

## **Abstract**

The Internet has become an essential part of our day to day life. Today we are using the internet for different purposes like online banking, online shopping, online medical consultation & online learning. Online learning also called as web based learning. Now most of the specialties in Medicine are using the internet to deliver their course content online. Biomedical Informatics is a new specialty of Medicine formed by the integration of Medicine, Biology, Informatics & Computer science. Postgraduate institute of Medicine is conducting the M.Sc course in Biomedical Informatics. The entire course is currently conducted through in person teaching sessions. A literature review has been done to create a web based course on Biomedical Informatics at M.Sc level. Literature review has shown that the web based course creation needs to undergo through the following steps, needs analysis, designing, development, implementation & evaluation.

Target audience has been identified. Needs' analysis of the audience along with feasibility studies helped to determine the following project objectives 1) Designing a web based learning course for the 2nd semester curriculum of M.Sc in Biomedical Informatics conducted by Postgraduate Institute of Medicine, University of Colombo, Sri Lanka 2) Implementation of the above mentioned web based course 3) Evaluation of the course according to Kirkpatrick's model up to level 2. Proposed content development carried out on a moodle platform. Moodle is an open source learning management system. Moodle can be easily customizable & popularly used in Srilanka.

Human – Computer interaction with multimedia integration played a role on designing & development aspects of the course. Active web based learning also facilitated by this course. Deadline for thesis submission & semester exam for the target audience, which had a coincidence with implementation phase, limited the no of participants, who took part in the implementation process. This has led the participation of only three students, out of all the invitees.

Results of evolutions surveys & quizzes showed, that material given to them was relevant, satisfied with the user interface design of the course. Conversely, they have pointed out that the interactivity between students & peer to peer support were low in this course. Low amount of students who participated in this pilot implementation might be the cause for these deficiencies.

The sample size included in this pilot study was small. Further studies needs to be conducted with larger sample sizes. However results of this project displayed that the web based Biomedical Informatics course can be conducted with limited resources by following the relevant principles of designing, development, implementation & evaluation