

Strategic Framework for the Employment of E-learning Projects in Afghanistan Challenges and Requirements

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Introduction

Since the 1980s and 1990s, e-learning programs have been developed to replace, supplement, enhance and support processes of teaching and learning with the employment of electronic tools or digital media. Since then, a number of sub-categories of e-learning have emerged as a multitude of types and forms: computer-based trainings, online teaching, multimedia learning, virtual trainings, distance learning, blended learning, Massive Open Online Courses (MOOCs), learning communities, virtual classrooms, 3D infrastructure platforms, etc.

This paper discusses the strategic framework for the employment of e-learning projects in Afghanistan. It will deal with the necessary requirements for this new challenge and tries to answer the question, how teaching and research at Afghan universities can be supported with e-learning scenarios.

E-learning projects in Afghanistan

The Afghan universities are already interconnected with international universities since the establishment of the IT center of Kabul University (ITCK) in March 2003 and thus have access to e-learning. Students, lecturers and employees all use the world wide web for teaching and learning, chat online with friends and throughout the world, submit pictures and postings to online services and participates in social networks and scientific forums.

Since 2005, several international universities and organisations have tried to establish online learning platforms to support teaching at Afghan universities. These platforms allow to exchange information, make academic literature available, etc.

It is, however, not yet possible to replace the traditional linear concept of thinking and learning with new media. The reason for this is the absence of structural preconditions, online socialisation, construction of knowledge, self-organisation and self-discipline as well as didactic concepts.

New challenges

The employment of e-learning projects in the form of virtual teachings to impart knowledge for the improvement of teaching and learning processes is a new challenge for the higher education and the Afghan universities. Prior to the realization of such projects, it is crucial in this context to evaluate the current situation in terms of education, cultural and structural situations, study habits and prior knowledge of the target group (lecturers, students and members) as well as the existing infrastructure (power supply, Internet connectivity, PC equipment etc.)

During the strategic project planning and conception the repercussions of more than 20 years of war and destruction that left a desolate education infrastructure have to be considered as well. Even after thirteen years of reconstruction of academic structures, traditional education structures still prevail in Afghanistan. At schools and universities, students and scholars rather learn by reproducing memorized facts of mathematics, physics, chemistry and history. The education lacks analytical, methodological and

theoretical aspects. Concepts like student-centered learning and outcome-based education could not be successfully introduced till now.

A large number of e-learning projects worldwide failed not because of technological shortcomings but rather due to a lack of acceptance, insecurities of users, and missing didactic and pedagogic concepts.

Though there have been projects which succeeded in showing effective possibilities of an innovative education through the use of new media, these projects are often isolated solutions in academic daily life.

Prior to the implementation of new media for an effective and innovative education, a strategic framework has to be created which will be integrated in the Afghan universities' daily life.

If one considers a sustainable implementation of e-learning projects at Afghan universities as a complex university-wide innovation process, then the various challenges and structural prerequisites in all phases of the implementation have to be taken into account: from the strategy formulation to the conception, realization, quality assurance and evaluation.

Strategic framework for e-learning projects in Afghanistan

The success of e-learning projects depends on a profound analysis of the situation and the structural preconditions:

Evaluation of the situation

For the field of e-learning, like with any other form of education, the first step is to collect information about target groups, the scope of the teaching, contents, existing infrastructure and structure of the universities. The general conditions learners are facing are also important. This includes cultural and technical conditions, prior didactic education, and learning behaviour. These conditions are crucial for the implementation of such projects. Therefore, answers have to be found to the following questions:

- Are the universities prepared and do they meet the necessary requirements?
- How can awareness be raised for the topic of e-learning or virtual teaching/virtual learning at the universities?
- Are the senior lecturers, which form 70% of the teaching staff at the Afghan universities, ready to engage in virtual teaching and learning?

- Do the university members have enough technical skills for dealing with the new media?
- Is an integration of virtual teaching and learning into the development processes of teaching and learning possible without organizational disruptions?
- Will the large investment in electronic learning systems in Afghanistan be economically viable, and who can guarantee this?
- Which of the teaching contents are suitable for virtual education and training scenarios?

Finding answers to these questions depends on the complexity of the structural requirements.

Structural requirements

IT structures like stable power supply, Internet connectivity, cultural competence, trainings, target groups, contents, methods and the engagement of the universities etc.

are crucial for the roll-out of e-learning projects. It is also of utmost importance that e-learning programs are considered as part of an overall strategy for higher education development. In particular, it has to be examined if all of the following structural requirements are met or can be met for each of the particular e-learning solutions:

Power supply

It has to be examined if the quality of the power supply is sufficient for such projects at the Afghan universities. In case of frequent daily blackouts, concepts for assuring continuity and sustainability of the virtual teaching and learning have to be developed.

Internet connectivity

The necessary Internet or Intranet access is crucial for all participants. Issues of availability, privacy and IT security have to be solved. Students and lecturers need free access to learning software, websites and learning environments like learning communities.

Cultural competence

In order for virtual teaching and learning to succeed, a high competence and openness towards new learning processes is required at the universities. These processes and decisions have to be made transparent to all involved parties: executives, persons responsible for education and further trainings, involved employees and especially women. Furthermore, a culture of autonomous learning, analytic thinking and personal initiative of the employees is required during education and further training.

Target group

The target group has to be trained and made familiar with the new media. I.e. besides the transfer of IT skills (using web services, chats etc.), it is necessary to enable learners to make use of the learning environment independently and autonomously. Even though the selection of teaching topics will be made according to professional demands, the learning targets have to be agreed with the persons responsible for education and training, especially in the particular education situation in Afghanistan. Depending on the target group, educational content might lead to completely different learning targets. For this reason the structure of the target group has to be determined first. Aspects like personal data (number of participants, number of women, age, formal education etc.), prior knowledge, work experience, learning experience, needs and habits have to be considered.

Training of lecturers, instructors and tutors

Just like the target group, also the lecturers, instructors and tutors have to be prepared and qualified for their new role, e.g. through trainings as distance lecturers and tutors. They have to manage the maintenance, actualization and extension of the e-learning tools themselves.

Furthermore, they have to promote the self-discipline and self-teaching competences of the target group, strengthen the social contacts between the participants and give them the opportunity of dialogue and communication to better cope with the past. Hereby, women and ethnic minorities must not be excluded.

Contents and methods

The employment of e-learning within the teaching and learning processes is new to the Afghan universities. It requires the development of new didactic concepts and learning cultures. The first question is which teaching contents to impart, which deficits to address, which key skills to support and how much time to plan for teaching. Most of all it has to be figured out whether the target group prefers learning with special learning

management systems, multimedial teaching contents via CD-ROM or DVD (simulations, audio and video sequences), practices via websites or in the form of blended learning. In general, one has to know if suitable e-learning content about the particular topics can be found on the market or if a producer or education service provider will be commissioned for the creation of contents on the most suitable media.

Engagement of the university leadership

After the structural requirements for the implementation of the expedient frame conditions of an e-learning project – target group, organization and technology – have been met, the employment of such projects has to be further discussed directly with the university leadership. In this scope, solutions have to be drafted that define important milestones, project strategies, cultural situation, the estimated work and the costs. The result is going to be used as a decision-making tool for the planning of higher education in order to integrate this new type of education into the current traditional infrastructure in Afghanistan and to assure the necessary acceptance of the users.

E-learning programs as part of an overall strategy for higher education development

In order to assure a sustainable implementation of e-learning in the scope of an overall strategy for higher education development, the questions have to be answered which didactic e-learning scenarios are suitable at all and which ones can be realized in the respective departments (e.g. contents, target groups, number of employees).

Basically, e-learning scenarios can be distinguished by the extent of lectures that require personal presence (in-class lections) and the amount of virtual education.

- a) Enrichment concept: in-class lectures are supplemented by the use of new media (e.g. interactive tasks, exercises and simulations, visualization, sources from the Internet)
- b) Integrated concept: Alternating in-class lectures and virtual lectures (e.g. self-study, online cooperation, online support)
- c) Concept of virtual education: mere online-learning and working (e.g. a virtual seminar)

With regard to the various e-learning scenarios the main focus should be on the support of the teaching and learning forms of the respective target groups and on the access to global knowledge resources (see concepts a and b).

A total replacement of in-class lectures with virtual education (see concept c) is not a viable option for Afghan universities in the near future considering their current situation and conditions.

Sensible use of the concepts a and b can help the Afghan universities to adapt to international standards in education and science and strengthen their competitiveness.

Costs and operation

The implementation of an e-learning project is costly. Among others, it requires the acquisition of hard- and software, the development of digital means of learning media and the organization of e-learning events as well as the realisation of a stable power supply and Internet connectivity.

All this has to agree with the real situation at the Afghan universities. The available resources are related to the financial, material, personal, cultural and motivational possibilities.

Conclusion

The conception, development and employment of e-learning facilities requires a multitude of competences in the fields of media didactics, media informatics and media design as well as business administration, all of which are rarely present at Afghan universities yet. Furthermore, there is the danger that at the end of the day neither the traditional nor the modern means of teaching and learning will work and that the persons who have been educated for this task will leave Afghanistan.

Thus it is recommended to further extend the already created structures by training and educating more qualified personnel (IT technicians, IT administrators, Master's and PhD degree holders in the area of IT and computer science).

In the Ministry of Higher Education's (MoHE) strategy plan a phase-model of e-learning scenarios (according to the concepts a and b) should be established. The phases therein cover the development from a beginner's stage to e-learning professional and have to consider the following points:

- Availability of qualified personnel
- Infrastructural and technical requirements like a stable power supply, internet access and IT centers
- Access to e-learning tools and platforms
- Awareness of teaching and learning content and methodology at the different universities and in their target groups

The last point is important as the target groups yet have to learn how to use different media and means of publication. The presentation of teaching and learning content and the creation of possible e-learning scenarios should not be governed by technical but didactical considerations.

Furthermore, the target groups have to learn how to cope with the challenge of classifying, archiving, searching, ordering and structuring the huge new datasets.

Later on, the target groups are not only responsible for the content but also the planning and organisation of the e-learning scenarios. Additionally, a culture of self-organisation and self-discipline has to be created.

When introducing e-learning scenarios (according to concepts a and b) it is also important to adhere to international standards in teaching and research to guarantee the competitiveness of Afghan universities.

Special care has to be taken that in the context of the MoHE's strategy plan no online certificates and/or credit points are to be awarded for e-learning scenarios. This would damage the quality of the Afghan education system and hence causes big problems for the development of the Afghan society and economy in the long term.

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