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# Introduction

**Legacy System Chosen: SUCCMS Learn**

The SUC eLearning system, also known as SUCCMS Learn the for Southern University College (SUC), is a legacy web-based platform originally developed to help students and lecturers manage course materials and assignments. It was mainly used to publish lecture slides, assignments and other academic resources. For example, students can register for courses, access materials and submit assignments through the system.

From 2019 to 2020, the COVID-19 pandemic spread across the world. In response to the COVID-19 pandemic, many higher education institutions around the world were compelled to adapt quickly to ensure the continuity of learning while adhering to health and safety protocols. This caused many institutions to rapidly transition from face-to-face teaching to fully remote learning platforms (Sobaih et al., 2021).

As educational needs evolved during the COVID-19 pandemic, SUC turned to more interactive online platforms such as Microsoft Teams for academic-related communication.

## Identification of Legacy System Issues

Here are three specific issues or challenges within the SUC eLearning system that make reengineering necessary:

1. **User Experience and Accessibility**

Research from Gartner (2011) highlights that successful LMS platforms prioritize mobile accessibility and user-friendly designs. Systems like Canvas and Blackboard allow users to easily navigate their course content on mobile devices. In contrast, SUC eLearning does not have mobile app support, forcing students and teachers to rely solely on its outdated web interface. This makes accessing course materials less convenient, especially for students who depend on smartphones for learning.

1. **Lack of Interaction and Collaboration Tools**

Vaughn et al. (2013) **emphasize that platforms combining both synchronous (live interactions) and asynchronous (self-paced learning) tools create a balanced learning environment. While SUC eLearning provides access to slides and assignments, it does not allow students to engage in discussions or post updates. There is no built-in feature for group collaboration, making it less effective for interactive learning.**

1. **Inconvenience for Modern Teaching Needs**

The system's design as a static website does not cater to the needs of modern online education. It lacks features like real-time video conferencing, integrated tools for live classes, and built-in notebooks for teaching or note-taking. These limitations make it less suitable for fully online or hybrid teaching.

## Evidence Supporting Identified Issues

According to Vaughn (2013), effective interaction design is essential for supporting student engagement and learning. While SUC eLearning allows students to download lecture slides and assignments, it lacks advanced interactivity features like discussion forums, collaborative tools, or real-time communication functions.

To highlight the limitations of the SUC eLearning system, a comparison with modern learning management systems (LMS) such as Microsoft Teams, or Google Classroom is presented below. This table demonstrates key areas where SUC eLearning falls short:

Table 1: The gap between SUC eLearning and Modern LMS system

|  |  |  |  |
| --- | --- | --- | --- |
| **Feature** | **SUC eLearning** | **Modern LMS (e.g., Microsoft Teams, Google Classroom)** | **Impact of SUC Limitation** |
| **User Interface** | Outdated, web-based only | Mobile-friendly, intuitive design with app support | Difficult to access on mobile, inconvenient for on-the-go students. |
| **Interactive Forums** | Not available | Allows posting and discussions within course groups | Reduces opportunities for class-wide discussions and peer learning. |
| **Notifications** | No real-time updates, and users must log in manually | Push notifications for announcements, assignments, and deadlines | Leads to missed updates and delayed responses. |
| **Collaboration Features** | Basic features only. No shared document or group editing support | Includes shared documents, real-time editing, and group discussions | Makes teamwork and interactive learning less feasible. |

# Reference

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