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Exploring E-Leadership of Principals: Increasing School Effectiveness by Learning Management System

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Abstract: The modern globalization and development of information technology, easy and fast access to information processing activities become essential for the success of organizations. Decision making on updated data, quality monitoring and effective communication through LMS have become important and key factors for effective e-leadership that use learning management system in their schools. The current study explores the E-Leadership by secondary school principals through a learning management system provided by 3-P Learning organization Australia. This LMS is implemented in more than fifty private schools in order to increase school effectiveness. This study was conducted under the interpretive paradigm and phenomenology design was used to explore the phenomena of the Learning Management System. Semi-structured interviews were conducted with ten principals, coordinators and LMS supervisors and teachers. The results of this study indicate that decision making, monitoring and communication in this LMS provide extensive support for school principals in managing their organizations and active participation of teachers consequently increase the effectiveness of e-leadership. Data-based decision making is the consequence of the monitoring, and communication among the teachers, students, and parents. In order to improve e-leadership, I recommend school principal should expand the use of updated data of teaching and learn from teachers, students and parents derived through LMS.

Keywords: E-leadership, school effectiveness, learning management system, elementary school principals.

Introduction

School leaders in the information and communication technology era face more challenges due to the dynamics of context, the culture of their organization and rapid globalization. The influx of technologies in schools has impacted the roles and responsibilities of school leaders in significant ways. School leader's role has shifted from a narrow focus on management to a broader scale of leading student learning, reflecting the vision of building, facilitating and supporting practices of leadership to create change and continual educational improvement in school. Students today need a higher level of academic, technical, communication and information-processing skills in order to function effectively in a world of rapid growth in all fields (Leithwood, Louis, Anderson, & Wahlstrom,

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2004).

Private schools and school systems are playing a key role not only in carrying off illiteracy but also improving the level of students as well as teachers by providing a better academic environment. Integration of ICT technologies has been steadily increasing from the first decades of the 21st century in public and private schools in Pakistan. Private education systems, especially in urban areas, are using the latest ICT technologies for teaching and learning processes. The study develops proposes a framework based on machine learning techniques that can be adopted for effective evaluation of faculty (Thomas & Madden, 2018). The established private school systems began reform towards comprehensive integration of modern technologies to innovate the ICT skills of their teachers, administrators and students (UNESCO, 2015). Learning Management Systems have become significant tools for the management of the pedagogical information and student updated data to increase the effectiveness of schools. One of these learning management systems is the LMS by the organization 3-P learning Australia. This system does not only help to improve the work patterns of principals, teachers but also students and their parent as well. E-leader use updated data from LMS to define needs, set goals, quality standard of teaching and learning, plan interventions and evaluate progress. They analyze gaps between goals achievement of teacher's teaching and student's learning and performance defines the actions of the effective school. So LMS helps to improve e-leadership of principals on the bases of decision making by updated (Islam, 2018) derived data through this system, monitoring and communication and increase school effectiveness (Blau & Presser, 2013). This study focuses on decision making, monitoring and communication through the Learning Management System (LMS) for the exploration of e-leadership of elementary-school principals. There are twelve semi-structured interviews conducted of principals, coordinators, LMS supervisors and teachers from diverse backgrounds. The study will explore how decision making, monitoring and communication through LMS support e-leadership of elementary school principals and how it increase school effectiveness.

LMSs are starting at now used extensively in Asian countries and in Gulf Cooperation Council countries (Mansour, 2012). The Edunet system, an instructing/learning gateway that is depicted as an exhaustive instructive information organization, was moved in 1996. On the use of this system in the Far East, exhibits that in 2003, 80% everything being equivalent and 41% of all understudies in South Korea had become tied up with Edunet. Thailand has a near system (Portal for Education) consequently does Singapore (Smart Schools). Moodle, Blackboard, Mathletics by 3P-learning and numerous different LMS are being used in the private segment of Pakistan. These frameworks give educational plans through a coordinated learning management system that empowers educator, students, and parent association. LMS by 3P learning system is intended for schools and families, covering arithmetic, spelling, education, science, and e-security. They are a worldwide group of enthusiastic training and innovation masters, and have been improving the learning results and starting an affection for learning in a huge number of students for over 10 years. This investigation emphasizes the e-leadership primary, middle and high school in private divisions of Pakistan through the learning management system. By talking 6 members originating from different schools and expert foundations

with experience of utilizing LMS by 3P learning Australia throughout the previous five years. The investigation investigates how (1) the Learning Management System increase e-initiative of school principals.

Literature Review

The digitization enlightens the researcher's attention towards more emphasis on e-leadership in educational organizations. According to [Avolio, Kahai, and Dodge \(2000\)](#), e-leadership is a social influence process mediated by information and communication technology in the form of learning management system to produce a change in performance with individuals, groups, or organizations. The functions of the organizations are functioning under the influence of the leadership and technology, both are affecting each other in a way one is affecting other and same time affected by the other. Recent Australian research ([Moyle, 2005](#)) suggests that role of educational leadership in a new paradigm of management is to hold up teaching and learning systems and must have good, personal understanding of pedagogy with technologies. Principals must be proficient of driving innovation, incorporating ICT in all the systems of the school and develop connections among the stakeholders. Because e-leadership research in education is limited, several researchers have articulated their apprehension over the "what" and the "how" on the application of e-leadership in schools. According to [Van Welsum and Lanvin \(2012\)](#) are concerned over the missing link in the approach to e-leadership, which lack a suitable model and framework for e-leadership practices and an action plan necessary for enhancing effectiveness. Much research must be conducted to answer the questions of "what are the factors that determine the quality of e-leadership practices in schools?" and "how the quality of e-leadership is practised in schools enhanced?". [Chua and Chua \(2017\)](#) developed a grounded theory model for the enhancement of the effectiveness of e-leadership by using LMS. Learning management system incorporates persuading understudies, advancing significant learning and encouraging access to course content, drawing in the student in exercises and dialogues through correspondence, observing students' advancement and changing learning chances to help students in territories of trouble ([García, 2015](#)).

There are researches that support that effective principals are good communicators. According to [Marzano, Waters, and McNulty \(2001\)](#), effective principals establish strong lines of two-way communication among all the stakeholders of the school community. The moderator that is LMS, "have a significant impact on the communications exchanged and the learning that occurs between the principal, teachers, students and parents ([Collins & Berge, 2008](#)). Focusing on the communicative aspects of Moodle, Blackboard, 3-P Learning etc. LMS in a classroom, the authors say that rather than associating them only with distance education, they were able to use the system to support traditional classroom instruction and facilitate communication among students, parents, teachers and supervisors ([Perkins & Pfaffman, 2006](#)). According to [Anderson \(2007\)](#), Web 2.0 applications are more 'social software' provides user-friendly tools and interfaces that allow pupils to more easily create content and thereby become increasingly active and interactive participants and

contributors online, rather than simply browsers or readers. It facilitates communication among the students, teachers and other stakeholders during the use of 3-Learning LMS that is Mathletics, Reading Eggs, and Spellodrome.

According to [Alowayr and Badii \(2014\)](#), the students are having issues identified with course substance and its viability when they participate in the e-learning process. Learning management system that depends on web servers are created utilizing application instruments and different assets, for example, a checking and examination apparatus for the E-learning project to determine the two instructors and understudy concerns identified with the system going on. LMS devices keep running over the Web servers with log documents where each action of students can be caught and is intended to assist teachers with tracking their students' exercises on the web. It can give data that is refreshed consequently at a recurrence wanted by the organization with their entrance IDs and passwords. Literature support ([Bergen, French, & Hawkins, 2015](#); [Johannesen, 2013](#)) have shown that an LMS has the potential in which students can assess, reflect, and monitor their learning same time teacher parents and supervisors can also monitor the ongoing process of learning. The applications and functions in the latest LMS glimpses into teacher students activities and facilitate the supervisor and parent to monitor them and communicate the deficiency area and take an instant decision.

The e-learning industry is flourishing and the information and communication technology that made this possible is constantly mounting. Wherever you turn, there is something new that educational technology people talk about, from big initiatives like BYOD programs to smaller things like new educational apps and even modernized LMS features. Schools and educational institutes that have been using technology for many years and adopted for school LMS to develop learning materials for teaching and learning purposes, supervise their progress and better manage their learning process now moving to the latest stages of the LMS ([Dobre, 2015](#)).

As per [Dobre \(2015\)](#), there are three kinds of LMS (i) exclusive LMSs, (ii) open-source LMSs, and (iii) cloud-based LMSs. Restrictive LMSs have been authorized by designers so the objective of the exclusive LMS developers is to deliver benefits. Instances of the exclusive LMS provider are Blackboard, D2L, Mathletics, Spellodrome, Reading eggs and e-College. Open-source LMSs have been made openly accessible to the source code and accessible for nothing out of pocket to all clients. Instances of the open-source LMS are Canvas, Moodle, and Sakai. Cloud-based LMSs have been presented as a helpful and minimal effort method for utilizing a variety of cloud-based apparatuses in schools. Learning Management Systems are known by a scope of names: management data system (MIS), course management system (CMS), management system (MS), learning content management system (LCMS), virtual learning condition (VLE), and virtual learning system (VLS) ([Wright et al., 2014](#)). In the working of the LMS, programming on site application used to plan, actualize, and survey learning forms. The LMS offer opportunity to teachers with an approach to make and convey content, screen student investment, and survey execution. The LMS gives intuitive highlights, for example, strung discourses, video conferencing, and dialogue discussions. There are LMSs which provide more formative resources where content already available in the form of topics, lectures, assessment test and automatics checking systems ([About Elearning, 2016](#)).

According to [Wayman \(2005\)](#), No child left behind (NCLB) project have drawn the attention of educationists to practically use the student data for the improvement of the school. It was quite difficult to manipulate and interpret student data in an ongoing system of teaching. It looked an additional barrier to assess student data and to inform impact on instructional processes. Leadership is primarily about exercising power through decision-making, but decision-making on the basis of updated data ([Marsh, Pane, & Hamilton, 2006](#)). Monitoring assesses, provides the level and quality of the processes in the system and Communication through LMS assist all the information between school principal teachers, students, and parents ([García, 2015](#)). Learning Management Systems have greatly improved with several latest digital technology functions which are essential for effective school administration. It supports a range of activities of monitoring and communication at class level as well as at school level to enhance effective decision making for the sustainable administration of the school ([Shah, 2014](#)).

Fortunately, new technology tools allow to easily organizing data and make accessible for different purposes. Learning management system provides an efficient organization and availability of student data for instant use. LMS facilitates the subject teachers and homeroom teachers to access the updated data at different levels and help them to analyze student's progress and communicate deficit area to students, parents, and principals. This process helps the subject teachers, homeroom teachers and supervisors to enhance classroom practice by taking decisions for individual students or a group of students and classes.

Methods

The interpretive research method was adopted to achieve the objectives of the study. The interpretive method explains the characteristics of a small number of participants in detail and in-depth. The paradigm of study in hands was interpretive and qualitative methodology was applied. The hermeneutic phenomenology design of research was used using semi-structured interpretive was used as a data collection tool. The collected data was analyzed using N-Vivo-10 and theory was developed inductively.

Participants

Sampling in phenomenology research is generally used to select respondents with the potential to provide rich information. School principals, supervisors ($n = 5$) and teachers ($n = 5$), from private secondary school, using LMS were selected as the main respondents because they were directly involved in the implementation of the learning management system in their schools. LMS is a learning management system consists of Mathletics, Spellodrome, and Reading Egg online programs by 3-Learning Australia.

Data Collection Instrument

Two interview protocols were constructed for the collection of relevant data from the two groups of respondents. School principals and supervisors interview protocols contain the main three types of items concerning their e-leadership roles and involvement in implementing the LMS in schools. The Teacher interview protocols also contain the main three types of items concerned with their commitment to and satisfaction with the effective implementation of the LMS in schools. All the interview protocols also include different items on monitoring, communication and decision making, the support given for the implementation of the e-learning platform in schools and recommendations to enhance the effectiveness of e-leadership practices in leading the schools.

Data Analysis

Data were collected through open-ended semi-structured interviews from the principals, supervisors, subject teachers and homeroom teachers. Interview protocols were used to start the procedure of the interviews and then carry on interview protocols to interview the other participants by a tentative change in some questions of interview inventory till the saturation stage came in the responses. The interviews were transcribed by the researcher himself. Data collection and analysis were performed simultaneously. In view of the time-consuming nature of interview data analysis, the transcribed data were analyzed using N-Vivo. Data were analyzed by using N-Vivo 10. The recorded interviews were transcribed and managed to import in N-Vivo. The demographics detail of the research participant given in below table:

Table 1
Participants of the study

Sr.No	Participants/Teachers	Experience (LMS)	Age	Sampling	Coded
A.	Mrs Fareeda Khan	3 years	54 years	Purposively	Participant I
B.	Miss Aneeta Bilal	4 years	34 years	Purposively	Participant II
C.	Mr Imran Khan	2 years	41 years	Purposively	Participant III
D.	Miss Marvi	3 years	29 years	Purposively	Participant IV
E.	Miss Uzma	2 years	44 years	Purposively	Participant V

The above participant was selected using purposive sampling technique and all the five participants practising LMS system at their school. They were personally involved in implementing the LMS and experience not less than two years. The participant A having 3 years' experience, she was working as principal at Scarsdale International school. The reason for choosing this participant was her age experience and useful use of LMS at her school. As the table shows all the demographic characteristics of the participants with their age, experience and coded name as participant A, B, C, D & respectively.

Thematic Analysis

Six themes were noted during the initial analysis.

Table 2
Codes, Categories & Themes

No.	Theme	Category	Code/s
1.	Principal/School Vision	Cognitive Development of Learners	enhance math skills mental math skills, International based Curriculum, strong intellectual and moral foundation, inculcating the both cognitive and academic values
2.	Leadership Expertise	Principals role Skills of Leadership	the responsibility of the coordinator as well as a supervisor, coordinator and head of the mathematics department, working as a coordinator for the last 8 years, finally, I was promoted as the Campus Coordinator sincerity, professionalism, dedication straight away, facilitating your team, explore different things of different material, good decision maker, communication skills, Authenticity, commitment, compassion, responsibility and mindfulness
3.	E-Communication	E- System Features LMS Usage	The wonderful system, professional development regarding LMS, This system is online, so IDs of students, teachers, supervisor and IDs of the parents are the keys of functions of this learning management system, LMS. Well, in the last two years our goal was to improve teachers methodology of teaching and the students learning outcomes through LMS take decisions after monitoring,
4.	E-Monitoring & Evaluation	E-Assessment System E-Evaluation E- Evaluation of Lerner's & Teachers Assistance	Decision making, monitoring and communication, LMS help us to monitor the ongoing system, to monitor all the system, monitor how are all the things going on improve all the time ongoing processes, really improved in this area, improve our efficiency, assessment and they can improve.
5.	System Improvement	Consumers Satisfaction Accurate & Essay Management	hardware provided, the cost has two parts, Organization, But so far cost is concern hardware cost is bear by school and software cost is bear by students
6.	Overpriced	Hardware cost of LMS Software cost of LMS	

- Principal/School Vision
- Leadership Expertise
- E-Communication
- E-Monitoring & Evaluation
- System Improvement
- Overpriced

The concept of E-Leadership is social influence system, initiated by ICT (Information Communication Technology) in the form of an LMS (Learning Management System) for the purpose of sustaining a change in concert with persons, groups, or organizations.

Principal/School Vision

The first noted theme was school vision. The schools using Learning Management system. School principal's job has moved from a tight spotlight on the executives to a more extensive size of driving understudy getting the hang of, mirroring the vision of building, encouraging and supporting practices of an initiative to make a change and ceaseless instructive improvement in school.

I am working as a Math coordinator here for the last 8 years we are using Mathletics (LMS) for the last 8 years. This program is an excellent program it enhances math skills mental math skills especially because there are live Mathletics and so many activities that students use for different concepts. (Participant 1)

Then I was promoted as the Campus Coordinator in our junior section where we also have more than 50 teachers and 500 students, from Class 2 to Class 5. Lahore Grammar School, it is a very well know, renowned, famous school. It is under different directors and I was working under Mrs Shah's group, which is like 31-F.C.C, 30-Main and 55- Main. Lahore Grammar School actually believes in inculcating both cognitive and academic values in students, it's mostly not just academics only, but they also believe to emerge a lot of respect, compassion, courage kind of things in the students. So they believe in holistic learning of students. (Participant 5)

It started in 1974 as a Salamat school system, then in 2001 as a SICAS. SICAS aims to develop in its students a strong intellectual and moral foundation, and leadership skills that enable them to act as responsible citizens. (Participant 5)

Leadership Expertise

The skills and expertise of school principals also signposted in the all five participant interview. Learners today need a larger amount of scholastic, specialized, correspondence and data preparing aptitudes so as to work viably in a universe of quick development in all fields.

Supervisor for Mathletics online learning system. I joint this school in 2005 as a Mathematics teacher. At the beginning as a teacher but right after six months, I was given the responsibility of coordinator as well as supervisor of use of technology, about 6 years back we started using Mathletics, a Learning Management System. (Participant 4)

Earlier I was working in 31-FCC (LGS) incapacity of an ICT Coordinator, where I was leading more than 50 teachers and 500 students from KG - Class 1. Then I was promoted as the Campus Coordinator in our junior section where we also have more than 50 teachers and 500 students, from Class 2 to Class 5. Lahore Grammar School, it is a very well know, renowned, famous school. It is under different directors and I was working under Mrs Shah's group, which is like 31-F.C.C, 30-Main and 55- Main. Lahore Grammar School actually believes in inculcating both cognitive and academic values in students, it's mostly not just academics only, but they also believe to emerge a lot of respect, compassion, courage kind of things in the students. So they believe in holistic learning of students. (Participant 5)

E-Communication

The upshots of this study designate that “decision making, monitoring and communication” in this LMS provide wide sustenance for school principals in handling their organizations and active participation of teachers consequently increase the effectiveness of e-leadership. Data-based decision making is the consequence of the monitoring, and communication among the teachers, students, and parents.

We use to talk through messages and i told to parent that we are sending message in their child folder and we use to write the comments when we upload the assessment sheets on the LMS in visual assessment sheet of every child, So and here is the bar with the assessment sheets on the LMS and along with the graph we use to write comment in the comment box. And there is also one column for the parents and one column for the child. So child suppose to fill the column then he has turned wonderfully uses to say ok Miss Uzma I have shown you a good result and I would love to keep my that progress. If the student is below the level the parents can say that I will help my child to improve his performance in this way we communicate with the parents. As for a face to face, communication is concern that we can have once a week or we can have once a month or we can have only when we have PTM to interact with the parents. And as for as LMS is a concern we can communicate with them on a daily bases they can communicate on a daily bases, I think that more effective. Through LMS communication is definitely save time and definitely its accurate information. We have readily available, we can use at any time for getting its help in decision making and other purposes. (Participant 1)

Ok communication pattern is like we have our the thing via text, the email system, they can always any time walk in, we have PTM, so these are the things. Teaching and learning are through the LMS because All work of teacher and student is there in

their IDs and Supervisor have access to see the time and use it for different purposes. Well, it can the child knows that teacher knows my weaknesses I can get caught any time and the child cannot hide something right. When he is writing on the copy might hide the copy. when the teacher gets it straight away. I think it is sufficient. There is pedagogical difference obviously, I think its positive difference it is showing from the parents but communication definitely improved through LMS it saves the time of course. It also really helps in the decisions making process. (Participant 3)

Yes definitely LMS has increased my authority. I think I take care while delegating responsibilities and give tasks to a respective confident teacher who I feel is a better person to perform it. Then the system directly and instantly provides me with information to check my delegating system. All the monitoring and communication through LMS make me in a position to have confidence for the delegating of responsibilities. Then I can make changes if it is necessary. As it is said that decisions set path near the desired road so definitely they are discussed and well communicated among those who are responsible for its implementation. LMS is an online system that is why there should not be miscommunication among the teachers, students and management. (Participant 4)

Communication through LMS is quite helpful, in a way that how teachers are functioning is present in supervisors ID and how students are responding in learning and assessment is also present in supervisors ID. And parents response tell about their child 's learning and assessments. Definitely, communication through LMS is comprehensively helpful and make the educational system more effective. Provide ease to the teachers and provide an entertaining situation for students. On the other hand face to face, interactions are useful but it is possible only on PTM day and sometimes if parents spare some time for their child. So face to face is less useful interaction among the teachers, students and parents. Definitely LMS improve the communication in a way that no time required to see the teaching and learning system, so it saves the time, provides accurate information. Timely task care and problem resolve and the instant decision are all about the ways how LMS improve communication. (Participant 4)

E- Monitoring & Evaluation

It was also themed by using word frequency table of N-Vivo that the school/Principals using Learning Management System having much productive and fast monitoring and evaluation system at their schools. They analyze gaps between goals achievement of teacher's teaching and student's learning and performance defines the actions of the effective school. So LMS helps to improve e-leadership of principals on the bases of decision making by updated derived data through this system, monitoring and communication and increase school effectiveness.

As we know that monitoring is one of the important issues in education. Without it, you can not maintain the quality of the educational system. LMS facilitate the supervisors to see through the IDs of supervisors where in which both the accounts

of teachers and students accessible. The supervisor can see how a teacher is teaching topics and how is he giving homework and assignments and reassignments. He can also see through LMS how students are learning, responding and their assessment outcomes. Well, we are using at a very good level because our teachers are well trained according to LMS, in the beginning, our teachers as well new teachers face some problems but now there is no such problem with them. so now we are on driving seat and even I face fewer problems to guide the teachers more often. Yes, monitoring of the ongoing process through LMS, communication through the use of technology and instant decisions are the new things in the management process. Well, there are many management procedures are there in our teaching, learning and assessment system. Some of them which are more related to technology obviously impossible to perform without technology and some are definitely difficult to effectively use. Well, my teaching staff also using LMS for management purposes in a way they also take decisions after monitoring and through communication on the bases of updated data related to their circle. Definitely, they apply by their self to enhance the system up to their capacity. Yes, I am satisfied with it and also happy and feel proud to use this level of technology as a team member. Well, I will keep continuing to enhance their professional abilities through training programs necessary for their professional growth so that they must follow the latest trends as an expert of modern teaching methodologies. (Participant 4)

Well, this is the compulsory element in the private system of education that monitoring, of course, gives a clear picture of the interaction among the teachers, students, and parents. The continuous information in LMS about teaching and learning enhance the system of monitoring and its effective contribution to the process of decision making. Actually updated data is depending on effective monitoring system of the school. LMS is such a tool that really covers all necessary elements of monitoring. (Participant 5)

System Improvement

The factor of progress and ongoing improvement was also noted during the coded and categorization process. One of these learning management systems is the LMS by the organization 3-P learning Australia. This system does not only help to improve the work patterns of principals, teachers but also students and their parent as well. E-leader use updated data from LMS to define needs, set goals, quality standard of teaching and learning, plan interventions and evaluate progress.

Since decision making as a leader is a part, a leader should know which step is basically what steps the leader is going to take the most important thing is at that time. Right decision at right time. It is proven that decision making, in fact, draws a path to achieve the set goal. Certainly, data from LMS provide authentic and clear ground to have a decision regarding ongoing school functioning. It definitely not only enhance the accuracy and efficiency of the teaching-learning but real improvements in the abilities of the students. I guess even if the technology was not there even then you had

to make a decision according to that scenario. Now in this like using technology after using there are different decisions in the different scenario that we should make and we are making. It depends on the situation. The major difference is now instant data help to have a really right decision at right time. (Participant 2)

Well, teachers work, students work are all through the Mathletics, (a Learning Management System, LMS) by 3Plearning Sidney, Australia. This system is online, so IDs of students, teachers, supervisor and IDs of the parents are the keys of functions of this learning management system, LMS. Well, in the last two years our goal was to improve teachers methodology of teaching and the students learning outcomes through LMS. Almost we succeed to accomplish all of them because this system provides such splendid tools of foundational as well as the main curriculum of different subjects. But there is always space for improvement, so we keep on striving as well. (Participant 4)

Overpriced

The last but not least theme that finalized was overpriced system and demands more expertise than ordinary system. Instances of the exclusive LMS provider are Blackboard, D2L, Mathletics, SpellDrome, Reading Eggs and e-College. Open-source LMSs have been made openly accessible to the source code and accessible for nothing out of pocket to all clients. Instances of the open-source LMS are Canvas, Moodle, and Sakai. Cloud-based LMSs have been presented as a helpful and ease method for utilizing a variety of cloud-based apparatuses in schools.

If you talking about me. As a person I always believe in 80 -20 principal, I guess you must know that principal really well. I believe this is our an era, where one must invest 20% and get 80% out of it and you should be very clear about your 20 and 80 per cent. When I talk to the school managers who are not using these management systems, most of them are not aware of what 3P Learning management system can actually bring in their classrooms. Right from their classrooms to the principal's office. Then the ones who are aware..they are hesitant of spending what for me is a very nominal cost. Because if you think about big benefits, if you think about students, teachers and managers then the cost of a few dollars per child per year is really nominal. So awareness is the problem and we are really hesitant to change. We are resistant to change... "oh God this might be another thing on our plate to do" and yes initially you have to get acquainted with something and it takes time to get a hand on something however that's worth investing... that is your 20 per cent which in return gives you the 80 per cent. (Participant 5)

Well, it provides assistance to the teacher in a way that it reduces the teachers checking work and giving assignment at any time 24-hours. It also assists the students in interactive and modern resources learning also improve them out of the walls of the classroom. The cost has two parts one with the organization other with the student. (Participant 2)

Well, I think yes there are many benefits of using LMS in the ongoing system of school. First of all, it energizes and motivates the teacher and students both. I think it facility the supervisor, teacher and students in a way that they do not feel any extra work to do for its use. The cost involves in this system hardware provided by the school and software arranged by the students. (Participant 3)

Findings and Discussion

The six noted themes Principal/School Vision, Leadership Expertise, E-Communication, E-Monitoring & Evaluation, System Improvement and Overpriced were inductively developed, the N-Vivo-10 word frequency output leads the researchers to categories the codes into above said themes. All the 5 participants agreed about the school vision was to the intellectual development of the learners however the codes were noted in the table. There are looks into that help that powerful principals are great communicators. As per [Marzano et al. \(2001\)](#), successful principals set up solid lines of two-path correspondence among every one of the partners of the school network. The moderator that is LMS, "have a significant impact on the communications exchanged and the learning that occurs between the principal, teachers, students and parents ([Collins & Berge, 2008](#)). Focusing on the communicative aspects of Moodle, Blackboard, 3-P Learning etc. LMS in a classroom, the authors say that rather than associating them only with distance education, they were able to use the system to support traditional classroom instruction and facilitate communication among students, parents, teachers and supervisors ([Perkins & Pfaffman, 2006](#)). This examination explored e-administration by non-public school principals through an LMS by 3P learning affiliation, names mathematics, spellodrome, and perusing eggs, their headway of e-authority by the school workforce, and the effect of e-initiative on school practicality. The outcomes revealed that productive use of the LMS framework engages re-organization of school principals and demonstrating staff, and along these lines overhaul the suitability of their schools. E- System Features and LMS Usage were the categories of E-Communication. the references sources were 2.83 in the N-Vivo output. Similarly, E-Communication, E-Monitoring & Evaluation, System Improvement and Overpriced were themed.

Though it was the first study in Pakistan on the exploration of E-leadership styles of school principals so there was a scarcity of literature arguments regarding the findings of the study. It is a dire need to saturate the study results under grounded theory research. The theory rooted in data may be helpful to indict the validity of these noted themes. It was a basic level of exploration regarding the LMS and principal's phenomena about the E-leadership in the Pakistani school system. This is recognized through data-driven essential authority, watching instructive arrangement use, learning execution and understudies work, e-correspondence with school faculty, understudies and guardians, assigning obligations, and improving the school condition through organization methodologies. There are strong lines of two-way communication all partners and the principals and directors. All members conceded to the noteworthy effect of learning the board arrangement of all elements of principals including educating and learning procedures of

instructors and understudies. This exploration is a qualitative examination in the moderately little example of private school principals implementing a learning management system. Further research may investigate the bigger example, in different LMS frameworks and distinctive social settings. It is intriguing to cross-check the revelations of gatherings with the quantitative log examination of veritable e-administration direct of non-government funded school principals inside an instructive framework and with the impression of school staff using the data during educational gatherings.

Recommendation ad Directions for Future Research

This study was conducted to explore the phenomena of E-leadership the researchers recommends that it may be conducted under a grounded theory design of qualitative research for the purpose of saturation. The saturation will indicate the trustworthiness of these six noted themes. Although it was the first research in Pakistan on the exploration of E-leadership styles of school principals so there was a shortage of literature opinions regarding the findings of the study. It was a basic level of exploration regarding the LMS (Mathletics, spellodrome and reading eggs) and principal's phenomena about the E-leadership in the Pakistani school system. The study was conducted to explore the phenomena of E-leadership the researchers recommends that it maybe conducted under a grounded theory design of qualitative research for the purpose of saturation. The saturation will indicate the trustworthiness of these four noted themes.

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