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IMPACT OF LEADERSHIP STYLE OF EDUCATIONAL ADMINISTRATORS ON USE OF EDUCATIONAL TECHNOLOGY

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ABSTRACT

Besides others, educational administrators are more vulnerable to the technological advancement. In changed scenario, as the roles and responsibilities of educational administrators also change, this research was conducted to ascertain what leadership styles affect the integration of technology to improve teaching and learning. A survey of the educational administrators in the four districts of Punjab was conducted to identify the impact of leadership styles on the use of innovative instructional technology in the educational institutions, and ultimately enhancing the student achievement. This study focused on the relationship between administrative leadership styles and implementation of new technological programs or instructional strategies. For this study, a questionnaire consisting of two parts was used for collection of data from the educational administrators. The first part of the questionnaire determined the extent in the use of educational technology in the institutions, whereas the second part of the questionnaire assessed the leadership style of the administrators. The researchers adopted Hersey-Blanchard Situational Model for the study with some modifications, in view of the local circumstances. The replies received in response of technology questions were given numerical values, whereas the second part of the questionnaire reflected the leadership styles of the administrators. The data were tabulated and treated using appropriate statistical techniques to draw inferential conclusions about the impact of the leadership styles of the educational administrators on the use of educational technologies in the educational institutions. As a result of research, the selling/coaching leadership style, reflecting high task, high relationship behaviour, was found to be more encouraging in the use of educational technology. The researchers are of the view that the selling/coaching style of leadership should be promoted to enhance the use of educational technology in our educational institutions.

Keywords: Leadership Styles, Educational Technology, Administrators, Leadership

INTRODUCTION

The emergence of modern technology has affected every sphere of life including education. It imprinted positive and negative impacts simultaneously but a constructive use of the technology leads to positive results and helps the administrators and teachers to have far reaching impacts on the achievements of students. In the words of Vedanayagam (1988), educational technology has helped in devising new methods of teaching such as programmed instruction, role-play, simulation and games, computer-assisted instruction, etc. She is of the view that Instructional Technology involves the techniques adopted to focus on the learning effects rather than the teaching process. According to Bailey (1995), technology is being viewed as an instructional tool for the students, used to access and apply information in the era of information explosion. Teachers can use modern technology to help plan coursework and manage the classroom activities. While the nature of education remains highly conservative, experts agree that a more constructivist, student-centered view of learning is

most conducive to learning (McCombs, 1997; Lemke, 1998). It is an undeniable fact that information technology is becoming an essential tool for managers. Having vast utilization, it particularly provides relevant information for effective decision-making (Yousaf, 2003). Administrators who promote technology as a tool for promoting and enhancing learning experiences can ensure better student achievement. However, there is evidence of strong resistance on the part of teachers to fully integrate technology (Cuban, 1997). Research indicates that teachers need considerable support from the administrators to use technology to improve education thus enhancing their performance (Bailey, 1995).

Managing 'school-change' and improvement is one of the most complex tasks faced by the educational administrators. The leaders in the educational organizations must be able to shift toward a more goal-oriented, collaborative effort if they expect teachers to adopt the new or modified values, meanings, and beliefs about how students learn in this technologically advanced world.

As the proper and appropriate use of technology to support instruction improves student academic gains across the curriculum and promotes higher student achievement, in Pakistan, as per words of Yousaf (1999), a number of occupational changes have appeared from the effect of technology which have not be reflected in the curriculum. This study attempted to identify the differences in leadership styles in better implementation of technology as an instructional tool to improve student achievement.

The researchers adopted Hersey-Blanchard Situational Model for the study with some modifications, in view of the local circumstances. The **telling/directive style** is based on high task, low relationship behaviour of the leader. This style is not highly supportive in terms of encouraging individual efforts, and involving others in decision-making. The **selling/coaching style** is based on high task, high relationship behaviour, both highly directive on task but also highly supportive of individuals' feelings and participation. The **participating/supportive style** is based on high relationship, low task behaviour. This type of leader shows a great deal of confidence in the group's ability to carry out its task, while giving little direction on task. The **delegative style** is based on low relationship, low task behaviour. This is sometimes called a "laissez faire" style (Lussier and Poulos, 1998). An understanding of the relationship between administrators' leadership styles and the implementation of technology would assist effective reform efforts in educational institutions.

The success or failure of technology integration could be linked to the behaviours and ideologies of the instructional leader. Successful leaders not only challenge the existing educational process and inspire a vision for meaningful change, but also provide the necessary support and modeling strategies to enable teachers to become part of a learning community. Modeling and coaching strategies of the managers make the vision clear and more attainable for teachers in the use of instructional technology.

The most important task of an educational manager is to provide an environment in the institution where all the members of the educational community are given opportunities to refine techniques and skills about teaching and learning. Effective leadership is evolving to encompass a broad range of opportunities for all people in the educational community to be learners. Bailey and Lumley (1997) have identified effective technology leaders as those who value technology as the primary tool that will change the way we view teaching and learning. They maintain that leaders who will successfully integrate technology must be able to model the technology, understand how technology can be used as an instructional tool across all disciplines, and continually focus on systems thinking as they assist others through the

transformation of teaching and learning. As technology increases our knowledge base rapidly, we must not only teach students how to learn rather than what to learn, we must also redefine our own roles as teachers and leaders in a society that require all of us to be good learners.

PRESENT STUDY

The present study aimed at investing the impact of leadership styles of educational administrators on the use of educational technology in their educational institutions. To achieve the purpose, the leadership styles of educational administrators were assessed and related to the use of information technology in the respective institutions.

OBJECTIVES OF THE STUDY

The main objective of the study as indicated above was bifurcated into following objectives:

1. To present a clear picture of the use of educational technology in the educational institutions of Pakistan.

2. To raise awareness to society, teachers and especially educational administrators about the importance of the use of educational technology in educational institutions of Pakistan in the era of technology advancement.

3. To highlight the impact of different leadership styles of educational managers on the use of educational institutions of Pakistan.

4. To provide a basis for decision making for the formulation of policies for the effective use of educational technology in the educational institutions of Pakistan.

METHODOLOGY

The purpose of the study was to determine whether there is any relationship between the styles of leadership and effective use of educational technology in the educational institutions including classroom. The respondents had no prior knowledge of the study or the survey. The researchers exposed all the aspects of study and provided proper guidance to the respondents for maximum relevant information.

Population Sample

Of the 53 questionnaires that were randomly distributed, 42 were returned from 4 different districts of Punjab. Of the total 42 educational institutions, 79% were secondary schools, whereas 21% were colleges. Thirty-three percent of the institutions were private whereas 67% were the government institutions. Of the 42 subjects, 36% were female administrators whereas 64% were male administrators. The number of educational institutions taken as sample is shown in the following table.

Table 1. Number of Educational Institutions Taken as Sample

District	Gender		Status of Institution		Level		Total
	Male	Female	Govt.	Private	Sec. School	Colleges	
Multan	10	6	12	4	13	3	16
Vehari	5	2	6	1	6	1	7
D. G. Khan	7	4	6	5	8	3	11
Rajan Pur	5	3	4	4	6	2	8
Total	27	15	28	14	33	9	42

Instrument

A questionnaire consisting of two parts was used for the collection of data from the educational administrators. The first part of the questionnaire was used to collect data about the use of educational technology in the institution, whereas the second part of the questionnaire was designed to assess the leadership style of the administrator. The responses about the technology questions were then given numerical values, whereas the second part of the questionnaire reflected the leadership styles of the administrators.

Statistical Treatment

Responses from the survey were assigned numerical values in order to derive mean scores and standard deviations for the use of educational technology, and to reflect leadership style. The numerical values about the use of educational technology were used to plot a bar graph to show the relationship between leadership styles and the implementation of the educational technology in the educational institutions. To check whether the difference in the use of educational technology, regarding the different leadership styles of educational administrators, is significant or not, z-test (CR) was used.

RESULTS AND DISCUSSION

The data revealed some significant findings regarding the extent to which leadership styles impact the implementation and use of technology as an instructional tool in the classroom. The random sampling of subjects consisted of 42 administrators in public and private schools in Multan, Vehari, Rajan Pur and D. G. Khan Districts. Following tables show some important findings.

Table 2. Use of Educational Technology Corresponding to Different Leadership Styles

Leadership Style	No.	%	Mean Use of Technology	S.D.
Telling/directive	12	28.6	18.9	8.9
Selling/coaching	17	40.5	27.4	7.2
Participating/supportive	9	21.4	18.1	8.6
Delegating	4	9.5	13.0	5.7
Total	42	100	21.8	9.1

The mean score for the use of educational technology of the total 42 subjects was calculated 21.8 with 9.1 as standard deviation. Twelve (28.6%) out of the 42 subjects indicated telling/directive leadership style. The mean score for the use of educational technology for these telling/directive leaders was 18.9 with standard deviation 8.9. Seventeen (40.5%) out of

the 42 subjects showed the selling/coaching leadership style, with 27.4 as mean score for the use of technology and 7.2 as standard deviation. Nine (21.4%) out of 42 subjects showed participating/supportive leadership style with 18.1 as mean score and 8.6 as standard deviation of the use of educational technology, whereas only 4 (9.5%) out of these 42 subjects indicated delegating leadership style with 13.0 as mean score and 5.7 as standard deviation about the use of educational technology in the institutions.

The mean scores and standard deviations of the data were drawn into bar graph to identify relationship between leadership styles of the administrators and the use of technology in the educational institutions. The results indicate a clear relationship between the leadership styles and the use of educational technology in educational institutions as an instructional tool.

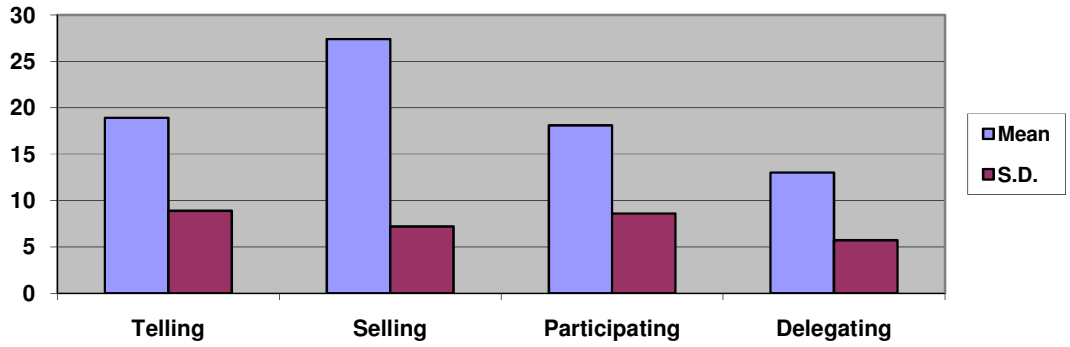

Fig 1. Bar-Graph Showing Mean Score and Standard Deviation of Use of Educational Technology

These statistics implied that the selling/coaching leadership style proved to be the most effective in the implementation of new programmes or innovative instructional practices involving technology. Similarly, the delegating style of leadership showed least effective in the use of educational technology in the institutions. The telling/directive and participating/supportive styles of leadership, having approximately equal mean scores and standard deviations, fall between the selling/coaching and delegating leadership styles in using the educational technology. To analyze whether the difference in the use of educational technology, regarding the different leadership styles of educational administrators, is significant or not, z-test (Critical Ratio) was used. For this purpose, the Calculated Values (C.V.) of z-test (CR) for different leadership styles, were compared with Table Value (T.V.) i.e. 1.96. In case of C.V.>T.V., the difference was considered significant and in case of C.V.<T.V., the difference was considered insignificant.

The analysis revealed that the only selling/coaching leadership style was proved the most effective in the use of instructional technology than any of the rest leadership styles considered in the study. There was a significant difference between the use of educational technology regarding the selling/coaching style than any of the other styles, whereas the mutual difference between the use of educational technology regarding the telling/directive, participating/supportive, and delegating styles of leadership was found to be insignificant.

CONCLUSION

Undoubtedly, rapid advancements in the area of technology are presenting enormous challenges for educational leaders. Researchers maintain that as administrational

responsibilities increase and technology continues to grow at a rapid rate, educational leaders are depending more and more on teachers and technology specialists to utilize technology and model its use (Cafolla and Knee, 1995). Encouraging and training teachers to use instructional technology in the classroom is the only way that educational administrators can make technological innovation a reality in their institutions. This task not only requires collaboration and team building, it also require a change in the traditional sense of governance and decision- making to subordinates. Those educational administrators, who allow their teachers autonomy to contribute to technology and innovative instructional practices and learn how to incorporate technology in their own work, demonstrate the value they place in their team members as well as the integration of technology. Out of the four leadership styles of the educational administrators used in the study, the selling/coaching style which is based on simultaneously high task and high relationship behavior, i.e. highly directive on task but also highly supportive of individuals' feelings and participation, was proved most effective in the use of educational technology in educational institutions. Furthermore, these educational administrators effectively utilize the expertise of teachers in the area of technology and are also likely to recognize specific strengths and contributions of staff members in other areas.

The children today are children of the digital age, and preparing them for the *Information Age* means shifting our focus about technology in teaching and learning. Today's educational administrators must be prepared to think systemically as they address the overall goals of the educational community. Integrating technology in a meaningful way is not as simple as using new tools to perform the same tasks. This difficult job becomes a reality with the positive attitudes of the educational administrators having good leadership qualities and appropriate leadership style.

REFERENCES

Bailey, G. (1995). *Technology Leadership: Ten Essential Buttons for Understanding Technology Integration in the 21st Century*, Retrieved Jan 23, 2008 from www2.educ.ksu.edu/Faculty/BaileyG/html/currentbuttonart/html

Bailey & Lumley (1997). *Technology Planning: A Toolkit for Administrators and School Board Members,* Retrieved Nov 07, 2007 from netc.org/cdrom/ toolkit/html/toolkit.htm.

Cafolla, R. & Knee R. (1995). *Factors Limiting Technology Integration in Education: The Leadership Gap*, Retrieved August 09, 2005 from http://www.coe.uh.edu/insite/elec_pub/html1995/152.htm

Cuban, L. (1997). *High-Tech Schools, Low-Tech Teaching*, Retrieved March 10, 2009 from www.edweek.org/ew/vol-16/34cuban.h16

Lemke, C. (1998). *Technology & Learning Online*, Retrieved Dec 05, 2005 from www.techlearning.com/lemke.htm

Lussier, R. N. and Poulos, M. (1998). *Organistional Behavour: A skill-building approach*, Australia: McGraw-Hill.

McCombs, B. (1997). *The Learner-Centered Classroom and School*, California: Jossey-Bass, Inc.

Vedanayagam, E. G. (1988). *Teaching Technology for College Teachers,* New Delhi: Sterling Publishers Private Ltd.

Yousaf, M. (1999). '*Technical Education: Its Implications for Industrial Development in Pakistan', Pakistan Journal of Distance Education, Vol. XV*I, Islamabad: Allama Iqbal Open University.

Yousaf, M. (2003). *'Information Technology in Educational Management'*, *Journal of Research (Humanities), Vol. XX,* Multan: Bahauddin Zakryia University.

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Table 3. Comparison of Different Leadership Styles with each other w.r.t Use of Technology (z-test/CR)

Styles	Telling/directive			Selling/coaching			Participating/supportive			Delegating		
	C. V.	T. V.	Difference	C. V.	T. V.	Difference	C. V.	T. V.	Difference	C. V.	T. V.	Difference
Telling/ directive	----	----	----	2.46	1.96	**Significant**	0.19	1.96	Insignificant	1.20	1.96	Insignificant
Selling/ coaching	2.46	1.96	**Significant**	----	----	----	2.44	1.96	**Significant**	3.20	1.96	**Significant**
Participating/supportive	0.19	1.96	Insignificant	2.44	1.96	**Significant**	----	----	----	0.98	1.96	Insignificant
Delegating	1.20	1.96	Insignificant	3.20	1.96	**Significant**	0.98	1.96	Insignificant	----	----	----