

**An Investigation of Informational/Learning Resources and
Infrastructure for the Effective Implementation of New B.Ed.
(Hons.)/ADE (Elementary) Program in Balochistan**

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Abstract

This research aimed at investigating current status of informational/learning resources and infrastructure of teacher education institution in Baluchistan for the implementation new B.Ed. (Hons.)/ADE Programs in Baluchistan. This research not only investigate the current status of informational/learning resources and infrastructure but also investigate the reasons if these resources are not in suitable condition and are not playing any role in the effective implementation of new B.Ed. (Hons.)/ADE Programs. The research was conducted in 7 teacher education institution spread across Baluchistan. The data was collected through survey questionnaire from seven Heads of the institution and nine Teacher Educators, involved in teaching different courses of B.Ed. (Hons.)/ADE at different semesters. Focus group discussion with head and nine teacher educators/institution was also conducted. The quantitative and qualitative data from two instruments helped in-depth understanding of the reasons. The results indicates that teacher educators and administrators are trying their level best for the successful implementation of this new teacher education program. But they are facing many difficulties in getting fruitful results of this innovative teacher education program. Result showed that, lack of physical, (little number of rooms, space in rooms for using interactive pedagogies, no room for students to do their projects, little space in libraries etc.) financial and informational/learning resources is a serious problem and creating hurdles in the effective implementation of new ADE/B.Ed. (Hons.) program.

Keywords: Informational resources/Learning resources, ADE/B.Ed. (Hons.) Program, Heads, Teacher training institution, teacher educators.

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Introduction

The process of education is an essential element for the development of a country. Each country in the world try to educate their peoples. For economic growth education is provided in different disciplines, so that the people of a country get skilled in different areas of economic development to support their countries. Transfer of knowledge and skills to youngsters is a technical task. If transfer of knowledge and skills not occurred in proper way, it resulted in production of unskilled human resource and unskilled human resource become a threat for the economic growth of a country, that's why each country try to strong the education system. Pakistan also tried to improve the education system since its birth. Different educational policies have tried to improve the teacher education system for providing best teachers to their nations, as best teachers can communicate the knowledge and skills in an effective way. Not only this, efforts are also made to improve the infrastructure of teacher education institutions. Second Education conference, 1951 proposed to establish 101, male and female, teacher training institutions for primary education and 26 training institutions for secondary education. 3rd five year plan (1965-70) offered recommendations regarding better curriculum and physical resources for Teacher Education. (Khan, 2011).

In order to improve the overall quality of education in Pakistan, National Education Policy, 2009 emphasized that the standard of teacher education must be raised. (See, Rehman, 2010).

Ministry of Education adopted and notified 10 'National Professional Standards' in 2008. (Ministry of Education, 2009). To meet the criteria of 10 professional standards, the new scheme of studies is introduced for four years B.Ed. (Hons.) and two years ADE program. Implementation of any new program needs some materials and resources in terms of time and money, specific social structures, to make people act in another way. (Fullan and Stiegel Bauer, 1991). Implementation of a new program is a way of an innovation. Offer new B.Ed. (Hons.)/ADE program is an innovation in the education system of Pakistan. As infrastructure and informational/learning resources play important role in implementation of any curriculum, efforts are also made to improve the academic and physical infrastructure of teacher education institutions for the effective implementation of new ADE and B.Ed. (Hons.) curriculum in Baluchistan. The purpose of this study was to analyse the current status of infrastructure and informational/learning resources. This study also investigated the problems and their reasons which were emerging because of poor infrastructure and lack of suitable informational/learning resources. This study also suggests how to overcome these problems.

The above stated problems were investigated by formulating the following objectives:

- To analyze the current status of infrastructure and informational/learning resources for the implementation of new ADE/B. Ed. (Hons.) elementary programs.
- To investigate the problems related to infrastructure and informational/learning resources in teacher training institutions offering ADE/B,Ed,(Hons) elementary program in Baluchistan.
- To investigate the strategies for improving the infrastructure and informational/learning resources for effective implementation of new ADE/B.Ed.(Hons.) elementary program in Baluchistan.

The above stated objectives were achieved by formulating the following research questions:

1. What is the current status of infrastructure and informational/learning resources in teachers training institutions offering ADE/B,Ed,(Hons) elementary program in Baluchistan
2. What problems are related to infrastructure and informational/learning resources?
3. How to overcome these problems for the effective implementation of new ADE and B.Ed. (Hons.) elementary programs?

This study was conducted to support the efforts of improving teacher education system in Pakistan. The results of this study will provide a framework to all stakeholder for timely solution of the emerging problems regarding infrastructure of teacher training institutions and informational/learning resources to communicate the knowledge and teaching skills to prospective teachers.

Literature Review

What Informational/Learning Resources means?

Informational/learning resources are those helpful materials, which the learner used to update and improve their knowledge. (Pearlson and Sunders, 2006). Learning resources are helpful in advancing the learning experiences of teachers and student, give those self-learning opportunities, enhance their exploration and analysis skills and allows the teachers design activities to develop students' interest towards learning (http://en.wikipedia.org/wiki/Learning_resource_center).

Informational/Learning Resource Centre

For effective learning there should be a learning resource centre at educational institutions. Learning resource should be established by analysing the learner educational

needs (Alomran, 2007). Learning resources are helpful in enhancing the learning experience of the learners. Learning resource center can be established with the help of qualified educational expert(Edwards & Brian, 2009).

Skills Promoted by Learning Resource Center

- Learning resource centers are helpful in inculcating and promoting the skills as:
- By providing reading opportunities, Reading skills are improved
- Teaching aids in learning resource center enhance teaching –learning resources.
- Students may be engaged in group activities in learning resource centre, this improve the social and cooperative attitude of the students. (Alomran, Hamad Ibrahim, 2007).

High quality learning resources e.g. student text books; teachers guide; videos and software programs, should be provided to support the implementation of an innovative curriculum.



Major Types of Informational Resources



Magazines, Academic Journal, Data Base, Newspapers, Encyclopaedias, Books, Dictionaries, and Research Journals etc. are the major informational resources which also enhance the experience of the learners.

Table 2

Types of informational resources:

Type	Description	Purpose
	<p>Magazines comprises a great no. of articles written by scholars.</p> <p>It also have beautiful pictures of different locations</p>	<p>Magazines are a charming source of Getting an up-to-date knowledge.</p>

 <p>Academic journal</p>	<p>Academic journal or research journals are great source of information about a specific field. Here one can find the large amount of information about a single topic.</p>	<p>Journals are beneficial specially for researchers</p>
 <p>Database</p>	<p>A database contains citations of articles in magazines, journals, and newspapers. They may also contain citations to podcasts, blogs, videos, and other media types. Some databases contain abstracts or brief summaries of the articles, while other databases contain complete, Full-text articles.</p>	<p>It saves time of a researcher in collection of articles of their interest</p>

 <p>Newspapers</p>	<p>These are the informational resources, which provide information about day by day events. In the world or in the country. It also comprises different analytical reports of the local scholar on different topics related to the national or international views.</p>	<p>It equipped the learners with daily information so that they up-date their knowledge. News paper add to the learning experiences of the learner. News paper also help the researcher specially in selecting the research topic.</p>
 <p>Addison</p>	<p>A library catalogue is an organized and searchable collection of records of every item in a library and can be found on the library home page. The catalog will point you to the location of a particular source, or group of sources, that the library owns on your topic.</p>	<p>A library catalogue helpful in saving the time of learner/researcher in finding of the related material of interest.</p>

	<p>Books are the greatest source of knowledge, books not only provide up-to-date knowledge but also a source of knowledge of the previous eras.</p>	<p>Books are specially helpful in providing knowledge about history. Books also help the learners in relating the known facts with unknown facts.</p>
<p>Books</p>	<p>Encyclopedias are collections of short, factual entries often written by different contributors who are knowledgeable about the topic.</p>	<p>Encyclopedias are helpful in providing background information on a topic. specially</p>
	<p>There are two types of encyclopedias: general and subject. General encyclopedias provide concise overviews on a wide variety of topics. Subject encyclopedias contain in-depth entries focusing on one field of study.</p>	<p>when trying to find key ideas, important dates or concepts</p>
<p>Encyclopedia</p>		

(Adopted from (<http://www.lib.vt.edu/help/research/info-sources.html>))

What Infrastructure Means?

Infrastructure is basic physical and organizational structures needed for the operation of a society or enterprise or the services and facilities necessary for an economy to function. Generally it can be defined as the set of interconnected structural elements that provide framework supporting an entire structure of development (<http://en.wikipedia.org/wiki/Infrastructure>).

Importance of Infrastructure for the Implementation of a New Program

Mkumbo (2011) argues that inefficient teaching & learning infra structure cause poor quality of education. An infrastructure comprises two major aspects

- whole-system dimension
- School/individual teacher dimension.

Specific actions of an organization are related to whole-system dimension and school/individual teacher dimension involves those aspects which bring life to curriculum in the classroom for the students (Cowie, 2009).

Importance of Infrastructure for Implantation Innovative Education Program

For effective working of teachers; students; administrators and other officials, building of institution is a crucial element. Institutional building plays an important role for running out different educational activities. The physical learning environment has greater impact on students' academic achievements and it also improves the teaching competencies of teachers.

Teaching learning is a difficult task. To achieve the educational objectives there is a need of good health of practitioners, an appropriate infrastructure help in maintaining the health of teachers, students and administrators and all other officials in the institution (<http://www.throughyourlens.org/about.php>).

Classroom size plays an important role in teaching –learning process, if classroom is not accordance with students' number it will create a depressed environment. Library is an important element of infrastructure and it plays an important role in teaching-learning process. It facilitates the completion of classroom tasks.

Library also support the learning environment within the school, research demonstrate that the well-resourced properly staffed library has positive impact on students' academic achievement. So when pedagogies and technologies change library should be managed accordingly. A library helps the students to become an independent learner and assures the quality of curriculum. Libraries are also helpful if the teachers want their professional development

It is evident that school libraries play a crucial role in achieving the national targets for a high quality education. As this world is changing rapidly, this world can be called as 'information society' or more accurately informational mode of development. The new student-centered paradigm and new learning –teaching approaches created the need for updated and fully organized library (Castles, 1996).

All above discussion highlights the importance of infrastructure for the implementation of innovative; interactive; competency-based education program. So there is need to consider the re innovation of an infrastructure of an institution for the effective implementation of change program

Methods

This study investigated the problems in implementing the new B.Ed. (Hons.)/ADE Program. At present, the program is being served by 09 teacher training institutions in Baluchistan. This Study narrowly targeted only those Heads and Teacher Educators of the teacher training institutions implementing the revised B.Ed. (Hons) and A.D.E. programs, at the 06 colleges, in Quetta, Loralai, Sibi, Pishin and 01 university in Quetta Baluchistan.

A mixed methods inquiry approach was used to answer research questions. The data collection was involved.

- (1) Administration of expected problems 'Survey Questionnaire' to Heads and Teacher Educators of the teacher training institutions involved in the implementation of new B.Ed. (Hons.)/ADE program. This survey was conducted to find out the current status of existing problems regarding infrastructure and informational/learning resources.
- (2) A separate survey was administered to collect demographic data from teacher educators to help analyse the data by controlling variables such as , administration experience, gender, institution, professional development trainings etc.
- (3) Focus group discussion was also conducted to find out
 - i) The reasons behind the problems in implementing the new teacher education program,
 - ii) Explore the ways for best and effective implementation of the new teacher education program.

The survey and focus group discussion data was analysed to develop insights about the problems and their solutions.

The survey was administered to 01 Head and 09 Teacher Educators in each teacher training institution implementing the B.Ed.(Hons.)/ADE programs (N=70) in the 01 university and 06 GCETS in Baluchistan. Focus group discussion was conducted with the same survey sample to find out the reasons behind the existing problems. Sample of teacher educators was selected through purposive sampling technique. The data collected from the survey questionnaire was both categorical and ordinal quantitative data. In addition to this, the focus group discussion generated interview transcripts.

Both quantitative and qualitative data was analysed for developing estimates about the emerging problems.

Results

A Survey Questionnaire based on five point Likert-Scale from ‘strongly disagree’ to ‘strongly agree’ was used to find out the different problems faced by different teacher educators and heads during the implementation process of innovative program, two years ADE and four years B.Ed.(Hons.) in different teacher training institutions in Balochistan.

Description of Problems regarding ‘Infrastructure’

Following figure indicate the responses of the respondents about the ‘infrastructure’. Different percentages of responses are colored differently.

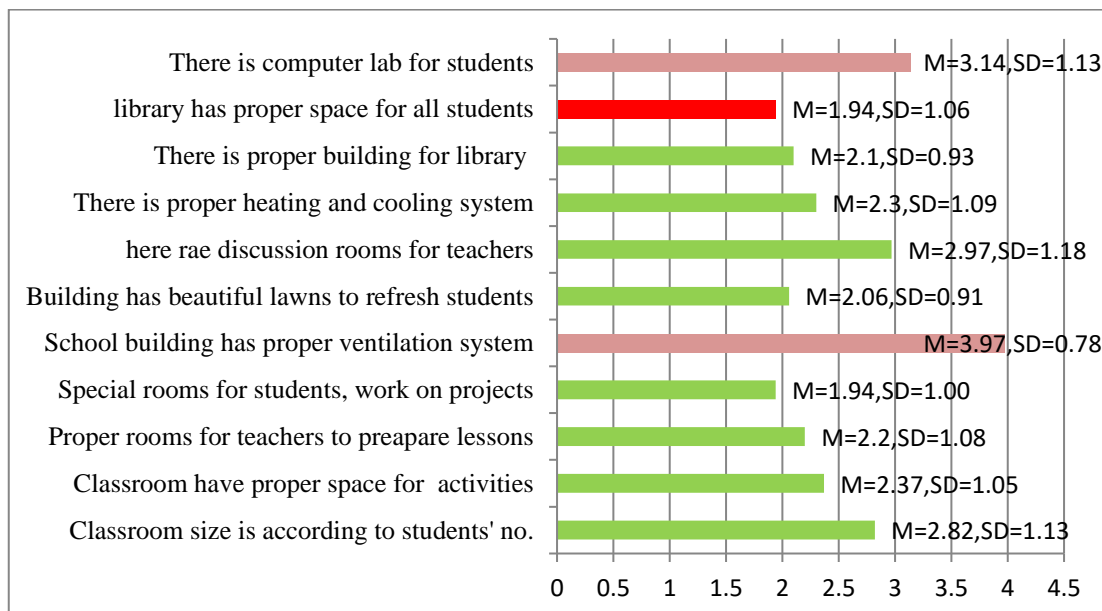


Figure 1: Descriptive of Problems Regarding ‘Infrastructure’

Above figure describes indicates that there was proper ventilation system in the teacher training institutions and also there was computer lab in the institutions. But there are so many problems regarding other infrastructure of the institutions i.e. classroom size is not according to the student numbers to engage them in interactive pedagogies and also there were no beautiful lawns to refresh them. There were not specific discussion room for teacher educators; there were no separate room for them to prepare their lessons. Respondents also responded that there were no proper heating and cooling system in the building. There were no proper buildings for library. Major problems were that library has

very little space to accommodate most of the students at a time and there were not separate room for the students to work on their projects in an effective collaboration.

Description of problems regarding ‘information/learning Resources’

Figure 2 indicate the responses of the respondents about the implementation of informational/learning. Different percentages of responses are colored differently.

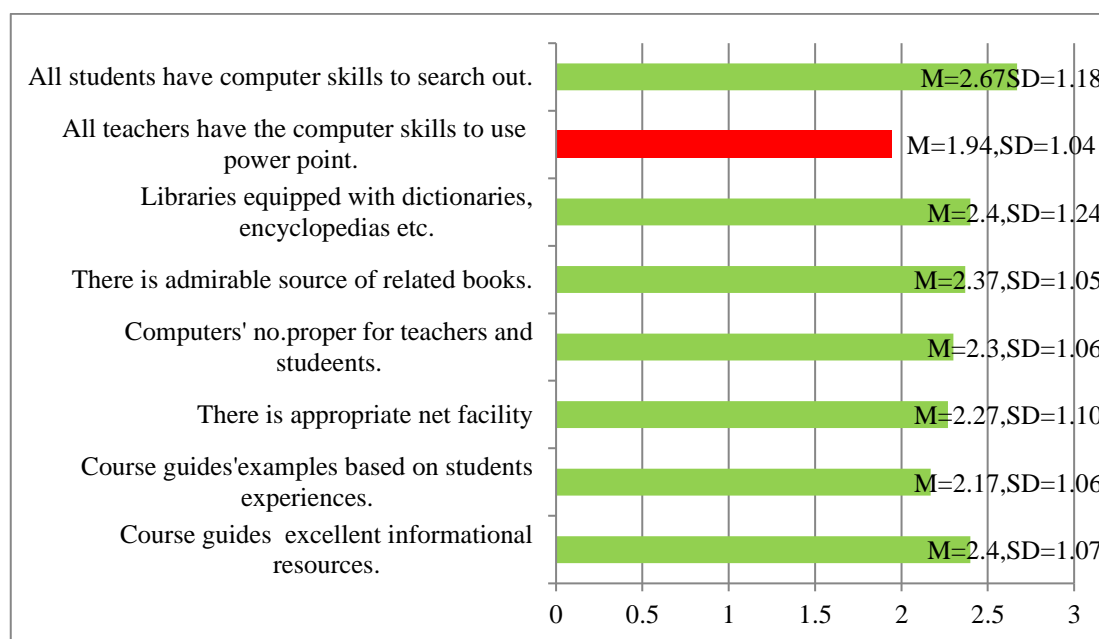


Figure 2: Descriptive of problems regarding ‘Learning/informational Resources

Above describes that respondents are facing too much problem regarding learning/informational resources i.e. there were not appropriate net facilities in the institution, scarcity of computer, lack of books; dictionaries; encyclopaedias related to this new curriculum. Respondents also responded that course guides are not effective informational resource and the example provided in it are not have any link with students’ cultural background and experiences. This figure also described that possessing of computer skill is also a great problem for them. They responded that students can use computer little more than teacher educators.

Analysis of responses by Age; Highest General Qualification; Location; Experience and Trainings Attended.

Analysis was conducted to explore the problems related to implementation in areas of and infrastructure informational/learning resources based on Highest General

Location wise respondents' responses related to Information/Learning Resources					
	Sum of Squares	Df	Mean Square	F	Sig.
Within Groups	877.019	66	13.288	1.315	.277
Location wise respondents' responses related to Infrastructure					
	Sum of Squares	Df	Mean Square	F	Sig.
Within Groups	1283.368	66	19.445	2.136	.104

Qualification; age; Location; Experience and Trainings Attended.

Highest General Qualification wise respondents' responses related to Information/Learning Resources					
	Sum of Squares	Df	Mean Square	F	Sig.
Within Groups	893.029	66	13.531	.897	.447
Highest General Qualification wise respondents' responses related to Infrastructure					
	Sum of Squares	Df	Mean Square	F	Sig.
Within Groups	1328.527	66	20.129	1.315	.277
Age wise respondents' responses related to Information/Learning Resources					
	Sum of Squares	df	Mean Square	F	Sig.
Within Groups	907.389	67	13.543	.814	.447
Age wise respondents' responses related to Infrastructure					
	Sum of Squares	df	Mean Square	F	Sig.
Within Groups	1382.417	67	20.633	.619	.542

Training wise respondents' responses related to Information/Learning Resources					
	Sum of Squares	df	Mean Square	F	Sig.
Within Groups	888.140	66	13.457	1.023	.388
Training wise respondents' responses related to Infrastructure					
	Sum of Squares	df	Mean Square	F	Sig.
Within Groups	1307.126	66	19.805	1.697	.176
Experience wise respondents' responses related to Information/Learning Resources					
	Sum of Squares	df	Mean Square	F	Sig.
Within Groups	919.780	67	13.728	.352	.705
Experience wise respondents' responses related to Infrastructure					
	Sum of Squares	df	Mean Square	F	Sig.
Within Groups	1385.587	67	20.680	.540	.585

Above statistical analysis show that there is no statistically significant difference at the $p < .05$ level in informational/learning resources scores for the four highest general qualification groups [$F(3, 66) = .897, p = .447$] and there is no statistically significant difference at the $p < .05$ level in infrastructure scores for the four highest general qualification groups [$F(3, 66) = 1.315, p = .277$].

There is no statistically significant difference at the $p < .05$ level in informational/learning scores for the three age groups [$F(2, 67) = .814, p = .447$] and there is no statistically significant difference at the $p < .05$ level in infrastructure scores for the three age groups [$F(2, 67) = .619, p = .542$].

There is no statistically significant difference at the $p < .05$ level in informational/learning resources cores for the four location groups [$F(3, 66) = 1.315, p = .277$] and there is no statistically significant difference at the $p < .05$ level in infrastructure scores for the four location groups [$F(3, 66) = 2.136, p = .104$].

There is no statistically significant difference at the $p < .05$ level in informational/learning scores for the three experience groups [F (2, 66) =1.352, $p = .705$], and there is no statistically significant difference at the $p < .05$ level in infrastructure scores for the three experience groups [F (2, 67) =.540, $p = .585$].

There is no statistically significant difference at the $p < .05$ level in informational/learning resources cores for the four trainings attended groups [F(3, 66) =1.023, $p = .388$] and there is no statistically significant difference at the $p < .05$ level in infrastructure scores for the four trainings attended groups [F(3, 66) =1.697, $p = .176$].

Comparison of Data of Infrastructure and Informational/Learning Resources

The mean scores for infra structure (M=2.53) and learning/informational (M=2.32) indicates that on the whole respondents were facing problem both in infrastructure and in informational/learning resources. But the mean values also indicate that respondents were also facing more problems regarding infrastructure.

Analysis of Qualitative Data

Analysis of qualitative data highlights the reasons behind the emerging problems as: inappropriate number of multimedia, specific rooms for activities, library building and space, poor heating and cooling system, electricity, internet and photocopier, curriculum related books, skills to search out information on internet, they consider course guides not good informational source, language of course guide is very difficult. Terminologies in different subjects are very difficult to understand, shortage of audio visual aids, websites in the course guides not opened. There is no alignment in topics and course material in course guides even topics are not in good sequence and standard of course guide is very high not matching the educational background of the teacher educators and prospective teachers. Some other problems were, level of information, time duration, English medium course.

Dicussion

Use of Informational/Learning Resources.

As this new education program was implemented to meet the criteria of 10 professional standards, there is need to update the knowledge of teacher educators and their prospective teachers. So this new program demands and focused on up-to-date information and interactive/innovative learning resources. Practitioners are trying to improve their knowledge, but they are facing problems in lacking of the related books, in selecting related material from the huge information on internet, fitting of multimedia and audio visual aids.

Implementation and Infrastructure

It is logical to see pedagogical shift towards teaching methods demanding activities requiring change in existing classroom physical setup, and educational equipment. Moreover, provision of flexible class settings, provision of educational material/equipment in quantity sufficient for number of enrolled students is also of basic importance. It is observed that the teacher training institutions in Balochistan have very poor infrastructure. There is no proper library, suitable classrooms, and separate staffrooms, heating cooling system, beautiful lawns to refresh students, water and power supply.

Conclusions and Recommendations

The results of the study indicate that there were almost no significant differences in the views of all respondents on the basis of their background variables. It means that infrastructure of teacher education institutions all over the Baluchistan needs superfluous attention of the implementer.

Furthermore teacher educators are facing with serious lack of serious informational and learning resources for communicating the different concepts in an understandable way. Following strategies will be helpful in removing the problems regarding infrastructure and informational/learning resources.

Guide and Provide Informational /Learning Resources

This new program demands and focused on up-to-date information and interactive/innovative learning resources. Practitioners are trying to improve their knowledge, but they are facing problems in lacking of the related books, in selecting related material from the huge information on internet, fitting of multimedia and audio visual aids. There is greater need of providing related informational/learning resources and guidance for using it.

Recuperating Infrastructure

It is observed that the teacher training institutions in Baluchistan have very poor infrastructure. There is no proper library, suitable classrooms, and separate staffrooms, heating cooling system, beautiful lawns to refresh students, water and power supply.

This program can be effectively implemented if the infrastructure of teacher education institution provides pre-requisite physical infrastructure for practicing student-centred teaching. This serves as de motivating factors for heads, teacher educators and students.

Establishing Monitoring Cell

Each new program should be given extra care as to the new baby plant. If baby plant is not cared timely it wilted, similarly if new implemented program is not monitored timely it fails to achieve its goals. So implementer should monitor the new ADE/B.Ed. (Hons.) program on regular basis with short intervals. This will increase the chances of its success.

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