Identifying the administrative challenges encountered by the principals in low-performing public secondary schools of Faisalabad District, Pakistan

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Abstract
According to the current situation, the most controversial issues emerging in developing countries are the national education's excellence and quality. Several escalating challenges, especially those related to the secondary school administration, are inevitably responsible for poor administrative and academic performance. In addressing those challenges, school administrators are expected to take full accountability for implementing educational policies into practice efficiently. The study's key objective is to explore the prospective challenges principals are encountering in low-performing public secondary schools. To fulfill the research purpose, a 5-point Likert scale questionnaire was developed. A sample of 122 secondary school principals in Faisalabad District was selected by taking advantage of the purposive sampling technique. As a result, a total of 24 challenges were collectively validated through a questionnaire survey. The frequency analysis approach was initially applied to figure out the most critical challenges. Accordingly, 7 challenges were found statistically significant with a frequency ≥50% for each factor. Besides, school-type-based (rural vs. urban) analysis was performed by applying the Chi-Square test. Furthermore, a taxonomy was developed to classify the identified challenges into nine basic knowledge-areas of school administration. The results revealed “Governance and Relationships” is the most significant knowledge-area attribute for school improvement.

Keywords:
School administrative challenges; school improvement process; secondary school principals; low-performing schools; critical challenges.

1 Introduction
The upmost significant factor that determines the future and sustainable development of a country and its young generations is the approach to inclusive and equitable quality education. Access to the quality of education at all levels of schooling is the foremost power to be useful for any country to accomplish significant social and financial improvement. To turn this vision into reality, there is an imminent demand to discuss what attributes to the excellence of an educational system at all stages of education (Pashiardis, Brauckmann, & Kafa, 2018). Several already escalating challenges, especially those related to the secondary school administration, are inevitably present in the whole educational system and consequently affects student learning. The administrative challenges are empirically characterized as hindrances to the process of school administration. These problems encountered by the principals while carrying out their responsibilities could significantly affect the attainment of school goals (Chu & Cravens, 2012). Schools in the Industry 4.0 are full of challenges, and how well school leadership can cope and subdue such challenges will determine their success. Likewise, as the head of administration in most secondary schools, the principal is often faced with myriads of challenges in performing school duties, increasing the possibility of non-achievement of stated goals. Accordingly, some major issues involve insufficient physical facilities, lack of funds, teacher incompetence, ill-equipped library/laboratory, discipline behavior by teachers, students, and incessant teacher transfers (Olorunsola & Belo, 2018).

A principal nowadays is socially expected to accomplish numerous duties for school quality (Hallinger, 2011; Pashiardis et al., 2018). According to Mazzeo (2003), school leaders make specific administrative and academic tasks are direction-oriented, academic staff complies with intensive regulations for instructions and curriculum development, or the institution is smoothly run and responsible for student achievement. Indeed, the administration and management quality and school discipline can ensure school premises' effectiveness and excellence (Mazzeo, 2003). Good quality schools feature enthusiastic and effective principals who are dedicated to working for exact vision building, philosophical quality, teamwork, the devotion of continuous progress, and creativity and innovation (Ashfaq, Dahar, & Malik, 2018).

The capable and proficient principal can also grasp the nature of school management and leadership in the face of change and challenges and expertly identify how to regulate the output and pertain to the school system's obstacles. Accordingly, all difficulties must be minimized, so the learner outcome should be at the ultimate possible level (Bush & Glover, 2016; Mazzeo, 2003). Inevitably, the school principal position now is demanding, highly complex, changing, and dynamic, which requires strategic approaches to transform low-performing schools into defensible betterment among students (Heystek & Terhoven, 2015; Holmes, Clement, & Albright, 2013). The basic approaches are managing the instructional program, maintaining, and developing staff, redesigning the school organization, setting directions, and improving school culture to maximize organizational effectiveness and student improvement. It is possible only if the principal attempts to deal efficiently and react proficiently to the tasks integrated into school management and leadership (Leithwood, Patten, & Jantzi, 2010; Pietsch & Tulowitzki, 2017).

Schools not providing good annual results or not showing acceptable output regarding student performance are customarily categorized as low-performing schools (Agnuloye, 2011). Memon (2007) explained that geographical differences, gender inequality, deficiency of efficient human resources, and inadequate physical facilities might account for the educational system's poor functioning. Additionally, according to Mazzeo (2003), school leaders exert a
considerable effect on daily school performance as they play a decisive role in the education zone that makes available the necessities for bringing quality in education. Moreover, their principalship quality can improve the school system up to the required/desired level (Memon, 2007). In the face of qualified human resource competition, schools’ already mounting pressure is the excellent worth and quality in education. For schools, especially low-performing ones, to achieve the desired educational goal and for a quality product, the education system needs specific requisites to adopt a comprehensive transformation (Ashfaq et al., 2018).

Secondary education is traditionally the terminal process of the general educational system (Ejionueme & Oyoyo, 2015). Various serious problems are lurking, qualitatively and quantitatively, in the educational system almost at all levels (Komatsu, 2009; Suleman & Pakhtunkhwa, 2015). Thus, there exist severe uncertainties in the system, and the quality is obsolete and poor in terms of performance (Ahmad et al., 2018). To improve the school situation, Khan, Keung, & Abdullah-Al-Wadud (2017) set a viewpoint of quality in human terms that when an institution features a solid managerial process and its workforce is loyal and committed to increased productivity at work, improvement is obvious. Ahmad et al. (2018) explored that educational managers accomplished all management and administration tasks in Pakistan when taking breakthrough steps in their workplace. Similarly, Suleman and Pakhtunkhwa (2015) identified fixed strategies and objectives, advanced visualization, and accumulated funds enable the staff to work to complete school policies and get the needed results in the domain of student achievements and school development.

The main factors accountable for a school’s low performance include incompetent and weak leadership, the deficiency and lack of academic staff commitment, and students’ disinterest (Agunloye, 2011). Additionally, according to Memon (2007), issues hampering educational institutions and still worth solving consist of teachers’ absenteeism, increasing dropout rates of students, high completion rates, gender inequality, teachers’ incompetence, and the disappointing performance of schools. Suleman and Pakhtunkhwa (2015) underlined a few problems that lead to lower quality in secondary schools in Pakistan and examined the education department’s interventions when addressing these problems. Holmes et al. (2013) also pointed out that the principal’s role is pivotal as an instructional leader to enhance the prevailing issues such as motivating teachers, increasing school capacity, and facilitating a good teaching and learning environment. Heystek and Terhoven (2015) narrated that effective leadership is also conducive to strong relations with teachers and prolific school-family-community partnership to better the school performance. In addition, the principal role is usually considered as a mentor and changing agent in terms of school creativity and innovation.

The significance of school effectiveness and improvement has been extensively studied primarily in the last few decades (Leithwood, Jantzi, & McElheron-Hopkins, 2006; Leithwood et al., 2010; Liang & Wang, 2009; Mazzeo, 2003; Solar, Sabattin, & Parada, 2013). It is widely acknowledged that there is an emerging need for school improvement to cope with the rising strains for educational distinction in promptly changing international settings as most of the educational transformations have not been absolutely effective at any place in the world (Chen, Kuo, & Chen, 2011; Wagenstein, 2006). The quality of schools and the improvement of low-performing schools have a long-term research background, and several types of research have been conducted to report the low performance of the school improvement process (Leithwood et al., 2010). Leithwood et al. (2006) have developed and verified a “best evidence” model to improve the process of school quality, namely the School Improvement Process (SIP). The model was primarily originated by assessing the review of a thorough investigation of previous pragmatic research. They further tested the model by using a longitudinal study in 10 schools for 5 years. Overall, the model was highly explicated as unexceptional, but there were considerable differences in student achievement throughout all schools. SIP implementation process and school leadership were simultaneously evaluated for the prevalent ratio of described differences.

A study by Pashiardis et al. (2018) attempted to disclose a whole and universal perspective of the consequences of principals’ management in two different schools having a low performance with different settings. A qualitative approach was adopted using both focus group discussions and individual interviews under a multi-actor context. The findings proposed that new tactics and strategies to be learned can address innovative and instructional chores. Likewise, Hallinger (2013) presented a framework for researchers and scholars conducting reviews of studies that reach the global publication criterion in the field of educational leadership and management. The author identified 40 research articles already available in educational leadership and published in the previous five years. The paper also drew upon the previous studies’ definite findings to clarify comprehensive trends with respect to several components of the framework settled in exemplary reviews.

Davies et al. (2013) investigated the impact of a supportive and creative environment for learning in Scottish schools in promoting school creativity and innovation by examining 210 pieces of previous literature. The review also described convincing evidence for the prolific effect of a creative environment on student achievement. The study conveyed implications through the review findings and simultaneously indicated methodological gaps for practice, policymaking, and further research globally. There is also a considerable involvement and association of meaningful community to improve the quality of educational experiences and enhance student achievement (Bukoski et al., 2015). Besides, assistant principals are usually considered responsible for building an effective and operative partnership. However, this concept is often put behind in the leadership planning area. The study’s findings also show that school principals wish to have more operative and justifiable partnerships, but still, knowledge gaps and ineffective strategies present rare tasks to alter efforts (Bukoski et al., 2015).

Chu and Cravens (2012) explained the school principals’ vital role in “Quality-Oriented Education of China”-a national reform movement to fulfill all students’ potential development. Chinese schools’ key challenges are discussed by beating China’s historical and cultural situation in mind and giving attention to the influence of governmental and communal forces on people, particularly the growing demand for a new generation of school principals. A critical review
of the current principal training system and assessment in China was conducted to address the current issue and suggested a model/framework of planned instructions for school principals' systematic professional development (Chu & Cravens, 2012). Similarly, Pashiardis et al. (2018) showed a whole and universal perspective of the consequences of school principals' participation in 2 different low-performing schools with different settings. They suggested that school principals differ considerably in the way they transmit their philosophy of administration to internal and external situations of the school, and they have to learn new tactics and strategies that address innovative as well as instructional chores (Pashiardis et al., 2018).

Chen et al. (2011) utilized the CMMI/IMM (CMMI, 2010; Niazi, 2004) idea in higher education and then introduced a Teaching Capability Maturity Model (T-CMM) for teachers to expand teaching knowledge and achieve teaching excellence. This study involves two phases:

- Initial CMMI/IMM applicability to bring teaching excellence in the setting of secondary education.
- T-CMM development.

Likewise, Chen, Chen, and Chen (2014) developed a model to measure the teaching quality in higher education to apply total quality management (TQM). Accordingly, they conducted a preliminary review on process-oriented teaching quality and developed a teaching quality maturity model that serves as “a portable quality profile for teachers in pursuing their individual teaching careers.” Similarly, Liang and Wang (2009) introduced a method of applying maturity models in school Information and Communication Technologies (ICT) projects. To assess ICT in education capabilities and schools' maturity, they introduced such elements supporting educational processes as information criteria, ICT resources, and leverage domains to change the traditional and exclusive focus on ICT. Further, Ho and Wearn (1995) have explained that how TQM can be effectively and efficiently applied in higher education as illustrated by the Higher Education TQM Excellence Model (HETQMEM). The authors suggested commitment from key stakeholders, competence, and continuous improvement to solve some significant problems encountered in implementing TQM. Furthermore, Agunloye (2011) developed a model ‘Domains of School Performance’ (DoSP) to apply upon chronically low-performing schools to help them turn them around. These initiatives aim to help school principals meet expected standards of student achievement and school improvement.

The objectives of this study are as follows:

- To investigate the administrative challenges addressed in the existing literature and to validate them with real-world experts
- To examine the criticality of identified challenges based on school types (urban vs. rural)
- To categorize the identified challenges into nine different knowledge areas of the school improvement process.

The investigation of the challenges aims to deliver education experts, researchers, and school principals a form of data that assists them in addressing the complications related to school education departments' complementary application in school improvement activities. Moreover, the identified challenges would support experts to advance workable strategies to grip the hitches faced by secondary school principals. The overarching research questions (RQs) are addressed in this study as follows:

- RQ1. What are the opinions of secondary school principals regarding administrative challenges reported in the literature?
- RQ2. What are the differences in perceived challenges for urban and rural school administrators?
- RQ3. In what way are the investigated challenges classified into a taxonomy?

2 Method

After carefully observing much literature, an empirical investigation based on a questionnaire survey was conducted (Davies et al., 2013; Hallinger, 2014; Pietsch & Tulowitzki, 2017). A brief discussion of the proposed methodologies is given in the following sections. Figure 1 shows the hierarchy of steps taken by both methodologies.
2.1 Literature Review
A literature review was conducted to identify, analyze, categorize, and evaluate factors by adopting selected inclusion and exclusion criteria (Khan et al., 2017; Niazi et al., 2016). Various studies have used the literature review method (Akbar et al., 2019; Akbar, 2019; Khan, 2011; Niazi et al., 2016), and this study takes advantage of the method to explore the literature relating to low-performing schools. The first and third authors of this study completed all the steps of the literature review. An inter-rater reliability test was applied to eliminate interpersonal bias in article selection. We conducted our thorough review under the literature review method steps illustrated in step 1 of Figure-1.

2.2 Empirical Study
To authenticate the outcomes of the literature review and for the investigation of critical challenges of the school improvement process in the Punjab School Education Department, we adopted a questionnaire survey (empirical investigation). Following steps are taken for the empirical investigation (step 2 of Figure 1) and discussed concisely in the sections discussed below.

2.2.1 Survey questionnaire development
By taking the help of the literature review study, a questionnaire is developed for online surveys. Google forms (docs.google.com/forms) have been used for an online survey. This online survey method can get data from a large population (Redep et al., 2017). Furthermore, this method is useful for obtaining data that is not easy to collect by applying the observational technique (Liang & Wang, 2009). We generated an open-ended questionnaire to gather information from the principals of secondary schools serving in the Punjab School Education Department in Faisalabad District. The survey questions were developed according to the major challenges recognized through the literature review. A 5-point Likert scale is utilized with these typical responses: ‘Strongly disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’ and ‘Strongly agree’ (Kitchenham & Pfleeger, 2003; Rea & Parker, 2014). In addition, statistical information about the identified challenges was available in the questionnaire.

2.2.2 Pilot assessment of the questionnaire
Three experts were selected for the purpose of a pilot assessment of the questionnaire. One retired principal of a secondary school in Faisalabad District was involved from real-world practices (i.e., MC Model High School) and two practitioners from the educational sector (Southwest University and Shangxi Normal University, China). Regarding the experts’ feedback, the survey tool was improved to ensure quality and clarity.

2.2.3 Data sources
The study's objective was to investigate the challenges encountered by school principals of low-performing schools in the Faisalabad District of Punjab Province in Pakistan. So, it was significant to bring together the data from various heads of public secondary schools of Faisalabad District. It is hard to make an appropriate sampling frame for surveys as no proper register exists for the target population (Coolican, 2017; Vogel, Davison, & Shroff, 2001). Thus, it is difficult to search the practitioners involved in administration in low-performing schools. Coolican (2017) highlighted that it is incredible to make a good representative sample to address the research problem. Faisalabad District has six sub-districts (Figure 2).

![Figure 2: Number of schools in sub-districts of Faisalabad district](image)

We have collected the data from school heads of only one sub-district i.e., Faisalabad City. Faisalabad City has a total of 122 schools (Urban=78, Rural=44) (Figure 2). The survey participants were invited by using the purposive technique (Creswell, 2012). The purposive technique is an operational and effective technique for collecting data from the targeted population (Creswell, 2012). All contributors were contacted via diverse ways, e.g., WhatsApp number, personal email addresses, and official contacts. The data was collected in the period of April-2019 to August-2019. We received a total of 122 responses, 3 of which were not completed. Thus, 119 complete responses were brought in use for analysis process. All secondary school principals of Faisalabad City are experienced in their field.

2.2.4 Survey data analysis
A frequency analysis approach is deployed to examine the collected data statistically. Table 1 shows the percentages and frequencies of the data. To investigate the variable groups and numerical and ordinal data, frequency analyses are helpful.
(Kitchenham & Pfleeger, 2003). Different researchers have employed this method in various research areas (Solar et al., 2013; Sun & Leithwood, 2015; Tan, 2014).

2.3 Threats and validity

In the present research work, while conducting an online survey, 119 complete responses were received. This looked like a small sample, but by taking into consideration the previous empirical studies (Hallinger, 2014; Khan et al., 2017; Pietsch & Tulowitzki, 2017), the size of the sample attributed to the current study is adequate for the justification of the empirical study. Likewise, the explored challenges were categorized into nine knowledge areas of the school improvement process. This categorization seems to create invalidity in the study. But these threats were removed when we realize that many researchers adopted the same way to classify the explored challenges (Akbar et al., 2020; Chen et al., 2011; Hallinger, 2014; Yusuf, Gunasekaran, & Dan, 2007).

3 RESULTS AND DISCUSSIONS

3.1 Results of empirical investigation

A questionnaire is used as a survey tool to investigate the challenges faced by principals of low-performing public secondary schools in Faisalabad District, Pakistan. The questionnaire is formulated based on a relevant literature review. For the data collection process, the data were classified as negative, neutral, and positive. The negative consists of ‘Disagree’ and ‘Strongly disagree,’ and the other positive category includes ‘Agree’ and ‘Strongly agree.’ The negative category shows the research respondents’ perceived reactions who did not think that the challenges explored through literature review are the real challenges for the improvement of schools. The positive category reflects the principals who evaluated the explored challenges as real challenges for the school improvement process of the School Education Department (SED). The respondents who were not sure about the investigated challenges are put in the neutral category. The frequency analysis method is used to evaluate the responses and present the outcomes (Table 1).

![Table 1. The response of questionnaire survey study](image)

In order to address RQ1, the identified challenges along with the frequency and percentage are summarized in Table 1 and Figure 3. Ch3 (Limited financial resources) was underlined by 80.7% of the selected primary studies as the favorably reported challenge. Ashfaq et al. (2018) stated that education’s access and quality are the foremost powers to be useful for Pakistan to accomplish significant social and financial improvement. However, limited financial resources have eventually compressed the entire quality of the teaching and learning process in schools. Likewise, Ch5 (Lack of teacher professional development) was reported as another significant challenge with a frequency of 77.3%. Shava and Heystek (2019) narrated that teachers, truly as the backbone of society, play the most vital role in the development of learning opportunities for students. It is obvious that quality education is possible only by the devotion and commitment of competent teachers who continuously develop themselves. If the teachers are not well trained and fail to access professional development programs, they probably run the risk of not fulfilling their duty (Bush & Glover, 2016;
Pashiardis et al., 2018). The challenges considered more significant when having the frequency ≥50% are discussed in detail Figure 3.

Moreover, Ch6 (Technology incompetence, 79.0%) was identified as an unavoidable challenge for school principalship. Lee (2015) highlighted that school principals must have the technical competence to meet the emerging needs of Industry 4.0. The management of students, faculties, courses, and classes is made easier with the use of school administration software, learning management software, Internet digital libraries, or just Internet-connected computers for efficient and effective administration of the schools (Kitchenham & Pfleeger, 2003; Shafiq et al. 2020; Shafiq et al., 2018). Better organization of empirically validated educational technologies will save valuable resources and simultaneously place less of a burden on the principals and teachers (Ahmad et al., 2018; Shava & Heystek, 2019). Additionally, Ch7 (Inadequate professional development, 83.2%) ranks second in the challenge list as a major hindrance for school improvement. As a school leader, the principal must have the foresight for effective, efficient, and dynamic principles in handling matters between the school, staff, and the host community, it is only possible by adequate and continuous professional growth and advancement (Chu & Cravens, 2012; Heystek & Terhoven, 2015).

Further, Ch14 (Scarce basic facilities and infrastructure, 75.6%) was indicated as a radical challenge for smooth execution of school managerial activities. Bukoski et al. (2015) pointed out that poor physical facilities lead to the poor educational system's poor functioning. Inevitably, school administrators have a very decisive place in the zone of education, and they can make available the basic necessities for bringing quality in education and can lift education up to the required level (Ejionueme & Oyoyo, 2015; Suleman & Gul, 2015; Töremen, Karakuş, & Yasan, 2009). Furthermore, Ch16 (Lack of administrative skills) was endorsed by the majority of the respondents(88.2%) as a daunting challenge in school administration (Olorunsola & Belo, 2018; Suleman & Pakhtunkhwa, 2015). Administrative powers provide inner strength and confidence to the principals. Adequate administrative skills help the principals make urgent and weighty decisions (Chu & Cravens, 2012; Memon, 2007). Moreover, interpersonal communication skills and the principals' continuous training are vital for the awareness of day-to-day changes in administrative tasks. Well-trained principals have proved themselves successful leaders for better schools (Gorgone et al., 2003).

Similarly, Ch23 (Low salaries and job satisfaction of teachers, 76.5%) was observed as the commonly quoted challenge for the principals struggling hard to maintain satisfied personnel to improve school functioning. According to Lee (2015), a safe working environment, interpersonal relations, salary structures, organizational policies, fair administration, job security, employee support, worker rights, fringe benefits, and so forth are all encompassed in hygiene factors. The hygiene factors reflect the physiological needs which employees expect to be effectively negotiated and fulfilled to promote work motivation and satisfaction. Although addressing these factors does not always create long term contentment, there could be dis-contentment in their absence. Ultimately, it is revealed that poor student achievement and high turnover resulting from low teacher job satisfaction (Leithwood et al., 2010).

3.2 School-Type-Based Analysis of Investigated Challenges based on Survey Respondents

The explored challenges were classified into two types, challenges in urban area schools and challenges in rural area schools. Analysis of challenges in both categories of schools was performed below. The purpose of the school-type-based categorization is to find out the importance of each explored challenge concerning the socio area difference. By conducting the survey, we perceived that 43 respondents were from urban area schools and 76 respondents from rural area schools (Table 2). To analyze the findings, we applied the Chi-Square test (Linear-by-Linear Association) to compare the differences and similarities between the two core types of schools of SED concerning the explored challenges.
The fundamental objective of the social area-based classification of explored challenges was to determine each challenge's implication regarding the school type. 119 total responses were gathered through the questionnaire survey study, out of which 43 were from urban area schools and 76 respondents were from rural area schools (Figure 2). Keeping in view the above responses, a social area-based relationship among the reported challenges was observed.

For this purpose, the Chi-Square test (Linear-by-Linear Association) was implied to find the significant distinction among the challenges concerning the school types. Previously, many other researchers adopted the same categorization approach (Akbar et al., 2020; Akbar, Shafiq, et al., 2019; Shafiq et al., 2020). Thus, the hypotheses addressed below were formed to analyze the significant variances among the identified challenges:

- Null hypothesis (H0): There is no substantial difference between the identified challenges with respect to school type.
- The alternate hypothesis (H1): There is a substantial difference between the identified challenges and school type. H0 would be acceptable if the substance value “p” of any challenge is >.05; otherwise, H1 will be acceptable. School type-wise categorization results are determined in Table 2.

The results given in Table 2 showed that (Null hypothesis) H0 is acceptable for all explored challenges except three challenges that are Ch4 (Capacity building to retrain and improve leadership effectiveness, p=.020), Ch6 (Technology incompetence, p=.043), and Ch24 (Healthy relationship between the school and community, p=.037). Though, the alternate hypothesis (H1) is acceptable for the three challenges mentioned above. This indicates that these three challenges have substantial differentiations concerning types of schools. Ch4 (Capacity building to retrain and improve leadership effectiveness) the sustainability does not end with schools’ performance. Instead, improvement is a school’s vibrant practice improvement and transformation that incorporates adaptation, capacity building, evolution, and emergence study (Askell-Williams & Koh, 2020). Ch6 (Technology competence) was identified as an unavoidable challenge for school administration. Experts highlighted that school principals must have the technical competence to meet the emerging needs of the institutions in Industry 4.0. The management of students, faculties, courses, and classes is made more comfortable with the use of school administration software, learning management software, Internet digital libraries, or just Internet-connected computers for the efficient and effective administration of the schools [PS23, PS16, PS47]. Ch24 (Healthy relationship between the school and community) There is a considerable involvement and association of meaningful community to improve educational experiences and enhance student achievement (Bukoski et al., 2015).

Besides, we followed the classification model developed by Shafiq et al. (2020) and Akbar et al. (2019) for urban and rural schools to map the reported factors in both types of schools. To do this, we calculated the percentage of all the investigated challenges (Table 2) and mapped them based on their higher significance to urban and rural schools, as shown in Figure 4. A significant observation in school-type-based categorization evaluation (Table 2) is that Ch2 (Increased paperwork and administrative tasks, 86.8%), Ch16 (Lack of administrative skills, 86.8%), Ch21 (Frequent changes in educational policies, 88.2%), Ch22 (Lack of parental involvement and support, 85.5%), and Ch23 (Low salaries and job satisfaction of teachers 89.5%) were reflected as critical challenges by urban schools for school improvement process.

Likewise, 90% of respondents of rural schools described that Ch4 (Capacity building to retrain and improve leadership effectiveness, 88.4%), Ch6 (Technology incompetence, 90.7%), Ch9 (Designing and implementing the curriculum, 86.0%), Ch14 (Scarcity basic facilities and infrastructure 86.0%), Ch15 (Lack of equipment and instructional materials...
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Ch1 (Administrative reluctance, 88.4%), Ch17 (Provision of guidance and counseling services 90.7%), Ch18 (Shortage of teachers 90.7%), Ch22 (Lack of parental involvement and support, 86.0%), and Ch23 (Low salaries and job satisfaction of teachers, 86.0%) are critical challenges for the school improvement process. Hence, Ch1 is highly reported by urban respondents, so it is allotted to the urban school category. The same procedure is adopted for all the reported challenges to mapping them into school type basis (Figure 4).

Figure 4. Categorization of school-type-based challenges

3.3 Classification of reported challenges into nine-knowledge areas of the school improvement process

BRIDGE (2018) categorizes the school quality improvement factors into nine different areas (i.e., i. Basic functionality, ii. Leadership management and communication, iii. Governance and relationships, iv. Quality of teaching and learning and educator development, v. Curriculum provision and resources, vi. Learner achievement, vii. School safety, security, and discipline, viii. School infrastructure, and ix. Parents and the community). Similar studies were carried out by Shafiq et al. (2020) and Akbar et al. (2019) to categorize the explored challenges of different studies into these various knowledge areas. Regarding our study, all the explored challenges of the school improvement process were also classified into nine different categories by adopting the same procedure employed by previous researchers. Accordingly, all 24 identified school improvement administrative challenges were mapped as per their effects (Figure 5). “Governance and Relationships” is considered the most significant knowledge area of investigated challenges. The mapping of investigated factors entails both academic and departmental implications.

Figure 5. The taxonomy of the investigated challenges

The mapping of the challenges presents a taxonomy that helps academic scholars and school leaders pay attention to the most significant challenges towards the school improvement in the SED. It will also be useful for educational institutes and policymakers of the school education department to develop practical strategies and policies to address the challenges
in their educational settings. Inevitably, it is beneficial for the school principals to consider the challenges concerning their institute type. Additionally, the proposed School Improvement Maturity Model (SIMM) could help the researchers to focus on the most important category of the investigated challenges concerning their research interest.

This study aims to explore the challenges of the principals in the domain of quality improvement in public secondary schools. The research work outcomes are to provide comprehensive information for school principals, practitioners, and researchers, which is advantageous for the quality enhancement of poor-performing schools. The explored challenges pointed out the key challenge points for the school principals to effectively deal with their schools’ poor performance. The research work’s primary objective is to develop a School Improvement Maturity Model (SIMM) in the context of quality improvement in the school education department. This paper presents a preliminary phase for SIMM development, which addresses the challenges encountered by principals in low-performing schools of public secondary schools (highlighted in Figure 6). The research questions along with their answers are summarized in Table 3.

![Figure 6: Proposed Structure of the Development of the School Improvement Maturity Model (SIMM)](image)

### Table 3: Research Summary

| Requirements Questions | Discussions |
|-------------------------|-------------|
| **RQ1. What are the opinions of secondary school principals regarding administrative challenges reported in the literature?** | Ch1: Inadequate physical facilities  
Ch2: Increased paperwork and administrative tasks  
Ch3: Limited financial resources  
Ch4: Capacity building to retrain and improve leadership effectiveness  
Ch5: Lack of teacher professional development  
Ch6: Technology incompetence  
Ch7: Inadequate professional development  
Ch8: Lack of coordination, communication, and control  
Ch9: Designing and implementing the curriculum  
Ch10: Setting administrative goals  
Ch11: Evaluating teacher performance  
Ch12: Limited administrative powers  
Ch13: Political interference  
Ch14: Scarce basic facilities and infrastructure  
Ch15: Lack of equipment and instructional materials  
Ch16: Lack of administrative skills  
Ch17: Provision of guidance and counseling services  
Ch18: Shortage of teachers  
Ch19: Indiscipline among students  
Ch20: Unavailability of ICT materials  
Ch21: Frequent changes in educational policies  
Ch22: Lack of parental involvement and support  
Ch23: Low salaries and job satisfaction of teachers  
Ch24: Healthy relationship between the school and community | The results given in Table 2 showed that the identified challenges have more similarities in both types of schools except three challenges i.e., Ch4 (Capacity building to retrain and improve leadership effectiveness, \( p=.020 \)), Ch6 (Technology incompetence, \( p=.043 \)), and Ch24 (Healthy relationship between the school and community, \( p=.037 \)). This indicates that these three challenges have substantial differentiations concerning types of schools. |
| **RQ2. What are the differences in perceived challenges for urban and rural school administrators?** | All the explored challenges are classified into nine knowledge areas of the school quality improvement process suggested by BRIDGE (BRIDGE, 2018). As per classification, “Governance and Relationships” is the most significant knowledge area of investigated challenges (Figure 5). |
| **RQ3. In what way are the investigated challenges classified into a taxonomy?** | |
4 IMPLICATIONS OF THE STUDY
The overview of the challenges of principals laying in the way of the quality improvement process in SED is provided in the study. This research is a comprehensive framework of principals’ challenges that delivered the key points of challenges. This serves as facts and knowledge for school heads and researchers who desire to work on poor performance, challenges, and quality improvement processes in SED. These key categories would support public secondary schools to concentrate on hurdles’ challenges in a specific context. The reported challenges can assist the school heads and policymakers of the School Education Department in considering the most relevant challenges. Concisely, the current article discussed a comprehensive knowledge of the existing challenges surveyed in the context of schools’ poor performance. Conclusively, this research work subsidized to develop a School Improvement Maturity Model (SIMM), which contributes to SED in evaluating and refining their quality improvement programs efficiently.

5 LIMITATION AND FUTURE DIRECTION
The research work’s fundamental objective is the development of the School Improvement Maturity Model (SIMM) from the perspective of school improvement. The proposed SIMM is mainly based on the existing maturity models of other educational institutional domains (Chen et al., 2011; Khan, Keung, & Abdullah-Al-Wadud, 2017; Shafiq et al., 2020). We presented the proposed model (SIMM) in Figure 6. Grounded on critical challenges (CCHs) and critical success factors (CSFs), the maturity levels of SIMM are articulated. The current paper is comprised of the preliminary section of SIMM, which consists of Critical Challenges (CCHs) only (Highlighted in Figure 5). However, afterward, we have scheduled to perform a systematic literature review and empirical study to explore the additional challenges in the school improvement domain. Besides, a study will be conducted to investigate the best practices of the school improvement process, which are valuable to address the proposed model’s factors. Besides, this is also planned to do research work for finding the success factors of the school improvement process. It is believed that the proposed model would be valuable to analyze and accomplish the activities of the principals of low-performing secondary schools of SED.

6 CONCLUSION
Emerging issues of low-performing schools strived us to explore the principals of public secondary schools’ challenges. Quality improvement is an essential phase of school management and administration. Thus, it merits more attention for bringing quality in school performance. Ultimately, 24 challenges were found using an informal literature review method. Additionally, an empirical study was conducted to validate the results of the literature review. As the result of the questionnaire survey, 119 complete responses were received out of 122 responses. The empirical study participants evidenced that the investigated challenges through literature review exist in the schools and greatly affect the performance of schools.

Moreover, we categorized the identified challenges encountered by school heads into nine different knowledge areas of the school improvement process suggested by BRIDGE (2018). The results (Figure 5) demonstrated that most of the identified challenges are associated with “Governance and Relationships.” Thus, “Governance and Relationships” is the most significant knowledge area of the investigated challenges. We believed that the current study’s findings help address the challenges faced by school heads of Faisalabad City of Punjab Province, Pakistan.

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