



## Identifying Barriers to Use New Media in Nomadic Schools of Fars Province and Providing Proper Strategies in order to benefit from them

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### ABSTRACT

This study aimed to identify barriers to use new media in nomadic schools as well as providing proper strategies in order to benefit from them. The method used in this study was not experimental one but survey one. Statistical population of this study consisted of all teachers and administrators of ordinary and smart nomadic high schools of Fars province in the 2011-2012 academic years. This population included 121 individuals and 7 schools in which 94 individuals and 6 schools were selected randomly. Research methodology was a questionnaire including 40 questions specifically designed for teachers and administrators. This questionnaire was sent to them, i.e. teachers and administrators. We asked them to survey that questionnaire and answer it, i.e. put forth their opinions. First, the questionnaire was administered at a scale limited to 20 individuals including teachers and administrators in order to determine reliability of research methodology; then reliability coefficient was obtained equal to 0.84 using Cronbach's Alpha. Moreover, validity of research methodology was based on comments put forth by supervisors and advisors as well as a number of experienced teachers. Obtained data of research were analysed using inferential and descriptive statistical methods such as ANOVA and post hoc tests. Results showed that management factor is the most important barrier to use new media in nomadic schools based on views of teachers and administrators of smart and ordinary high schools. According to research results, benefiting from new media as well as communication and information technologies in education system requires large investment as well as having a plan- which administrators of this system had designed it themselves or have it designed by someone else. The most basic step in this regard is conducting a research. First, education system should be aware of its situation, i.e. its current situation; then it requires planning at both the macro level and the micro level in this context.

**Keywords:** New Media, Nomadic Schools, Smart Nomadic High Schools.

### INTRODUCTION

Twenty-first centuries has been called the era of information and communication technologies. In this century, we need capable people who can reason, cooperate, recognize relations and dimension of their age and manage their social relations and institutions, based on these capabilities. In other words, people who do not take into account collecting and maintaining data. However, what is important for them is to how process data as well as how to use them. Therefore, they should master thinking and life skills. Furthermore, teachers should accommodate with rapid changes in practical knowledge and technology used in the field of education. New technological advances such as computers and robots provide an opportunity for educational experts in order to improve educational practices using new teaching methods [1].

The increasing development of communication technology, prominent issues such as globalization and interactions will inevitably have large impacts on quality of education. Blossoming of students' talents and

creativity should be the main objective of educational systems. This criterion helps to train talented people who would steer helm of the society in the future and meanwhile, information and communication technologies' development are the most imperative strategies for realization of such a phenomenon. Thus education should undergo a global change, especially a change in the approach used in educational system. This approach should focus on moving towards realization of information society. This could be done through using new information and communication technologies. In other words, by taking ideal benefit from ICT, the educational system can determine its fundamental schemes and will match pace with rapid ICT caravan. Furthermore, this can be easily implemented using pragmatic approach [2].

Technology is one of the tools used in today's society which can help to attain above-mentioned goals. Technology is the process and general knowledge in which such systems would be developed that would extend human being capability and help them to solve their problems. In other words, technology can be a changer itself and might inform people how to access, collect, analyze, deliver, transfer and simulate data [3]. One of the outcomes of technology can be seen in education [4]. A rich educational environment would be provided using information and communication technologies in which teaching-learning process – in students- could be accomplished in an active, self-directed and structure-oriented way [5]. Information and communication technology is not just a tool but it could alternatively be used instead of existing teaching methods. In fact, technologies are used to develop following skills: cooperation, communication, and problem-solving, lifetime learning of students [5 &6]. Information and communication technologies' development as well as using these technologies in curriculum had positive effect on teaching-learning process. This was the reason behind specific evolution occurred in the last twenty years [7 &8]. This evolution was taken place in various aspects including computer hardware and software, access to computer in educational environment and a tendency to popular educational technologies, combining technologies overtopped programming skills, self-directing during practice, interactive educational software, online tests, reciprocal educational discussions, ability to access information, electronic publications, and remote telecommunication [9]. Moreover, technology, in this context, should be used as a tool to provide educational objectives as data assessment and search skills, cooperation, problem solving related to communication issues. These objectives are essential to prepare children to enter information society [10]. In fact, innovative application of information and communication technologies would result in student-centered education [11]. Thereby, teacher should use educational technologies in each class in order to increase his/her students' knowledge in every subject/context because it make students to think, make decision, solve problems and use logical skills [12]. These ones are cognitive behaviors which students need to learn in information and communication era [13]. In this era, pace of producing new data through technologies and new media is so high that these new data would be out of use after a while and as a result new data would be needed. According to this fact, there is a necessity to make extensive plan particularly for students and education community. Among these students, numerous ones are deprived from new technologies and media facilities for several reasons. Capable nomadic students are among these ones.

Nomadic students are the most deprived ones regarding new educational system. Primary school is the most difficult period for nomadic students because of several reasons: migration, differences between educational calendar of nomadic schools and ordinary schools, multi-degree class with one teacher, lack of access to city, cultural and scientific centers, dispersal institutions and impassable routes, etc. This is why media and technologies are not present in these educational environments. When nomadic students enter guidance and high schools – which are intensively established in summer and winter country sides- there is a possibility of using media and technologies in these classes in education of nomadic students. Information and communication technologies have not gain its proper place in nomadic educational system despite establishment of numerous boarding schools and newly established smart ones. According to Abassi Seruk [14], nomads are particular people that a specific plan should be designed for them in order to resolve information and facility gap as well as technology and information capabilities/features between urban and nomadic students (p. 11). According to this fact, technology and new media play an undeniable role in teaching- learning process, thereby educational progress of students. Therefore, there is a necessity to apply these ones to educational system.

Research Background: some researches were performed on barriers to use technologies and new media in classrooms and educational system in abroad as well as our country. These researches and other ones done in future would accelerate achieving research objectives.

Eslami et al. [15] conducted a research in this regard. This research was based on a question in which teachers of high schools of city of Ahwaz were asked to answer that. The objective of this research was to investigate barriers to combine information and communication technologies with curriculum. The results of this research showed that some of the barriers were mostly prominent when information and communication technologies were not combined with curriculum. It was shown that there is a negative correlation between individuals' capability and skills regarding application of information and communication technologies as well as barriers to combine information and communication technologies with curriculum. In other study called "application of information and communication technologies by teachers of high schools and guidance schools, who teach basic sciences, and benefiting from them" by Ayati et al. [16], results showed that most of teachers under study (53.5%) scarcely (weekly) use ICT tools and 10.5% of teachers notified that in most of cases they use ICT tools; however, findings showed that ICT tools were scarcely used. Zakeri et al. [17] performed a research on

application of educational technologies based on teachers' views. Results of this research showed that teachers had positive opinions toward using new educational technologies. Statistical results showed significant differences between sex and teachers' education and their opinion toward using new educational technologies in process of education. Moreover, there were significant differences between teaching location and teaching background and teachers' opinion toward using new educational technologies in process of education. Shahbaz, Zamani et al. [18] studied teachers' access to ICT and application of information and communication technologies in Esfahan high schools. Findings showed that teachers' access to hardware facilities is high in school and home, while their access to software is low. Moreover, application of information technologies is lower than expected extent in education, research and communication area.

Findings of a meta-analysis done by Bingimllas [19] showed that teachers had a high tendency to combine ICT with education; however, there were numerous problems and barriers to use them in education. The main barriers included lack of self-confidence, competence and access to sources [19]. Drent et al. [10] conducted a research on factors influencing innovative application of information and communication technologies by teachers in Netherlands. This study was done through a questionnaire distributed between 210 teachers as well as including 4 observations. Their findings showed that a number of factors including student-centered approach to education, positive approach to information and communication technology, experiences with computer, individual entrepreneurship positively affected innovative application of information and communication technologies by teacher. Moreover, comparing these factors showed that positive view toward these technologies is the most important factor in this regard. Totter et al. [20] investigated factors influencing application of new media in vocational training schools and identified 6 factors as follows: structure-oriented teaching method by teacher, tendency to cooperate, willingness to change, lack of appropriate information and communication technologies, lack of time, lack of self-confidence to use information and communication technologies. Topraxeï [21] performed a research to identify barriers to combine ICT in schools according to views of teachers and administrators in guidance schools and high schools in Turkey. He concluded that the most important barriers to combine ICT in these schools in Turkey are as follows: financial barriers, lack of providing technical services, lack of ICT-trained personnel in schools, lack of computers, outdated information or slow process of providing information for ICT system, lack of educational software, resistance toward change, motivation barriers regarding teachers and administrators.

**Objectives and Questions of Research:** This study aimed to identify barriers to use new media in nomadic schools as well as providing proper strategies in order to benefit from them. Following questions were considered to achieve this goal:

1. What are the barriers to use new media in ordinary nomadic high schools according to teachers' views?
2. What are the barriers to use new media in ordinary nomadic high schools according to administrators' views?
3. What are the barriers to use new media in smart nomadic high schools according to administrators' views?
4. What are the barriers to use new media in smart nomadic high schools according to teachers' views?
5. What are the strategies to benefit from new media in nomadic schools?

## MATERIALS AND METHODS

**Research Method:** this research was performed using measurement techniques since objective of the study was to identify barriers to use new media in nomadic schools. Researcher would answer research questions using research tool.

**Statistical Population and Sample:** Statistical population of this study consisted of all female and male teachers and administrators of ordinary and smart nomadic high schools of Fars province in the 2011-2012 academic years. This population included 121 individuals and 7 schools in which 94 individuals and 6 schools were selected. Stratified random sampling method was used in this research, so that several schools were selected among ordinary and smart high schools in summer and winter area. A questionnaire was sent to teachers, administrators and deputies in various schools of Fars province .

**Research Tool:** a questionnaire was used according to subject, nature and objective of this research. Two research-made questionnaires were used in order to collect data. These two questionnaires were specifically designed for teachers including 40 questions regarding demographic, technical science, physical, management, human factors. First, the questionnaire was administered at a scale limited to 20 individuals including teachers and administrators in order to determine reliability of research methodology. Reliability coefficient was obtained equal to 0.84 using Cronbach's Alpha. Validity of questionnaire is content one. Therefore, the questionnaire was sent to a number of teachers and expert people, supervisors and research advisor in order to determine questionnaire validity. Data analysis was done in two inferential and descriptive levels .

**Data Analysis Method:** two statistical methods were used in order to analyze research collected data: descriptive methods such as mean and standard deviation, inferential methods such as ANOVA and post hoc tests. Scheffe post hoc test was used to compare mean groups. SPSS16 software was used to analyze data.

## RESULTS

**The First Question:** a questionnaire was distributed among teachers in order to answer the first question "What are the barriers to use new media in ordinary nomadic high schools according to teachers' views?" Results of descriptive statistics are presented in table 1. Table 1 showed that management factor had the highest mean (3.775) and physical factor had the lowest mean (2.719) in the first question. Differences between means were expressed using ANOVA.

**Table 1.** Mean and standard deviation of the barriers from the perspective of secondary school teachers

Factor	Index	Mean	Standard Deviation
Management		3.775	7.67
Human		3.507	7.09
Technical Science		3.086	5.99
Physical		2.719	7.37

**Table 2.** Results of ANOVA barriers from the perspective of secondary school teachers in ordinary schools

Changes Sources	Total Square	Df	Mean Square	F	Significant Level
Between Group	4409.05	3	1469.68	29.44	0.01
Intergroup	13375.7	268	49.9		
Total	17784.76	271			

Results of ANOVA for comparing means of views of teachers of ordinary high schools regarding 4 barriers showed that differences between means are significant (significant level= 0.01, F-value=29.44). Therefore, there are differences between management, human, technical science and physical factors according to views of high school teachers. Scheffe post hoc test was used to show exactly significance and difference of means. Applicable post hoc test in this research was Scheffe post hoc one which results are presented in table 3.

Results of Scheffe post hoc test (Table 3) showed that mean difference between following factors are significant: physical and human factors ( $P<0.01$ ), human and technical factors ( $P<0.008$ ), management and technical factors ( $P<0.01$ ), management and physical factors ( $P<0.01$ ), technical and physical factors ( $P<0.028$ ). According to reported information, mean differences between management and human factors ( $P<0.183$ ) are not significant.

**Table 3.** Results of the Scheffe post hoc test for differences between the means of expression

Factors	Different	Mean Difference	Significant Level
Human	Management	-2.67	0.183
	Technical Science	4.2	0.008
	Physical	7.88	0.01
Management	Technical Science	6.88	1
	Physical	10.55	0.01
Technical Science	Physical	3.67	0.027

**The Second Question:** a questionnaire was distributed among administrators in order to answer the second question "What are the barriers to use new media in ordinary nomadic high schools according to administrators' views?" Results of descriptive statistics are presented in table 4. Table 4 showed that management factor had the highest mean (3.677) and physical factor had the lowest mean (2.77) in the second question of the research.

**Table 4.** Mean and standard deviation of the barriers from the perspective of Secondary School Principals

Factors	Index	Mean	Standard deviation
Management		3.677	7.72
human		3.466	8.66
technical science		2.977	7.9
physical		2.777	7.1

**Table5.** ANOVA results of Secondary School Principals barriers from the perspective of nomadic

Changes Sources	Total Square	df	Mean Square	F	Significant Level
between group	472.08	3	157.36	2.53	0.074
Intergroup	1984.66	32	62.02		
Total	2456.75	35			

Results of ANOVA for comparing means of views of ordinary high schools showed no significant difference between mean groups according to F-value and significance level (significance level=0.074, F-value=2.53). Therefore, there is no difference between management, human, technical science and physical factors according to views of administrators.

**The Third Question:** a questionnaire was distributed among teachers in order to answer the third question "What are the barriers to use new media in smart nomadic high schools according to teachers' views?" Results of descriptive statistics are presented in table 6.

**Table6.** Mean and standard deviation of the barriers from the perspective of smart school teachers, high school

Factors	Index	Mean	Standard deviation
Management		4.090	5.57
human		3.745	5.16
technical science		3.036	6.77
physical		2.863	4.61

Table 6 showed that management factor had the highest mean (4.090) and physical factor had the lowest mean (2.863) in the third question. Differences between means were expressed using ANOVA.

**Table 7.** ANOVA results barriers from the perspective of a smart school teachers, high school

Changes Sources	Total Square	df	Mean Square	F	Significant Level
between group	113.15	3	371.05	11.88	0.01
Intergroup	1248.72	40	31.21		
Total	236.88	43			

Results of ANOVA for comparing means of views of teachers of smart high schools regarding 4 barriers showed that differences between means are significant (significant level= 0.01, F-value=11.88). Therefore, there are differences between management, human, technical science and physical factors according to views of smart high school teachers. Scheffe post hoc test were used to show exactly significance and difference of means. Applicable post hoc test in this research was Scheffe post hoc one which results are presented in table 8.

**Table 8.** Results of the Scheffe post hoc test for differences between the means of expression

Factors	Different	Mean Difference	Significant Level
Human	Management	-3.45	0.557
	technical	7.09	0.044
	physical	8.81	0.008
management	technical	10.54	0.01
	physical	12.27	0.01
technical science	physical	1.72	0.913

Results showed that mean difference between following factors are significant: physical and human factors ( $P < 0.044$ ), human and technical factors ( $P < 0.008$ ), management and technical factors ( $P < 0.01$ ), management and physical factors ( $P < 0.01$ ). There were no significant differences between following factors: technical and physical factors ( $P < 0.913$ ), management and human factors ( $P < 0.557$ ).

**The Fourth Question:** a questionnaire was distributed among administrators in order to answer the fourth question "What are the barriers to use new media in smart nomadic high schools according to administrators' views?" Results of descriptive statistics are presented in table 9.

Table 9 showed that management factor had the highest mean (3.883) and physical factor had the lowest mean (3.25) in the fourth question. Differences between means were expressed using ANOVA.

Results of ANOVA for comparing means of views of administrators of smart high schools regarding 4 barriers showed that differences between means are significant (significant level= 0.03, F-value=4.46). Therefore, there are differences between management, human, technical science and physical factors according to views of smart high school administrators. Scheffe post hoc test were used to show exactly significance and difference of means. Applicable post hoc test in this research was Scheffe post hoc one which results are presented in table 11.

Results showed that mean difference between following factors are significant: physical and human factors (P<0.319189), human and technical factors (P<0.742), technical and physical factors (P<0.715), management and human factors (P<0.319). Moreover, there are no significant factors between these factors: management and technical factors (P<0.049), management and physical factors (P<0.05).

**Table 9.** Mean and standard deviation barriers of the smart school administrators view high school

Factors	Index	Mean	Standard deviation
Management		3.883	6.46
human		3.25	4.23
technical science		2.883	4.21
physical		25	7.15

**Table 10.** ANOVA results of school managers view smart barriers of high school

Changes Sources	Total Square	df	Mean Square	F	Significant Level
between group	623.79	3	207.93	6.46	0.003
Intergroup	643.167	20	32.15		
Total	1266.95	23			

**Table11.** Results of the Scheffe post hoc test for differences between the means of expression

Factors	Different	Mean Difference	Significant Level
Human	Management	-6.33	0.319
	Technical	3.66	0.742
	Physical	7.5	0.189
Management	Technical	10	0.049
	Physical	13.83	0.005
technical science	Physical	3.83	0.715

**The Fifth Question:** in order to answer the fifth “what are convenient strategies in using new media in nomadic schools?” one open-ended question was considered in the questionnaire (to ask teachers and administrators). 18 individuals out of 94 individuals, who completed this questionnaire, of the sample answered this question. This is shown in table 12 which represents frequency distribution of these answers.

These limited strategies are classified in three categories: equipment, economic, attitude and time categories. Results of table 12 show that economic dimension is the most important one among presented suggestions by teachers and administrators. Then attitude and time are more important than equipment. The most recommended strategy is about increasing quantity and quality of software and hardware in schools, i.e. equipping schools with hardware and new technologies. Moreover, establishing appropriate environments, highly motivating teachers to use technology in classrooms were mostly recommended. Furthermore, teachers and administrators suggested allocating specific budget to boarding schools in order to equip them with new technologies, informing teachers of how to use new media, informing students of how to use new media, allowing enough free time to teachers in using new media.

All four component –“barriers related to management issues”, –“barriers related to human issues”, –“barriers related to technical science issues”, –“barriers related to physical issues”- affected non-application of new media in nomadic schools.

According to barriers related to human issues, the most influential factors include feel the need to use new media and ICT technologies, existence of expert human resources specialized in launching new media, existence of educational designer in school and educational process.

**Table 12.** Distribution of the fifth research question

Factors	Respond	Frequency	Frequency Percent
Equipment and economic	Increased hardware and software in schools	4	0.22
	Shopping standard educational software for use in schools	1	0.05
	Creating an appropriate space	3	0.16
	Separate funding for the production of content by teachers	1	0.05
	Raising teachers' motivation	3	0.16
attitude	Increase awareness and knowledge of teachers in the use of media	1	0.05
	Use Comments teachers enjoying the design and production of media content	1	0.05
	Students learn how to work with media	1	0.05
	Extracurricular classes for students in boarding schools introduction of new technologies	2	0.11
Time	Allocate enough time for teachers to use media	1	0.05

**Table13.** Perspectives of teachers and school administrator's nomadic human barriers

Statements Human barriers	Average Theory	Average Experimental	Standard Deviation
3- Accustomed to using traditional methods of teaching disabled	3	3.31	1
5- the impact Understanding of teachers' instructional design	3	3.27	1.17
11- Motivation of teachers	3	3.46	1.17
13- Feel the need to use new media in education from Teachers	3	3.78	1.19
14- Teachers' attitudes and perceived	3	3.42	1.04
25- Labor there specializes in creating new media education in schools	3	3.59	1.21
26- Designer of education in schools	3	3.47	1.04
27- Teachers' beliefs about the benefits of using new media	3	3.43	1.22
36- The students collaboration in work with the Media	3	3.43	1.04
37- Interest teachers in teaching and training to use new media	3	3.07	1
Human factors in general	3	3.42	1.10

According to barriers related to management issues, which is the most important barrier to use new media in nomadic schools regarding views of all teachers, the most influential factors include analogy between educational system' objectives and existing new media in schools, providing real-time educational courses for teachers, making plans to protect and maintain media, allowing enough time to student to get used to application of new media in teaching method, accommodating new media with curriculum (table 14).

**Table14.** Perspectives of teachers and school administrator's tribal administrative barriers

Statements management barriers	Average theory	Average experimenta l	Standard deviation
20-The proportion of new media in education and training in schools	3	4	1.15
8- The use of new media training courses for teachers and administrators	3	3.82	1.12
40- Planning for the protection and preservation of new media in schools	3	3.7	1.16
29- Allocating time for teachers to work with new media in school	3	37	1.23
34- Being Journals of Special Education, the introduction of new media	3	3.59	1.16
32- Adequate training opportunities for teachers' use of new media "	3	3.66	1.2
15-Expensive new instructional media	3	3.38	1.16
39- School management supports the use of new media in teaching	3	3.50	1.14
38- Compliance new media in curriculum	3	3.75	1.01
35- The quality of training	3	3.7	1.26
16- Allocate sufficient funds to take advantage of new media	3	3.66	1.33
33- Incorporate the use of new media in the school timetable	3	3.58	1.12
management factor in General	3	3.67	1.17

According to barriers related to physical issues, influential factors include low quantity of new media in schools, over conventional number of students in classrooms, proportion of classrooms' spaces in schools, correct distribution of educational facilities and equipment in schools (table 15).

**Table15.** Perspectives of teachers and school administrators nomadic than physical barriers

Statements physical barriers	Average theory	Average experimental	Standard deviation
17- There is adequate space for the use of new media training	3	3.1	1.22
31- Infrastructure needed to access new media (internet)	3	3.5	1.24
30- Insufficient new media in schools (quantitatively)	3	3.86	1.13
23- Too many students in classrooms	3	3.77	1.25
22- Poor physical conditions such as light, heat, noise ...	3	3.45	1.19
21- Equipping schools to theaters, laboratories, computers, internet ...	3	3.5	1.31
19-The fitness class in schools	3	3.75	1.2
18- Proper distribution of educational facilities between schools	3	3.78	1.2
physical factor in General	3	3.55	1.21

According to barriers related to technical issues, influential factors include application of a lesson plan format, lack of innovation and creativity in teaching, lack of information about new media and its impact on learning, surface and safe learning of new media in period of teachers' education, lack of information about necessity of providing essential educational tools and equipment and teachers getting accustomed to traditional teaching methods and teacher-centered techniques (table 16).

**Table16.** Perspectives of teachers and school administrators nomadic than technical barriers

Statements technical barriers	Average theory	Average experimental	Standard deviation
2- Sufficient practical training of teachers in teacher training institutes and universities	3	3.4	0.96
6- Using a lesson plan format and lack of innovation and creativity in teaching	3	3.5	1.05
28- Difficulty of integrating new media in teaching	3	3.36	1.22
34- Technical support required	3	3.57	1.21
12-Teachers' knowledge of new media as a facilitator of teaching and learning	3	3.82	1.17
10- Level of learning and understanding teachers of new media in education	3	3.75	0.99
9 -Managers knowledge of the need to provide facilities and necessary training	3	4	1.25
8- Teachers lack knowledge of the theoretical benefits of using new media in education	3	4	1.12
Technical factor in General	3	3.33	1.12

## DISCUSSION

In this study, barriers to use new media in nomadic high schools were classified as four categories including: management, technical, physical and human factors. According to obtained results of ordinary and smart high schools, management factor is the most important and influential factor regarding application of new media in schools. This factor was known as the main barrier to use new media in classrooms and schools. It is concluded that benefiting from new media and information and communication technologies in education system requires large investment as well as having a plan which administrators had designed it themselves or had it designed for them. Unfortunately there are several drawbacks in educational system regarding this context. Creating strong infrastructure in educational system, in order to purchase new software and hardware, is so expensive. Thereby special care should be taken to purchase these systems according to low budget allocated to this issue. It should be noted that purchasing new systems and equipping schools with these systems does not necessary mean that an evolution has occurred in teaching-learning process. Some preparation should be made before transforming traditional community to ICT one in order to benefit from its advantages which are as follows: having a pre-defined plan, conscious and rational and unbiased attitude toward application of ICT, avoiding excessive optimism or pessimism, being patient and tactful, developing step plans, relying on domestic

capabilities specially training staff and experts and gaining their support, prioritize teacher training and administering their central role in building culture of ICT in schools .

Professional training of teachers is definitely essential when effective application of ICT is considered in schools. In other words, spending scarce resources for IT hardware and software, without providing necessary investment for professional development of teachers, is a waste of time. According to obtained results, professional development of teachers for the purpose of applying technology is a key factor in attaining high performance of students, through developing knowledge and skills using technology. Technology itself has not changed anything in education and would not change it; however, this process requires teachers who can combine technology with curriculum and apply it in education in order to improve students' learning. In other words, computers would not replace teachers. On other hand teachers are key elements in proper and efficient application of these technologies. For the purpose of effective application of ICT by teachers, administrators and practitioners should provide opportunities for teachers' progress in this field and promote this criterion and support their continuous education. They should not rely on just surface services .

Here, some suggestions are provided specifically for administrators since management factor was considered the most important factor in using new media in nomadic high schools .

1. The basic step in application of new media is research. First we should understand our current situation. Secondly we should realize existing situation. Then we should make plans for future .

2. We should determine definitions, policies, strategies accurately in order to avoid redoing. Moreover, we should coordinate subsets in order to attain these goals .

3. Managing schools is a key factor. Nomadic education should use administrators who have managerial experience as well as practical skills regarding new technologies. Director of technology is the one who promote application of technologies in everyday life, particularly for teachers. This administrator should be really concerned about equipping educational technological workshop, laboratories, school website, computer workshop, etc .

4. Following factors help to increase teachers' self-confidence in using new media in class rooms as well as education: Providing technical support to ensure equipment maintenance as well as cooperation for the purpose of presenting new software and teaching this software to teachers.

5. In most of cases, problems occurred during application of information and communication technologies are anticipated beforehand in order to resolve them as soon as possible to minimize its impact on predefined objectives. In other words essential plans are made to resolve these problems .

6. There is a direct and significant relationship between administrators' cooperation level and their information and recognition about each phenomenon. Extent of information and recognition of administrators about a subject determine their extent of cooperation. For this reason, intellectual acceptance and cultural areas should be defined by educational practitioners. Creating cultural infrastructures of application of information and communication technology is essential in education system .

7. Ministry of Education should reconsider matters of absorbing, grading and organizing schools' human resources. It should take into account computer skills as a necessary condition for employing its human resources. Moreover, it should make necessary plan for conducting educational courses to train absorbed human resources both in quality and quantity level .

8. Ministry of education should make place for an expert in educational technology among schools' personnel and make plans beforehand in order to use them effectively and accurately.

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