



## Gazing into the future of Sri Lankan Higher Education: Capacity building for the future

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This paper reports on an investigation into capacity building processes in relation to e-learning resource development and delivery (RDD) in a Sri Lankan higher education institution. The capacity building was investigated in three main areas: strategic planning, institutional capacity building, and the resources acquisition processes. The project investigated the embedding of e-learning into the Sri Lanka Institute of Advanced Technological Education (SLIATE). Like many other higher education institutes SLIATE aspires to excel in providing quality teaching and learning facilities and quality learning experiences. The research project concentrated on the exploration of areas of capacity building within the academic community at SLIATE by identifying possible improvements to the management of e-learning RDD. The paper focuses on the findings in relation to the effectiveness of the capacity building process in e-learning resource development and delivery, and how this could assist SLIATE students with their learning.

Keywords: SLIATE, e-learning, online learning, learning technologies, capacity building, professional development

### **Introduction**

This paper reports on the investigation of the capacity building process in relation to e-learning resource development and delivery at SLIATE. This was one case of a larger research project that set out to investigate how capacity building affects the management of e-learning resource development and delivery within three Higher Education institutions in Sri Lanka.

The SLIATE is one of the leading higher education institutes in Sri Lanka that provides post-secondary school education, and constantly investigates ways of increasing learning facilities for its students. The SLIATE, like many other educational institutes, strives for excellence of its teaching and the quality of learning experiences that it provides. The study investigated SLIATE stakeholder perceptions of their understanding of capacity building in relation to the management of Resource Development and Delivery (RDD) and how learners will benefit through the processes of implementing e-learning. It also addresses how the quality of teaching and

learning in the institute is expected to change by building capacity to support e-learning within the main stream delivery model.

## **The Institution Context**

The Sri Lanka Institute of Advanced Technological Education (SLIATE) was established under Act No.29 of 1995 (SLIATE, 2005). Prior to this the courses were conducted by the Technical Colleges which came under the Ministry of Labour and Vocational Training (Government of Sri Lanka, 2007). To overcome the gap between the Secondary Education, General Certificate of Education Advanced Level (G.C.E A/L) and Tertiary Education (Universities) and to fulfil the market demand, a separate institute (SLIATE) was established to provide both practical and theoretical knowledge (DEPP, 2006, SLIATE, 2005). After analysing the situation, it was recommended that a new institute would be established and developed and taught courses previously conducted by the Technical Colleges (SLIATE, 2005).

The main aim of SLIATE is to create middle level professionals who are equipped with the required skills to cater to the demands created by the local and international job markets. SLIATE provides professional courses to students who have not been selected to follow courses at the National Universities. SLIATE operates with a mission: "Education, Training and Certification of Competent Technological Personnel with Healthy Attitudes for National Development" (SLIATE, 2005).

According to the 2007 Asian Development Bank (ADB) proposal, SLIATE is expected to award National Diploma (ND) and High National Diploma (HND) level qualifications for mid-level engineering and business professions (ADB, 2007a; Government of Sri Lanka, 2007). For this purpose, the ADB proposed creating policy on tertiary education and revising regulatory frameworks for long-term reforms (ADB, 2007a; Hanna, 2008). The proposal also indicated that one of the needs of a medium-term strategy is to strengthen the capacity of existing institutions such as SLIATE, to meet immediate demands (ADB, 2007b; ADB, 2008a). The government is supporting SLIATE, along with international aid to develop distance education and e-learning to deliver courses (Government of Sri Lanka, 2007). With a great history and government funding, moving forward aligning to the ADB recommendation was an important step forward for the institute (Gunawardana, 2005; Hanna, 2008). SLIATE caters for a wide variety of learners with diverse learning styles and capabilities (DEPP, 2006).

The institute has been offering several Higher Diploma and National Diploma courses (SLIATE, 2005). These courses are delivered under government directives. The main tasks at the moment are to build the necessary infrastructure and build capacity to up-skill staff and begin courses using e-learning. To fulfil this requirement management has established a process for the application of grants in order to acquire the necessary infrastructure. Some examples of the grants are: the World Bank project, Improving Relevance and Quality of Undergraduate Education (IRQUE) for quality enhancement in education; the DEMP National Online Distance Education Service (NODES) project; Higher Education for the Twenty-first Century (HETC) (ADB, 2008b; DEMP, 2005; DEPP, 2005). The time-consuming tasks such as applying for grants, managing the projects and similar initiatives were supported by management in an attempt to provide better learning opportunities for students.

The Institute has been identified as one of the major potential users in distance and e-learning in Sri Lanka by ADB (ADB, 2008b; DEPP, 2006). Due to this identification and the support offered, the Institute has taken the initial steps in launching their courses in an innovative manner, and educating management and the academic staff regarding the technological developments which support online and blended course delivery.

## **Methodology**

The research focussed on an in-depth investigation of higher education institutions in Sri Lanka, specifically examining the areas: strategic planning, capacity building and resource acquisition.

Merriam (2002) indicated that qualitative studies have high capabilities when gathering in-depth information. The process of data collection in qualitative research depends mainly on the requirements of the research. This research heavily depends on the personal experiences, attitudes, and feelings of the participants which require the use of descriptive information. Therefore, interviewing was considered to be a suitable data collection process as opposed to a survey. Further, Sarantakos (2005) stated that observations entail the systematic noting and recording of events, behaviours, and artefacts in the social setting chosen for study. Hence, appropriate data collection methods to gather information for this research were considered to be the interview followed by

focus-group discussions and observation methods. Further, discussions were arranged with some consultants at a variety of funding organisations such as: the Asian Development Bank (ADB); and the Japan International Cooperation Agency (JICA) in order to gain an insight into the management and activity of e-learning RDD.

Merriam (1998), Guba (1999) and Neuman (2006) discussed how interviews are classified according to the structure: highly structured interviews, semi structured interviews and unstructured interviews. Among the above mentioned, highly structured interviews rigidly adhere to predetermined questions and do not allow the researcher or the investigator to access participant's perspectives and understandings. On the other hand, the open-ended or unstructured interviews assume that individual respondents define the world in unique ways. This method was found to be useful in situations where the investigator did not know enough about a phenomenon. On the contrary, semi structured interviews facilitated the implementation of interviewing within the boundary of the research, and were therefore flexible enough to investigate new findings. Considering the research aim, it was found that semi-structured interviewing was the best methods to employ for gathering data. A few questions were designed to find out participant demographic information, with sixteen specifically open-ended questions asked to gather other information about e-learning RDD management.

Patton (1990) further states that selection through convenience sampling is not credible. However, Patton (1990) discussed convenience sampling, and stated that it is selected based on the time, money, location, and availability of the sites or respondents. The participants were selected from different departments from the one centre within SLIATE. SLIATE has branches across the country, however the political situation and unstable war environment in the country when selecting the samples, participants in the Northern and Eastern parts of the country, were not selected due to the inconvenience of reaching the participants. The main city campus in Colombo (Capital of Sri Lanka) was selected for this research study. This was justified since it is the city campus that leads the other branches and their operations. Further, observation sessions were conducted to learn the nature of the organisation's activity flow. Focus group meetings enriched the findings by accumulating multiple views into the data set.

The intention of this research is to identify the capacity building processes in relation to e-learning RDD within the higher education institutions in Sri Lanka. The participants are the key resources from where these processes and practices are gathered. Grounded theory, in qualitative study, facilitates derivation from the data, of a theory that is grounded in the data (Denzin & Lincoln, 1994). Grounded theory emphasises discovery with description and verification as secondary concerns, making substantive evaluations (Merriam, 1998, p. 17). In this research, the data gathered requires analysis via a constant comparative method of data analysis, to gain an insight into current management practices within HEIs in Sri Lanka. Unlike hypotheses in experimental studies, grounded theory hypotheses are tentative and suggestive rather than tested. Strauss and Corbin (1998) compare this methodology with other approaches to qualitative research, noting that a major difference lies in the commitment to theory development and theory verification. Further, considering the nature of this research, and what the research intends to investigate and the strengths of grounded theory, it was selected as a data analysis approach rather than a research method in this study. Grounded theory was used to proceed with the research to identify the emerging themes.

SLIATE was studied, with detailed investigations into the possible improvements that could assist with the goal, thereby providing better experiences for those learning. In addition, several other institutional developments were studied to identify how e-learning was embraced into the mainstream course delivery within the Sri Lankan context.

## **Findings**

### **Strategic planning**

It was found that even though there was a great need to move to online learning and the use of technologies to deliver courses, SLIATE was still in the initial stages of project planning in undertaking e-learning RDD tasks. It was found that in the past there were limited specific strategic plans towards e-learning or online learning. With the current support and initiatives, it allowed the knowledge base to be enhanced, and teacher contribution and involvement to be increased through participatory capacity building.

However, the participants' responses about reward schemes that were currently in place raised concerns. The findings showed that current reward schemes only assisted face-to-face RDD processes, and the need for e-learning specific reward schemes was highlighted. The policies and procedures only catered for a face-to-face delivery model, and the current mode was a traditional, legacy system that was established a long time ago.

With a constant comparison of their reward system to that of the government reward system and that of many private vocational education institutions in Sri Lanka, the participants showed how important it was to have new e-learning specific strategies. With discrepancies in several areas, including professional development opportunities, paper marking, overtime and other rewards, the staff felt that their work would be of more value in engaging other staff and motivating them through a new reward scheme. Other staff suggested that they gained rewards through other means, that is self-satisfaction, which could not be measured in monetary terms.

### **Institutional capacity building**

The initial planning and research for professional development was underway. The leaders were planning professional development strategies and making plans to provide necessary resources for the academics within SLIATE. Several long-term (masters programmes) as well as short-term training was offered to the academics via the projects IRQUE, ADB and Higher Education for the Twenty first Century (ADB, 2008a; IRQUE, 2009). As the concept of e-learning was new to this Institute, it was found that leaders were seeking assistance from the academics to build the plan, identify required resources, training and other components. A participant mentioned that:

*“We have been asked to find the training that we would like to attend by our leaders. It is still in the initial stage but we also feel responsible and motivated when we are given the opportunity to contribute and participate in the planning phase”*

In this process the management guided staff by inviting them to be part of the project and requesting them to contribute to identify the areas that interested them in the online environment. Staff were also requested to investigate different professional development programs that they would like to attend in their expert area as well as ones specific to e-learning. The participants felt that the process would reap major benefits, as their subject specific input/recommendation would be taken into consideration when planning a major change over, such as moving into online learning.

Due to current limitations the staff felt more comfortable having face-to-face discussions rather than using email or other tools. Occasionally staff conducted meetings to discuss more general matters. During the observations, amazing graciousness was found within the institution as to how helpful staff were to each other, the sharing and caring nature of staff, and how work-related issues were addressed in a professional and responsible manner. A clear knowledge-sharing culture was observed within the organisation, while this process enabled enthusiastic academics to proceed forward and assist the other academics.

One of the key elements of research investigated was whether capacity building through professional development encouraged staff to be involved in the new teaching environments (Khan, 2005). It was found that the “Computerised Accounting professional development” session that the participants had undertaken had been extremely useful, and would assist in their teaching. These professional development sessions have equipped the academics with the latest techniques in accounting which will enable them, as well as their students to be up-to-date in the use of the latest techniques required by the industry. It was mentioned:

*“These professional development sessions help us to trigger and develop our own thinking and help us to teach new things to students that relate to the industry requirements.”*

Professional development sessions were held depending on the department’s requirements. Some departments conducted professional development sessions as often as four times a year, while other departments assisted with their professional development sessions, ensuring they were based on necessary requirements. Another department arranged professional development sessions for staff by getting external consultants during the academic break.

It was found:

*“These sessions are very helpful and allow us to re-think what we practice in these teaching environments”*

### **Acquisition of resources**

Based on the data provided, and the observations it was identified that SLIATE is not a technologically resourceful institution. With a limited number of computers, its capacity to participate in the online resource development activities was restricted; Staff shared the few computers available for resource development tasks.

At times staff used the computers located in the laboratory which were common to both students and teachers. Due to accessibility difficulties, staff members were restricted when using technology-based tools on a daily basis, even simple things such as emails. This indicated that for an online learning environment to be successful the institute required a change over with large investment in equipment and resources.

The English Language department had requested resources for a language laboratory which they needed for their course delivery. They had also requested resources such as software, computerised accounting resources and similar teaching and learning resources. The participants showed great interest, motivation and excitement about the project and were responsible for making the changes necessary to support the goal of providing education for the larger community.

The Accounting department was looking forward to purchasing computerised accounting software that they did not currently use for any of the courses, even though it had been a requirement for a considerable period of time. This new sudden awakening was due to the initiation of applications for grants to become digitally ready academia. These capacity building plans have triggered enthusiasm amongst several academics as well as administrative staff. Few staff members had taken the responsibility of initiating these projects at SLIATE. However, there were many dependencies, and for a positive forward movement the initiative required support and a management contribution.

It was evident that a new culture was building within the institute; the leaders were supporting the initiators and giving them the authority to be involved in these innovative projects, in order to enhance teaching and learning with the use of technology.

## **Gazing into the future**

Since this Institute is in its initial stage, there were a number of identified future plans that needed to be completed. These involved the Institute building capacity in the identified three areas: strategic alignment, capacity building and acquisition of required resources including infrastructure.

### ***Strategic plan***

The institute had a strategic plan and many staff were aware of this plan. However, this strategic plan only focused on the institution's general strategic requirements. In relation to e-learning it stated that the Institute should provide quality education. This point was expanded upon by staff to set-up e-learning facilities which would provide higher education to the students. However, the government's interest in providing higher education to students who did not have access to the universities, added value to this idea. The Distance Education Modernisation Project (ADB, 2008b; DEMP, 2005) also focused on providing support to students to enhance learning, especially through institutions like SLIATE. In order to progress it was found that more specific details related to e-learning needed to be incorporated into the strategic plan.

There are several policies and procedures related to institution management which have been developed through standard government policy and procedure manuals. These policies and procedures were mainly related to purchases, payments, student registration and examinations. With regard to education, the policies related to daily activities for traditional face-to-face course delivery. New policies and procedures needed to be developed in relation to an e-learning RDD environment specific to the institute. One of the leading e-learning providers in Sri Lanka, University of Colombo School of Computing (UCSC) has developed their institute specific, e-learning focused strategies that have assisted them to progress to be progress well in the area (De Silva, 2011). Similarly, these new policies and procedures would need to address areas such as payments and cost covering tasks, time and workload allocation, quality evaluation procedures, development and delivery procedures, and rewards. It was also evident that staff required clear instructions, work ethics and procedures, which needed to be very specific and clear within these new processes (Latham, 2009). To have more participation and contribution, clear instructions were found to be vital.

### ***Institutional Capacity Building***

The introduction of e-learning and capacity building through professional development had created a new ideology within the institute. This was related to the work allocation, workload, enthusiasm and authority. Many of the staff who were willing to spend their time and energy on these activities were self-motivated. It was also identified that the staff require time and training to be confident with innovative resources (Keppell et.al , 2005). Many leading higher education institutes in Sri Lanka, require e-learning specific strategic plans that focus on work allocation and reward systems related to e-learning course delivery and resource development (De Silva, 2011). Similarly, SLIATE is in need of e-learning specific processes and procedures with the development.

There are many plans to provide quality infrastructure for staff to carry out e-learning RDD tasks (Hanna, 2008), training time and specifically, reasonable payment schemes. With the new proposed policies and procedures it is envisaged that staff members will find it easy to adhere to any specific policy or procedure emphasising tasks and to becoming ready for online learning environment. The change management process with necessary resource allocation will support an easy change over (Kotter, 1996).

### **Resource acquisition**

During past years, by utilising the funds of the donor agencies SLIATE has been able to upgrade its infrastructure facilities, such as Audio visual rooms, language labs, modern furniture computers, and computer software, further they have been able to update their curricula and libraries with some of the recommended texts. Similar to Hanna's (2008) suggestions, the majority of funds have been allocated to empower the trainers through capacity building. Several higher education institutions in Sri Lanka such as Open University of Sri Lanka and University of Colombo are progressing in developing their infrastructure through different funding projects (De Silva, 2011). Similar to the other higher education institutes SLIATE is also progressing with their resource acquisition tasks.

Three new Advanced Technological Institutes (ATIs) will be established under the Higher Education for Twenty First Century project (Tangalle which has completed construction, and Vavunia and Ratanapura which are partially constructed) plus six existing ATIs will be upgraded with their facilities.

### **Future plans**

The Institute has been able to identify the potential demand in the environment and introduced several new courses/programmes in the last two years (Tourism and Hospitality Management, Quantity Survey Building Construction, Food Technology). These improvements have supported the developmental process.

The target has been set to share all of the programmes' materials amongst the ATIs by 2014, using a free and open source Learning Management System, Moodle. This will be a major step forward for the institute in providing an online learning presence which will cater to a larger student cohort.

SLIATE, having eleven Institutes in the country and a common curriculum and evaluation, is observed to have uniform teaching. With the update of the new LMS, Moodle it is expected to share learning resources and facilitate uniformity among institutes across campuses and courses. As an initial step, the information technology academic staff (HNDIT) has begun introducing learning resources within Moodle for their academic staff and students, with the intention of expanding to other courses.

## **Summary and Conclusions**

The investigation found key criteria that will assist SLIATE to proceed with embracing innovative and technological approaches to learning and teaching. It was found that the key themes which emerged were categorised under: strategic direction, capacity building and infrastructure. Policies and procedures, and staff incentive schemes were highlighted as important areas that needed to be addressed within the institute strategy, while the change management took place to motivate and sustain the interest in the new invention. Individual staff contribution either as managers or academics was also considered to be an important factor in achieving success. It was found that change management process needs to be factored into capacity building to support staff to be confident and successful. It was also found that acquisition of resources alone does not

By developing and publishing a strategic plan for e-learning specifically focussed on learning and teaching, the Institute will be able to maintain high quality e-learning activities. It was also found the procedures and policies will re-align responsibilities to carry out e-learning RDD in a more organised manner.

The SLIATE has progressed well with the initiative embarking into the area of e-learning. With strategic directions and support from internal and external organisations, such as government of Sri Lanka, international funding organisations such as ADB, DEMP, IRQUE; SLIATE is progressing with the development plan. The Institute is also progressing with building their infrastructure with the funding that they are receiving, while providing different professional development opportunities to staff.

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