# A PROJECT STUDY ON COMPUTERIZED LEARNING ENVORONMENT SURVEY

By

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A Project Study

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# Introduction

One of the responsibilities of the Guidance Office of Southern Christian College (SCC) is the evaluation of faculty performances over the school year. The task is assigned to the office because this serves as a neutral office. This evaluation is vital to the operation and function of the academic arm of the school.

The guidance office, thru the psychometrician, performs this evaluation by means of the Learning Environment Survey (LES). The survey is conducted on selected classes for each faculty member at the end of the school year. The results are then encoded into the LES program which was developed using FoxBase, and was installed at SCC on the year 1999(?).

The ultimate aim of evaluation is for improvement. Moreover, Administrators, faculty and teaching staff need information about his/her abilities and performance or strengths and weaknesses. Furthermore, in order to make sound judgment evaluation of the faculty and teaching staff deemed necessary.

The faculty and teaching staff are to be evaluated once a year to be able to identify strengths and weaknesses of performance. The results of the evaluation serve as basis for improvement, development, promotion, demotion, transfer, succession, salary adjustment and firing out of faculty and teaching staff.

# Problem

The LES problem is categorized into two aspects:

1. Software (The LES program)
    - Was developed using FoxBase, an obsolete database software with little support nowadays and little capabilities.
    - User cannot modify encoded erroneous survey results. In case of encoding errors, user has to retype the survey results again. This usually results in the database being corrupted.
    - User has little capability to customize the data within LES. These would include:
        - School Information
        - College Information
        - Department Information
        - Faculty Information
        - Survey Items
    - User has no preview capability with the reports. They had to be printed directly to the printer before a user could view the results.
    - Uses a legacy database, with minimal security and redundant data storage. This database uses indexes to sort and maintain data links, which would require frequent re-indexing to prevent corruption of data.
    - Frequent corruption of database always happens due to reindexing and/or data problems.
2. Hardware
    - The LES Program is installed on a computer system with the following technical specifications:

| Computer Part | Specification |
|---|---|
| CPU | Intel 486 - ? MHz |
| Memory | ? |
| Diskette Drive | Defective |
| Hard Disk | ? |
| Printer | LX-300 (no simultaneous printing) |
| Network Card | None |
| Monitor | 14" Black & White |

- The current computer hardware does not provide networking capabilities.
- The printer malfunctions after a series of printing sessions (more than 10 pages).
- The diskette drive does not function and needs repair.
- The monitor needs to provide aesthetic requirements like color in color-coding environments.

## Scope

The Computerized-LES (C-LES) covers the Learning Environment Survey function of the Guidance Office of Southern Christian College in Midsayap, Cotabato. The main user for the said system will be the psychometrician.

C-LES will accept configuration for the following:

- School Information
- Unit Information
- Department Information
- Faculty Information
- Survey Items

The user will have the capability to preview the results on the monitor. This does not require printing the results to view the information.

Data security should be handled by login forms and user/role-based security on the database.

The C-LES should cover the following academic areas of SCC:

- College
- High School
- Elementary

## Instrumentation

| Technology Area | Technology | Remarks |
|---|---|---|
| Programming Language | Microsoft Visual Studio.Net 2002 | Among the purchased software of SCC with an open license with Microsoft. |
| Database Management System (DBMS) | Microsoft SQL Server 2000 Desktop Engine (MSDE) | A free, downloadable database engine for small and medium enterprises. |
| C-LES Runtime Environment | Microsoft .Net Framework 1.1 | A free, downloadable runtime environment for applications built with Microsoft Visual Studio.Net 2002. |
| System Modeling | Microsoft Visio 2002 | Used to model the system process and document user requirements. |

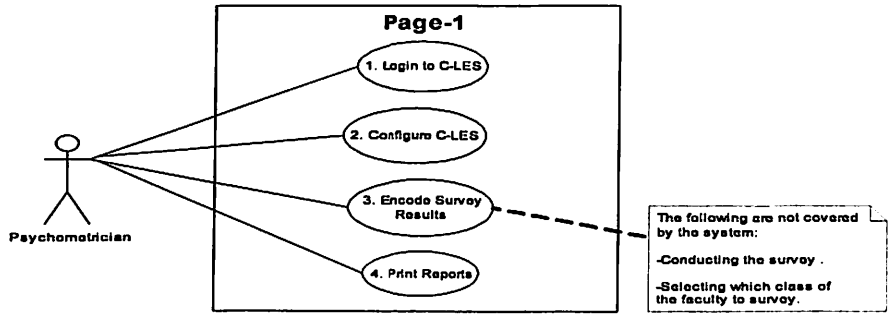
## Benefits & Features

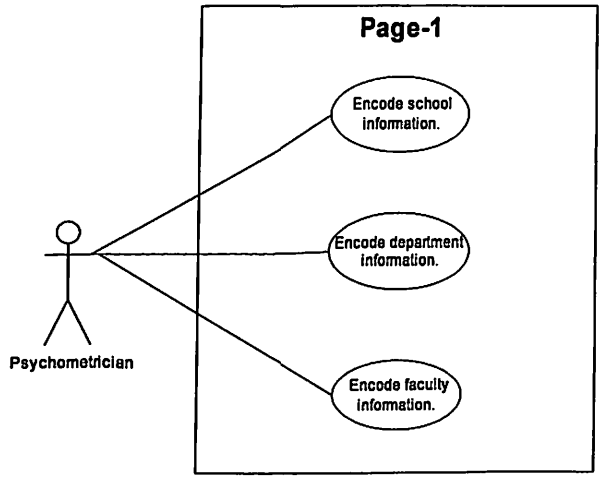
- Increased productivity for the user.
  - Preview of reports.
  - Capability to modify erroneous entries without the need for re-encoding.
  - Easy and faster encoding procedures.
  - Customizable and one-time setup for school, college, department, faculty, and survey item information.
- Secured Environment
  - Login forms to verify user.
  - User/Role-based database security.

- Use of a Relational Database Management System (RDBMS)
  - DBMS technology meets world standards.
  - Easy maintenance of database.
- Networking-ready.
  - Provides multi-user capabilities.
- Income Generating Project
  - C-LES could be sold to other schools / institutions.
  - The Guidance Office could accept and render LES services with other schools / institutions for a fee.

# The Computerized-LES System Design

**Page-1**
C-LES Use Case Diagram
Friday, July 02, 2004





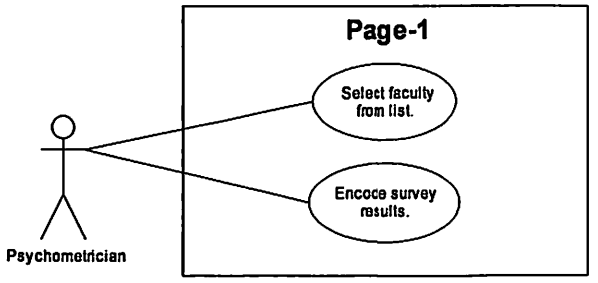

School information is encoded once only. (Everytime C-LES is deployed.)

Department information is encoded every time there is a new department.

Faculty information is encoded every time there is a new faculty member. (Part time or full time.).

School year information is encoded automaticall by the system when encoding faculty information. Or the user can choose to override the default SY.

No deletion of records to keep track of history.




Encoding is done per faculty.

For the survey, minimum of 1 class and maximum of 2 classes per faculty.

Covers part time or full time faculties.

Number of students per class does not matter.

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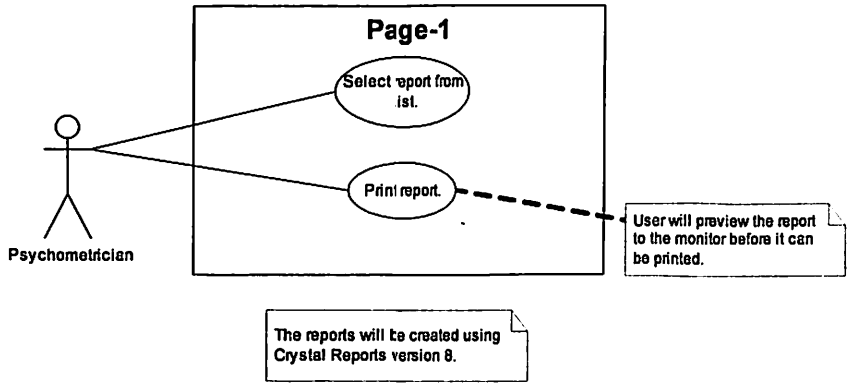
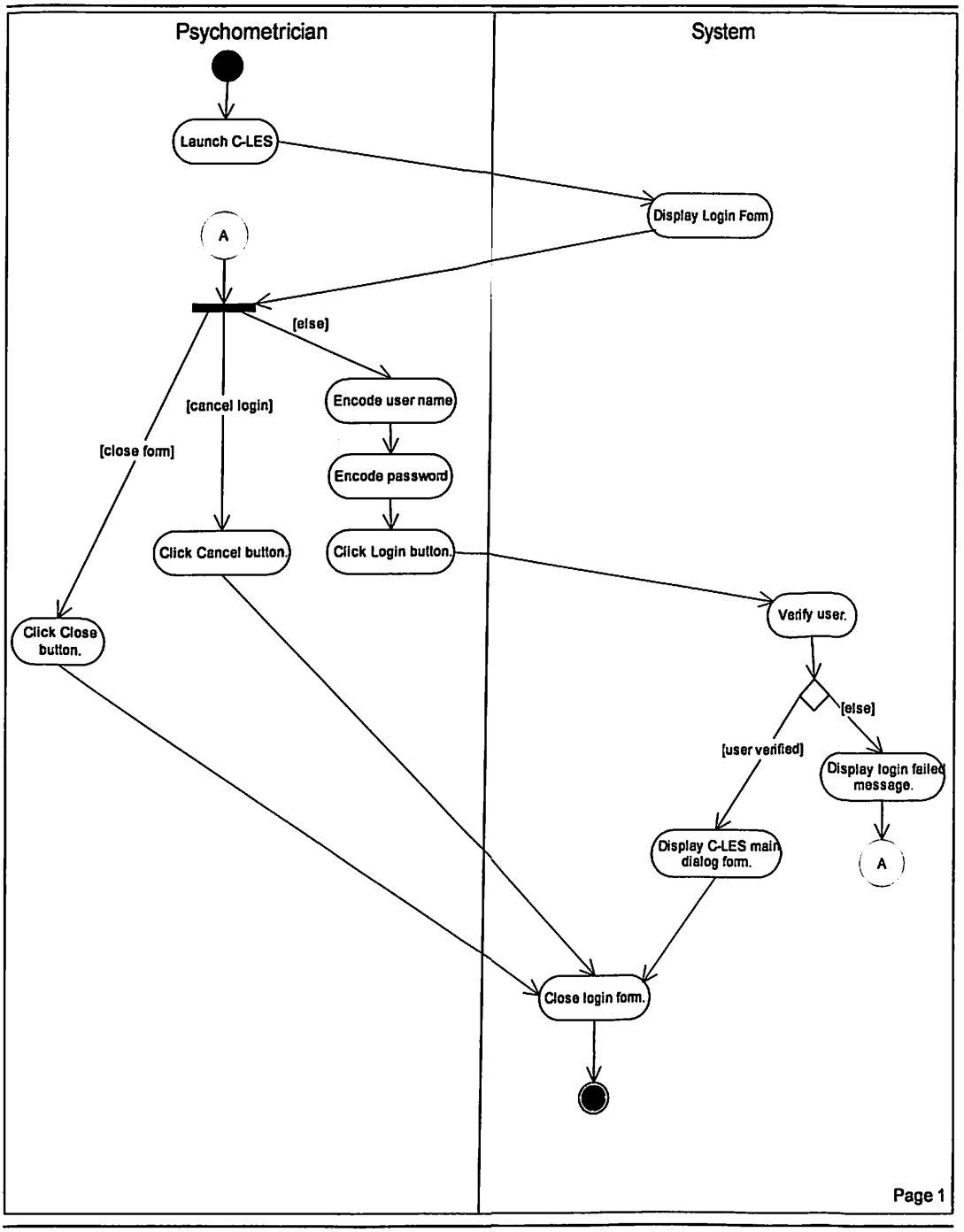


# Login to Computerized LES

C-LES Activity Diagram

Friday, July 02, 2004



# Encode School Information

C-LES Acivity Diagram

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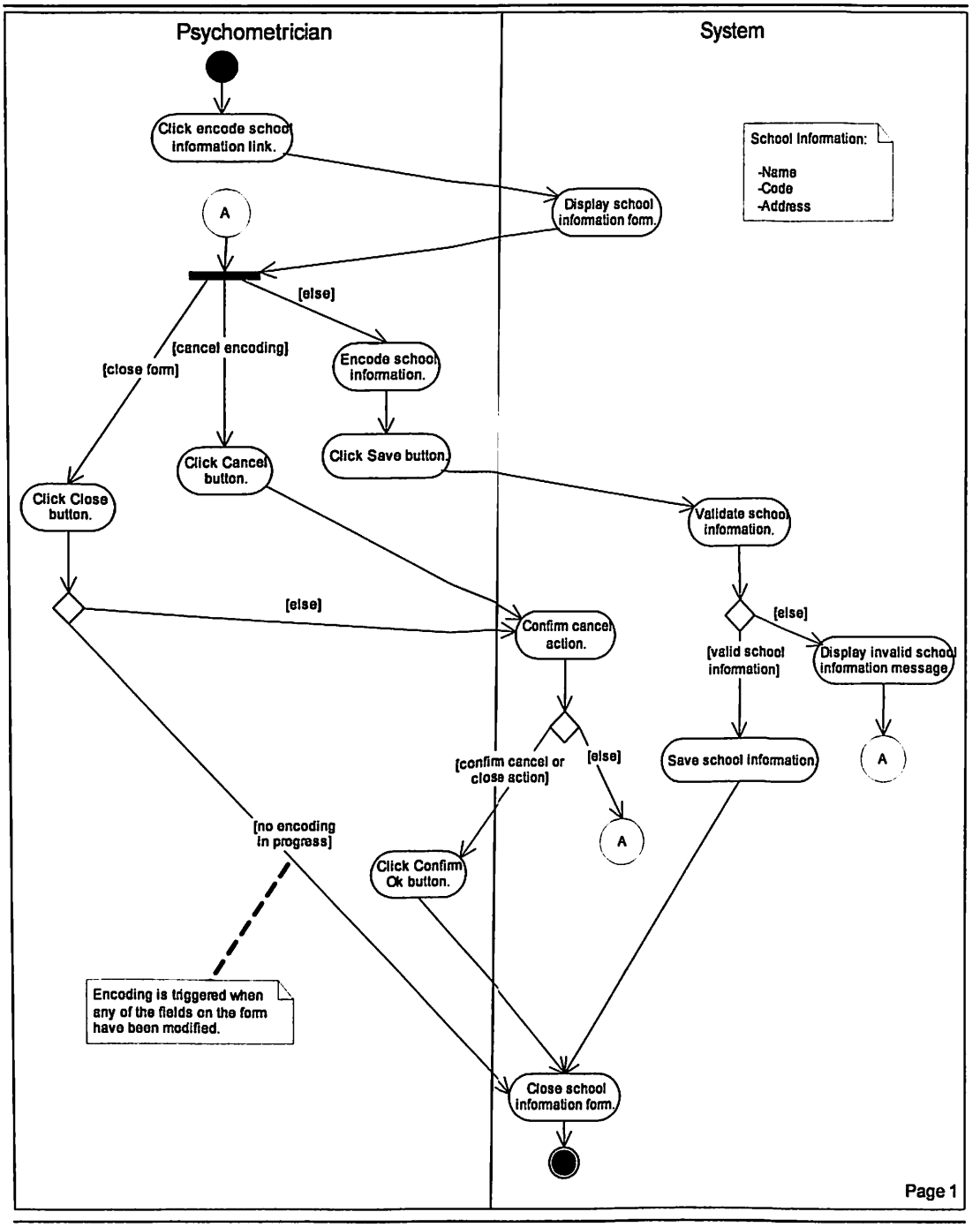

# Encode Department Information

C-LES Activity Diagram

Friday, July 02, 2004