**CHAPTER TWO: LITERATURE REVIEW**

**INTRODUCTION**

In schools and colleges, keeping track of student attendance and getting feedback from students about their classes are very important. Using the old-fashioned ways to do this can be difficult and take a lot of time. That's why people are looking at using technology to make these tasks easier and more effective. By putting together a system that checks student attendance and allows students to give feedback to their teachers without revealing their identities, schools can make attendance management better, increase student involvement, and get useful insights to improve teaching methods. This literature review will look closely at the current research on how student attendance systems and anonymous feedback tools are being used in schools. By studying what others have already discovered, this review aims to explain the benefits, challenges, and outcomes of setting up this kind of system in educational institutions. It will also point out areas where more research is needed and suggest ideas for future studies in this field.

The literature review is a critical analysis of existing literature on a particular topic this case, an Attendance/Anonymous feedback system or research question. This chapter provides presentations of the internship activities as well as examining the review by theories, reviews by concepts and review by objective.

* 1. **THEORETICAL REVIEW**

This system integrates a student attendance system with an anonymous teacher feedback mechanism, which recognises the connection between presence, engagement, and student voice in fostering a positive learning environment. The system has several key educational theories:

**1. Student Attendance as Engagement Indicator:** While attendance alone doesn't guarantee learning, consistent presence is often correlated with active participation and a stronger sense of belonging, factors known to influence academic outcomes (Fredricks et al., 2004).As application, automated attendance tracking provides real-time data, enabling early identification of potential disengagement or issues hindering student presence.

**2. Student Empowerment and Feedback:** Student-centered learning emphasizes student agency. Empowering students to provide feedback on their learning experiences fosters a sense of ownership and values their perspectives in shaping teaching practices (McCombs & Whisler, 1997). The application of the anonymous feedback system gives students a voice without fear of reprisal, encouraging honest reflections on teaching methodologies and their impact on learning.

**3. Constructive Feedback for Improvement:** Constructivism views feedback as crucial for active learning and knowledge construction. Timely, specific, and actionable feedback helps students identify areas for growth and adjust their learning strategies (Hattie & Timperley, 2007). Applying the feedback system allows students to articulate their understanding, identify areas needing clarification, and participate in shaping a more responsive learning environment.

**4. Data-Driven Insights & Interventions:** Data-driven decision making leverages data to inform and improve practices. Analyzing atendance patterns in conjunction with student feedback provides a more holistic understanding of student engagement and potential areas for intervention (Mandlawitz, 2019).The system generates both quantitative (attendance) and qualitative (feedback) data, allowing educators to identify trends, target support, and adapt teaching to better meet student needs.

**5. Ethical Data Use:** Ethical considerations including privacy, anonymity and informed consent, are paramount when collecting and utilizing student data (FERPA, 1974). It can be applied toprioritize student privacy through anonymous feedback and transparent data practices. The system is expected to have the following outcomes:

* **Improve Teacher Effectiveness**: Providing actionable feedback allows teachers to adjust their methodologies, fostering a more student-centered learning environment.
* **Enhance Student Engagement**: Addressing attendance barriers and giving students a voice can increase motivation, ownership, and active participation in learning.
* **Promote Data-Driven Culture**: The system encourages data-informed decision-making for continuous improvement in teaching practices and student support.
  1. **CONCEPTUAL REVIEW**

Overall, this conceptual review will provide a comprehensive overview of the key concepts and theories related to an Integrated Student Attendance and Anonymous Teacher Feedback System, and will highlight core components of a system designed to enhance education through automated attendance tracking and confidential student feedback. We shall define various components of the study:

**1. Attendance:**

* Attendance Tracking: The process of recording and monitoring student presence in class, usually by marking them as present or absent. This data can be collected manually (e.g., roll call) or electronically (using attendance systems).
* Attendance Rate: The percentage of classes a student attends compared to the total number of classes scheduled. It's a key indicator of student engagement and academic success.

**2. Anonymous Teacher Feedback:**

* Anonymity: The concept that student feedback is provided without revealing the student's identity to the teacher(s). This is critical for fostering honesty, as students are more likely to express their true opinions and concerns without fear of reprisal.
* Feedback Analysis: The interpretation of feedback data to identify patterns, themes, and insights that can guide teacher development and improvement.

1. **Integration:**

* System Integration:The process of combining the attendance tracking and anonymous feedback systems into a single platform or application. This allows for data sharing, streamlined user experience, and a holistic view of student engagement.

**4. Security and Privacy:**

* Data Encryption: Protecting sensitive data, like student names and feedback responses, using encryption techniques to prevent unauthorized access.
* Access Control: Limiting access to data based on user roles and permissions, so only authorized individuals can view and modify information.
* Anonymity Protection: Ensuring that student identities are never revealed in the feedback system, even to the teacher.
  1. **EMPERICAL REVIEW**

This empirical review aims to analyse and evaluate existing research studies related to student attendance and teacher anonymous feedback systems. Specifically, this review will examine the design and implementation of student attendance and teacher anonymous feedback systems, their impact on student performance, and the challenges and opportunities associated with these systems. By synthesizing existing research, this review will provide insights into best practices for student attendance and teacher anonymous feedback system design and implementation, as well as identify areas for future research and development. Below are some reviews on inventory management:

It is likely that many students hold back from answering or responding through peer pressure or the potential embarrassment of publicly giving the wrong answer. This in turn may mean that only the more confident or able student respond, when they are least in need of instructor attention (**Durbin & Durbin, 2006; Fies & Marshall, 2006; Kay, 2009**).

Some studies include:

* **"The Impact of Attendance on Student Achievement" (2018)** - National Center for Education Statistics (NCES) - Highlights attendance as a critical factor in student achievement.
* **"Automated Attendance Systems: A Review" (2020)** - Journal of Educational Technology Development and Exchange (JETDE) - Examines effectiveness and challenges of automated attendance systems.
* **"The Effects of Attendance on Student Engagement" (2019)** - Journal of Educational Psychology (JEP) - Investigates relationship between attendance and student engagement.
* **"School Attendance and Student Performance" (2017) -** Education Economics (EE) - Analyzes attendance impact on student performance.
* **"Attendance and Academic Achievement" (2016)** - Journal of Educational Research (JER) - Explores attendance-academic achievement correlation.
* **"Anonymous Feedback Systems: A Study of Student Perceptions" (2020)** - Journal of Educational Technology Development and Exchange (JETDE). Explores student attitudes toward anonymous feedback systems.
* **"The Impact of Anonymous Feedback on Teaching Practices" (2019)** - Journal of Educational Psychology (JEP). Investigates how anonymous feedback influences teaching methods.
* **"Student Anonymous Feedback: A Tool for Improvement" (2018)** - Education and Urban Society (EUS). Examines the potential of anonymous feedback for school improvement.
* **"Anonymous Online Feedback: A Study of Student Engagement" (2017)** - Journal of Educational Multimedia and Hypermedia (JEMH). Analyses the relationship between anonymous feedback and student engagement.
* **"The Effectiveness of Anonymous Feedback Systems" (2016)** - Journal of Educational Research (JER). Evaluates the effectiveness of anonymous feedback systems.
  1. **PRESENTATION OF THE ENTERPRISE (INTERNSHIP)**

The description of the internship site and the internship activities are included in this section of the study.

* + 1. **PRESENTATION OF THE INTERSHIP**

**ESCHOSYS TECHNOLOGIES** is a tech company that is geared towards leveraging tech services, solutions and training to the Cameroonian population and those abroad. The company is founded by Lwanga Anslem Fomonyuy a tech-preneur whose passion is aimed at encouraging young Cameroonians to embrace tech and use technology in generating income for sustainable leaving standards. He founded ESCHOSYS in 2022 and it started its timid operations in the early days of 2023 and became fully operational in as from the 3rd of June 2024.

It is found in Cameroon, the nation’s political capital Yaounde precisely in the Nfundi division (Yaounde IV). It is located at Accassia neighbourhood behind Mendjang Restaurant (20 metres from Mendjang Restaurant).

ESCHOSYS TECHNOLOGIES is a tech company which is highly involved in different tech activities like: software development (frontend and backend), android application development, data analysis, data analytics, installation and configuration of cameras (CCTV and I.P cameras), installation and configuration of solar panels, installation and configuration of satellite antennas, graphic design (Adobe photoshop, Adobe illustrator, Indesign etc), writing of scientific articles and assistance in project writing, assembling and flying of drones, computer hardware maintenance, installation and configuration of computer networks, digital marketing (running of facebook ads, google ads), search engine optimisation (SEO), cyber security and ethical hacking services (reverse engineering), installation and configuration of GPS, setting up smart homes, embedded system services and desktop application development.

* + - 1. **PRESENTATION OF THE DIFFERENT DEPARTMENT OF THE COMPANY**

ESCHOSYS TECHNOLOGIES is a sun rising Tech Company that is made up of few but active departments. Some of the functional departments in ESCHOSYS are:

1. **The I.T (Information technology) department**

This department serves as the live wire of ESCHOSYS. This is so because ESCHOSYS is a tech company that most deal with tech solutions, services or products and all the tech personnels are highly involved in all the tech activities

1. **The marketing department**

This is a very important department at ESCHOSYS because it is responsible for marketing the company products, creating awareness of internship opportunities, available training programs and courses and making available prominent services of the company like a learning management system (LMS) that serves as an e-learning platform for customers (schools) and for the company in particular

1. **The public relationship department**

This department ensures that contracts and partnership agreement between ESCHOSYS and her customers is materialized and effectively executed

1. **The human resource management department**

This department is in charge of recruiting new trainers/professionals are recruited into the company based on severe recruitment procedures

1. **The management department**

This department oversees all the different activities of the company and ensures that management is at its peak performance to guarantee the wellbeing and sustainability of the company.

* + 1. **ACTIVITIES CARRIED OUT DURING THE INTERNSHIP**

|  |  |
| --- | --- |
| **WEEK** | **ACTIVITIES** |
| Week 1 and 2 | * Presentation of the internship place and various fields to be taught * Design of logos using Adobe illustrator * Design of flyers using Adobe Photoshop * Html and CSS basics |
| Week 3 and 4 | * Building of web pages using Html, CSS and Javascript * Introduction to Cyber security |
| Week 5 and 6 | * Building of web pages using Wordpress * Building web pages using frameworks like Bootstrap and Tailwindcss |
| Week 7 and 8 | * Introduction to php and linking databases * Introduction to Visual studio (.NET framework) |
| Week 9 and 10 | * Building websites and how to host them on the internet and push to github account * Basics on Node.js |
| Week 11 and 12 | * Assessment and evaluation |

* + 1. **INTERNSHIP EXPERIENCE**

My internship experience was a good one. I had the privilege to learn a lot of things which include;

* Building of web pages and hosting using Html, CSS, Javascript and PHP
* Building of webpages using Wordpress, Bootstrap and Tailwindcss
* Cyber security
* Visual studio (.NET framework)
* Adobe photoshop and Illustrator.
  + 1. **STRENGTH AND WEAKNESS**

This part of the work contains the strengths and weaknesses of the internship place.

* + - 1. **STRENGTHS**

Though ESCHOSYS TECHNOLOGIES is a sun rising Tech Company, there exist many merits that makes ESCHOSYS outweigh other tech companies. Some of these advantages that make the company powerful are:

**1. Innovation and Cutting-Edge Technology**

Unlike other tech companies, ESCHOSYS has embrassed technology and deal with licensed software and purchase software product without solely relying on null resources which can fail at any given time. Also ESCHOSYS has good soft ski9lls that permit IoT services to be integrated in their services.

**2. Quality and Reliability**

- High-Quality Standards: Ensuring that products and services meet the highest quality standards, ESCHOSYS also ensure that training offered to trainees and services rendered are of quality based on feedback and testimonies from customers.

- Reliability and Performance: they offer reliable and high-performance solutions that customers can depend on.

**3. Customer-Centric Approach (customer satisfaction)**

- The tech team of ESCHOSYS are always on the fact that when the customers are satisfied, they will also be satisfied. By so doing, the customers turn to get the best from ESCHOSYS team

**4. Skilled and Experienced Team**

- Expertise: ESCHOSYS has a team of highly skilled and experienced professionals who are experts in their respective fields.

- Continuous Learning: Encouraging ongoing training and professional development to keep the team updated with the latest technologies is a sole responsibility of the management of ESCHOSYS.

**5. Strategic Partnerships and Alliances**

ESCHOSYS via their public relation offer is aimed at ensuring that the company secures good partnership deals which end up benefiting the company as compared to other tech companies

**6. Feedback**

A survey is regularly conducted at ESCHOSYS by the management to get feedback from trainees, customers and what would be customer will desire to have. With all of these, mistakes are quickly correct on time before the escalate to severe irreparable problems

**7. Free services/Customer service**

ESCHOSYS render some services like computer maintenance to her customers especially interns who are in the company. Also, ESCHOSYS is flexible in her payment policies and constant follow up of trainees and customers to ensure the best of what they wanted is gotten.

* + - 1. **WEAKNESSES**

Though there might be so many positive aspects about ESCHOSYS, there are also some few drawbacks that need adjustments. Some of these drawbacks are:

* + - 1. **Marketing**

At times the marketing team is very lax and this goes a long way to retard the visibility of the company and the services offered by the company as a whole.

* + - 1. **Punctuality of trainers/Tech professionals**

Provided that most of the tech professionals of ESCHOSYS develop software into the late hours of the night, they mostly come late to the company. This goes a long way to affect the stipulated objectives and the company objectives as whole and expected outcomes.

* + 1. **Problems encountered**

Though ESCHOSYS was best of an internship place, there are also challenges encountered carrying out internship. Some of the challenges encountered are:

* **Lack of a safe and confidential platform to lay my worries an intern**

During the internship period, I had difficulties in sharing my concerns, suggestions and feedback regarding the methods used by the instructors to educate us. This was due to a fear of retaliation or judgment from the instructors or from other students. Hence, there were many unaddressed concerns which limited my rate of grasping knowledge and personal satisfaction.

* **Transportation**

It was not very easy to continuously carry out internship for all working internship days at ESCHOSYS. They were days that I as the trainee could not make it at the internship place because of taxi fare since I was living relatively far from the internship place.

* **Internship fee**

With the aim to purchase the necessary material needed by the trainers to transmit skills, there was need for a minimal amount as internship fee. This was still a problem to the intern as at given moments raising transport and raising the internship fee was a bit difficult

* **Language challenges**

Helping out fellow internship mates and friends with some difficulties because they could not master the language (English or French) some of the software were installed or the trainers were teaching is another challenge. This ending up with a good experience because modern AI tools that have aided translation and configuring of software. Communicating fluently with those of purely French background was also a challenge

* + 1. **RECOMMENDATIONS**

Some of the few recommendations as regards the various challenges and weaknesses encountered at ESCHOSYS TECHNOLOGIES are:

**Provision of an anonymous platform where students can lay their complaints**

Doing this will help students comfortably talk of their difficulties and maybe give the reasons for those difficulties (which could be the method used to educate them).

**Assiduity**

Trainers should always endeavour to be on time at the company. This will go a long way to meet company objectives and the internship program scheduled for the period available

**Marketing**

The management of ESCHOSYS should cease from giving a blind eye to the laxity of the marketing department. If serious measures are not taken, the might loss popularity and visibility to the entire world provided is just a sun rising company.