

**RESEARCH PAPER****Linking ICT Competency to Enhanced Management Performance among Principals in Federal Government Secondary Schools****¹Asma Ibrahim* ²Dr. Azhar Mumtaz Saadi and ³Dr. Muhammad Jamil Bajwa**

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***Corresponding Author:** romaaisa1979@gmail.com**ABSTRACT**

The use of ICT has become a necessary tool for increasing the performance of the educational management in schools. The aim of this research was to highlight the importance of ICT skills in better management practices of principals. The objectives of research study were to identify the presently used Information and Communication Technology (ICT) skills by the Principals in school management and their opinion about the importance of ICT skills for educational managers. Questionnaires were used to collect data from whole principals in Federal Government Secondary schools of Islamabad and Rawalpindi. The study found that ICT skills of the principals are important for better performance in their administrative and managerial affairs. Based on the findings, it is recommended that Administration of FDE, FGEIs, should work in collaboration with federal Ministry of Education for the planning and implementation of ICT training programmes for principals to make them self-reliant.

KEYWORDS Information and Communication Technology, Management, Performance, Principals, Skills**Introduction**

In the rapidly changing educational environment, the role of Information and Communication Technology (ICT) is becoming important in ensuring the effectiveness of school administration. (Muzaffar, et. al., 2019). As the educational institutions have to face multifarious challenges, the role of the educational leadership becomes essential for achievement of educational goals and objectives. A principal, as a leader in school, is responsible not only managing day-to-day managerial affairs but also guaranteeing that the school should remain competitive and aligned with modern educational standards. This requires a skill set that goes beyond traditional management competencies, extending into the realm of ICT proficiency.

Federal Government Secondary Schools also face various challenges those could not be overcome through traditional practices. In this situation, the integration of ICT into school management provides an opportunity to enhance administrative efficiency, improve decision-making processes, and foster better communication within and outside the school environment.

This research explores ICT competence and management performance among principals in Federal Government Secondary Schools. The study identifies that how ICT skills are important for school management, including decision making, resource allocation, educational planning, and stakeholder engagement. By examining the link between ICT proficiency and management effectiveness, this research provides understandings into the significant role of ICT as an effective tool for educational leadership.

Literature Review

Information and communication Technology (ICT) has brought remarkable changes on every aspect of our lives either personal or professional with the help of easy access to information and modern modes of communication. Due to advancement in the field of ICT every individual is facing different challenges. Working process of every organization is changed because of the advancement of technology and this paradigm shift affected the educational sector also. Technologies include in ICT are hardware and software for collecting, storing, processing and presenting information (Al-Rahmi et al., 2020; Sarkar, 2012). It has revolutionized the world. It has brought ease in the work of every professional and educational manager or principals are one of them.

According to (Roberts & Sikes, 2011; Oyier et al., 2015) ICT changed education's perspective globally by contributing towards efficient school management. ICT is considered as a combination / convergence of several technologies that includes audio visual, telecommunication, computers, networks, broadcast media etc. It has modernized school management and proved to be an effective tool and brought a fundamental change in educational sector within a short span of time. The use of ICT in education is not only considered to be a teaching and learning skill but also an important mean of administrative organizations.

Schools today need administrators or leaders to ensure their effective job performance. Information and knowledge is changing rapidly with the advancement of the world. Now management practices as well as process of teaching and learning is also changing with the advancement of ICT. Usage of ICT enhances the quality of education, increases the opportunities for the learners and makes education easy and accessible. According to the research findings of (Ghavifekr & Rosdy, 2015) teaching process based on ICT is more effective than traditional method as ICT tools are helpful in developing effective learning environment for learners and teachers both.

ICT skills play an important role in management practices of principals in their schools. Lack of ICT skills affects the principals' performance and causes delays in their timely disposal of managerial tasks that ultimately affects the overall educational and managerial performance of that school.

Mostly government school principals are dependent on administrative staff while dealing with ICT for communication and coordination with authorities, teachers, parents, students and other concerned. They use traditional management practices that cause delay in managerial tasks and affects their overall performance. According to (Krishnaveni, Meenakumari, 2010; Oyier et al., 2015) Informational and communication technology helps in decreasing the inefficiency and improves power of decision making in management process. They would be able to perform the management tasks of their institutions in efficient manner. It would help in boosting their confidence level for using ICT skills which would be beneficial for them and improvement of education system as a whole. Use of Information and communication technology reduced the level of inefficiency and insecurity because of efficient managerial process in business ([Krishnaveni, Meenakumari, 2013; Abubakari et al., 2023](#))

ICT skills are of great value and importance in successful and better management of all resources in education sector. Its importance in efficient management is manifested internationally especially in USA and America (Eremie, Agi, & Empirica, 2020, 2006).

As per other research findings (Krishnaveni, Meenakumari, 2010; Oyier et al., 2015) ICT has become an effective tool which is helpful in managing their tasks in efficient manner. It is used for communication, storing information, organizing and managing information in

better way. ICT skills are essential for fully utilizing its strength for maximizing the results of education by efficient management of all resources and information.

Every educational manager must acquire ICT skills to perform their duties efficiently and effectively. The major purpose of using ICT in education is to improve quality of instructions and its easy accessibility. It also helps the communities in learning to face challenges of globalization (Eremie&Agi, 2020; Albirini, 2006).

According to opinion of (Afshari et al., 2012; Eremie&Agi, 2020) Principal of an institution must have basic skills of information and communication technology to perform daily tasks of management and administration. In educational institution, principal is the key person to achieve targets by utilizing all the resources (men, money and material) efficiently. It is their duty to ensure that these resources are properly utilized. For this they need ICT and professional skills which can be attained through training. These skills will help them in prioritizing the needs and efficient use of available resources. Infrastructure, labs, library, furniture, vehicles and instructional material are included in physical resources and these are often inadequate, so these must be efficiently used.

Felton,(2006) focused on the effects of ICT literacy of principals and its integration in management practices in United States and District of Columbia. According to the findings of research study it was confirmed that principals' competence of using computer is important for ICT integration in management practices and for this adequate training is compulsory. It is also reported that there is continuous and fast change because of growth of information and communication technology in Spanish and Indian universities (Suri, 2005; Abubakari et al., 2023).

As per (Krishnaveni, Meenakumari, 2010; Zuhair et al., 2016) Information and communication Technology encompass every aspect of higher education administration. Three main aspects of administration of daily routine are administration of students, staff and resources. Application of modern technology and leadership qualities helps them in achieving the targets effectively and efficiently (Mwalongo, 2011; Zuhair et al., 2016). Principals face difficulties in performing their day to day management tasks due to not utilizing modern technology which affects their efficiency. These problems can be addressed by themselves by being productive administrator through integration of ICT skills in their managerial practices (Kawade, 2012, as cited by Zuhair et al., 2016). According to (Afshari et al., 2010; Abubakari et al., 2023) said that skills of ICT enhanced the managerial skills of principals like budget making, monitoring & evaluation and process of reporting.

Material and Methods

Research Design

This study investigated the linkage of ICT Skills with improved management performance of principals of federal government schools. ICT skills help a principal in better management of his institution. It polishes his managerial skills and makes his work easy for him. Without having these skills dream of educational progress cannot come true. This study was descriptive in nature. This study used quantitative type of data. The data were collected through questionnaire about need and importance of ICT skills for principals and are discussed in detail. The data were collected from the principals of secondary schools so this study analyzed the responses of Principals. Population of the study was consisted of Principals from FG(Federal Government) Secondary Schools of Islamabad and Rawalpindi. Total population of Secondary School Principals under the administrative control of Federal Government in Islamabad and Rawalpindi is as follows:

Table 1
Number of principals from each Directorate

Department	Principals
Federal Directorate of Education (FDE)	97
Federal Government Educational Institutions(FGEI) (Cantt and Garrison)	38
Total	135

There were no separate respondents available for pilot testing so after collecting data from first twenty-five respondent's reliability was checked through SPSS and it was found scale reliable at 0.865 and after collecting data from whole population again reliability check was run and it was found at 0.867. The data collection was carried through questionnaire personally and via email. Data collected through the above mentioned instrument, values were tabulated and analyzed by using statistical methods i.e. percentages, mean values, & Standard Deviation. Likert scale was used in questionnaire. The findings were drawn from the interpretation of the data. Conclusion was made on the basis of findings and recommendation was made accordingly.

This study focused on the importance of ICT skills with improved performance of the principals of federal government secondary institutions under the control of FDE and FGEIs. In this study use, need and importance of information and communication technology for principals is analyzed with the help of data collected through questionnaire. The study helped in identifying the present usage of ICT skills, problems due to dependency on staff in using ICT and importance of ICT skills in better management. The population of the research study was 135 principals. The questionnaire was consisted of two parts. 1st part focused on the usage of ICT skills in their routine tasks of management. It composed of 07 items. In the second part of the questionnaire problems, need and importance of ICT skills were analyzed with the help of 11 items. Data collected through the above-mentioned instrument, values were tabulated and analyzed by using statistical methods i.e. percentages, mean values, & S.D. Likert scale was used in questionnaire

Table 2
Use of ICT skills in Management by Principals

Statements	Frequency					Mean	S.D
	N	M	F	W	D		
1. I use internet for data searching (e.g. in Educational Management information system)	07	04	00	36	45	4.17	1.154
2. I use spreadsheet or EMIS database for data management	18	39	16	26	17	2.87	1.328
3. I use ICT for effective communication with the school staff & higher authorities.	15	16	07	21	57	3.76	1.494
4. I use ICT to communicate with parents.	32	45	09	14	16	2.45	1.372
5. I use different social media (e.g twitter, facebook, whatsapp) for communication with the community about activities of the school.	27	16	12	20	43	3.30	1.614
6. I use to make timetable and make schedules for staff management.	08	53	05	28	23	3.04	1.328
7. I use MS Excel for maintaining financial records.	32	49	10	12	15	2.39	1.327

The data revealed that 45 (48.9%) of the respondents "use internet for data searching (e.g. in Educational Management information system)" on daily basis and 36 (39.1%) of the respondents used it weekly, 0 (0%) of respondents use it fortnightly, 4 (4.3%) of the respondents use it month and 7 (7.1%) of the respondents deny to use internet for data searching (e.g. in Educational Management information system). The mean score 4.17 and the SD =1.15 shows that as a whole they use internet for data searching on weekly basis. It is concluded from mean value that principals use internet for data searching (e.g. in Educational Management information system) weekly.

Data analysis of 2nd question showed that 17 (14.6%) of the respondents “use spreadsheet or EMIS database for data management” on daily basis and 26 (22.4%) of the respondents used it weekly, 16 (13.8%) of respondents use it fortnightly, 39 (33.6%) of the respondents use it monthly and 18 (15.5%) of the respondents deny to use spreadsheet or EMIS database use spreadsheet or EMIS database for data management for data management. The mean score 2.87 and the SD =1.32 indicates that average respondent uses spreadsheet or EMIS database for management on fortnightly basis. It is concluded from mean value that principals use spreadsheet or EMIS database for data management on fortnightly basis.

The data revealed that 15 (12.9%) of the respondents “use ICT for effective communication with the school staff and higher authorities” on daily basis and 16 (13.8%) of the respondents used it weekly, 7 (6%) of respondents use it fortnightly, 16 (13.8%) of the respondents use it monthly and 15 (12.9%) of the respondents deny to use ICT for effective communication with the school staff. The mean score 3.76 and the SD =1.49 indicates that average respondents use ICT for effective communication with the school staff on weekly basis. It is concluded from mean value that majority of principals use ICT for effective communication with the school staff on weekly basis.

The data analysis indicated that 16 (13.8%) of the respondents “use ICT to communicate with parents” on daily basis and 14 (12.1%) of the respondents used it weekly, 9 (7.8%) of respondents use it fortnightly, 45 (38.8%) of the respondents use it monthly and 32 (27.6%) of the respondents deny to I use ICT to communicate with parents. The mean score 2.45 and the SD =1.37 indicates that average of respondents use ICT to communicate with parents on monthly basis. It is concluded that majority of the principals use ICT to communicate with parents monthly.

Data analysis revealed that 43 (36.4%) of the respondents “use different social media (e.g twitter, facebook, whatsapp) for communication with the community about activities of the school” on daily basis and 20 (16.9%) of the respondents used it weekly, 12 (10.2%) of respondents use it fortnightly, 16 (13.6%) of the respondents use it monthly and 27 (22.9%) of the respondents deny to use different social media (e.g twitter, facebook, whatsapp) for communication with the community about activities of the school. The mean score 3.30 and the SD =1.61 indicates that average respondent use different social media (e.g twitter, facebook, whatsapp) for communication with the community about activities of the school fortnightly. Majority of the principals use different social media (e.g twitter, facebook, whatsapp) for communication with the community about activities of the school fortnightly.

Data analysis showed that 23 (19.7%) of the respondents “use ICT to make timetable and schedules for staff management” on daily basis and 28 (23.9%) of the respondents used it weekly, 5 (4.3%) of respondents use it fortnightly, 53 (45.3%) of the respondents use it monthly and 8 (6.8%) of the respondents deny to use it for making timetable and schedules for staff management. The mean score 3.04 and the SD =1.32 indicates that as a whole they use ICT for making timetable and schedules for staff management on fortnightly basis. Majority of the principals use ICT for making timetable and schedules for staff management fortnightly.

The data analysis indicated that 15 (12.7%) of the respondents “use MS Excel for maintaining financial records” on daily basis and 14 (10.2%) of the respondents used it weekly, 10 (8.5%) of respondents use it fortnightly, 49 (41.5%) of the respondents use it monthly and 32 (27.1%) of the respondents deny to use MS Excel for maintaining financial records. The mean score is 2.39 and the SD =1.32 shows that as a whole they use MS Excel for maintaining financial records on monthly basis. Mean value shows that average respondents use MS Excel for maintaining financial records on monthly basis.

Table 3
Importance and Problems Related to ICT skills

Statement	Frequency					Mean	S.D
	SDA	DA	NS	A	SA		
8. Traditional method (postage system) for communication is fulfilling the need of the day.	34	48	11	23	02	2.24	1.124
9. Use of Information and Communication (ICT) skills makes communication easy now days.	01	00	01	58	58	4.45	0.608
10. Principals are dependent on administrative staff for using ICT skill to perform management operations.	03	11	14	69	21	3.79	0.929
11. Dependence of principals on their administrative staff regarding the use of ICT delays the official tasks of management.	03	11	14	69	21	3.72	0.986
12. ICT skills enable principals to manage their institutions effectively.	02	00	01	57	58	4.43	0.685
13. ICT skills are needed to use Educational Management Information System (EMIS) for the better management of the school affairs.	00	01	00	58	59	4.48	0.550
14. ICT helps in supervision of the teaching learning process.	00	01	05	62	48	4.35	0.607
15. Time table can be managed easily by using computers.	00	01	05	55	57	4.42	0.618
16. ICT is very effective for record keeping and for ready references at any point of time.	00	00	04	45	68	4.54	0.564
17. Staff can be managed easily by using ICT skills (e.g. biometric system for attendance, Whats App and Emails for communication etc).	00	01	01	55	61	4.49	0.566
18. Microsoft Excel program skills are helpful in budget making.	01	00	03	61	53	4.39	0.628

Data indicated that 25 (21.2%) respondents agreed with the statement “Traditional method (postage system) for communication is fulfilling the need of the day” 82 (69.5%) of the respondents disagreed with the statement and 11 (9.3%) remained unsure. The mean score 2.24, SD = 1.12 indicates that as a whole respondents did not agree that traditional method is fulfilling the need of the day. Majority of the respondents (69.5%) disagreed with the statement that Traditional method (postage system) for communication is fulfilling the need of the day.

Data analysis showed that 116 (98.4%) respondents agreed with the statement “use of Information and Communication (ICT) skills makes communication easy now days” 1 (.8 %) of the respondents disagreed with the statement and 1 (0.8 %) remained not sure. The mean score 4.45, SD = 0.60 indicates that as a whole they agreed with the statement that use of Information and Communication (ICT) skills makes communication easy. Majority of the respondents (98.4%) agreed with the statement that use of Information and Communication (ICT) skills makes communication easy now days.

Survey revealed that 90 (76.3%) respondents agreed with the statement “Principals are dependent on administrative staff for using ICT skill to perform management operations.” 14 (11.8 %) of the respondents disagreed with the statement and 14 (11.9%) remained unsure. The mean score 3.79, SD = 0.92 indicates that average respondents agree with the statement that principals are dependent on their administrative staff for the usage of ICT skills. Majority of the respondents (76.3%) agreed with the statement that principals are dependent on administrative staff for using ICT skill to perform management operations.

Analysis of the data indicated that 90 (76.3%) respondents agreed with the statement “dependence of principals on their administrative staff regarding the use of ICT delays the official tasks of management” 14 (11.8 %) of the respondents disagreed with the statement and 14 (11.9%) remained not sure. The mean score 3.79, SD = 0.98 indicates that average respondents agreed with the statement that dependency of principals on staff delays the tasks of management. Majority of the respondents (76.3%) agreed with the statement that dependency of principals on staff delays the tasks of management.

The data indicated that 115 (97.5%) respondents agreed with the statement “ICT skills enable principals to manage their institutions effectively.” 02 (1.7 %) of the respondents disagreed with the statement and 01 (0.8%) remained not sure. The mean score 4.43, SD = 0.68 indicates that as a whole they agreed with the statement that ICT skills enable them in effective management of their institutions. Majority of the respondents (97.5%) agreed with the statement that ICT skills enable principals to manage their institutions effectively.

Data analysis revealed that 117 (99.2%) respondents agreed with the statement “ICT skills are needed to use Educational Management Information System (EMIS) for the better management of the school affairs.” 01 (0.8 %) of the respondents disagreed with the statement and no one remained not sure. The mean score 4.48, SD = 0.55 indicates that as a whole respondents agreed with the statement that ICT skills are needed to use Educational Management Information System (EMIS) for the better management of the school affairs. Majority of the respondents (99.2%) agreed with the statement that ICT skills are needed to use Educational Management Information System (EMIS) for the better management of the school affairs.

Data analysis indicated that 110 (94.8%) respondents agreed with the statement “ICT helps in supervision of the teaching learning process” 1 (0.9%) disagreed with the statement and 05 (4.3%) remained not sure. The mean score 4.35, SD = 0.60 indicates that respondents agreed with the statement that ICT helps in supervision of the teaching learning process. Majority of the respondents (94.8%) agreed with the statement that ICT helps in supervision of the teaching learning process.

Analysis showed that 112 (94.9%) respondents agreed with the statement “Time table can be managed easily by using computers” 1 (0.8%) disagreed with the statement and 05 (4.2%) remained not sure. The mean score 4.43, SD = 0.61 indicates that as a whole respondents agreed with the statement that Time table can be managed easily by using computers. Majority of the respondents (94.9%) agreed with the statement that Time table can be managed easily by using computers.

Data analysis indicated that 113 (96.6%) respondents agreed with the statement “ICT is very effective for record keeping and for ready references at any point of time.” None of the respondents disagreed with the statement and 04 (3.4%) remained not sure. The mean score 4.54, SD = 0.56 indicates that respondents agreed that ICT is very effective for record keeping and for ready references at any point of time. Majority of the respondents (96.6 %) agreed with the statement that ICT helps in supervision of the teaching learning process.

Data analysis showed that 116 (97.3%) respondents agreed with the statement “Staff can be managed easily by using ICT skills (e.g. biometric system for attendance, Whats App and Emails for communication etc)” 1 (0.8%) disagreed with the statement and 01 (0.8%) remained not sure. The mean score 4.49, SD = 0.56 indicates that respondents agreed with the statement that Staff can be managed easily by using ICT skills (e.g. biometric system for attendance, Whats App and Emails for communication etc). Majority of the respondents (97.3 %) agreed with the statement that Staff can be managed easily by using ICT skills (e.g. biometric system for attendance, Whatsapp and Emails for communication etc).

Data revealed that 114 (96.6%) respondents agreed with the statement "Microsoft Excel program skills are helpful in budget making" 1 (0.8%) disagreed with the statement and 03 (02.5%) remained not sure. The mean score 4.39, SD = 0.62 indicates that average of the respondents agreed with the statement that Microsoft Excel program skills are helpful in budget making. Majority of the respondents (96.6 %) agreed with the statement that Microsoft Excel program skills are helpful in budget making.

Findings

Mean value 4.17 indicated that principals used internet for data searching (e.g. in Educational Management information system) weekly. Mean value 2.87 indicated that principals used spreadsheet or EMIS database for data management on fortnightly basis. 3.62 mean values revealed that principals use ICT for effective communication with school staff & higher authorities weekly. Mean score 2.45 showed that majority of the principals use ICT to communicate with parents monthly. 3.30 mean indicated that majority of the principals use different social media (e.g. twitter, facebook, whatsapp) for communication with the community about activities of the school fortnightly. Majority of the principals use ICT for making timetable and schedules for staff management fortnightly. Mean value 2.39 showed that average respondents use MS Excel for maintaining financial records on monthly basis. Majority of the respondents (69.5%) disagreed that Traditional method (postage system) for communication is fulfilling the need of the day. (98.4%) respondents agreed on the use of Information and Communication (ICT) skills make communication easy now days. Most of the respondents (76.3%) agreed with the statement that principals are dependent on administrative staff for using ICT skill to perform management operations and that dependency of principals on staff delays the tasks of management. (97.5%) showed agreement that ICT skills enable principals to manage their institutions effectively. Almost all respondents (99.2%) pin pointed that ICT skills are essential to use Educational Management Information System (EMIS) for the better management of the school affairs. (94.8%) Principals agreed that ICT helps in supervision of the teaching learning process and timetable can be managed easily by using computers. (96.6%) agreed that ICT is very effective for record keeping and for ready references at any point of time. Majority of the respondents (97.3 %) agreed that Staff management is easy by using ICT skills (e.g. biometric system for attendance, WhatsApp and Emails for communication etc. (96.6 %) respondents acknowledged that Microsoft Excel program skills are helpful in budget making.

Discussion

This study was conducted to assess the importance of information and communication technology skills in improved management practices of principals of federal government secondary schools in Islamabad and Rawalpindi. Findings of the research showed that all respondents were agreed upon the importance of ICT skills for better management of their institutions. These are also helpful in effective communication which is an important factor in the success of institutions. (94.8%) principals agreed that ICT helps in supervision of the teaching learning process and (97.5%) principals agreed that ICT skills enable principals to manage their institutions effectively. (97.3%) respondents agreed that staff can be managed easily by using ICT skills (e.g. biometric system for attendance, WhatsApp and Emails for communication etc). 77.8% principals agreed that principals were dependent on their administrative staff and 66.7 % agreement was seen on the statement that their dependency delays the task. These percentages highlighted the importance of ICT skills of principals.

Findings of the research highlighted the importance of ICT Skills in better management practices of principals. These ICT skills make them confident and capable enough to use these skills independently for the better management of the institutions.

Principals are responsible for managing all the matters related to schools for successful completion of tasks and achievement of targets. They have to do a lot of mental and physical work to manage, organize all the things and activities for smooth functioning of institution. He has to manage all available resources in efficient manner for maximum utilization of them without wastage. In all these information and communication technology is playing a great role all over the world. Even in Pakistan use of information and communication technology is on the increase despite the shortage of resources and relevant skills in every field.

An important role of ICT is played in efficient educational management and administration. It is also used for administration of resources along with student's administration in an institution (Akbar & Abdul Quddus Qureshi, 2015; Maki 2008).

(Eremie&Agi, 2020) ICT skills enhance the management of educational resources (material, human and financial resources), thereby enabling effective school management. It is useful for storing and retrieving information needed for planning and decision-making, improved communication and inventory management. The importance of ICT skills in educational resource management cannot be overstated. It is therefore important for every principal in a public secondary school to master these skills.

According to (Akbar & Abdul Quddus Qureshi, 2015; Fredriksson&Gajek,2009) there are two main areas in educational administration, communication and general administration. ICT helps in management of these two areas of educational management.

As per (Akbar & Abdul Quddus Qureshi, 2015; ZainallyHossein, 2008) ICT facilitates educational managers in performing their work. Nature of higher education has been changed due to intervention of Information and communication technology like in transfer of information, storing, retrieving and processing information by the concerned people of the institution. He gave references of other researches about enhancing the managerial efficiency and effectiveness through the usage of ICT technologies. These technologies are used by the head of institutions in their planning, supervision and evaluation of all affairs (academic, students, financial and related to administration).

Conclusions

ICT skills of principals increase their performance and play a significant role in the better management of the institution. Present study focused on the usage of ICT skills by the principals in daily routine and the situation was very pathetic as majority of them were using on fortnightly basis in this technological era where these should be used on daily basis. It also highlighted the importance of different ICT skills in management tasks as majority respondents agreed with it.

It is noticed that they were using ICT skills for communication with, parents, students, staff and higher authorities on monthly or fortnightly basis which is not enough for increasing the productivity of an institution. They are using different social Medias for communication but not on regular basis. They are using MS Office, MS Power Point, and MS Excel for different management tasks but not as frequently as these should be used in this technological era where everything is digitalized. These digital skills are essential for them to compete with the world.

ICT skills help in better communication and management of institutions. These help in better management of staff, budget making, planning and decision making and effective and efficient use of available resources. ICT skills are necessary for principals to fulfil the need of present era and smooth function of the institution. Expertise of ICT skill will reduce the dependency level of principals on their administrative staff and will enable them to work more confidently.

Recommendations

Keeping in view of the necessity of ICT skills, Principals must be encouraged to increase the use of modern technology for communication to keep abreast with modern trends of management so that productivity of education system can be enhanced. According to present study, ICT skills which are helpful in management practices MS Office, MS Excel, email, web surfing, data management, EMIS, information handling, accessing relevant data and use of different social media for communication. Principals should do self-analysis and try to improve their ICT related skill to make themselves productive, efficient and effective workers. They should have positive attitude towards technology and they should try to use their existing skills for the better management of the institutions and they should encourage their staff also in this regard.

Administration of FDE, FGEIs, should work in collaboration with Ministry of education for the planning and implementation of these training programs as these are essential for improvement of education system of the country. As the research study focused on the very basic skills related to ICT but for future researchers it is recommended to focus on these areas like online system of education and management like zoom, work from home strategies, teleconferencing, videoconferencing etc.

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