. The content of the questionnaire covered the areas of Leadership Development Program under three main constructs (learning, satisfaction, and implementation). The items of these constructs focused on stress management, professional ethics and manners, conflict management, head teachers' responsibilities, budgeting, maintenance of record, ICT, use of social media, and school improvement plan.

The instrument was piloted for determining and ensuring the reliability. Cronbach Alpha type was used to confirm the reliability of the tool. The reliability value of the instrument was .71. However, by using opinion of the experts', the validity of the instrument was ensured. Experts suggested some grammar and language changes. All the suggestions were considered and changes were made in the instrument. Data were collected using Google form, email and WhatsApp. In data collection process, ethical consideration such as respondents' consent, privacy, and integrity were exercised in this study. While, analysis was done using Statistical Package for Social Sciences (SPSS). Both descriptive (means, standard deviation, and percentage) and inferential statistics (ANOVA and F test) were used to reach the results.

3. Results

This section represents the results in tables and their interpretation. The findings are interpreted in both descriptive and inferential statistics. These statistics determine the results from data.

Table 2: Mean and SDs of Perceived Satisfaction, Learning and its Implementation

Study variables	Mean	SD
Satisfaction	54.40	9.24
Learning	68.54	8.44
Implementation	42.95	8.44

Table 2 presents the mean and standard deviations (SDs) for three key variables—satisfaction, learning, and implementation—assessed among school heads. In terms of satisfaction, the respondents reported an average score of 54.40 with a standard deviation of 9.24, suggesting a moderate level of variability is reported for satisfaction levels. For the learning variable, the mean score was notably higher at 68.54, accompanied by a standard deviation of 8.44, indicating a relatively consistent level of agreement among school heads regarding their learning experiences. Comparing the mean scores of all three variables,

learning stands at first and satisfaction comes second, while implementation is at the lower level. As implementation variable revealed a lower mean of 42.95, with the same standard deviation of 8.44 to the learning variable. This implies that while respondents generally demonstrated a consistent level of agreement on their learning experiences, the implementation aspect displayed a lower mean, signaling potential challenges or variations in translating acquired knowledge into practice among school heads. The standard deviations for both learning and implementation shed light on the degree of spread in individual responses, offering insights into the overall consensus and variability within these measures.

Table 3: Mean, SDs and ANOVA of key variables with respect to age groups

Study Variables	Age (Years) of School heads				One-way ANOVA	
	≤30 (n=9)	31-35 (n=19)	36-40 (n=23)	>40 (n=49)	F value	P value
Satisfaction	52.07(8.69)	51.59(10.39)	54.31(7.45)	54.8(8.76)	2.60	.201
Learning	71.03(12.33)	69.69(12.93)	68.17(11.12)	65.98(12.11)	6.37	.001
Implementation	41.54(7.83)	44.53(6.85)	42.34(8.48)	43.39(10.58)	3.43	.142

Table 3 provides a breakdown of perceived satisfaction, learning, and implementation among school heads categorized into different age groups. The mean scores and standard deviations (SDs) are presented for each age group, along with the results of a one-way ANOVA analysis to examine potential differences/variations across age categories. For the variable of satisfaction, there is a slight variation in mean scores across age groups, ranging from 52.07 to 54.8, with corresponding SDs indicating some variability within each group. However, the one-way ANOVA reveals that these differences are not statistically significant (F = 2.60, p = 0.201), suggesting that age does not have a significant impact on perceived satisfaction among school heads.

In contrast, the learning variable exhibits more noticeable differences across age groups. Mean scores range from 65.98 to 71.03, with a significant F value of 6.37 (p = 0.001) according to the one-way ANOVA. This suggests that there are statistically significant differences in perceived learning experiences among school heads of different age groups, indicating potential variations in training and educational needs. Regarding the implementation variable, mean scores range from 41.54 to 44.53, with a non-significant F value of 3.43 (p = 0.142) in the one-way ANOVA. This implies that the differences in perceived implementation across age groups are not statistically significant, indicating a similar level of variability in implementation scores among school heads of different age brackets.

In summary, while age does not seem to significantly influence perceived satisfaction and implementation, there are notable differences in perceived learning experiences among school heads of different age groups, as evidenced by the statistically significant F value in the one-way ANOVA analysis for the learning variable.

Table 4: Mean, SDs and ANOVA of key variables with respect to Qualification

Study Variables	Qualification of School heads			One-way ANOVA	
	B.A/B.Sc. (n=13)	M.A/ M.Sc. (n=62)	M.Phil./ PhD (n=25)	F value	P value
Learning	75.43(10.01)	73.74(12.73)	78.51(11.1)	5.209	.07
Satisfaction	46.66(9.37)	56.73(8.86)	48.45(8.91)	7.015	.003
Implementation	41.66(6.69)	38.73(6.63)	42.45(9.05)	2.465	.311

Table 4 displays the mean scores and standard deviations (SDs) for perceived satisfaction, learning, and implementation among school heads categorized by their qualifications. Additionally, the table presents the results of a one-way ANOVA analysis to explore potential differences across different qualification levels. For the learning variable, mean scores range from 73.74 to 78.51, with an overall F value of 5.209 (p = 0.07) in the one-way ANOVA. Although the p-value is slightly above the conventional significance level of 0.05, there may be a trend suggesting differences in perceived learning experiences among school heads with varying qualifications.

Regarding satisfaction, the mean scores vary more distinctly, ranging from 46.66 to 56.73. The one-way ANOVA results reveal a statistically significant F value of 7.015 ($p = 0.003$), indicating that there are significant differences in perceived satisfaction among school heads with different qualifications. This suggests that the level of education or qualifications may play a role in shaping perceptions of satisfaction. For the implementation variable, mean scores range from 38.73 to 42.45, with a non-significant F value of 2.465 ($p = 0.311$) in the one-way ANOVA. This suggests that the differences in perceived implementation across qualification levels are not statistically significant, indicating a similar level of variability in implementation scores among school heads with different educational backgrounds.

In summary, the findings suggest potential differences in perceived learning experiences and satisfaction among school heads with varying qualifications. While there is a trend in the learning variable, with a p-value close to the significance threshold, the satisfaction variable demonstrates statistically significant differences across qualification levels. However, no significant differences are observed in perceived implementation based on school heads' qualifications.

Table 5: Mean, SDs and ANOVA of key variables with respect to Gender

Study Variables	Gender of School heads		One-way ANOVA	
	Male (n=47)	Female (n=53)	F value	P value
Learning	66.42(13)	71.45(11.34)	5.209	.006
Satisfaction	57.67(5.39)	54.67(7.8)	1.015	.363
Implementation	45.47(7.45)	48.74(10.03)	3.453	.030

Table 5 provides the mean scores and standard deviations (SDs) for perceived satisfaction, learning, and implementation among school heads, categorized by gender. Additionally, the table includes the results of a one-way ANOVA analysis to assess potential differences across different gender groups. For the learning variable, the mean scores indicate a difference between male and female school heads, with scores of 66.42 for males and 71.45 for females. The one-way ANOVA results show a statistically significant F value of 5.209 ($p = 0.006$), suggesting that there are significant differences in perceived learning experiences between male and female school heads. This implies that gender may play a role in shaping perceptions of learning in this context.

Regarding satisfaction, the mean scores are 57.67 for male school heads and 54.67 for female school heads. The one-way ANOVA results indicate a non-significant F value of 1.015 ($p = 0.363$), suggesting that there are no significant differences in perceived satisfaction between male and female school heads. For the implementation variable, the mean scores are 45.47 for male school heads and 48.74 for female school heads. The one-way ANOVA results reveal a statistically significant F value of 3.453 ($p = 0.030$), suggesting that there are significant differences in perceived implementation between male and female school heads. This implies that gender may influence perceptions of the implementation of acquired knowledge.

In summary, the findings suggest significant differences in perceived learning and implementation experiences based on the gender of school heads. However, no significant differences are observed in perceived satisfaction between male and female school heads. As this study consisted of three key variables (learning, perceived satisfaction, and implementation), mean and standard deviations of items under each variable are given in the below tables.

Table 6 presents the average scores and spread of scores of the questions on the variable, learning scale of head teachers regarding "school leadership development program". There were eighteen items in the learning scale. The scale was five points likert type from "a little bit" to "very much". The question number 7 "To what extent did you learn about Conflict Management during SLDP?" has the highest mean score (4.193). While question number two "To what extent did you learn about Stress Management during SLDP?" has the lowest (2.425) mean score. It means that the participants learned more about conflict management and less about stress management in the said leadership development program. While other questions on this scale show very little variability in average and standard deviation with respect to the learning of head teachers in the program.

Table 6: Mean and SDs of Learning

Sr.#	Statements Related to Learning	M(SD)
1	To what extent did you learn about Maintenance of School Records during SLDP?	3.36(1.95)
2	To what extent did you learn about Stress Management during SLDP?	2.43(1.00)
3	To what extent did you learn about Inclusive Education during SLDP?	3.46(1.92)
4	To what extent did you learn about Maintenance of School Records during SLDP?	3.34(1.99)
5	To what extent did you learn about Information Communication Technology during SLDP?	3.48(1.98)
6	To what extent did you learn about Professional ethics and manners during SLDP?	3.21(1.48)
7	To what extent did you learn about Conflict Management during SLDP?	4.19(1.71)
8	To what extent did you learn about Action Planning during SLDP?	3.42(1.38)
9	To what extent did you learn about non-routine problems considering different Perspective during SLDP?	3.39(1.34)
10	To what extent did you learn about Non-Routine Problems Considering different perspective during SLDP?	3.65(1.35)
11	To what extent did you learn about Assessing Evidence Considering Different Perspective during SLDP?	3.58(1.12)
12	To what extent did you learn about budgetary scheme Making during SLDP?	3.48(1.54)
13	To what extent did you learn about Early Childhood Education during SLDP?	2.96(1.95)
14	To what extent did you learn about Islamic Leadership during SLDP?	3.13(1.19)
15	To what extent did you learn about ICT for School Leadership: e-learn, e-mail, Google search, Google drive during SLDP?	3.38(1.31)
16	To what extent did you learn about Use of Social media apps Whatsapp, Youtube, Skype, Twitter, and Messenger during SLDP?	3.36(1.95)
17	To what extent did you learn about Punjab Procurement Regulatory Authority Rules 2014 during SLDP?	3.13(1.19)
18	To what extent did you learn about Audit Rules and pre audit Guidelines	3.1(1.31)

Table 7: Mean and SDs of Satisfaction

Sr#	Statements Related to Satisfaction	M(SD)
1	How much were you satisfied about Budget Making during SLDP?	3.95(3.63)
2	How much were you satisfied about saving in budget during SLDP?	3.86(2.87)
3	How much were you satisfied about allocation of Budget during SLDP?	3.24(2.89)
4	How much were you satisfied about usage of Budget during SLDP?	3.38(0.43)
5	How much were you satisfied about reporting during SLDP?	3.43(0.39)
6	How much were you satisfied about the process of Budget Making during SLDP?	3.51(1.22)
7	How much were you satisfied about Early Childhood Education during SLDP?	3.73(1.56)
8	How much were you satisfied about Islamic Leadership during SLDP?	3.63(1.01)
9	How much were you satisfied about ICT for School Leadership: e-learn, e-mail, Google search, Google drive during SLDP?	3.6(1.16)
10	How much were you satisfied about Use of Social media apps WhatsApp, YouTube, Skype, twitter, messenger during SLDP?	2.25(1.5)
11	How much were you satisfied about Maintenance of School Records during SLDP?	4.73(1.56)
12	How much were you satisfied about Punjab Procurement Regulatory Authority Rules 2014 during SLDP?	3.63(1.01)
13	How much were you satisfied about Audit Rules and Pre-Audit Guidelines during SLDP?	4.6(1.16)
14	How much were you satisfied with the use of documentation by using email?	3.25(1.5)

Table 7 displays the average scores and spread of scores of the questions on the variable, satisfaction scale of head teachers regarding SLDP program. There were fourteen items in the satisfaction scale. The scale was five points likert type from "a little bit" to "very

much". The question number eleven, "How much were you satisfied about Maintenance of School Records during SLDP" has the highest mean score (4.73). While question number ten, "How much were you satisfied about Use of Social media apps Whatsapp, YouTube, Skype, twitter, messenger during SLDP" has the lowest (2.25) mean score. The question number thirteen, "How much were you satisfied about Audit Rules and Pre-Audit Guidelines during SLDP" comes just after the question number eleven in comparing the mean score. Considering these scores, it means that the head teachers were more satisfied about maintenance of records, satisfied about audit-rules and pre-audit guidelines, and less satisfied in the use of social media in the leadership development program. Other questions on the scale show similar (with small differences) average scores about the satisfaction of the head teachers.

Table 8: Mean and SDs of Implementation

Sr#	Statements Related to Implementation	M(SD)
1	To what extent did you implement which you learnt about Maintenance of School Records during SLDP?	3.14(1.45)
2	To what extent did you implement which you learnt about Inclusive Education during SLDP?	2.23(1.03)
3	To what extent did you implement which you learnt about Information Communication Technology during SLDP?	3.21(1.62)
4	To what extent did you implement which you learnt about Professional ethics and manners during SLDP?	3.11(1.49)
5	To what extent did you implement which you learnt about Conflict Management during SLDP?	3.17(1.48)
6	To what extent did you implement which you learnt about Action Planning during SLDP?	3.01(1.34)
7	To what extent did you implement which you learnt about Non-Routine Problems Considering different Perspectives during SLDP?	3.59(1.51)
8	To what extent did you implement which you learnt about Assessing Evidence considering different Perspectives during SLDP?	3.13(1.34)
9	To what extent did you implement which you learnt about Budgetary scheme making during SLDP?	3.12(1.35)
10	To what extent did you implement which you learnt about Early Childhood Education during SLDP?	3.23(1.33)
11	To what extent did you implement which you learnt about Islamic Leadership during SLDP?	3.12(1.10)
12	To what extent did you implement which you learnt about ICT for School Leadership: E-learn, E-mail, Google search, Google drive during SLDP?	2.87(1.34)
13	To what extent did you implement which you learnt about Punjab Procurement Regulatory Authority Rules 2014 during SLDP?	2.74(1.75)
14	To what extent did you implement which you learnt about Audit Rules and Pre Audit Guidelines	2.63(1.17)

Table 8 shows the average scores and spread of scores of the questions on the variable, implementation scale of head teachers regarding SLDP program. There were fourteen items in this scale. The scale was five points Likert type from "a little bit" to "very much". The question number seven, "To what extent did you implement which you learnt about Non Routine Problems Considering different Perspectives during SLDP?" has the highest mean score (3.59). While question number two, "To what extent did you implement which you learnt about Inclusive Education during SLDP?" has the lowest (2.23) mean score. These scores indicate that the head teachers implemented the non-routine problems' solution. The mean score 2.23 highlights the least bothered item that is relevant to inclusive education. Analysis shows that it is the implementation that matters a lot especially with regards to the leadership and management of the school organization. Comparing the three variables, it becomes evident that implementation is important in terms of engaging the stakeholders and developing the education system.

4. Discussion

Results revealed that school heads were more interested in learning than satisfaction and implementation of learning in the leadership development program. The least bothered factor in terms of the program was the implementation of learning. Heads were found to have consistent manner in learning. On the other hand, findings revealed that the school heads

were less consistent in implementation of learning. These findings show that the school heads face challenges and barriers in implementation of learning. It also indicates that in implementation there is a need of interaction and collaboration. While, getting things done requires to influence, direct or make others done the work. Thus, implementation was found at the lower level in comparison of other variable quite possibly because of the interaction, culture, and the environment of the schools. These findings echoed with the previous studies that focused on the leadership training and development in order to advance head teachers' knowledge, skills, and expertise (Bukhari et al., 2021; Panagiotopoulos & Karanikola, 2018). This study goes one step ahead in the context of leadership training to evaluate the satisfaction and implementation level of head teachers for school improvement in Pakistan perspectives.

Discussing head teachers' learning, their satisfaction and implementation from demographic variables it shows that age and gender play a role with small level of variability. For example, learning under thirty years' age cohort shows greater mean than other age brackets. However, the implementation aspect displayed a lower mean, signaling potential challenges or variations in translating acquired knowledge into practice among school heads. In contrast to the learning and implementation, satisfaction was almost similar to all age groups. Analyzing the role of gender, females were found more interested in learning than males in across all three variables. Thus, notable differences with respect to age and gender groups highlight the barriers, challenges and motivation of head teachers in the context of leadership training and development program. These findings are consistent with the study conducted by Sirisookslip, Ariratana and Ngang (2015) and Daniëls, Hondeghem and Dochy (2019) who viewed that if the barriers and challenges are addressed then head teachers can contribute to the school development more. In this study, it is implied that these barriers implicitly play a greater role to shape the culture of hindering the school progress.

Regarding qualification, head teachers having M. Phil and PhD were found more learned than others as it is quite natural. However, the satisfaction level of this cohort was less than M.A/M.Sc. which shows the depth and breadth of their professional growth. In contrast to these, implementation across all three variables was found least bothered. As discussed above, it highlights alarming implications regarding the culture and all its subsequent elements in the Pakistani school context. These findings indicate the lack of intrinsic motivation from the head teachers. It also implies the present Pakistani school culture is "withholding" culture with respect to sharing the information and ideas that could contribute to the school development. Thus, head teachers may be responsible but seem to fail in establishing the culture of sharing, cooperation, and collaboration at school level. These findings are relevant with the studies (e.g. Gore et al., 2017; Kyayemagye & Kintu, 2020; Salfi, 2011; Yani, Kristiawan, & Martha, 2021). This study corroborates the previous studies and establishes the authenticity of these findings. Moreover, it can be drawn that the key point to promote school is to do with the implementation of learning. When head teachers make their minds to implement it then a number of initiatives and avenues can be tapped. However, in the context of this study's findings, it can be said that "commitment to lead" the institutions are somehow missing.

The main objective of this study was to evaluate the leadership development training program for head teachers in Pakistan. Findings show that the training program was effective till the level of satisfaction and learning of the head teachers. As the success of school depends upon the leadership role that needs to be played effectively and collaboratively, the findings have shown very low level of implementation of the learning in response to the leadership development training program. Thus, as long as the personal learning and satisfaction of school heads is concerned, they are good. When it comes to bring reforms in schools the study directs to explore the reasons, challenges, constraints, and barriers that head teachers face in implementation of their learning. Head teachers may have the potential of leading the schools but explicitly the implementation is failed that raises a number of questions on the leading role of head teachers.

Reviewing the strength of explored variables in this study, it becomes evident that it is all about implementation with respect to transformation and development of schools. Least bothered implementation indicates a number of areas such as head teachers' teamwork skills, time management skills, managerial skills, collegial network, mentoring, counselling,

instructional leadership to be explored further especially in connection with the implementation of learning at school level. The findings on implementation further directs to explore whether head teachers' personal characteristics such as self-esteem, self-confidence, motivation and communication are at par in order to implement their learning in the program. Researches (e.g. Apebende & Ushie, 2018; Day, Gu, & Sammons, 2016; Kyayemagye & Kintu, 2020) pronounce clearly that without these characteristics the leaders cannot move to achieve the goals and objectives of the (school) organization. Moreover, it is the overarching duty of head teacher to encourage the team/colleagues using personal, managerial and technical skills and employing the available resources to the crucial position for increasing demands of organizational success. Thus, it can be recommended that though training can play a significant role in updating head teachers' knowledge and skills, yet the implementation solely depends upon their internal commitment and dedication. Resultantly, the training program was found relevant and appropriate but its final outcome remains in dark. Why this is in dark? It could be explored in the future studies as discussed in this section.

5. Conclusion and Policy Recommendations

This study aimed to explore learning, its perceived satisfaction, and its implementation by the head teachers through the leadership development program. Results revealed that head teachers' level of learning was highest, satisfaction in the middle and implementation comes in the end. Findings showed variations in responses of heads with respect to their age, gender, and qualification. 20-30 years was more prominent in terms of learning while females were more satisfied than males in learning. Conclusively, satisfaction was found at the top level with 54.40 mean score across all aspects of data analysis. While, implementation was found at the lowest score of 42.95. Findings highlighted greater satisfaction than learning and implementation. Gender and age showed small variability with respect to the tilt towards learning and satisfaction. On the other hand, implementation was found at the lowest score. It shows the alarming situation of the school organizational culture. Findings imply that the culture of school organization seems as a hindering and barrier to progress the education system in the country. Findings draw the attention of school administrators such as at tehsil, district, and provincial levels to formulate the policy of continuous monitoring regarding implementation of learning so that the quality of secondary education can be improved. Further study can be conducted to identify the barriers in implementing the learning. Further study can also be conducted to evaluate the nature of school organizational culture, the reasons of such culture and causes of lowest implementation score and its impact on quality education in Pakistan perspectives. Findings guide to devise concrete policy of monitoring and implementing the leadership development programs. Additionally, policy for periodic assessment should be introduced to evaluate the implementation of leadership development program. Finally, feedback policy from teachers regarding the implementation by head teachers should be introduced and translated into practice.

References

- Abdul Wahab, J., Mohd Fuad, C. F., Ismail, H., & Majid, S. (2014). Headmasters' transformational leadership and their relationship with teachers' job satisfaction and teachers' commitments. *International Education Studies*, 7(13), 40-48.
- Albugami, S., & Ahmed, V. (2015). Success factors for ICT implementation in Saudi secondary schools: From the perspective of ICT directors, head teachers, teachers and students. *International Journal of education and development using ICT*, 11(1).
- Apebende, E. U., & Ushie, S. C. (2018). Teachers' perception of their head teachers' role effectiveness. *Global Journal of Educational Research*, 17(1), 47-53.
- Bafadal, I. I., Bafadal, I., Sobri, A. Y., Nurabadi, A., & Gunawan, I. (2019). Standards of competency of head of school beginners as leaders in learning innovation. 5th International Conference on Education and Technology (ICET 2019),
- Baluyos, G. R., Rivera, H. L., & Baluyos, E. L. (2019). Teachers' job satisfaction and work performance. *Open Journal of Social Sciences*, 7(8), 206-221.
- Balyer, A., Karatas, H., & Alci, B. (2015). School principals' roles in establishing collaborative professional learning communities at schools. *Procedia-Social and Behavioral Sciences*, 197, 1340-1347.
- Brinia, V., Papantoniou, E., & Roberts, B. (2016). High school principals as leaders: Styles and sources of power. *International Journal of Educational Management*.

- Bukhari, S. K. U. S., Abiodullah, M., Ali, R., & Kanwal, A. (2021). The Role, Professional Development, and Challenges of Principals: Key Ingredients of School Leadership. *Pakistan Journal of Humanities and Social Sciences*, 9(2), 141-149.
- Bunger, A. C., Powell, B. J., Robertson, H. A., MacDowell, H., Birken, S. A., & Shea, C. (2017). Tracking implementation strategies: a description of a practical approach and early findings. *Health research policy and systems*, 15(1), 1-12. <https://doi.org/10.1186/s12961-017-0175-y>
- Castro, A. J. (2022). Tensions between what principals know and do: The role of labor market conditions on teacher recruitment and hiring. *Leadership and Policy in Schools*, 21(4), 756-779.
- Cheema, A. B., Parveen, A., & Ahmad, M. (2022). Association of Head Teachers' Instructional Supervisory Practices with Teachers' Performance. *Journal of Business and Social Review in Emerging Economies*, 8(1), 97-112.
- Chisholm, C., Harris, M., Northwood, D., & Johrendt, J. (2009). The characterisation of work-based learning by consideration of the theories of experiential learning. *European Journal of Education*, 44(3), 319-337.
- Cowie, M., & Crawford, M. (2009). Headteacher preparation programmes in England and Scotland: do they make a difference for the first-year head? *School Leadership & Management*, 29(1), 5-21. <https://doi.org/10.1080/13632430802646354>
- Daniëls, E., Hondelghem, A., & Dochy, F. (2019). A review on leadership and leadership development in educational settings. *Educational research review*, 27, 110-125.
- Day, C., Gu, Q., & Sammons, P. (2016). The impact of leadership on student outcomes: How successful school leaders use transformational and instructional strategies to make a difference. *Educational administration quarterly*, 52(2), 221-258.
- De Corte, E. (2010). Historical developments in the understanding of learning. *The nature of learning. Using research to inspire practice*, 35-67.
- Dean, M., Tait, A., & Kim, G. (2012). Evaluating Professional Development of Educators in an International Context. *International Journal of Learning*, 18(9).
- Devos, G., & Bouckenoghe, D. (2009). An Exploratory Study on Principals' Conceptions about Their Role as School Leaders. *Leadership and Policy in Schools*, 8(2), 173-196. <https://doi.org/10.1080/15700760902737196>
- Dirksen, J. (2015). *Design for how people learn*. New Riders.
- Duncan, H. E., & Stock, M. J. (2010). Mentoring and Coaching Rural School Leaders: What Do They Need? *Mentoring & Tutoring: Partnership in Learning*, 18(3), 293-311. <https://doi.org/10.1080/13611267.2010.492947>
- Earley, P., & Weindling, D. (2007). Do school leaders have a shelf life? Career stages and headteacher performance. *Educational Management Administration & Leadership*, 35(1), 73-88.
- Garcia, K. (2004). The National Standards for Headteachers--Now Being Revised. *Management in Education*, 18(2), 28-29.
- Ghazi, S. R., & Shahzada, G. (2012). School location and size as predictors of head teachers' job satisfaction. *Mediterranean Journal of Social Sciences*, 3(1), 613-625.
- Gore, J., Lloyd, A., Smith, M., Bove, J., Ellis, H., & Lubans, D. (2017). Effects of professional development on the quality of teaching: Results from a randomised controlled trial of Quality Teaching Rounds. *Teaching and Teacher Education*, 68, 99-113. <https://doi.org/https://doi.org/10.1016/j.tate.2017.08.007>
- Grissom, J. A., Blissett, R. S. L., & Mitani, H. (2018). Evaluating School Principals: Supervisor Ratings of Principal Practice and Principal Job Performance. *Educational Evaluation and Policy Analysis*, 40(3), 446-472. <https://doi.org/10.3102/0162373718783883>
- Hargreaves, A., & Shirley, D. L. (2012). *The global fourth way: The quest for educational excellence*. Corwin Press.
- Harris, A., & Jones, M. (2015). Transforming education systems: comparative and critical perspectives on school leadership. *Asia Pacific Journal of Education*, 35(3), 311-318.
- Hashim, H., Nordin, N. M., & Othman, N. (2023). Principal Teacher Transformation Leadership and Teacher Job Satisfaction of Transformation 25 Schools in Jasin District Melaka. *International Journal of Academic Research in Business and Social Sciences*, 13(4), 1232-1248.
- Hole, Y., Pawar, S., & Bhaskar, M. P. (2018). Service marketing and quality strategies. *Periodicals of engineering and natural sciences*, 6(1), 182-196.
- Hopkins, D. (2007). *Every school a great school: Realizing the potential of system leadership*. McGraw-Hill Education (UK).

- Karangu, G. N., & Muola, J. M. (2011). The Principals' and Teacher Counsellors' Perception of the Factors Influencing Effective Delivery of Guidance and Counselling Services in Public Secondary Schools in Laikipia District. *African Research Review*, 5(1).
- Kayıkçı, K., & Yılmaz, O. (2014). Effects of knowledge management competencies of school principals' to quality studies in school. *International Journal of Business and Social Science*, 5(5), 190.
- Kell, H. J. (2019). Do Teachers' Personality Traits Predict Their Performance? A Comprehensive Review of the Empirical Literature From 1990 to 2018. *ETS Research Report Series*, 2019(1), 1-27.
- Kirui, K. e., & Osman, A. (2012). Headteachers' Perception of Their Roles in Secondary Schools in Kenya: A Study of Kericho Day Secondary School in Kericho County.
- Kyayemagye, F., & Kintu, D. (2020). Head teachers' administrative skills and curriculum management in universal secondary education schools in kiruhura district, uganda. *Teacher Education and Curriculum Studies*, 5(3), 81.
- Liu, Y., & Werblow, J. (2019). The operation of distributed leadership and the relationship with organizational commitment and job satisfaction of principals and teachers: A multi-level model and meta-analysis using the 2013 TALIS data. *International Journal of Educational Research*, 96, 41-55.
- Lumpkin, A. (2008). Three Keys to Success for Principals (and Their Teachers) A Principal's Emphasis on Values, People, and Teamwork Will Positively Impact a School's Culture. *Kappa Delta Pi Record*, 45(1), 22-25.
- Maeda, D. S. (2021). Conflict management approaches practiced by public heads of secondary schools and teachers in Hai District.
- Mitchell, P. F. (2011). Evidence-based practice in real-world services for young people with complex needs: New opportunities suggested by recent implementation science. *Children and Youth Services Review*, 33(2), 207-216.
- Mpaata, K. A., & Mpaata, Z. (2018). The secondary school head teacher's leadership role in educational policy implementation in Uganda.
- Okeke, N. L., & Dike, H. (2019). Head teachers' technology leadership competencies and ICT integration in model primary schools in Rivers State. *International Journal of Innovative Information Systems & Technology Research*, 7(1), 14-21.
- Panagiotopoulos, G., & Karanikola, Z. (2018). Occupational and Professional Development: OECD Policy Analysis on Skills. *International Journal of Developing and Emerging Economies*, 6(4), 1-10.
- Piaw, C. Y., Hee, T. F., Ismail, N. R., & Ying, L. H. (2014). Factors of leadership skills of secondary school principals. *Procedia-Social and Behavioral Sciences*, 116(1), 5125-5129.
- Pina, R., Cabral, I., & Alves, J. M. (2015). Principal's leadership on students' outcomes. *Procedia-Social and Behavioral Sciences*, 197, 949-954.
- Powell, T. C. (2014). Strategic management and the person. *Strategic Organization*, 12(3), 200-207.
- Proctor, E. K., Powell, B. J., & McMillen, J. C. (2013). Implementation strategies: recommendations for specifying and reporting. *Implementation science*, 8, 1-11. <https://doi.org/10.1186/1748-5908-8-139>
- Reynolds, D. (2010). *School effectiveness*. A&C Black.
- Rizvi, M., & Elliott, B. (2007). Enhancing and sustaining teacher professionalism in Pakistan. *Teachers and Teaching: theory and practice*, 13(1), 5-19.
- Salfi, N. A. (2011). Successful leadership practices of head teachers for school improvement: Some evidence from Pakistan. *Journal of educational Administration*, 49(4), 414-432.
- Salfi Naseer, A. (2011). Successful leadership practices of head teachers for school improvement: Some evidence from Pakistan. *Journal of educational Administration*, 49(4), 414-432. <https://doi.org/10.1108/09578231111146489>
- Sanchez, J. E., Paul, J. M., & Thornton, B. W. (2020). Relationships among teachers' perceptions of principal leadership and teachers' perceptions of school climate in the high school setting. *International Journal of Leadership in Education*, 25(6), 1-21. <https://doi.org/10.1080/13603124.2019.1708471>
- Schwartz, M. (2015). Mind, brain and education: a decade of evolution. *Mind, Brain, and Education*, 9(2), 64-71.
- Şenol, H. (2019). Professional Development of Educational Leaders. In *Educational Leadership*. IntechOpen.

- Sirisookslip, S., Ariratana, W., & Ngang, T. K. (2015). The impact of leadership styles of school administrators on affecting teacher effectiveness. *Procedia-Social and Behavioral Sciences*, 186, 1031-1037.
- Solangi, G. M. (2016). ROLE OF HEAD TEACHERS IN GOVERNMENT SECONDARY SCHOOLS TEACHERS'JOB SATISFACTION: A CASE STUDY. *Shield: Research Journal of Physical Education & Sports Science*, 11.
- Sullivan, H. S. (2013). *The interpersonal theory of psychiatry*. Routledge.
- Syed, S. (2015). Building Principal Pipelines: A Strategy to Strengthen Education Leadership. Update. *Wallace Foundation*.
- Szyska, M., Tomczyk, Ł., & Kochanowicz, A. M. (2022). Digitalisation of schools from the perspective of teachers' opinions and experiences: The frequency of ICT use in education, attitudes towards new media, and support from management. *Sustainability*, 14(14), 8339.
- Teo, T. (2014). *Handbook of quantitative methods for educational research*. Springer Science & Business Media.
- Valentine, J. W., & Prater, M. (2011). Instructional, transformational, and managerial leadership and student achievement: High school principals make a difference. *NASSP bulletin*, 95(1), 5-30.
- Webber, C. F., & Scott, S. (2008). Evidence-based leadership development: the 4L framework. *Journal of educational Administration*.
- Yani, N. A., Kristiawan, M., & Martha, A. (2021). Leadership of the principal in improving the professional competence of teachers in the digital age. *JPGI (Jurnal Penelitian Guru Indonesia)*, 6(1), 268-274.