

Need Analysis of Capacity Building of Faculty for Online Teaching

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Abstract

The Information Communication Technology (ICT) has opened many ways of providing education. Around the world this rapid development also significantly influenced the distance mode of education. In Asian region, Allama Iqbal Open University (AIOU), Pakistan is the Mega University to facilitate the masses in their educational development from primary to Ph.D levels of education. While focusing the importance of digital communication persistent efforts are being made by faculty and administration of AIOU to change its traditional distance teaching into e-learning. In this regards Secondary Teacher Education Department of AIOU intends to launch Online M.Phil Teacher Education Program. But before launching this program, existing need analysis study was done. Mainly this study aimed to analyze the requirements of students for online M.Phil program accordingly the capacity building of relevant faculty for online teaching. The objectives of this study were: to get opinion of students about offering of M.Phil online program; to analyze the need of faculty members for their capacity building about launching of M.Phil online program; to examine the institutional feasibility for launching the online program; to arrange micro online training for faculty. This was descriptive study and through survey technique data was collected by students, faculty members and administration of AIOU. For this purpose Entry Requirement Checklist and Questionnaire were used. Data was collected by 700 students appeared in M.Phil admission test for traditional mode, 26 faculty members, Controller Exams, Director Regional Services, Director Computer Center, Director Computer Center, Director Admission and Lead Trainer of online mode from Computer Science Department. Mean Score was used for analyzing the data. Overall data reveals that majority of the students were in favour of launching M.Phil online. Faculty members and administration were also determined to launch online program but firstly they need training for their capacity building about online mode. On the basis of findings of study two months online training for faculty was proposed to the authorities of AIOU. Finally this training was given to the faculty members which enabled them to launch M.Phil online program successfully. This model of online was formulated on the basis of this study may be adapted by any educational institution for capacity building of the faculty and administrative staff.

Keywords: Need analysis, Capacity Building, Online Teaching

INTRODUCTION

Existing Technological revolution has increased the demand of technology in all types of educational programs. All the intuitions even formal and non-formal are making efforts to embed the technology in their teaching learning process. Teacher education programs are also being offered through formal and non-formal mode what so ever, this is demand of time to modify the organizational behavior for employing the technological ways in different components of teacher education programs. Teacher Education program has its roots in

content, delivery mechanism teacher responsibilities, classroom behavior, individual needs, assessment system, national professional standards, globalization management, market values and professional training of faculty. While focusing the dire need of inclusion of technology for reshaping the mechanism of teacher education programs the existing study intends to hypothesize that institution need the capacity building of faculty and administration to adopt or adapt the change. For this purpose some questions aroused which enabled the researcher to develop a conceptual framework of the study, such as why and how can we launch the information technology integrated teacher education program? What will be the concerns of faculty, management and students for launching online programs particularly M.Phil teacher education program? Which implications can affect its launching? For answering these questions, conceptual frame work of the study was designed on the following:

- I. Need analysis of students' requirement
- II. Need analysis for capacity building of faculty.
- III. Professional training of faculty capacity building.

The use of ICT significantly influenced almost every aspect of life. The education, especially distance education is no exception. The ICT revolution has opened many ways of providing education. The rapid development of Internet and other digital communication technologies turned traditional distance learning to an electronic learning (e-learning). It is highly desirable in distance education across the country.

Although, Pakistan, a developing country, struggling to provide higher education facilities and trying to increase socio-economic development of the country. For this purpose formal and non- formal modes of education are trying to facilitate the masses for obtaining higher education. Though there is less participation in college/university education subsequently slowed socio-economic growth of the country. This has led to practice alternative solution in the form of distance education to masses in the country. In Asia region, AIOU is the Mega University to facilitate the masses in their educational development through four faculties. Education faculty is the largest one comprises on seven departments such as Distance Non-Formal and Continuing Education, Educational Planning, Policy Studies and Leadership, Elementary Teacher Education, Secondary Teacher Education, Science Education and Special Education. All these departments are currently offering their academic programs in distance mode of learning. Hence Secondary Teacher Education Department intends to use the electronic media for teaching and learning effectively. And it is making persistent effort in changing its traditional distance teaching into e-learning. This department is the largest one responsible to offer teacher education programs at large scale. The programs/courses of this department comprises of B.S Education (4 years), M.A., M.Ed, M.Phil (Education), MS/ M.Phil leading to Ph.D in Education, all these programs are trying to prepare professionally skilled academic leaders in their respective fields.

Keeping in view the utmost need of e-learning for mass delivery, rich experience of distance learning, required technology in hand, and relevant expertise, Secondary Teacher Education Department of AIOU desires to offer Online M.Phil. Hence this Online M.Phil program will be offered parallel with existing approved M.Phil program on distance mode. The Online M.Phil program may contribute as under:

- Ease of learning at office or home
- Interactive online teaching

- Flexible learning timings
- Quality Learning Materials (Web based Allied Material, Books, PowerPoint presentations, OER etc)

Over all through integration of technology in M.Phil education program these components such as improvement of teaching learning process, curriculum, students support services, assessment, teachers, students, institution performance, coordination among regional centers and compatibility with globalization will be focused. But some factors can affect its successful launching and processing such as incompetency of faculty and administrative staff, lack of training, insufficient infrastructure, organizational behavior, more theoretical curriculum and employers.

Now question arises why this study is advocating the capacity building of teachers for online teaching at AIOU. The educational success of students in online teaching is conditioned with success of teachers. Generally it is assumed that faculty of AIOU is not fully competent in online teaching for a number of interconnected reasons such as curriculum, infrastructure untrained academic and administrative staff, lack of training facilities, low morale of faculty. On the other hand impact of globalization is compelling AIOU to shift its traditional distance mode of education into online teaching. So there is a dire need for capacity building of faculty members in AIOU for quality online teaching and learning particularly at M.Phil level. So this study aims to examine the requirements of students for launching M.Phil online program and training needs analysis of faculty members for their capacity building in online teaching.

Objectives of the Study

Following are the objectives of this study:

1. To get the opinion of students about offering of M.Phil online program;
2. To analyze the need of faculty members for their capacity building about launching of M.Phil online program;
3. To examine the institutional feasibility for launching the online program;
4. To arrange micro online training for faculty.

Review of Literature

How to determining training needs? Before answering this question, there is need to examine the concept of need analysis and training need analysis. Need analysis is process through which efforts are made to identify and evaluate the needs of people in community or organization. Katz- Haas (2001) argued that focus of need analysis relates with goals and aspirations of the people. On the other side training needs is also considered the formal process focuses on the requirements of target group of people. According to Smith & Todaro (2012) training needs analysis as formal process concentrates on the elements of human requirements.

For improving the job performance of employees in any organization training needs analysis helps to identify the need of training.

Today technological revolution has made the work environment more complex and challenging which requires more efficient, competent and skilled works or employees to perform their tasks effectively. For their each task or assignment certain standard or expected level of performance is already determined or pre-determined. If employees are not

performing up to that pre-determined standard or criterion then training is needed. Then training is considered a tool for improving the performance. Training as a tool helps to minimize the difference between the actual and expected levels of job performance. This training needs analysis also helps to identify those people in any organization who actually need training and what kind of training they need. It will also enable us to use training resources effectively for making the training efficient and cost effective.

So for determining the training needs of any defined population of people need analysis process strives to answer these questions:

- i. Who is the target group of this study?
- ii. What are their goals, tasks and level of experience?
- iii. Accordingly what do they expect from system?
- iv. And how they can be satisfied?

Overall these questions formulate the conceptual framework of the study. By reviewing the literature we find different types of needs analysis prevail to use in the contexts of different employment. This can help us to determine the appropriate need analysis according to situation. For deciding the training needs analysis these types of needs analysis may be focused:

- Organization analysis such as strategies, goals objectives, and management interventions.
- Person analysis deals with potential participants and instructors involve in the process.
- Work analysis helps to ensure the requirements for performing the work, duties and skills.
- Performance analysis establishes the standard of performance.
- Content analysis deals with documents, laws and procedures relevant to job or work.
- Training suitability analysis to determine the effectiveness of training.
- Cost benefit analysis determines the return on investment of training.

<http://www.hr-guide.com/data/G510.htm>

Through this analysis any type of training is being organized to enhance workers' knowledge, skills and abilities related to their workplace.

Overall for determining the training needs firstly we need to identify the training needs of workers of any department under the umbrella of any institution. These training needs can ensure the organizational priorities. Accordingly effective training needs analysis system can be planned organized and managed across the organization. It also enables the organization to channel resources for capacity building of the employees.

2. What is capacity building?

Capacity building or capacity development is known as conceptual approach for knowing the obstacles that inhibit people or organizations from realizing their development goals. https://en.wikipedia.org/wiki/Capacity_building

According to the UNISDR (2014) capacity development is a process by which people, organizations and society systematically stimulate and develop their capability over time to achieve social and economic goals, including through improvement of knowledge, skills, systems and institutions within a wider social and cultural enabling environment.

The UNDP (2011) outlines that capacity building takes on following three levels:

- Individual level allows individual to build and enhance knowledge, skills and attitudes. It also establishes the conditions to engage the individual in the process of learning and to adapt the change.
- Institutional level supports institutions for formulating sounds policies, infrastructures, managerial approaches budgeting etc.
- Social level supports the interactive public administration for responsive and accountable.

Kaplan (2000) also pointed out following steps for capacity building of any organization.

- Developing a conceptual framework.
- Establishing an organizational attitude.
- Developing a vision and strategy. Developing an organizational structure
- Acquiring skills and resources.

Overall capacity building at any level addresses these questions.

- i. What developmental polices are best for strengthening the knowledge, skills and abilities?
- ii. Which types of procedures are required for capacity building?
- iii. How will the capacity building pogrom be implemented?

For answering these questions institutional role becomes more critical. According to UNDP (2000) in capacity building at the institutional level believes that “institutions are at the heart of human development, and when they are able to perform better, sustaining the performance and managing the shocks affect the system, they can contribute more meaningfully to the achievement of national human development goals”.

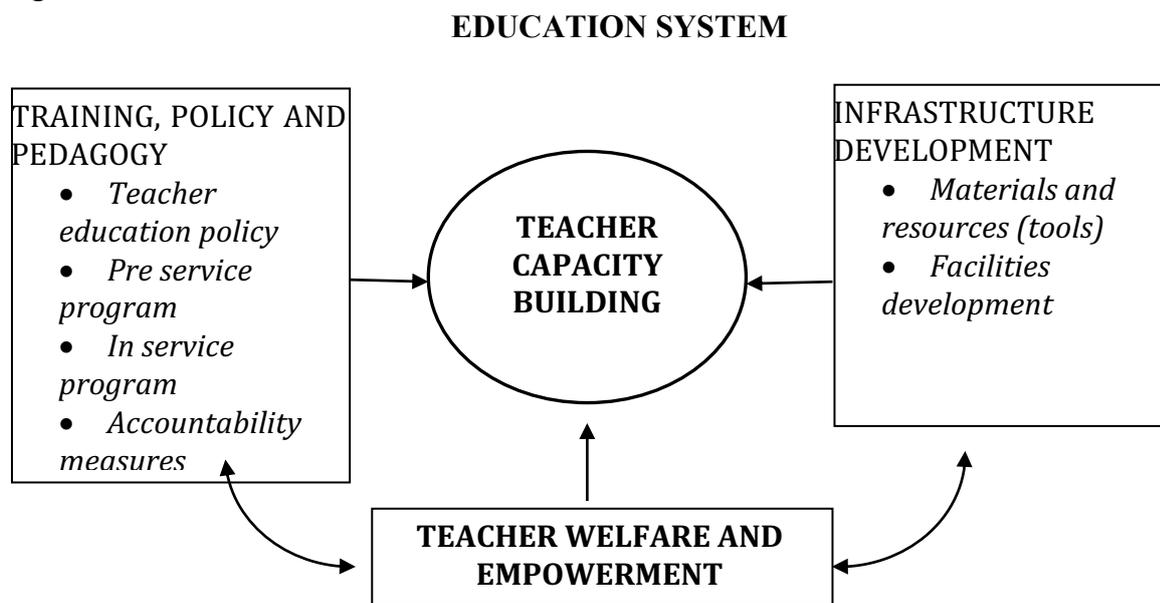
Mallinson & Krull (2013) also pointed out that institution needs to arrange professional development training for building academic staff capacity about online teaching.

Overall process of capacity building or development involves the empowerments of individuals or societal actors through learning, knowledge, information and innovation to effect transformational and sustainable change in institutions, which supports the achievement of the development goals (The World Bank, 2011). The OECD (2006) also declares that capacity development is a necessary endogenous process for enabling the people, organizations and society to manage their affairs successfully.

Alaerts and Kaspersma (2009) pointed out following competencies for individual organizational and institutional level of capacity development:

- Technical competencies cover knowledge, skills, and procedures of any project or program.
- Management competencies relate with project management skills, financial management skills, personnel and team management skills and mentoring skills.
- Governance competencies deal with understanding of procedures, consulting stakeholders, empowering other team members, ensuring transparency and accountability in decision making and results.
- Learning competencies focus the continuous professional development about new knowledge, skills, resources, procedures, innovations, performance standards and working environments.

Overall need analysis of capacity building of faculty may be contextualized through this figure:



Source: Benedicate Egbo (2011)

About the technology integration in education system Roblyer (2006) highlighted five essential conditions such as shared vision technical assistance, standards and curriculum support, training personnel and access.

3. What is online education/teaching?

Due to technological revolution intuitions are making efforts to shift traditional mode of teaching into online mode. And online education is a modern shape or type of distance learning in which courses are taken without attending a brick and mortar school or university. Through internet students and teacher interact with each other. During this mode two ways communication between teacher and learner is ensured in course of study falls under the supervision of an educational institution.

According to Bates and Poole (2003) use of technology in teaching learning process is changing the concept of conventional teaching learning. Now conventional classroom teaching is replaced by online teaching or distance teaching in which all aspects of teaching are done online.

As distance education is considered a convenient, cost effective and students' enrichment system which continuously advocates enriching the use of technology. Distance Education from its beginnings has been using technology. Technology paradigm shift has converted its traditional mode into online teaching. Online education has following benefits which are attracting the institutions towards conversion: Such as

1. Expediency and Elasticity
 - a. Timetable flexibility
 - b. Ease of accessibility
 - c. Range of options
 - d. Students control study time.

2. Student enrichment
 - a. Chance for interaction
 - b. Online communication
 - c. Time to absorb material
3. Cost effective choices
 - a. Money saving option
 - b. No more expensive textbooks <https://www.ccaurora.edu/programs-classes/online-learning/benefits-online-education>

Adkins and Nitsch (2005) also stated that online teaching learning not only provides the flexibility to the students but make them self-disciplined, self-confident and independent in learning skills. Whereas the online teaching is helping the students to learn skills independently, it also improves the students' performance. A research study also showed that online students spent more time on task which often led to better results (Mean et.al. 2009).

Another study showed that online students received timely feedback about their tasks which improves the assessment process. (Rekkedal and Paulsen 1997).

In the context of online teaching question arises what does need to know about it? For answering this question North and Nord (2012) highlighted that for online teaching faculty have mastery of subject, clear learning outcomes, a well-designed curriculum, interaction/communication with students, timely feedback and reliable and valid assessment of students.

While focusing these benefits Allama Iqbal Open University is also making efforts to convert its traditional mode programs into online mode. In this regard efforts have been made to change the delivery mechanism of M.Phil teacher education program from traditional correspondence mode to online mode. But this revolutionary change needs to develop capacity of faculty for online teaching. Because for online teaching faculty must be well conversant about technical, management, governance and learning competencies which make the program successful. In order to cultivate these competencies institution needs professional development of academic and administrative staff. Through this training they will become familiar with online learning environment, online delivery mechanism, e-content, e-assessment and learning management system. Overall capacity building of academic faculty of AIOU for online teaching includes competencies related to designing the courses, delivering the courses, administration, facilitation technical and evaluation skills. So this study intends to examine the perception of faculty members about their capacity building for launching online program.

Research Procedure

Launching of online program was very challenging for AIOU which compelled the researcher to get opinion of the students and faculty before launching the M.Phil online. For this purpose existing study was designed. The study was descriptive nature and comprised on three phases:

1. Need analysis of students' requirements: For this purpose students' requirements checklist was administered among 700 students who appeared for M.Phil admission test on distance mode in spring 2015.

2. Need analysis for capacity building of faculty members. For this purpose a questionnaire on three point scale was administered among relevant faculty members and administrative staff.
3. Arranging professional training of faculty members for their capacity building. For this purpose two months training was arranged with the help of computer science department of AIOU.

All respondents of above mentioned phases were concerned with M.Phil program of AIOU. Summary of respondents is given as under:

1. 700 students
2. 50 Academic and Administrative staff, out of them 35 Academic staff comprising on 15 Faculty members, 10 Resource persons and 10 Research supervisors.
3. 15 Administrative staff comprising on 5 Regional Directors, 2 Program coordinators, 01 Director admission, 01 Controller exams, 01 Director e-learning, 01 director regional services, 01 director computer center, 01 director Board of Advance Studies and Research (BASR), 01 director Academic Planning & Courses Planning (AP&CP) and 01 director Quality Assurance Cell (QAC).

For data collection researcher personally administered the checklist among students and questionnaire among academic and administrative staff therefore return rate was hundred percent. Percentage was used for analyzing the checklist while Mean score was used for analysis of questionnaire.

Results and Discussion

Table 1. *About Students' Perception*

S.NO	Statements	Percentage
1.	Do you think online courses are need of time?	89%
2.	Would you be interested to get enrolled in some online program related to your field?	83%
3.	If offered, would you like to be enrolled in online M.Phil Teacher Education program?	90%

Table 2. About Need Analysis of Capacity Building of Faculty (50)

S.No	Statements	Certainly 3	To Some Extent 2	Not at All 1	Mean Score
1	Launching of Online program of AIOU is dire need of time.	34	11	05	2.5
2	M.phil Online teacher education will get more acceptances among stakeholders.	24	15	11	2.2
3	Attitude of academic and administrative staff can affect its successful launching.	39	08	03	2.7
4	Academic and administrative staff of AIOU is capable to launch online program	13	16	21	1.8
5	Academic and administrative staff has sufficient information about online mode of education.	26	14	10	2.3
6	Academic and administrative staff needs training for their capacity building about launching of M.phil online program.	43	04	03	2.8
7	You need capacity building training for enhancing knowledge about online teaching.	45	03	02	2.8
8	You need capacity building training for improving skills required for designing the material of online teaching.	46	02	02	2.8
9	You need capacity building training for improving skills related to online interaction with students.	42	05	03	2.7
10	You need capacity building training for knowing the different features of online teaching.	43	03	04	2.7
11	You need capacity building training about assessment process in online teaching.	46	03	01	2.9
12	You need capacity building training to confront with troubleshoots during online teaching.	46	02	02	2.8
13	You need capacity building training for developing interaction with other faculty members and institutional managers will involve in launching of online program.	46	02	02	2.8
14	You need capacity building training for developing the modalities related to online teaching.	45	02	03	2.8
15	You need capacity building training for managing resources necessary for launching of online program.	45	03	02	2.8

16. Did you get any training related to online teaching?

Yes	No
20%	80%

17. Indicate factors can affect the successful launching of M.Phil Online program at AIOU.

Factors	Percentage
Incompetency of academic and administrative staff in context of knowledge, skills and attitude.	84%
Lack of infrastructure, institutional policies and procedures	72%
Lack of human, financial and technological resources	64%
Acceptance of stakeholders	59%

Across the globe Information Communication Technology (ICT) is being taken an integral part of education for imparting knowledge and developing the capabilities of users either teacher or student to meet the challenges of globalization. While focusing its

importance AIOU is converting its traditional mode of education into online mode. Students of AIOU are the main stakeholders and beneficiaries so need was felt to get their perceptions through this study about the launching of online M.Phil education program at AIOU. In this context Table No 1 reveals that 89% students were of the opinion that online courses are the need of time. Respectively 83% interested to get enrolled in online program related to their fields and 90% agreed to get admission in online M.Phil education program in future. UNESCO Report (2003) also highlighted that ICT has become an integral part of teaching and learning. Throughout the Asia and Pacific stakeholders are becoming more inclined towards e-learning and online education.

Table No 2 related to need analysis of capacity building of faculty for launching online program and online teaching reflects that majority of the academic and administrative in favor of online launching along with their capacity development training. Such as majority of faculty members, resource persons, research supervisors and administrative staff (Program Coordinators, Regional Directors, Director Regional Services, Director of BASR, AP&CP, Admission, e-learning, QAC, Computer Center and Controller Exams) opined that launching of online program is dire need of time and it will get more acceptance among stakeholders. Mean score of 2.5 and 2.2 highlights the agreement level of respondents. Hence mean score 2.2 also indicated that attitude of academic and administrative can affect the successful launching of M.Phil online program. Further 2.3 mean score reflects that although they have sufficient information about online education but academic and administrative staff are not fully capable to launch online M.Phil program as mean score 1.8 indicates. According to Bee & Bee (2003) online learning is becoming widen learning phenomenon due to its easy access and flexibility for learners. But many institutions at large scale face the problem of incapability of the staff for online offerings. They viewed that every institution has to build the capacity of staff for integrating and managing the technology for launching of online programs. Majority of the respondents of this study depicted through 2.8 mean score also agreed that through this training academic and administrative staff of AIOU will be able to enhance their knowledge and to improve their professional skills required for launching and designing the materials, modalities, managing resources, interaction with students and other concerned persons, assessment of students, knowledge of different features, and troubleshoots related to online program. (Respectively mean scores 2.8, 2.8, 2.7, 2.7 and 2.9, 2.8, 2.8, 2.8, 2.8 calculated). Holden (2002) also argued that capacity building training of teachers helped them to develop course material, interact with their students and their assessment. With reference to this study 80% academic and administrative staff did not get any formal training related to online teaching or education. Majority of the respondents such as 84%, 72%, 64% and 59% respectively pointed out these factors such as incompetency of staff, lack of infrastructure, resources and acceptance of stakeholders can affect the successful launching of online program.

CONCLUSIONS

Mainly this study aimed to determine the training needs analysis of academic and administrative members of AIOU who involve in launching of M.Phil online program. So the result of this study showed how this training is necessary for faculty members. Currently all members involve in launching, coordinating and managing the academic programs

particularly M.Phil in traditional correspondence mode. But the conversion of this program into online mode needs professionally competent human resources, relevant infrastructure and accreditation of the program while focusing the need analysis of capacity building of faculty members for online teaching this survey was done.

Through the data analysis it was concluded that majority of the students were strongly in favor of online M.Phil program. They opined that this mode will be more feasible and easily accessible for continuing their higher studies. As during traditional mode of study they have to attend in person one week compulsory workshop for each course at main campus Islamabad. Throughout the M.Phil program 8-10 workshops are compulsory component for each student. As students belong to far flung areas and they face lot of problems related to their jobs, family and traveling while they come for attending workshops. So launching of online M.Phil will minimize these problems and it will be more flexible and accessible for all types of students, males, females and on jobs.

About the faculty concerns for capacity building, analysis of data reveals that majority of the academic and administrative members of AIOU were in favor of online program. But some factors such as incompetency of staff in context of their knowledge, professional skills and attitude, lack of infrastructure, institutional policies, procedures, and resources can affect its successful online launching.

Majority of the respondents opined that online program can get more acceptance in society or among stakeholders but incapability of concerned faculty members and administrative staff will hinder its quality. Therefore before launching the program capacity building training must be focused. Respondents at large scale were of the opinion that academic and administrative staff need training for their capacity building about online program and teaching. They also viewed that this training will enhance their knowledge, professional skills and attitudes required for online teaching. This training will also make them well conversant about different modalities of online teaching such as designing the material, teacher-teacher and students interaction, assessment, problem solving, managing the resources, coordination among relevant sections of AIOU, establishing the infrastructure and utilizing out sources. While focusing the capacity building of faculty members about the different aspects related to online teaching initially two months training in two phases with help of computer science department of AIOU was arranged. At least this training helped the faculty to take initiative of launching online program.

RECOMMENDATIONS

After analyzing the training needs of academic and administrative staff regarding online education or teaching, institutional faculty training programs were proposed. On the basis of these recommendations two month training programs in two phases was arranged with the help of computer science department. Through these trainings confidence was built up among faculty members. At least they were able to launch online program in future.

Hence for maximizing the successful launching of online programs and online teaching more nationally and internationally training activities may be arranged. AIOU may establish a periodically training model for capacity building of its personnel particularly online mode or another future innovation. This model may comprise on different periods such as induction,

yearly and after three years. For training of each period every one must have the equal chance of training. Everyone who completes the training must be awarded completion certificate.

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