

Learning to Learn

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Abstract

Practice resulting in successful blended learning:

A recognized need to ensure equity and ready access to health services through well-trained health staff led to the design of a performance-based upgrading program implemented in 23 countries in the Caribbean, Central and South America. The main objective was to prepare laboratory managers to function effectively and efficiently within in the dynamic of the Caribbean environment. Important challenges included bringing together 23 sovereign territories, speaking four different languages, all having different beliefs and cultures while establishing basic competencies as a means of standardizing and harmonizing the regional training effort.

The focus was on action learning: reinforcing and extending the existing knowledge and skills through a blended learning approach. Learning via distance education was new for almost all of the 56 students. The course participants came together occasionally, but depended heavily on written training materials which included assignments to be sent in, discussions, and telephone tutoring support.

This blended approach worked very well, not only resulting in a number of competent health managers, but also in preparing staff that can take on an important role in the further development of training in health-services using distance education as is now being implemented in the region.

INTRODUCTION

The Caribbean Epidemiology Centre (CAREC) is a unique institution, created by Caribbean Governments and administered by the Pan American Health Organization (PAHO/WHO) that has been charged with providing guidance to health laboratories in the Caribbean region. In pursuing its mandate to strengthen laboratory services, CAREC has noted the impact of globalisation on both the quality and availability of human resources and recognized the need to develop a well trained and well educated workforce if the region is to successfully compete in the global market

Health has been recognized by Caribbean Heads of Governments as a key ingredient for economic development and medical laboratory services are a critical hub of the health system, often providing the information on which clinical diagnoses, health policies and epidemiological interventions are made. The steep increase in chronic and communicable diseases and the threat of diseases such as, for example, HIV/AIDS, diabetes and cancers, makes the need for high quality laboratory care even more urgent. In fact, an outbreak of a serious communicable disease in the Caribbean region would not only jeopardize the health of the national populations and by extension, the still fragile economies, but also affect the tourism industry on which many countries in the region depend heavily.

In an attempt to get more information about the quality of regional medical laboratory services, a laboratory quality management baseline evaluation was carried out by CAREC in April 2003. The analysis provided ample evidence that the quality of testing and thus the quality of laboratory services could be improved. CAREC identified training as key to the development of skilled and effective laboratory managers and leaders and by extension to the improvement of medical laboratory services. In a review of the training provided by

regional institutions, it was seen that, although the core content was similar across programmes, there was great variety in the quality of training.

In the following discussion the concepts of learning and teaching/training will be briefly considered. We will then discuss the Management Training Programme initiated in 2003 by the Project Implementation Unit (PIU) of CAREC's 'Strengthening of Medical Laboratory Services in the Caribbean Project', funded by the European Union, in collaboration with the Michener Institute in Canada. In 2006 the programme certified its first fifty-four students. This programme was based on the conviction that education systems should not only prepare students and citizens for employment, but also encourage them to see learning as essential for the current changes many societies experience. Learning opportunities should not only be provided but also should be used effectively.

LEARNING

We have all grown up with certain preconceptions about learning. If we ask those who are learning to tell their "learning stories" we find that, according to Y.L. Visser & J. Visser (2000), meaningful learning should focus on, among others, the real-life context as the natural habitat for learning, the interaction with the learning of others as a basis for one's own learning, the discovery of persistence as a strategy to manage life's challenges, and the power of learning to turn negative self-perceptions into positive ones. As to the latter focus, a recent survey, administered by CAREC to over 500 Medical Laboratory Technologists showed that about 20% of them saw self-fulfillment and improved self-perception as an important benefit of starting to study again. It should also be noted that social connectedness is a crucial dimension of a learning context.

TEACHING AND TRAINING

In many teaching and training situations instruction is characterized by formalized activities. Success is measured by how well a student understands, retains and repeats the content presented. In addition, many methods of instruction assume that it is possible to separate knowing and doing, in this way treating knowledge as an integral, self-sufficient substance. Recent developments in distance education and blended learning have focused on looking at teaching and training activities more as constructing new ideas or concepts based on already existing knowledge.

It is no longer the case that learners are trained to individually find solutions to problems, on the contrary, learners collaborate with each other and with the trainer about the problems to be solved. We look at contextual or experiential learning that is built on authentic interactions between the learner and learning community. This seems to be a good way of providing training, but it becomes more difficult if training is provided in a transnational context – if students from a variety of cultures are participating in a training course.

Teachers/trainers and students bring to a course a set of non-negotiables, inherent in their own cultures, such as language, beliefs, preferred methodologies and learning styles, and attitudes about learning (Gunawardena, Wilson and Nolla, 2003). An important difference between traditional and distance learners is that the latter typically learn in more independent environments. Independence is thus important and cannot be taken for granted, given the many different understandings and different perceptions. Moore and Kearsley (1996) mentioned that the concept of distance does not only refer to physical separation of teacher and learners, but rather to the "pedagogical" distance and as seen above, a cultural distance as well.

Learners as well as instructors have to be prepared for learning and teaching via distance

education. It does not much matter what kind of technology is used (students and teachers should of course be thoroughly familiar with the technology), but it is extremely important that students and instructors see learning and teaching as an interaction i.e. as a communication process.

This introduction has served to prepare the ground for a discussion of an interesting and challenging programme, designed, developed and administered by CAREC's PIU, with assistance from the Michener Institute, as part of a performance-based, upgrading programme, that was implemented in twenty-one countries during the period June 2003 – May 2006. It is a valid example of how professionals with different beliefs and different languages and cultural backgrounds managed to establish key competencies as a means of standardizing and harmonizing efforts to develop laboratory skills and implement standards in regional medical laboratories.

THE CONTEXT

In 2001 during a conference of Heads of Governments in the Caribbean it was agreed that health, national and regional economies were intricately linked. This message was transmitted to the region through a declaration by the Heads of Governments that "The Health of the Region is the Wealth of the Region" (Nassau Declaration on Health, 2001). Subsequently regional Ministers of Health, through Caribbean Cooperation in Health initiatives (CCH1 and CCH II) recognized the need to strengthen regional human resources. This included the development of a cadre of medical laboratory managers, as an important step towards a regional network that would deliver improved health services.

As a result of these initiatives CAREC offered a performance-based upgrading programme to twenty-three CARIFORUM and CAREC-member countries located in the Caribbean, Central and South America. The training aimed to develop a cadre and network of skilled regional medical laboratory managers that would function effectively and efficiently within the dynamic of the Caribbean environment. CAREC's PIU, with assistance from the Michener Institute, designed, developed and delivered this challenging programme.

THE STRUCTURE OF THE PROGRAMME

Twenty-three Caribbean countries were contacted. Twenty-one of these participated fully in the training programme. CAREC and the region as a whole were not yet fully prepared for distance delivery but it was evident that face-to-face delivery only would be too expensive. A blended approach was thus chosen and a total of eight face-to-face workshops were planned over a three-year period. In addition, in inviting nominations from regional Governments and private sector institutions, CAREC outlined specific criteria to guide selection. CAREC also emphasized the need for participants and Governments to be aware that strong commitment and motivation would be key to success. Prospective students, Governments and institutional heads were asked to sign a letter committing themselves to supporting and encouraging their nominees throughout the training. Each country was invited to nominate at least two participants. Participants had to be currently functioning as a laboratory manager, laboratory director or senior technologist. In a few cases a junior technologist, qualified but with limited experience, who had demonstrated leadership potential was admitted.

PROGRAMME OBJECTIVES

The three-year programme focused on training and preparing a cadre of Caribbean medical laboratory personnel able to:

Manage their laboratory operations more effectively and efficiently

- Implement quality management systems
- Provide leadership and guidance for good laboratory practice in the Caribbean
- Be better able to prepare their own laboratories and others to meet established standards for accreditation
- Train others to implement quality assurance and quality management systems in their laboratories
- Assess other national and regional laboratories against established standards

PROGRAMME DESIGN

As has already been mentioned, it was clear from the beginning that a blended approach should be used for the delivery of the programme. For those not familiar with the region, there is a tradition of ongoing collaboration between the many members of CARICOM (the Caribbean Community and Common Market), but there is not yet sufficient internet connectivity to support effective virtual training. In addition, a region of some twenty sovereign territories, stretched across a large geographical area and separated by bodies of water faces several challenges other than technological. During the three years the programme was being implemented there was at least one major volcano outburst, a dramatic earthquake, several hurricanes and a number of airline strikes and political changes that impacted on travel and student participation. Anticipating the possible threats was part of the design.

Learning has everything to do with change – and implementing change in a flexible and motivational way was necessary in the world of the medical laboratory managers/technologists. To support this, forging strong sustainable networks through creating opportunities for students to work together was a major programme focus. Furthermore, the course design focused on a practical, action-learning approach in which students, from the very beginning, were encouraged to initiate implementation of what they had learned. Where possible, students were invited to facilitate training sessions in their areas of specialty.

A great variety of teaching and training strategies was used. These included:

- Theory-based knowledge transfer
- Action learning strategies - hands-on application of what had been learned
- Support technology in the form of videos, CD-ROM, and web-based information
- Role play
- Readings, interactive class discussions, debates, case studies and critical analyses
- Independent study material, such as written assignments (individual and group) and individual and group presentations
- Hands-on class sessions
- Site visits and situational analyses
- Individual development planning
- Mentoring

EXPECTED OUTCOMES

By the end of the programme participants were expected to:

- better understand the role of the laboratory in clinical care and management, public health action and health policy development
- more effectively negotiate and advocate for resources, stakeholder and client support
- be more comfortable in their roles as team leaders and change agents
- be better facilitators within the laboratory and better able to motivate the laboratory

- team to meet and maintain established standards
- be more empowered to interact and participate in health decision-making along with other healthcare stakeholders
- understand the quality management system and how it should be designed, implemented, maintained and improved
- have made significant in-roads into implementing a quality management system in their respective laboratories
- have initiated the ‘cascade’ effect through training of other laboratory personnel in their respective countries to implement quality assurance systems

PROGRAMME DELIVERY

The programme was administered from June 2003 to May 2006 by the PIU. It consisted of eight modules of about 100 hours study time each. Each module consisted of a week-long face-to-face workshop and approximately four months for completion of related practical assignments. Workshops were rotated through the project countries. Participants had to travel to the selected participant country where they met with the module facilitators. New modules were conducted approximately every four months i.e. three times a year with one exception being a module that was postponed due to hurricane damage. The logistics of these meetings were an important challenge. Planning was often complicated, not only because of challenges such as those mentioned (airline strikes, weather conditions etc), but by the complex processes involved in obtaining approvals for public sector participants’ attendance at each module and also because participants occasionally faced tough personal challenges such as illness.

REMARKS ON THE MANAGEMENT OF THE PROGRAMME

It seems useful to reflect for a moment on the uniqueness of the programme. Imagine, participants from twenty-one countries, from a variety of cultures and experiences, speaking four different languages, with different levels of knowledge and experience, and different circumstances, starting to study together with the help of a course coordinator and several guest lecturers. Some of the participants were computer literate, others were not. Some had not been studying for years, while others had just finished training or were still doing a course. Many worked in medical laboratories that were not well equipped, where staff received little continuing education, salaries were low and turnover was high. Many of the managers themselves had received very limited training for the tasks they faced daily. Although participants were alerted to the challenges of independent study, it was still difficult for many of them to imagine the difficulties of being responsible for their own learning. The bulk of the course work, however, had to be managed through independent study, often without the help of a tutor who could easily be reached. In addition, their full-time, daily work circumstances were demanding.

In spite of these challenges there was over 90% attendance across all modules. Of the 57 participants over the life of the course only ten participants deserted due to, inter alia, the course workload being too heavy for them to manage while doing their full time job or the difficulty of being released due to very small staff numbers (2-4) or their move to some unrelated job. Very few were essentially unsuitable. The commitment of the participants was incredible as their various reports and mid-term evaluations showed. The enthusiasm and dedication of the course team influenced the students in important ways. Knowing that there was always someone who was there to listen, to help and to encourage when necessary had a very important and positive influence. Participants also gradually assumed not only more responsibility for their own work, but also for their colleagues. It is interesting to see how the group, as a whole, over time learned to learn, not only in the traditional mode, but also through distance education.

Given the continuum of experience of the students, assignments were broken into small pieces and each piece addressed a critical competency. It allowed the student to incrementally approach developing the competency and allowed the course to assess the points along the way towards development of a competency. Some assignments required little but others quite substantial time.

The demanding programme required the students to manage their time well. This was, of course, also a good learning exercise. It is difficult to know exactly how much time each student spent on the programme, especially as the level was not homogeneous. Although the core content of the programme was less than ten hours weekly, the additional time required for assignments that aimed at implementation of the systems at the workplace, developing and conducting seminars and writing projects brought the average time spent on the programme to between 20 and 30 hours weekly.

LESSONS LEARNED

In the following we have identified some major observations and lessons learned that will be used to inform and strengthen future training programmes.

- Personal motivation is fundamental to success and drove many students to achieve far more than they thought they could
- Successful students embraced the programme’s goals as their own and were passionate about achieving success
- The level of a student’s success was not necessarily linked to available resources, or time or burden of work, but to commitment to the cause
- A good course management system (including an efficiently functional and functioning Internet system) is critical to efficient and smooth management of assignments and to effective monitoring of distance students
- On reflection, the programme was really a full time three-year training programme. Time off for studying is essential and should be negotiated for similar future programmes.
- The number of assignments i.e assessments of learnings, were considerable and challenging and may need to be refined in future programmes
- The attraction of meeting others, bonding and sharing were important to retaining students

The CAREC PIU is currently conducting post-training evaluation visits to each participant laboratory to assess gains made as a result of the participants’ training, gather feedback from stakeholders on improvements in participant’s management and leadership skills and if necessary give an extra push to the laboratory strengthening effort. Redesigning these modules for use in a fully distance education modality by regional training institutions is currently being explored. Information about what kind of technology can be used confidently is an important issue currently being explored through a CAREC survey.

In the last section, insight into participants views on their experience will be given.

AND NOW THE STUDENTS SPEAK... (Brief extracts from student mid-term reports)

- I have become a more mature and responsible manager, more positive and with more confidence in myself.
 - I am expected to lead by example and to my colleagues I have moved from technologist to someone in a managerial position & they are constantly seeking advice, clarification and resolution of issues so I have to be sure to exemplify the

qualities of a good leader as I am in the spotlight

- One of the most fulfilling events of my career and a turning point for me in moving the laboratory towards accreditation since CAREC possesses the ‘magic’ necessary for the MOH (Ministry of Health) to sit up, listen and act
- More empowered
- Learned to function when demands are heavy
- Strengthened negotiating and advocacy skills
- Better able to interact and understand staff and thus to push for a win-win outcome as staff began to identify with the need for change
- Learning to identify supporters and saboteurs
- We have had to be innovative and creative in getting tasks completed and programmes implemented and our management skills are being put to the test daily
- Life-changing experience for the participant team due to mentoring from facilitators, mentors and networking with other participants

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