6.0 Design

6.1 Design Strategies

An identified problem is that this as ideal as the current system can get. Not every teacher follows the exact same procedure as the other and may lead to an omission of a step such as a teacher who does not have his/her own electronic database, etc. Consequently, the result is inconsistency in the data. Students claiming they were never absent, the registrar holding different data from the teacher, and so on. These problems are more frequent than what is desirable.

The complete automation of the system in order to eliminate as much error as possible is the goal. Majority of the process will be done by the card reader, the PCs, the school’s network, and the database server(s). The student will manually let his/her ID be scanned.

Finally, the typical problem among students is the case of truancy. In the case of the Integrated School in De La Salle Canlubang, attendance is only checked in the morning by the class advisor. Once the student is marked as absent by the advisor in the morning, he/she is considered absent the whole day. So the mentality is: *might as well be actually absent anyway*; or, once the attendance is finished, there is no one to check whether the student stayed during classes or not.

The process must be repeated *twice*: one for time-in, the other for time-out. It is a way to avoid truancy as well as maintain the integrity of the system for the sake of the parents/guardians.

The time & attendance system may be physically implemented within classrooms, at the buildings’ entrances, or at the gate.

There is currently no centralized database system in DLSU STC LVLC. We propose a database that will centralize time and attendance data. Further expansion of the centralized system will be in the hands of the administration.

The use of a working barcode on the students’ ID or the RFID will automate the process of time and attendance check.

6.2 Data Specifications

6.2.1 Entity-Relationship Diagram\*

This section should provide a narrative that explai ns the data design and how the entities and relatio n s h i p s w e r e d e r i v e d . T h e reader should be referred to the appendix section f or the Entity-Relationship Diagram. (Attachment: En tity-Relationship Diagram)

6.2.2 Tables/Files Layout\*

This section should contain all the tables/files of the system. The following format may be used for e ach table:

6.2.3 Data Coding Standards

This section should discuss the data coding standar ds used in the system. The format of all codes used must be described here.

6.3 Screen Specifications

For the system to be optimized, a device with an RFID reader and a screen should be used. The screen should be large enough for the teachers, even the seniors, to read and navigate.

Fonts should be kept simple where the letter “I” and number “1” and other similar characters should be distinct, particularly for the Course Codes.

DLSU-STC logo should be visible but not obstructing the view.

Buttons and other clickable items should have a distinction (underline, different color, and/or borders) to show that they are clickable.

Screens:

*Screen name:* 0.0 Login/Splash page

*File name:*

*Description:* Option to manually type user ID and password or RFID swipe; To be shown when the teacher for that time slot has not logged in.

*Layout:* <2x3 Screenshot>

*Screen name:* 1.0 Attendance

*File name:*

*Description:* Actual attendance sheet for that class for that day; can be sorted; can opt to view previous attendance records; can manually override students’ attendance; swipe RFID of students to get attendance data

*Layout:* <2x3 Screenshot>

*Screen name:* 1.1 Calendar

*File name:*

*Description:* Navigation to view attendance records of previous dates and holidays

*Layout:* <2x3 Screenshot>

6.4 Form Specifications

*Form name:* Attendance

*Description:* Attendance sheet

*Prepared by:* The system

*Used by:* Teachers

*Volume and Frequency:* Class times

*Layout:*

6.5 Report Specifications