Challenges of Manual Attendance System Towards Student Motivation

DMTS Dassanayake# and WAAM Wanniarachchi

Department of Information Technology, Faculty of Computing, General Sir John Kotelawala Defence University, Ratmalana, Sri Lanka

#senethd@icloud.com

Students must attend lectures to get their primary source of knowledge. Lectures and lecturers guide students to have a productive education. Students can be motivated to study by making them attend lectures. As shown in this paper, students' attendance is important, and they can be motivated to attend lectures. Attendance systems in Sri Lanka are mostly manual and paper-based, which means the process from marking attendance to calculating attendance is fully manual. The current attendance system only produces monthly reports, and some only show the final attendance report. It helps students to be aware of attendance, but is unable to motivate students to keep a better attendance percentage. There are many issues in the attendance systems that are currently in use. In current systems, attendance marking data can be manipulated by students. This is a major issue and will damage the accuracy of the attendance data. It will also decrease student motivation towards attendance. A survey was conducted to verify the problems in the current systems and to identify the requirement for a new system. To keep students attending lectures, they must be motivated and as a solution to this matter, an automated system can be built that allows students to see their attendance. The system should include proper methods to motivate students to reach their required attendance percentage for a semester. It should include an option that enables the student to mark and view attendance instantly. Also, there should be a method in the system, where students with lower attendance are identified and notified that their attendance level is low. QR code is a proper method to verify a student's identity in a lecture. From this method, students can be motivated to achieve their required attendance percentage and reduce attendance frauds. This paper shows an in-detail solution to all the above problems, by referring related research papers and by using analyzed data of a performed survey.

Keywords: attendance management system, manual attendance, challenges, student motivation, attendance verification method