

**SPLWD: Student Profiling for Learners with Disabilities in Sta. Cruz  
District of Laguna**

A Capstone Project

Presented to the

Faculty of College of Computer Studies

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Cruz Campus

In Partial Fulfillment of the Requirements of the Degree

**BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY**

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3. Communicate effectively as a member or leader of the computing society with social, moral and legal responsibilities to accomplish a common goal.
4. Engage in life-long learning as foundation for continuing professional advancement.

## APPROVAL SHEET

The thesis entitled "**SPLWD: STUDENT PROFILING FOR LEARNERS WITH DISABILITIES IN STA. CRUZ DISTRICT OF LAGUNA**" prepare and submit by **JOSHUA B. PASCUAL, IRISH CATHLYN E. NUAL, and DAN HENRY T. BONOZO** in partial fulfillment of the requirements for the degree of Bachelor of Science in Information Technology is hereby recommended for approval and acceptance.

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## ABSTRACT

The Sta. Cruz District has 16 schools, but only three of them provide Special Education. Sta. Cruz Central Elementary School, Bagumbayan Elementary School, and Gatid Elementary School. Using the knowledge obtained from the initial interview, There are 111 pupils at Sta. Cruz Central Elementary School, 32 at Bagumbayan Elementary School, and 20 at Gatid Elementary School, there are 163 LWD pupils overall. As a result of in depth interviews with SPED teachers the researchers they found out that there are numerous file that teachers are submitting annually and quarterly. Their current management system are still traditional way this current system is not convenient and vulnerable to natural disasters that's why researcher came up with " SPLWD: Student Profiling for Learners with Disabilities in Sta. Cruz District of Laguna". The goal of the study is to assist teachers in organizing and maintaining student evaluations, observations, and notes in web-based storage so that teachers can conveniently access them and monitor students' progress. This study will use descriptive and developmental research methods in designing the mobile application functionalities and features. The researchers utilize Agile Software Methodology for software development to determine the process of the study from data collection to system design, module development to meet needs, and testing the developed system. In the study's testing phase, ten out of ten IT experts who tested the system received a "passed" frequency with a 100% rate, indicating that the system's functionality was completely satisfied. During the evaluation phase, three principals and three principal's assistants from SCES, BES, GES, 12 LWD teachers, and 72 parents answered a questionnaire based on the TAM criteria, achieving a response scale of "Strongly Agree" and showing that users are extremely satisfied with the presented system.

**Keywords:** *Student Profiling, Learners with Disabilities, Special Education, Principal, Principal's Secretary, Teachers, Parents, Agile Software Methodology,*

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- Researchers' Curriculum Vitae

## Operational Terms

The operational terms defined the variables, concepts, or processes used by the researchers in the study. Also, these are the terms related to the research topic.

**Administrator**

It is a type of end user with the authority to manage and control system operations.

**Agile Methodology**

It is a method for software development that involves iteration. It is used to reduce risk and to develop software in short time frames.

**Black box Testing**

It tests the system using no prior knowledge of its internal process.

**Descriptive Research**

It refers to the techniques used to characterize the properties of the variables being studied.

**Developmental Research**

It is defined as the systematic study of designing, developing, and evaluating instructional programs, processes, and products that need to adhere to internal consistency and effectiveness.

**Dichotomous Scale**

It is the total score obtained from a number of survey questions, each of which measures the same attribute.

**Individual Educational Plan (IEP)**

It includes information on the learning objectives, student strengths, skills, and interest in learning, as well as educational adjustments and inclusive strategies.

**Individual Learner's Profile (ILP)**

The only difference between this form and an IEP is that it asks for a parent interview, which is essential because the SCES only provides a modular method.

**Learner Registration Number (LRN)**

It is a 12-digit number that must be kept by the pupil student, or learner throughout the basic education program, regardless of transfer to a different public or private school or learning center or promotion to the secondary level.

**Parent**

A type of end-user that can have an account with limited access using their child Learner Registration Number (LRN).

<b>Secretary</b>	It is a specific type of end user in the system. S/he has the authority to approve users of a specific school.
<b>Student Profiling</b>	It is a process uses to create and keep a record of learning experiences of the students over the course of their academic careers.
<b>Teacher</b>	A type of end-user that can have an account and upload IEP and ILP copy organize by date, IEP and ILP form where they can fill out online (printable).
<b>Web Based</b>	The applications that run on a web browser are typically referred to as web based.

### **Technical Terms**

This section presents terms with their universal or dictionary definitions. The terms

are used to describe the methods, equipment, and mechanisms used to create the system's features and functionalities. This section will serve as a reference for non-IT professionals

**Bootstrap**

It is used on creating responsive and mobile-first websites. It serves as a framework for creating websites' front ends.

**CSS**

CSS is a language for describing reusable styles for displaying markup-language-written content. It is used for developing responsive websites.

**HTML**

It is used to structure the web page and its contents.

**JavaScript**

It is an interpreted client-side scripting language that gives web designers the power to add code to their websites. It enables the integration of complex features on web pages.

**Laptop / Computer**

It is an electronic device that may be programmed to store, retrieve, and process data.

**MySQL**

It is software used for databases. It is frequently used and a well-liked substitute for other SQL solutions due to the fact that it is open source and is available for free downloads.

**PHP**

It is short for PHP: Hypertext Preprocessor. Is a type of scripting language that is used to create websites.

**XAMPP**

Is an open source web server solution that includes everything required for server-side development.

## **CHAPTER I**

### **INRODUCTION**

The Department of Education's basic education program includes special education. Special education, which began modestly in 1907, is now an important part of the basic education program in elementary and secondary schools. Special education programs are available in public and private elementary schools across the country. The number of children with disabilities in the Philippines is expected to be between 2.13 and 2.22 million in 2018 and only 231,631 are enrolled and dropped to 38,914, according to the DepEd records in the school year 2021-2022 (Philippines news agency).

Special education holds a lot of documents such as ILP (Individual Learners Plan), IEP (Individual Educational plan), ILMP (Individual Learners monitoring plan), BIR (Behavior Intervention Report) and Progress Report. This file contains the learning goals, strengths, education adjustment and inclusive strategies, these documents are important because it serve as a plan for educating LWD (Learners with Disabilities). Most of these documents are quarterly submitted, this makes the student files triple than the regular class documents.

The school in the Sta. Cruz district that offers special education is still using the traditional way of file management. Even though these documents are all organize these files are not accessible every time since it was stored at the school. Furthermore, the current system is prone to natural disasters, since Sta. Cruz Laguna is prone to flooding.

So as to address this problem, we create a web based student profiling, were teacher can have an account and upload IEP and ILP copy organize by date,

Progress Report form where they can fill out online (printable), also Parents can have an account with limited access using their child Learner Registration Number (LRN) where they can fill out their observation about their children, and Teachers can search the profile of all LWD student in district of Sta. Cruz including previous observations, IEP and ILP to easily endorse student transferees or after the reshuffle.

In summary, the aim of the study is to help the teachers of Sta. Cruz District Schools easily accessed student profiles, easily tracked the improvement of their students and also endorsed transferee students or after the reshuffle in a convenient way.

## **Project Context**

The Sta. Cruz District has 16 schools, but only three of them provide Special Education. Sta. Cruz Central Elementary School (SCES), Bagumbayan Elementary School (BES) and Gatid Elementary School (GES). Based on the information gained from the preliminary interview, Sta. Cruz Central Elementary School has 111 students, Bagumbayan Elementary School has 32 students, and Gatid Elementary School has 20 students, resulting in a total of LWD students to 163. Because of the pandemic, the total number of LWD students has decreased.

There are numerous documents related to special education, including the Individual Learners Plan (ILP), Individual Educational Plan (IEP), Individual Learners Monitoring Plan (ILMP), Behavior Intervention Report (BIR), and Summary of Progress Report called Promotion. These documents are significant because they serve as a strategy for educating LWD (Learners with Disabilities) and contain

information on learning objectives, strengths, educational adjustments, and inclusive tactics. Since the majority of these documents are submitted quarterly, the student files are three times as large as the typical class files.

The school that offers special education in the Sta. Cruz District is still using traditional way. These current system is not convenient to the teachers since the student files is only accessible at the school, and in addition to that the current system is vulnerable to natural disaster like flooding since the Sta. Cruz Laguna is prone to flooding. The researcher found the following problems: (a) How to design and develop a web based profiling that will help learners with disabilities, (b) How will the researchers helps the teachers test the main functionalities of the developed system, (c) How will the researchers help the principal, teachers, and parents evaluate the efficiency and usability of the system.

## **Research Objective**

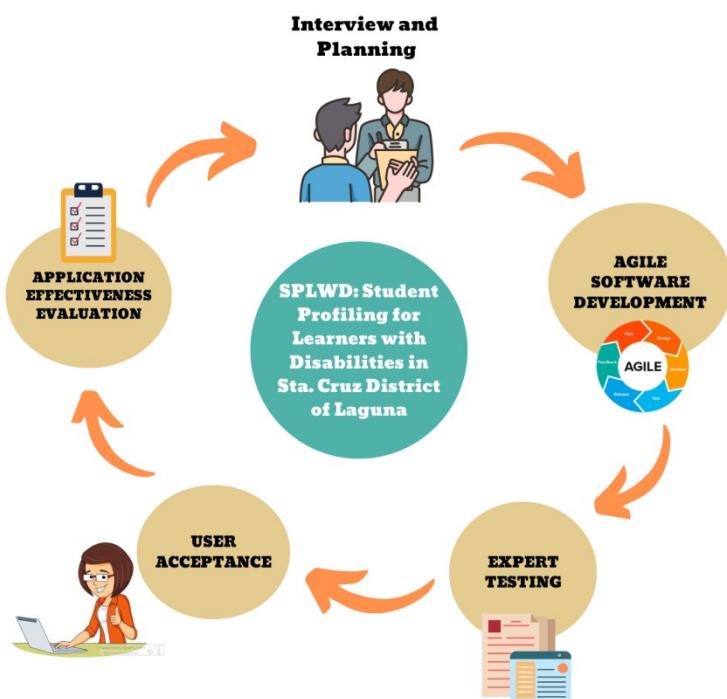
The study aims to design, develop, test and evaluate the effectiveness of using a web based on learners with disabilities students profiling of Sta. Cruz district. To easily endorse their handled students after the reshuffle since there are three classes (Hearing Impairment, Transition Class and Non Graded class) of disabilities in every school that offers Special Education in Sta. Cruz District. Furthermore, keeping student assessments, observations, and remarks on the web based storage will organize them and can be easily accessed for teachers to easily track student improvement.

Specifically, this study sought to find out the following:

1. To design and develop a web based profiling for learners with disabilities of Sta. Cruz District of Laguna.
  - 1.1 IEP, ILP, ILMP and BIR
  - 1.2 LWD Students Profile
  - 1.3 LWD Progress Report, Evaluation and Observation
  - 1.4 Parents Observation
  - 1.5 LWD Monitoring
2. To test the main functionalities of the developed system by letting the teachers of Sta. Cruz District Schools use the web application.
  - 2.1 Adding new student to the system
  - 2.2 Updating student information
  - 2.3 Uploading the IEP, ILP, ILMP, BIR and Promotion of the student
  - 2.4 Adding parents observation to the student
3. To evaluate the efficiency and usability of the system by letting the principal, teachers, and parents use the web application
  - 3.1 Quality Factors of the System
  - 3.2 Perceived Ease of Use
  - 3.3 Perceived of Usefulness
  - 3.4 User Satisfaction
  - 3.5 Attitude Towards Using

## Conceptual Framework

This study shows how the developers must conduct an interview and make plans before using Agile Software Development, testing the system with experts to ensure user approval, and then evaluating the application's efficacy to help Learners with Disabilities in Sta. Cruz District of Laguna.



**Figure 1.** Conceptual Framework of Student Profiling for Learners with Disabilities

The conceptual framework above illustrates how the study was completed. The researchers gathered data from the client through interviews and planning. They also used data gathering techniques such as observations, interviews, questionnaires, internet searches, consultation, and, finally, brainstorming. The researchers will then develop a web-based solution. The researchers will use CSS, Bootstrap for front end, PHP, JavaScript, for back-end, and Xampp, MySQL as a server-scripting language to store data in the database. The Agile Software Development model will be used in the system's development. And when the system

was finalized, the researchers conducted system testing with the help of IT experts. The researchers used black box testing as a testing method. And also, the researchers conducted a face-to-face demonstration of the system and distributed printed questionnaires this determined the system's functionality and user acceptance on TAM criteria. And at last, the evaluation phase which determines the study's outcome.

## Project Purpose

The purpose of the study entitled “SPLWD: Student Profiling for Learners with Disabilities in Sta. Cruz District of Laguna” is to help the teachers on keeping the student assessments, observations, and remarks on the web based storage to be organized, can be easily accessed for teachers and to easily track the students improvement. Furthermore, they easily endorse their handled students after the reshuffle since there are three classes (Hearing Impairment, Transition Class and Non Graded Class) of disabilities in every school that offers Special Education in Sta. Cruz District of Laguna.

- **LWD** – The researchers improve the effectiveness of the students' lesson plans.
- **Teachers** – The researchers help the teachers by giving them a more practical method of monitoring student data that improves them for their learning plans for LWD in Sta. Cruz District.
- **Schools** – The researchers will provide Sta. Cruz District schools a much safer storage location for the LWD files.
- **Parents** – If their child is enrolled in a graded class, the researchers provide a convenient way for parents to view their child's grades.

## **Scope and Limitation of the Study**

The study entitled “SPLWD: Student Profiling for Learners with Disabilities in Sta. Cruz District of Laguna” focus on developing a web based that helps the teachers on keeping the Individual Learners Plan (ILP), Individual Educational Plan (IEP), Individual Learners Monitoring Plan (ILMP), Behavior Intervention Report (BIR), and Promotion can be easily accessed and track student improvements.

To achieve the objective, the scopes of the study are the following:

- The study focuses mainly on the LWD profiling, record management and observation of the students in Sta. Cruz District School.
- The study covers only within the District of Sta. Cruz.
- The scope of the study concentrates on the development of a system that will help Sta. Cruz District organizes their data and information in a computerized and centralized format.

As this study has its scope, this study also has its limitations. The following are the limitations:

- The study does not cover deployment or implementation plans.
- The study was focused only on Learners with Disabilities
- The research would be done in Sta. Cruz Elementary Schools by testing and evaluating the web application.

## **CHAPTER II**

### **REVIEW OF RELATED LITERATURE**

This part of the research analyzes the relevant literatures to support the researchers' study. Reading some of the articles has really aided in deepening one's awareness of how learning researchers are vital in advancing the system's capacity for learning.

#### **Learning Disabilities**

A learning disability is a lessened intellectual capacity and difficulties with day-to-day activities, such as taking care of the home, interacting with others, or managing money, that impacts a person for the rest of their life. Learning disabilities cause people to learn more slowly and may require assistance for them to communicate with others, gain new skills, and comprehend complex material.

In the article entitled “Specific Learning Disabilities” by Agiopoulos (2019) the specific issues and challenges in the learning environments of schools are described. Several European nations' laws fully acknowledge and take into account these definitions. This article presents a preliminary analysis of the topic with the intention of educating and directing readers in the recognition and differentiation of these disorders.

A research paper about providing a voice for students with special needs, understanding their educational experiences, and provide practice-relevant information entitled “Understanding the Educational Experiences of Individuals with Learning Disabilities: A Narrative Perspective” by Marita (2018). The majority of kids getting special education assistance and accommodations in schools are those with learning disabilities. Numerous studies have been conducted on the academic

needs of these individuals and various classroom interventions that could help them.

Likewise, a study entitled “The Student Experience of Psychoeducational Assessment: A Phenomenological Study” by Hoffman (2021), interviews are conducted with students who have special learning disabilities (SLD) to learn more about how they felt during the psychoeducational evaluation process. Themes from the experiences include stigma, challenges with the testing process, and unpleasant interactions with professors. Students find it helpful to interact with their peers in special education.

In the study written by Ayoub (2018) entitled “The Effects of the RAP-WE Intervention on the Comprehension Performance Outcomes of Middle School Students with Learning Disabilities”, eight middle schoolers from a suburban school district who had been diagnosed with learning difficulties participated in the study. The goal of this study was to look at how middle school children responded to the RAP-WE (Read, Ask, Paraphrase-Write, Edit) intervention. Through multiple-choice questions, the expository text's participants' reading comprehension was evaluated. Results show that students with learning challenges performed better on reading comprehension tests after receiving the intervention. Future research directions and implications are discussed.

Similarly, a study by Parks (2020) entitles “Using Picture Books to Increase Comprehension of Expository Texts in Students with Learning Disabilities”, the goal of this study was to ascertain the outcomes and social acceptability of a high-quality picture book intervention on middle school students with LD. Instead of using conventional expository texts during daily instruction, the intervention used award-winning picture books. Data show that the HQPB intervention is successful and is regarded as having social validity. This study has several limitations, including a lack

of reproducibility, a small sample size and data on social validity, and a global pandemic brought by COVID-19.

Also, a study by Sulaimon (2019) entitled “The impact of text-to-speech on comprehension for students with learning disabilities in an urban school”, The Read & Write Gold 11 text-to-speech program's effects on comprehension for two fourth grade students with learning disabilities in an urban school were investigated using the A-B-A-B withdrawal design. Participants read comprehension passages from a reading instruction resource that are appropriate for fourth grade. The student had 35 minutes for each session to read the comprehension text and respond. The TTS program's speech options (Pitch, Speed, Voice, and Word Pause) were adjusted by the students to their preferences. The TTS program had an impact on the students' comprehension score, according to the results. When the TTS application was used to read the comprehension passages, all participants' scores improved. The TTS program was very simple to use for the participants, requiring little to no assistance. This paper discusses limitations and their ramifications for upcoming research.

In support of the study above, a study by Reiser (2018) entitled “An Impact Analysis of Computer Assisted Instruction on The Reading Skills of Students with Disabilities”. The purpose of this quantitative, quasi-experimental study was to evaluate the effectiveness of a computer-assisted reading software. Improved reading fluency and comprehension abilities as well as higher value-added measurements of students' performance on Ohio's Common Core State Standards examinations were two potential benefits of the study for participants.

Addition to the study by Reiser (2018), a study entitled “Teaching a Learning Strategy for Computational Mathematics to Students with Moderate to Profound Intellectual Disabilities Using Video Prompting” by Dueker (2018), he stated that

three of the five chapters that make up this dissertation are independent articles. In chapter one, he provides an overview of video prompting as well as the justification for the remaining chapters. A thorough literature analysis on employing video-based technology to teach academic skills to students with moderate to severe intellectual disability is presented in Chapter 2. In chapter three, he went into detail about a study in which he used video prompting to teach students with moderate and severe intellectual disabilities how to use a number line. The fourth chapter offers advice for organizing the fading of newly introduced video prompts and is a practitioner article that focuses on video prompting and prompt fading in the classroom. In chapter five, he concluded by reviewing his research for this doctoral program, including his dissertation, and outlining prospective future lines of research that are relevant to the current line.

Many kids with impairments perform at a lesser level than their peers without disabilities when it comes to reading. In the study entitled “The Effects of Time Delay Procedures on the Acquisition, Maintenance, and Generalization of Spelling Sight Words for Elementary Students with High-incidence Disabilities” by Ott (2019), In an urban school context, this study looked at how the Time Delay method affected the spelling of sight words in kindergarten and first grade for elementary kids with high incidences of impairments. Effective spelling instruction intervention packages have been shown to include immediate feedback, immediate self-correction, and repetition.

Kids with impairments perform at a lesser level than their peers without disabilities. Because of that, another concern is it is more likely for them to experience sexual abuse and have unfavorable pregnancy outcomes. In the study by Schmidt (2019) entitled “Usability and Feasibility of an Enhanced Sexual Health Education Program for Individuals with Intellectual and Developmental Disabilities”, For people

with I/DD, there are knowledge gaps in the areas of pregnancy, reproduction, and contraception, contraception, and sexually transmitted illnesses. According to this study, parental characteristics, general traits, humiliation, a lack of organizational policies and/or standards, and a lack of adequate professional training for educators and providers are the main obstacles to sexual health education. Current sexual health education procedures, which are offered by numerous stakeholders and take place during organic learning opportunities, have hurdles and gaps. The ideal learning modalities for this program are videos, images, universal design for learning, and direct, explicit instruction. Individuals with I/DD and educators found the following activities to be usable, helpful, and desirable: gender unicorn (a gender identity visual) and identity film (66 percent), anatomy video (89 percent), sexually transmitted infections (STI) infographic (85 percent), and family planning video (63 percent).

In the study “Principal Perceptions of Students with Disabilities: A Q-Sort Investigation of Mindset and Leadership Practices” by Morgan (2019), looked at how leadership styles affect principal perceptions of children with disabilities in Ohio public schools. Three factor categories emerged from the analysis of Q-sorts completed by 20 public school principals. Empowering Principals demonstrated a strong sense of efficacy in staff and students' capacity to learn and grow, as well as in collaborative problem-solving, shared leadership decision-making, and it reduced the likelihood of encountering staff resistance or operational obstacles. The challenges of operational hurdles, staff reluctance, and challenges in distinguishing for student requirements were highlighted by Constrained Principals. Practical principals showed minimal site-based engagement in leadership decisions and prioritized handling daily emergencies, attendance, and discipline difficulties.

A case study by Milner (2018) entitled “What Factors Contribute to the Persistence of Adults with Learning Disabilities Sustaining Enrollment in College?”, Students with learning difficulties are increasingly enrolling in higher education programs. This study examines what factors contribute to the persistence of adults with learning disabilities to obtain a college degree. The data presents recommendations that could support a more seamless transition for other children from the K–12 environment to a postsecondary college environment. Future students can benefit from the knowledge obtained from this case study.

According to Dougherty (2021), his study entitled “The Effects of District Characteristics on the Achievement of Students with Disabilities”. Student achievement is impacted by district-level factors such socioeconomic status, the percentage of minorities, and instructional spending. It has been discovered that several of these characteristics significantly impact kids with impairments. Data from 108 public school districts in Northeast Ohio were taken from the website of the Ohio Department of Education.

A case study entitled “Collaboration Among Professionals Working with English Learners with Disabilities in a Newcomer School: A Case Study” by Mann (2018), the collaboration between teachers working with newbie English learners who have disabilities was examined. According to the study, in order for teacher collaboration to be sustainable, there must be a common aim and purpose, open communication, and regular assessments of student progress. Teachers will gain from obtaining professional development in the future to promote cooperative attitudes.

Professionalism in teaching is essential for collaborating with your pupils, especially if they have disabilities. Negative attitudes toward students with impairments frequently leave them feeling disengaged and discouraged. The study

entitled “Changing Educator Attitudes About Students with Disabilities Through Literature” by Moser (2020), this study looked into whether pre-service teachers' attitudes toward students with disabilities may be improved by reading a first-person narrative and participating in a book study.

In the study “The Relationship of Stress and Test Anxiety in Children with Learning Disabilities” by Hinds (2020), the main goal of this study was to find out how students with learning disabilities respond to various testing situations and whether altering the testing conditions can lead to better results. Math fluency tests, heart rate monitors, and questionnaires were all used to gather quantitative data. Results suggest that computer testing in small groups may be most beneficial for kids with LD, but more research is required.

A paper written by Crish (2022) entitled “The Impact of Language Impairment on Learning Disabilities in Writing for K-12 Students: A Meta-Analytic Investigation”, Speech-language pathologists' job is to correct these fundamental errors so that additional encoding and decoding progress in the classroom is possible. Both groups of research concur that pupils' writing skills suffer when speech and language problems are present. There wasn't enough information available to say whether a student's socioeconomic situation, gender, or race affects the way their encoding is developed.

## **Parent Involvement**

Parent involvement is the process by which parents and educators work together to enhance the educational environment and academic performance of their children. Numerous studies have shown that parental participation in a kid's education is crucial for the kid to succeed in school.

In the study entitled “The Relationship Between Parent-School Involvement and Math Achievement in Economically At-Risk Students” by Tenenbaum (2018), academic success and achievement of students are significantly influenced by parent-school involvement. Due to its potential to serve as a protective factor, this involvement may be even more important for students whose families are struggling financially. Students from 36 schools in a Midwestern state who were economically challenged provided the data for this study.

Furthermore, a study entitled “The Relationship Between Parental Involvement and High School Students’ Academic Achievement: Parent Gender as A Moderator” by Sheng (2021), the growth of adolescents must be supported by parental involvement. In this study, parental engagement is conceptualized as a multifaceted construct that includes helping with schoolwork, intellectual stimulation, educational conversation, and parental expectations. The two significantly more potent determinants of adolescents' GPAs are engagement in school and help with homework.

Also, the study entitled “Parents’ Voice: International Relocatee Parents’ Perspectives on Parental Involvement Practices Utilized in Their Young Children’s Early Learning and Development” by Raimbekova, L. (2021) is to comprehend how parents who have moved abroad view the methods they use to encourage their small children's early learning and development. The study's findings contribute to the discussion of what it means to be an involved parent in the American public school system.

While in the study entitled “Best Practices for Parental Involvement in Suburban Schools” by Trame (2020), a study looks into what influences parent involvement in suburban schools favorably and unfavorably. Ten parents were

enlisted from suburban school districts in southwest Ohio. The four main obstacles to parent involvement identified by participants were time constraints, rigid work schedules, an unwelcoming environment, and a lack of volunteer opportunities.

The study entitled “Measuring Meaningful Parent-School Interactions through the use of Telecommunications Technology Intervention” by Poe (2018), for children with impairments, the Individuals with Disabilities Education Act requires a framework for parent or guardian involvement. By establishing a virtual connection between home and school, technological improvements in education may give schools the chance to strengthen the role of parents and guardians as members of the IEP team.

A study written by Zeng (2020) entitled “The roles of student self-determination and parent involvement in postsecondary enrollment for students with learning disabilities”, this dissertation investigates the connection between learning disability students' self-determination, parental participation, and college enrolment (LD). In order to improve services for students with LD, practitioners, parents, and researchers in the field of secondary transition will benefit from the study's findings. Additionally, it offers empirically supported determinants for outcomes after high school.

In the study entitled “Reconsidering Parental Involvement: Chinese Parents of Infants in American Child Development Center” by Liu (2020), the bond between parents and infants has been seen as a crucial factor in effectively promoting the development of young children. By carefully examining Chinese parents' thoughts on putting their infant in a child development center for care, this study sought to understand parental engagement. Chinese parents' involvement in their children's development at home, at the center, and in the community is significantly impacted by

their lack of exposure to American culture, language barriers, and the grandparents' position in the family. Teachers and administrators must be aware of any obstacles that Chinese parents and other minority groups may encounter in the American educational system.

A case study by Hicks (2018) entitled "A Case Study: Exploring African American Parental Involvement of Students with Disabilities in Transition Planning in an Urban School District", this qualitative case study's goal is to examine how parents of African American students with disabilities are involved in transition planning in urban high schools. The author hopes to obtain a better knowledge of parental participation during the transition process in order to prepare for employment or college through an explanatory case study. To explain the main phenomenon of how African American parental engagement happens in metropolitan city schools, data were gathered through semi-structured interviews and document analysis, and they were then analyzed using Joyce Epstein's (1995) framework for parental involvement. The following themes were discovered: parents as subject matter experts; emphasis on addressing the particular needs of each student; opposition versus empowerment; and lack of understanding of parental rights. The area of counseling, parents, teachers, administrators, and kids with impairments are all affected.

According to Mikedis (2019) entitled "Parental Involvement and the Mental Health of Adolescents with Chronic Pain", parents play a significant role in the pain experience and mental health of adolescents with chronic pain. Research on parental involvement and symptoms of anxiety and depression in adolescents is scarce. Findings have important clinical implications for identifying adolescents who are vulnerable to experiencing symptoms of anxiety and depression.

In the study entitled “An Examination of Parental Involvement and Reaction to Preschool Special Education Eligibility Determination” by Shannon (2019), to comprehend the family experience of a preliminary preschool special education examination, a phenomenological study was carried out. Parents expressed joy over the special education services their child would receive as well as regret over the fact that their child would require those same services.

## **Special Education**

Alternative instruction, support, and services known as special education are given to kids who require it because they have special requirements that cannot be satisfied by using regular teaching methods in their academic, behavioral, physical, or health demands.

A study by Librea-Carden (2018) entitled “Nature of Science in a Special Education Context: Conceptions and Sense-Making of Preservice Special Education Teachers”, the nature of science (NOS) and NOS instructional strategies of preservice SPED teachers were investigated in this study. The students were taking a course that blended social studies and scientific methodology. The NOS Classroom Observation Protocol was used to examine lesson preparations and observed lessons.

As stated in the article written by Alhassan (2019), “Experiences of African Immigrant Parents with Children Receiving Special Education Services in an Urban School District: A Phenomenological Study”. This qualitative, phenomenological study aimed to increase our understanding of how parents viewed their child's disability by investigating how six African immigrant parents experienced and perceived the special education process in an urban school district. Four main themes emerged from a study of the information taken from six semi-structured interviews: 1)

Lack of Empowerment, 2) Confusion, 3) Appreciation, and 4) Identity. Parents in this study frequently sought out advocates to make requests on their behalf because they did not feel empowered to express their demands to school employees. In this study, parents also expressed a sense of perplexity regarding the special education procedure and a comparable lack of understanding of their child's disability. The results of this study have significant practice-related ramifications. In general, when working with African immigrant families, educational employees must establish equitable relationships between parents and be culturally competent. This report also makes recommendations for additional studies.

Similarly, the study "Experiences of Immigrant/Culturally and Linguistically Diverse Families in the Special Education Process" by Varbanova (2021), the purpose of this study was to describe immigrant parents' experiences with the Special Education process involving their children. Participants indicated a need for more information about general education, progress in relation to grade-level standards and long-term implications related to receiving Special Education support.

Furthermore, a study by Divyank (2019) entitled "Design and Implementation of Parent Mediated Special Education Mobile Applications for Young Children". Mobile technology is expanding the learning experience both inside and outside the classroom. We have designed a mobile application for teaching both the parents and their children. It will help keep track of user progress, provide supplemental instruction, and a way for families to communicate with intervention team members.

A study by Kelly (2018) entitled "A Case Study of an Inclusive Elementary and Special Education Teacher Preparation Program". Discourses of deficit, exclusionary practices, and a behaviorist educational philosophy have dominated special education. Disability Studies offers a theoretical framework and alternative narrative that rejects

the medical model of disability, gives priority to the lived experiences of the disabled, and recognizes disability as a component of human diversity. Changes to the dominant discourse and practices can be evolved toward more socially just practices in education at the teacher preparation level. This in-depth qualitative case study of an inclusive primary and special education program at one university that has ties to disability studies aimed to understand the variables that contributed to the program's success and the function that disability studies serve. Five contributing themes that are involved in this inclusive curriculum were discovered through data collection from various sources. Values, Philosophy, and Mission; Legacy; Disability Studies; University Value and Support; and Service / Action are the names of these themes.

In support of the study above, a study entitled "Special Education Teacher Educators' Perceptions of High-Leverage Practices in Undergraduate Coursework" by Pigman (2019), scholars have recommended a new practice-based vision of special education teacher preparation. This research explored special education teachers' perceptions of the need for and significance of high-leverage practices. The findings have implications for teacher education as well as suggestions for future research.

A research paper entitled "Social-Emotional Learning Strategies in Special Education: An Action Research Project on the Implementation of the RULER Approach to Support Social-Emotional Goals of Tier-3 Intervention Students" by Hayes (2022), the purpose of this action research study is to determine if the RULER Approach to Social-Emotional Learning (SEL) is beneficial to students with disabilities. Data was gathered through a provided rubric that was completed by the general education teachers over the span of 6 weeks.

In this study, it aims to investigate the degree to which high school students with impairments feel a sense of belonging. A study by Ketterman (2022) entitled

“Investigation of In-School Belonging by High School Students Enrolled in Special Education Services”, the inclusion classroom served as the least restrictive environment for five ninth-grade students with disabilities. The Psychological Sense of School Membership Likert scale was distributed to the students, and they were asked to rate how true they thought each of the 18 different assertions were. In order to learn more about the elements that could influence a student's sense of belonging, two students were interviewed about their experiences at school. To make inferences about the sense of belonging felt by the study participants, common themes in both the Likert scale responses and interview replies were collated.

A study written by Leachko (2020) entitled “The Implementation of PEAK Relational Training System in a Special Education Classroom”, it investigated the implementation of PEAK (Promoting the Emergence of Advanced Knowledge) Relational Training System: Direct Training Module. It focused on the behavior of a second-grade student with ASD within a specialized learning center. The data showed that the student's scores increased after the intervention.

## **Student Profiling**

Students create and keep a documentary record of their educational experiences as part of the career-long process known as student profiling. Profiling should be the cornerstone of each student's management of their own learning when done correctly.

A study by Baldres, Luceno, Fernand, Magadan, Noble & Cajipe (2020) entitled “Student Profiling System for Grade 12 Senior High School Students of Bestlink College of the Philippines”, the Bestlink College of the Philippines uses this approach to profile its students. The system is used to store information that the school needs to know about the pupils in addition to the student's personal data. Only school

employees or administration should have access to the system because it is not universally usable. Planning included doing everything that needed to be done.

## **Agile Methodology**

For explaining what agile methodology is Azmee (2018) entitled “Agile Methodology” The agile software development methodologies and practices are built on ideals, concepts, and practices that streamline and accelerate the software development process. Scrum, Feature Driven Development, Extreme Programming, and other methodologies are included in the agile methodology. The importance of agile software development methodologies has been astounding. The purpose of this paper is to investigate current agile methodologies and practices and acquire new insights into them.

In another article explaining the agile methodology Entitled “What are agile methodologies?” by Lamelas (2018) According to agile methodologies, we should aim for client satisfaction overall by making regular delivery of software that adds value, by maintaining constant contact with the client, and by putting a focus on team communication. In contrast to earlier approaches, the Agile strategy is distinguished by an active interaction that enables consistent delivery rather than by the complete specification of an item, a complete investigation, or the declaration of all categories/requirements.

The goal of the field of software engineering is to stay up with new technological developments and contemporary business needs. “Agile Software Development: Methodologies and Trends” by Al-Saqqa (2022). Agile software development is a simple strategy put forth to get beyond the drawbacks of conventional development techniques. This article lists the essential agile values and concepts as well as the key distinctions between agile and conventional methodologies. Additionally, it covers the

most well-known agile approaches, including their life cycles, roles, and benefits and drawbacks.

## **Descriptive and Developmental Research**

Descriptive studies may be characterized as merely the attempt to determine, describe, or identify what is, while analytical research attempts to establish why it is that way or how it came to be. Moreover, the article entitled “New Methods of Market Research and Analysis” (Erickson 2017) stated that the traditional descriptive approaches and techniques are presented, including existing data, observation, and communication. It includes common concerns with questionnaires such as respondent cooperation, instrument design, and method of administration. The emphasis is on broad trends in observation research (or observation combined with the communication), ongoing relationships with respondents, and engagement. In particular, examples from advertising evaluation, social media observation, shopper tracking, and insight panels/enthusiast groups are employed to explain current trends. The researchers have used this kind of research design as a step and technique on conducting the study “Online Management Information System for the Girl Scout of the Philippines-Laguna Council”. While according to Mohamedbhai, Goolam (2014) entitled “Promoting Developmental Research: A Challenge for African Universities” there is no reason for developmental research to be regarded as inferior or of poor quality. Also, for developmental research to be meaningful the identified solution must be applied in the field and an assessment of the outcome made. However, this study has its limitation which is no implementation for the developed system.

## **Technology Acceptance Model**

Based on the study entitled “Technology Acceptance Model: A Literature Review from 1986 to 2013” by Marangunic, Granic (2015), a decision regarding its acceptance or dismissal remains an open question with the ever-increasing advancement of innovation and its integration into users’ private and proficient life. A respectable amount of work managing with the technology acceptance model (TAM), from its first appearance more than a quarter of a century ago, clearly demonstrates a ubiquity of the model within the field of technology acceptance. Started with the psychological theory of contemplated action and theory of planned behavior, TAM has evolved to end up a key model in understanding predictors of human behavior toward potential acceptance or rejection of the technology.

The main aim of the paper is to provide an up-to-date, well-researched resource of past and current references to TAM-related writing and to recognize conceivable headings for future TAM research. The paper presents a comprehensive concept-centric literature survey of the TAM, from 1986 onwards. According to a designed strategy, 85 logical distributions have been chosen and classified agreeing to their aim and content into three categories such as TAM literature reviews, advancement and extension of TAM, and modification and application of TAM. Continuous progress in uncovering new factors with significant impact on ‘TAM’s core variables, there are still numerous unexplored areas of model potential application that might contribute to its predictive validity. Thus, four conceivable future headings for TAM research based on the conducted literature survey and analysis are recognized and displayed.

As cited by Erasmus (2015) in the article entitled “A Structural Model of Technology Acceptance”, enterprise resource systems have not continuously driven to the significant organizational enhancement, and numerous ventures in which these

frameworks have been implemented turn out to be over budget, not on time and unsuccessful. The purpose of this study was to test the technology acceptance model inside a South African SAP® Enterprise Resource Planning user environment. A cross-sectional survey design was utilized. The results affirmed significant ways from perceived usefulness of the information system to attitudes towards and behavioral intention to utilize it. Behavioral intention to use the system anticipated actual use thereof. Perceived ease of use indirectly influenced attitudes towards and behavioral intentions to use through the perceived value of the information system. Practitioners ought to construct client certainty by ensuring the ease of use of a new system, giving relevant education, preparing and guidance, and repeating its convenience and future included esteem to the user's work and career. This study contributes to logical information regarding the impact of individuals' perceptions of information system utilization on their attitudes, behavioral intentions, and actual use of such a system.

According to Lou et. al. (2016) entitled "The impact of website quality on user loyalty through perceived value and commitment" Web-user dependability or site stickiness is very critical for site proprietors, anything item or benefit they give. A bit like a conventional store environment, site quality will have a great influence on users' mental discernment, and after that advance influence their state of mind or behavior. Based on the writing related to the relationship between site quality and users' behavior or demeanor, we embrace the technology acceptance model (TAM) and stimulus-organism-response (S-O-R) hypothesis to construct a conceptual demonstration, considering how the site quality impact client devotion through users' seen esteem and commitment; other than, we investigate whether site quality will have a diverse impact on client dependability confronted with distinctive site sorts by conducting an experimental investigate.

Cited on “Adoption Model of Information and Communication Technologies in Education” by Chancusig and Bayona-Ore (2019) TAM (Technology Acceptance Model) is utilized in Computer Science inquire about to gather input from clients of Information Systems. In different investigate on the selection of Information and Communication Technology (ICT), TAM has been broadly utilized and adapted depending on the desires of analysts through the joining of modern components. The paper points to display the efficient audit centered on the models utilized in instruction to acknowledge the consideration of modern data and communication advances. A add up to the number of distinguished essentials ponders was 61. Comes about appear that TAM has been utilized to clarify client selection of e-learning, web 2.0, and m-learning. The variables most commonly utilized were PU (perceived utility) and PEOU (perceived ease of use).

In addition to the study above Chancusig and Bayona-Ore (2019) entitled “Information and communication technologies acceptance models in universities” Diverse adjustments have been consolidated into this model. An orderly audit strategy was utilized in arrange to distinguish considers related to purposeful to utilize innovation in colleges. 61 essential things were chosen from the distinctive logical databases.

The comes about to appear that TAM has been connected in considers related to the appropriation of e-learning, web 2.0, and ICT. Even though TAM has demonstrated to be a coherent show, it still has impediments that can be seen by other knowledge as openings for future inquires.

## Technology Gap Analysis

In the article entitled “Web-Based Student Profiling and Academic Performance Monitoring System: A Tool to an Effective Academic Advising” by Salac (2018). According to the research, its goal is to create a web-based platform that will assist students in creating personal profiles or portfolios that will track their academic success as well as the skills and experiences they earned while attending the university. Program Chairs and Associate Deans will benefit from this arrangement as well in terms of academic counseling. With the use of this web-based monitoring system, pupils can assess their efforts. This study is employed in the system since the researchers' suggested system included an academic performance monitoring system, but it was designed to track students' grades so they could decide what grade they should aim for in the next term.

Likewise, a study by Martins & Belo (2019) entitled Automatic Student Profiling for Evaluation Purposes”. All students who use the system can have learning profiles created by this monitoring system, allowing it to adapt the teaching methods to the specific needs of each student. The work done in developing the monitoring and profiling system is presented and discussed in this paper, with special emphasis on all the factors related to the choice and implementation of the mechanisms for automatically creating learning profiles, the various evaluation methods examined, the services implemented for data storage and processing, the architecture of the evaluation system developed, and, finally, a brief demonstration of the system. Similar to the study mentioned above, it was intended to keep track of students' marks so they could determine what grade they should aim for in the following term.

In conclusion, both are designed to track and assess grades, but it is undesirable that the student can do so. Additionally, the goal of this research is to create a related

system. But in the system of the researcher, the system was created for kids with disabilities, and teachers are the only ones who can keep an eye on their pupils' grades.

## Synthesis

The data that the researchers have gathered is relevant to the proposed study. To aid researchers in comprehending and defending the study's conclusion, related studies and literature have been created.

A study by Martins & Belo (2019) entitled "Automatic Student Profiling for Evaluation Purposes". All students who use the system can have learning profiles created by this monitoring system, allowing it to adapt the teaching methods to the specific needs of each student. The work done in developing the monitoring and profiling system is presented and discussed in this paper, with special emphasis on all the factors related to the choice and implementation of the mechanisms for automatically creating learning profiles, the various evaluation methods examined, the services implemented for data storage and processing, the architecture of the evaluation system developed, and, finally, a brief demonstration of the system.

In support of the study above, a study entitled "Student Profiling System for Bagong Silang High School" by Remoto et al. (2020). The Student Profiling System can be utilized by the registrar to manage student data, faculties to examine student data, and EMIS to track student data. The system was created by researchers to not only be user-friendly but also advantageous to the client. It can accommodate all new features and information as well as technological advances.

Similarly, a study entitled “Student Profiling System for Grade 12 Senior High School Students of Bestlink College of the Philippines” by Baldres et al. (2020). The systems development life cycle method was employed to design this system. Planning included doing everything that needed to be done throughout the planning phase. This system is used to store information that the school needs to know about the pupils in addition to the student's personal data. Only school employees or administration should have access to this system because it is not universally usable.

## **CHAPTER III**

### **RESEARCH METHODOLOGY**

This chapter includes the researchers step-by-step to the Research Design, Study Population and Location, Sampling Design, Data Collection Instruments, Statistical Treatment, Project Design, and Software Development Model. It also includes the testing and evaluation instruments and methods that were used to meet the study objectives.

#### **Research Design**

The researchers utilized both descriptive and developmental research design in their study. During the preliminary investigation, the researchers used the descriptive research design to collect data in Sta. Cruz District Schools through interviews and observation.

Descriptive studies may be characterized as merely the attempt to determine, describe, or identify what is, while analytical research attempts to establish why it is that way or how it came to be. Moreover, in the article entitled “New Methods of Market Research and Analysis” (Erickson 2017) stated that the traditional descriptive approaches and techniques are presented, including existing data, observation and communication. It includes common concerns with questionnaires such as respondent cooperation, instrument design and method of administration. The emphasis is on broad trends in observation research (or observation combined with communication), ongoing relationships with respondents, and engagement.

The developmental research design also utilized in order to achieve the study's goal of designing and developing a system. As a result, this approach includes a distinct evaluation process in order to obtain more reliable data and information about

the research.

### **Locale of the Study**

Santa Cruz is a municipality in the landlocked province of Laguna. It serves as the provincial capital. The municipality has a land area of 38.59 square kilometers or square miles which constitutes 2.00% of Laguna's total area. Its population as determined by the 2020 Census was 123,574. This represented 3.65% of the total population of Laguna province, or 0.76% of the overall population of the CALABARZON region. Based on these figures, the population density is computed at 3,202 inhabitants per square kilometer or 8,294 inhabitants per square mile.

Sta. Cruz District schools of Laguna has a total of 16 elementary schools, in DEPED they use the term “District” that refers to a municipality. The Sta. Cruz District was chosen by the researchers as their location because this municipality is prone to flooding, and the system would benefit district schools since the LWD or special education file is important in terms of teaching LWD students. The system would be the secondary storage area for the LWD files, where they would be much safer, and teachers would be able to easily access the backtrack LWD profile that is required for teaching plans

### **Population of the Study**

The population of the study focuses on the Sta. Cruz District Schools of Laguna. Specifically, Sta. Cruz Central Elementary School, Bagumabayan Elementary School and Gatid Elementary School. The researchers focus on the principal, principal's secretary, teachers and parents of learners with disabilities. They were interviewed and asked for their willingness to cooperate and based on their desires to improve their record management and student profiling of

learners with disabilities.

**Table 1.**Frequency Distribution of Respondents

Respondents	Total	Sample Size	Percentage
Population			
SCES, BES, GES Principals	3	3	3.26%
SCES, BES, GES Principal's Secretary	3	3	3.26%
SCES LWD Teachers	8	8	8.70%
BES LWD Teachers	2	2	2.17%
GES LWD Teachers	2	2	2.17%
SCES Parents	111	22	23.91%
BES Parents	32	32	34.78%
GES Parents	20	20	21.74%
<b>TOTAL</b>	<b>181</b>	<b>92</b>	<b>100%</b>

The table shows the total number of researchers' target respondents who would be used to conduct the evaluation of the developed system. It also displays the calculated sample size and the percentage of respondents.

### Sampling Design

Non-probability sampling is a sampling technique in which the researcher chooses samples based on his or her subjective judgment rather than random selection. It is a more accommodating method. This sampling method is heavily reliant on the researchers' knowledge and experience. In the judgmental or purposive sampling method, researchers select samples entirely on the basis of their knowledge and credibility. In other words, researchers select only those individuals who they believe are qualified to participate in the research study. Ms. Cherobie Aranas, the

researcher's statistician, requires that all teachers, principals, and principal's secretary participate in the study. For parents, 100% of BES and GES are required to be our respondents, while only 20% of the total population was chosen to be our respondents in SCES.

### **Tester's Profile**

The researchers invited ten credible testers to check out the process and functionality of the developed system entitled “SPLWD: Student Profiling for Learners with Disabilities in Sta. Cruz District of Laguna”.

**Table 2.Tester's Profile**

Name	Years in the Industry	Credentials
1. Aries Tranate		Web Developer – IT Support
2. John Mark Arguilles	8	Software Engineer Stratpoint, Mandaluyong
3. Jarold Salmazan	5	Devops Engineer Stratpoint, Mandaluyong
4. Earl Silvania	5	Cloud Engineer Stratpoint, Mandaluyong
5. Jerem Micah Rivera		Head of Information Technology Department at Municipality of Nagcarlan
6. Jed B. Malveda		
7. Zynell Mangilin	2	Information Systems Analyst II, DILG IV-A
8. Mr. Reymart Joseph Pielago		BSIT Instructor at Laguna State Polytechnic University
9. Mr. Carlos Camar	10	BSIT Instructor at Laguna State Polytechnic University
10. Mr. Christian Jay Tantan	5	BSIT Instructor at Laguna State

The table illustrates the testers' names, years in the industry, and credentials, which are required to determine if they are qualified to evaluate the process and functionalities of the proposed system.

### **Data Collection Instrument**

The research project "SPLWD: Student Profiling for Learners with Disabilities in Sta. Cruz District of Laguna" required precise and mathematically significant data from the schools that provide special education in Sta. Cruz District. In order to obtain data, the researchers had to plan a strategic course of action for acquiring, evaluating, and presenting information from multiple study points. The following are the main techniques employed in order to collect the data required for the inquiry to move forward.

#### ***Observations***

In order to understand the situation of student profiles in the area, the researchers fully immersed themselves in the community. The researcher's main goal in using this type of data gathering is to learn more about the organization's current student profiling procedure. The researchers observe while each district's students are profiled. The researchers recorded their findings in notes and studied the nature and working process of the client's technology as it existed at the time.

#### ***Interviews***

The researchers then went on to conduct a number of interviews with study

participants. To obtain all the necessary data and learn more about the teachers' existing student profiling and record-keeping practices for students with disabilities, the researchers conducted interviews with Mr. Cabrales and other LWD instructors. Through a very positive and courteous social engagement, the researchers gather a variety of information from these responses. This approach was employed by the researchers to learn more about the teachers' experiences.

### ***Questionnaire***

After conducting a number of interviews, multiple sets of questions were created and distributed to a carefully chosen sample of the study's population. These questionnaires were distributed to the selected respondents before being collected and returned for data representation and analysis. The researchers were able to obtain a lot of data using this method in a short period of time, which makes it very useful.<sup>1</sup>

### ***Internet Search***

Using the internet as a resource, the researchers have gathered ideas and information relevant to their study that would be helpful to them. The data that the researchers have collected helps in the development of the system.

### ***Consultation***

By consulting and discussing it with their thesis adviser and topic expert who assists, supplied more details and insights to improve the standards of the study, the researchers learn more about the study's intended application and the methods required to create the system.

### ***Brainstorming***

The system was created by researchers who collaborated and used brainstorming to share ideas and find solutions to clearly specified design issues. The gathered information has been formed to construct the system to make it more useful for its users with the guidance of the thesis adviser and system expert.

### ***Statistical Treatment***

To determine the sample size needed for the distribution of the questionnaire, the researchers consulted with their statistician. The following formula was used to analyze the data after the respondents' responses to the researchers' questionnaire were gathered.

#### **Percentage Formula:**

$$P = \frac{F}{n} \times 100$$

#### **Where:**

P = Percentage

F = Frequency

n = Number of respondents

In order to gain technical acceptance of the developed system, the researchers used Weighted Mean to statistically process survey responses based on the level of acceptability.

**Weighted Mean Formula:**

$$X = \frac{\sum X}{N}$$

**Where:**

X = Mean

$\sum X$  = Sum of the data values

N = The total number of respondents

The standard deviation was calculated as the square root of variance by determining each data point's deviation relative to the mean

**Standard Deviation Formula:**

$$\sigma = \sqrt{\frac{\sum (x_i - \mu)^2}{n}}$$

**Where:**

$\sigma$  = Standard Deviation

n = Number of respondents

$\mu$  = Population mean

The researchers used the Likert Scale to scale the respondents' level of satisfaction and acceptance of system functions and features in order to interpret the computed weighted mean.

**Table 3. Likert Scale**

Ratings	Scale	Verbal Interpretation
5	4.21-5.00	Strongly Agree
4	3.41-4.20	Agree
3	2.61-3.40	Neutral
2	1.81-2.60	Disagree
1	1.00-1.80	Strongly Disagree

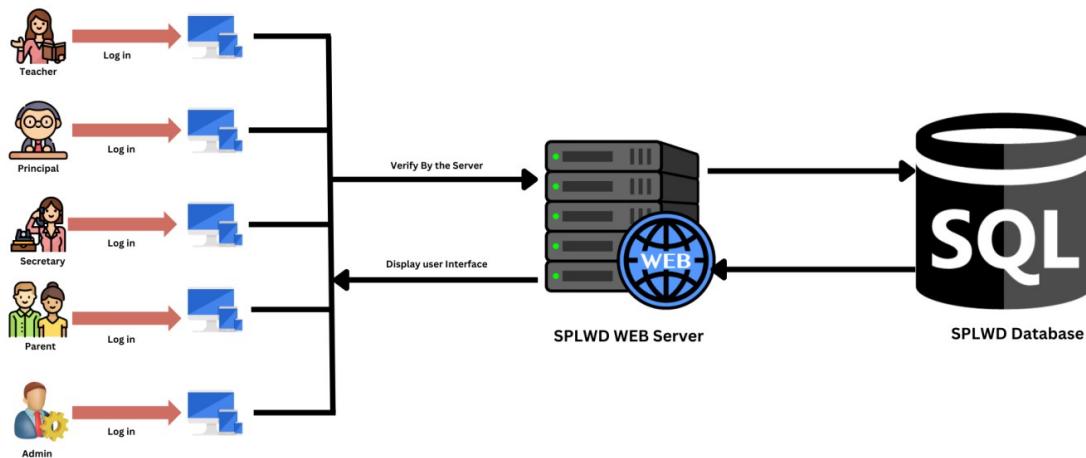
This table illustrates the Likert scale's scale, range, and verbal interpretation - Level of Satisfaction from Strongly Agree to Strongly Disagree. It is used to scale the quality factors, perceived ease of use, perceived of usefulness, user expectation and attitude towards using for principals, principal's secretary, LWD teachers and for Parents who tested the system.

### Project Design

This section the researchers discussed the software methodology that they used in creating the study. It also demonstrates how the study will be conducted. The project design will enable the researchers to assess whether the system meets their client's requirements.

## **System Architecture**

The data flow of the proposed system is shown in the illustration below. The teacher can add a new student profile to the system, and the information in the profile will be saved in the database and reflected in the system. Using the student LRN, the teacher can access the student profile. If their child is in a graded class, parents can view the student grade and add student observations that the teacher can view. The administrator has the ability to create new student profiles, view log history, archive, and approve teacher accounts.



**Figure 2.** System Architecture Design

## **Software Development Model**

The research design indicates which methodologies are used and how they are utilized. The researchers used the Agile Software Development Method to effectively create a system that meets the study's criteria.

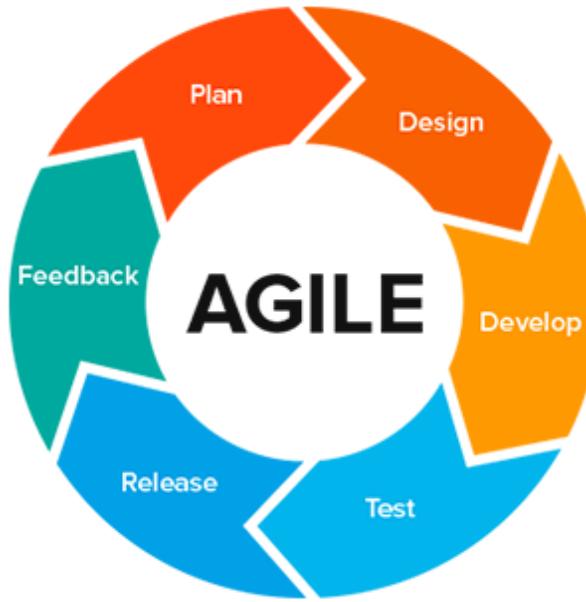
A conceptual framework called "agile software development" is used to carry out software engineering tasks. Numerous agile software development approaches, such as Crystal Methods, Scrum, and the Dynamic Systems Development Model

(DSDM).

According to Norsaremah (2018), “The Rise and Evolution of Agile Software Development”, in the last 50 years, the second half of software engineering has been dominated by agile software development. One of the most popular agile techniques is the retrospective, which allows for reflection on past performance, discussion of current advancement, and setting forth directions for future improvement. Agile requires its own retrospective due of its rising popularity as the go-to software development approach and an important research subdomain of software engineering.

By developing software in short time frames, known as iterations, which typically span one to four weeks, most agile methodologies try to reduce risk. Planning, requirements analysis, design, coding, testing, and documentation are all tasks that must be completed in order to release a mini-increment of new functionality. Each iteration is similar to a small software project on its own. Although iteration may not add enough features to justify the product's release, an agile software project aims to be able to do so at the end of each one. The team reassesses project priorities at the conclusion of each iteration.

Agile methodologies prioritize in-person interactions above textual correspondence in real-time communication. Most agile teams work in a bullpen and have all the members required completing the software. This comprises programmers as well as any other individuals that define the product, such as product managers, business analysts, or actual users. The bullpen may also consist of managers, interface designers, testers, and technical writers.



**Figure 3.**Agile Software Development

The figure above shows the flow that was used to determine the process of the study from data collection to system design, module development to meet needs, and testing the developed system.

### *Plan*

In order to obtain the data required for the study, the researchers interviewed the client. The researchers investigate the issue with the way they handle the student files and offer a resolution.

### *Design*

In this phase, the researchers conduct a thorough analysis of the issue and develop a study proposal named "SPLWD: Student Profiling for Learners with Disabilities in Sta. Cruz District of Laguna" Diagrams like flow charts and use case diagrams are used during the system design process to help users understand how the proposed system would operate.

### *Develop*

After creating the system's design for the application, the researchers added features, tested the system by putting it into use in the study area, and finally designed the system. After completing this phase, the researchers can go on to the following phase of the development.

### *Test*

Testing is the following stage of this process. To test the functionality of the created system, the researchers employed the black box testing technique. Finish the project and follow the set procedures.

### *Release*

The marketing of the system to the client by the researcher occurs during the release phase. There will be no changes or added functionality during this phase, which is the error-free stage.

### *Feedback*

The researcher allowed the client time to test the created system during the feedback phase. The feedback is essential in determining whether the system is in excellent working order and whether the client is satisfied.

## **Software Testing Phase**

This phase includes evaluating the developed system's functionalities on an actual test conducted by the researchers. The researchers will invite ten credible

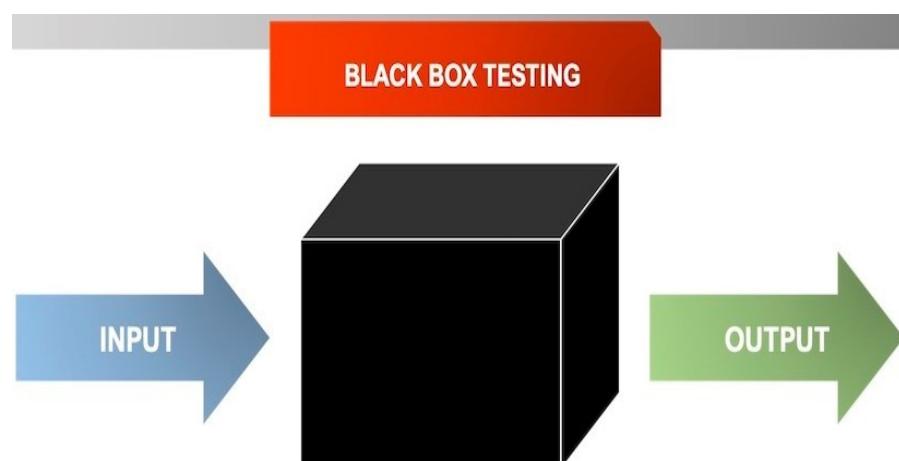
experts in the field of IT industry with at least five years of experience in the field to assess and evaluate the performance of the developed web-based system.

The researchers took the following steps to evaluate the functionality and performance of the developed web-based system:

- a.) The Design and Development Testing Tools
- b.) The Testing Method

### ***Design and Development of Testing Tools***

A testing tool is important, it is required to test the functionality of the developed system. The researcher used black box testing to evaluate the created system. According to the study of Matt Heusser (2006), Black box testing evaluates a system solely from the outside, with the operator or tester not knowing what is going on inside the system to generate responses to test actions. A black box is a system whose behavior must be observed entirely through its inputs and outputs. Even if the internal structure of the application under test is understandable, the tester chooses to disregard it.



**Figure 4.** Black Box Testing

### ***Testing Tools***

The researchers used Black Box Testing. The black box approach was a useful method for evaluating the application that was being tested from the viewpoint of the user. This type of testing focuses on the inputs that the program considers as well as the outputs that are generated. The researchers will develop a questionnaire for testing that includes developed system outcomes while being tested and will be distributed to IT experts. The testing sheet is included below, and it includes the step number, details, and expected result.

**Table 4.** Test Case Description: Test the Functionality of (Login & System ADMIN)

<b>Step No.</b>	<b>Step Details</b>	<b>Expected Result</b>
1	Input Credentials and click LOGIN	Right credentials: A. If the credentials is correct the system will redirect to the dashboard of the admin. B. If the credentials is incorrect the error message will display.
2	Dashboard	It shows the total number of Student, Teachers and files uploaded in District.
3	Student folders	Its shows all the folders of the student that contains all the file and information about the student. A. Student information B. Assessment file C. Progress Report D. Uploaded documents a) ILP (Individual Learners Profile) b) IEP(Individualized Education Plan) c) ILMP (Individual Learning Monitoring Plan) d) BIR (Behaviour Intervention Report) e) ITP (Individual Transition Plan)
4	Promotion	This page shows the summary of progress report of the entire student.
5	View Log History	This Page shows all the log history done by teachers. a) Added new Student b) Update Student profile c) Delete student file d) Updated Progress Report e) Uploaded a document
6	View Archive	It shows the deleted files and student data and admin can restore this deleted file
7	LOG OUT	Is a function for leaving the account

The table above shows the testing evaluation of Admin account of the developed system. It shows the step-by-step of the function and process for the developed system. The results show that all the functions of the developed system are responding properly.

**Table 5.** Test Case Description: Test the Functionality of (Login & Principal's Secretary)

Step No.	Step Details	Expected Result
1	Input Credentials and click LOGIN	<p>Right credentials:</p> <ul style="list-style-type: none"> <li>C. If the credentials is correct the system will redirect to the dashboard of the admin.</li> <li>D. If the credentials is incorrect the error message will display.</li> </ul>
2	Dashboard	It shows the total number of Student, Teachers and files uploaded in a School.
3	Student folders	<p>Its shows all the folders of the student that contains all the file and information about the student.</p> <ul style="list-style-type: none"> <li>E. Student information</li> <li>F. Assessment file</li> <li>G. Progress Report</li> <li>H. Uploaded documents           <ul style="list-style-type: none"> <li>f) ILP(Individual Learners Profile)</li> <li>g) IEP(Individualized Education Plan)</li> <li>h) ILMP(Individual Learning Monitoring Plan)</li> <li>i) BIR(Behaviour Intervention Report)</li> <li>j) ITP(Individual Transition Plan)</li> </ul> </li> </ul>
4	Promotion	This page shows the summary of progress report of the entire student.
5	View Log History	<p>This Page shows all the log history done by teachers.</p> <ul style="list-style-type: none"> <li>f) Added new Student</li> <li>g) Update Student profile</li> <li>h) Delete student file</li> <li>i) Updated Progress Report</li> <li>j) Uploaded a document</li> </ul>
6	View Archive	It shows the deleted files and student data and admin can restore this deleted file
7	LOG OUT	Is a function for leaving the account

The table above shows the testing evaluation for Teachers account of the developed system. It shows the step-by-step of the function and process for the developed system. The results show that all the functions of the developed system are responding properly.

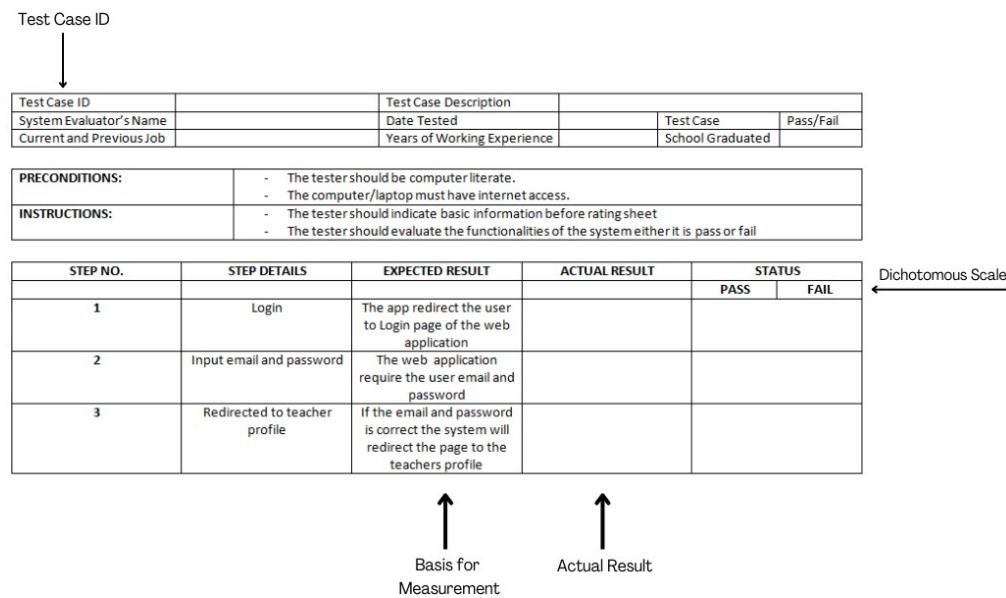
**Table 6.**Test Case Description: Test the Functionality of (Login & Parents)

Step No.	Step Details	Expected Result
1	Input Credentials and click LOGIN	Right credentials:  A. If the credentials is correct the system will redirect to the dashboard of the driver. B. If the credentials is incorrect the error message will display.
2	View student grade and evaluation	It show the student grade and evaluation
3	Add student observation	Parent can add their observation about their child quarterly
4	LOG OUT	Is a function for leaving the account

The table above shows the testing evaluation for Parents account of the developed system. It shows the step-by-step of the function and process for the developed system. The results show that all the functions of the developed system are responding properly.

## Testing Methods

The researchers used a dichotomous scale – “pass” or “fail” for the actual test and black box testing evaluation. According to Alex Birkett (2022), Dichotomous scales have two choices that are diametrically opposed to each other. It gives you a clearer, binary answer, but it can also fall prey to fatigue. When that happens, respondents lean toward positive answers.



**Figure 5.** Actual Structural Format of the Testing Tool

The actual test's evaluation instrument is illustrated in the Actual Structural Format of the Testing Tool above, and a dichotomous scale will be used to determine whether the system passes or fails.

## Software Evaluation Phase

The testing phase is focused on assessing the functionality of the developed web application based on real-world test input from the researchers. Through people observation, the user expressed their opinion, perception, behavior, and response to the developed application and gathered feedback to indicate the effectiveness of the research study.

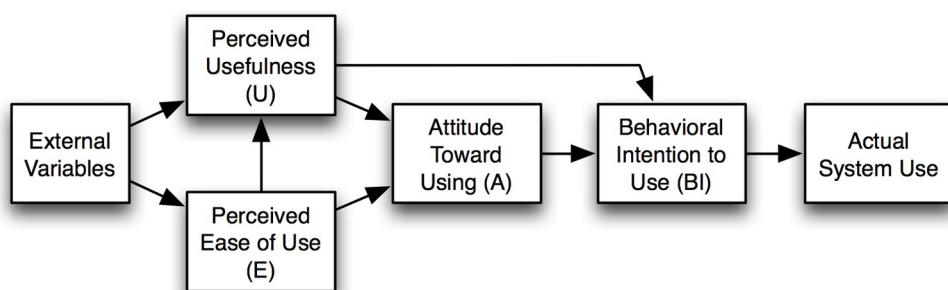
The researchers took the following steps to identify and assess the technology acceptance of the developed application:

- a.) The Design and Development of the Evaluation Tool
- b.) The Validation of Questionnaire
- c.) The Distribution of the Questionnaire

## Design and Development of the Evaluation Tool

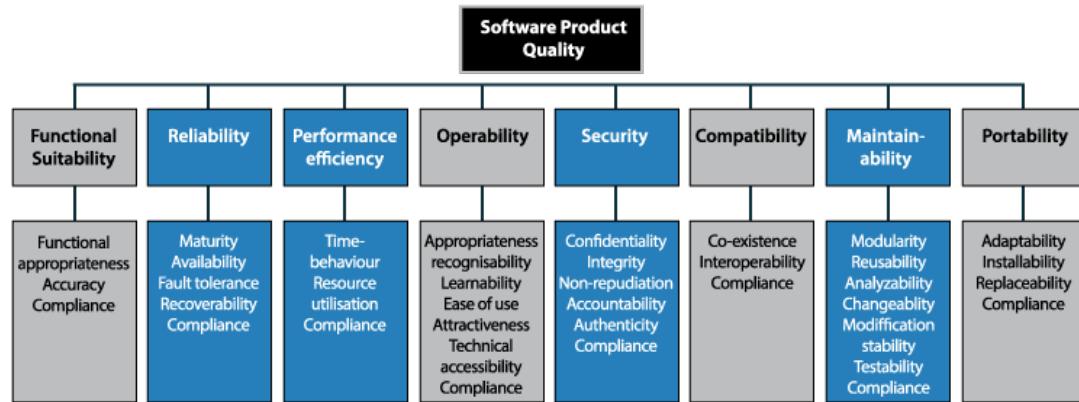
The researchers established three questionnaires for system users to answer as an assessment tool. Quality, Perceived Ease of Use, Perceived Usefulness, Experience, Attitude towards Using, and Behavioral Intention to Use were all factors considered in the questionnaire.

The Technology Acceptance Model (TAM) will be used to create a questionnaire for principal, teachers, and parents. This questionnaire will be used as a tool for evaluation.



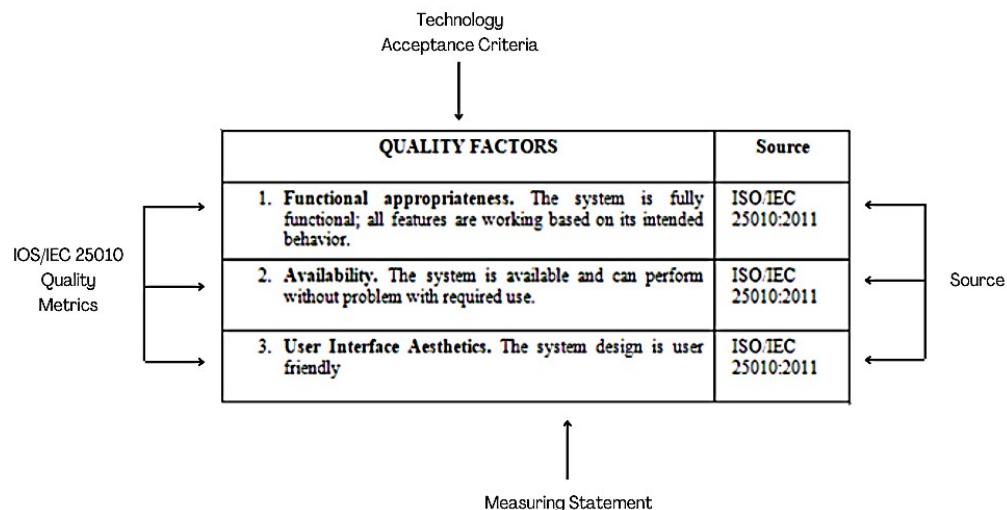
**Figure 6.** Technology Acceptance Model (TAM)

The figure above shows the flow of Technology Acceptance Model, which explains user acceptance based on Quality Factors, Perceived Ease of Use, Perceived Usefulness, Experience, Attitude towards Using, and Behavioral Intention to Use, which the researchers used.



**Figure 7.** ISO/IEC 25010 Software Quality Metrics

The figure above shows the various types of quality metrics that define which quality will be considered when evaluating the software's resources.



**Figure 8.** Structural Format of the Evaluation Tool

The figure above illustrates the evaluation instrument's initial structure, which is a combination of Technology Acceptance Criteria and three (3) ISO software metrics, including the source and measurement statement.

## **Validation of Questionnaire**

The validation of the questionnaire is required prior to the actual evaluation of the established system. It allows the research to be confirmed and the authenticity of each question to be verified before proceeding with the evaluation. In this validation procedure, the face validity method will be used to validate the reliability of the self-structured questionnaire. According to the study of Taherdoost, Hamed (2016), Face validity is a subjective assessment of a construct's operationalization. The degree to which a measure appears to be related to a specific construct in the opinion of non-experts such as test takers and legal system representatives is referred to as face validity. In other words, a test has face validity if the content appears relevant to the person taking the test. It assesses the questionnaire's appearance in terms of feasibility, readability, consistency of style and formatting, and the clarity of the language used. To examine the face validity, a dichotomous scale with categorical options of "Yes" and "No" which indicate a favorable and unfavorable item can be utilized.

## **Evaluation Tool**

The researchers used ISO as a set of standards and the Technology Acceptance Model (TAM) as a category when developing the survey questionnaire. The questionnaires will be handed to the principals, principal's secretary, teachers and parents. The proposed evaluation tool for the developed system's various users is provided on the following page. The evaluation tool that is suggested for different users of the developed system is presented below.

**Table 7.** TAM Questionnaire for Teachers in terms of Quality Factors

QUALITY FACTORS	Source
1. <b>Functional appropriateness.</b> The system is fully functional; all features are working based on its intended behavior.	ISO/IEC 25010:2011
2. <b>Availability.</b> The system is available and can perform without problem with required use.	ISO/IEC 25010:2011
3. <b>User Interface Aesthetics.</b> The system design is user friendly	ISO/IEC 25010:2011

The table shows the questions for Quality Factors criteria. This also shows if the system has quality in terms of functional appropriateness, availability, and user interface aesthetics.

**Table 8.** TAM Questionnaire for Teachers in terms of Perceived Ease of Use

PERCEIVED EASE OF USE	Source
1. <b>Learnability.</b> Learning to use this system is easy for me.	ISO/IEC 25010:2011
2. <b>Operability.</b> The function of the developed system can lessen the time and work of the user	ISO/IEC 25010:2011
3. <b>Appropriateness recognizability.</b> I believed the developed system is appropriate for the user's needs.	ISO/IEC 25010:2011

The table shows the questions for Perceived Ease of Use criteria. This also shows if the system is easy to use in terms of learnability, operability, and appropriates recognizability.

**Table 9.** TAM Questionnaire for Teachers in terms of Perceived of Usefulness

PERCEIVED OF USEFULNESS	Source
1. <b>Usability.</b> Using this system will help me finish my job of finding the information needed and lessen the time of my work.	ISO/IEC 25010:2011
2. <b>Operability.</b> I believed that system is easy to operate and input the information and assessment of the students.	ISO/IEC 25010:2011
3. <b>Learnability.</b> The developed system has simple features that can be easily learn by the user.	ISO/IEC 25010:2011

The table shows the questions for Perceived Usefulness Criteria. This also shows if the system is useful in terms of usability in the system's features, operability, and learnability. Criteria for perceived usefulness are based in ISO/IEC 25010.

**Table 10.** TAM Questionnaire for Teachers in terms of User Satisfaction

USER SATISFACTION	Source
1. The system is very useful in terms of managing and storing the data and assessment of Learners with Disabilities students.	ISO/IEC 25010:2011
2. I believed that I can operate the system properly.	ISO/IEC 25010:2011
3. The developed system satisfies and meets the user's expectation	ISO/IEC

with the system.

25010:2011

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The table shows the question for User Satisfaction criteria. This also shows if the system can help the users in terms of managing and storing the data and also, the assessment of the students.

**Table 11.** TAM Questionnaire for Teachers in terms of Attitude towards Using

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ATTITUDE TOWARDS USING	Source
1. I prefer using the developed system in my job.	Yi, et al. (2006)
2. I found the system to be quite simple to use.	Yi, et al. (2006)
3. I like using the system.	Yi, et al. (2006)

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The table shows the actual evaluation tool in the perception of respondents in terms of Attitude towards Using. Criteria for attitude towards using are based in the study of Yi, Jackson, Park, & Probst (2006).

**Table 12.** TAM Questionnaire for Parents in terms of Quality Factors

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QUALITY FACTORS	Source
1. The system is fully functional; all features are working based on its intended behavior. (Ang sistem ay ganap na nagagamit at ang lahat ng katangian ay gumagana base sa nilalayon nitong	ISO/IEC 25010:2011

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gawi.)		
2. The system is operational and capable of meeting the requirements based on the required use. (Ang sistem ay gumagana ng walang problema base sa intensyon nito nang paggamit.)	ISO/IEC 25010:2011	
3. The system can be effortlessly operated by the user. (Ang disensyo ng sistem ay mabilis matutunan na gamitin.)	ISO/IEC 25010:2011	

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**Table 13.** TAM Questionnaire for Parents in terms of Perceived Ease of Use

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PERCIEVED EASE OF USE	Source
1. The web application is user friendly for beginners. (Ang sistem ay mabilis gamitin para sa mga baguhan.)	ISO/IEC 25010:2011
2. The function of the developed system can lessen the time and work of the user. (Ang tungkulin ng nagawang sistem ay kayang mapadali ang oras at trabaho ng user.)	ISO/IEC 25010:2011
3. I believed the developed system is appropriate for the user's needs. (Naniniwala ako na angkop ang sistem sa pangangailangan ng mga user.)	ISO/IEC 25010:2011

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**Table 14.** TAM Questionnaire for Parents in terms of Perceived of Usefulness

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PERCIEVED OF USEFULNESS	Source
1. <b>Usability.</b> Using this system will help me finish my job of finding the information needed and lessen the time of my work. (Sa pag gamit ng sistem ay natutulungan ako nitong mahanan ang mga kailangan kong impormasyon at napapabilis nito ang oras ng aking trabaho.)	ISO/IEC 25010:2011
2. <b>Operability.</b> I believed that system is easy to operate and input the information and assessment of the students. (Naniniwala ako na ang sistem ay mabilis gamitin sa paglalagay ng impormasyon at pagsusuri sa mga estudyante.)	ISO/IEC 25010:2011
3. <b>Learnability.</b> The developed system has simple features that can be easily learn by the user. (Ang ginawang sistem ay may simple na disensyo at maaring matutunan agad ng user.)	ISO/IEC 25010:2011

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The table shows the questions for Perceived Usefulness Criteria. This also shows if the system is useful in terms of usability in the system's features, operability, and learnability for the Parents. Criteria for perceived usefulness are based in ISO/IEC 25010.

**Table 15.** TAM Questionnaire for Parents in terms of User Satisfaction

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USER SATISFACTION	Source
1. The system is very useful in terms of managing and storing the data and assessment of Learners with Disabilities students. (Ang sistem ay kapaki-pakinabang ayon sa tuntunin nitong pamamahala at pag-iimbak ng datos ng mga learners with disabilities.)	ISO/IEC 25010:2011
2. I believed that I could operate the system properly. (Naniniwala ako na kaya kong gamitin ang sistem nang maayos.)	ISO/IEC 25010:2011
3. The developed system satisfies and meets the user's expectation with the system. (Ang nagawang sistem ay natugunan ang ekspektasyon ng user.)	ISO/IEC 25010:2011

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The table shows the question for User Satisfaction criteria. This also shows if

the system can operate and meet the expectation of the user. Criteria for user satisfaction are based in ISO/IEC 25010.

**Table 16.** TAM Questionnaire for Parents in terms of Attitude towards Using

ATTITUDE TOWARDS USING	Source
1. I prefer using the developed system in my job. (Gusto ko na gamitin ang nagawang sistem sa aking trabaho.)	Yi, et al. (2006)
2. I found the system to be quite simple to use. (Nalaman ko na ang sistem ay simple na gamitin.)	Yi, et al. (2006)
3. I like using the system. (Gusto ko na ginagamit ang sistem)	Yi, et al. (2006)

### Distribution of Questionnaire

The researchers would demonstrate and explain how the developed system works based on the system testing, and the validated questionnaire would be distributed to the target respondents in two ways. The first method of distribution is face-to-face distribution of printed questionnaires, and the second method of distribution is an uploaded video presentation for the parents of learners with disabilities. Before allowing them to answer the questionnaire, the researchers demonstrated the system. The printed questionnaires were distributed through face-to-face on December 6, 2022 (11:30am) at Gatid Elementary School. The next face-to-face distribution took place in Bagumbayan Elementary School on December 7, 2022 (1:15pm). The last face-to-face distribution was held on December 13, 2022 (11:30am) at Sta. Cruz Central Elementary School. The researchers provide the link of video presentation to the LWD adviser and the teachers distribute the printed

questionnaire to the parents who pick up their child.

Following the completion of the target respondents, the researcher collects all of the evaluation questionnaires in order to evaluate the level of satisfaction with the developed system. The information gathered was analyzed and interpreted.

## **Chapter IV**

### **RESULTS AND DISCUSSION**

In this chapter, the research findings are discussed and presented in connection to the objectives that the researcher set at the beginning of the complete research study. This section examines whether the study's goals and the client's needs were accomplished. It also includes information on how to analyze data gathered during system testing and evaluation.

#### **Project Concept**

Learners Monitoring Plans (ILMP), Behaviour Intervention Reports (BIR), and SF9/Progress Reports, for students who have learning disabilities. Since these are the plans and The majority of schools now offer face-to-face instruction as the Philippines is recovering from the pandemic. As a result, Learners with Disabilities

(LWD) teachers maintain much documentation, including Individualized Education Plans (IEP), Individual Learners Plans (ILP), Individual objectives for instructing the students in Special Education (SPED), they are only kept in a file rack in the teacher's office; this sort of document management is susceptible to natural disaster. Despite the fact that educators save copies of these materials on Google Drive, flash drives and other storage it is still not organize. By that, "SPLWD: Student Profiling for Learners with Disabilities in Sta. Cruz District of Laguna" were proposed for the teacher have a safe and organize storage for this valuable documents and an additional function online grading and monitoring for SF9/Progress Report.

## **Research Objectives**

To develop the possible solutions, the researchers have established their research objective into a working system which is a web based on learners with disabilities students profiling of Sta. Cruz district. To easily endorse their handled students after the reshuffle since there are three classes (Hearing Impairment, Transition Class and Non Graded class) of disabilities in every school that offers Special Education in Sta. Cruz District. Furthermore, keeping student assessments, observations, and remarks on the web based storage will organize them and can be easily accessed for teachers to easily track student improvement.

### **First Objective**

To design and develop a web based profiling for learners with disabilities of Sta. Cruz District of Laguna.

- 1.1 IEP, ILP, ILMP, BIR and Promotion record management
- 1.2 LWD Students Profile
- 1.3 LWD Progress Report, Evaluation and Observation
- 1.4 Parents Observation
- 1.5 LWD Monitoring

### **Design Conceptualization**

The researchers used different data collection methods to identify the requirements needed for system-based web design in order to achieve the first goal. The researchers began their investigation by gathering preliminary data in order to understand the problems with the LWD student file management process. The researchers had a preliminary discussion with Mr. Armin Cabrales Principal of Sta. Cruz Central Elementary School, Mr. Cabrales refer us to interview LWD teachers to know more about the LWD processes.



The researchers ask the teachers about the process of student assessments, from enrollment to the grading system, as well as the files handled by teachers in the

Special Education curriculum. The researchers gathered a lot of information from this interview about how the LWD student grading system differs from regular students, and those LWD teachers handled more files than regular curriculum students.

In addition, the researchers found out that the DepEd teachers currently use existing system the Learner Information System (LIS).

### **Developing the SPLWD**

Following the preliminary interview, the researchers developed the SPLWD: Student Profiling for Learners with Disabilities in Sta. Cruz District of Laguna. To build the system, the researchers used Agile Software Development as a software methodology. While, the development process is on going Mr. Bernardino and Ms. Miranda help us to

### **System Interface**

### **Second Objective**

To test the main functionalities of the developed system by letting the teachers of Sta. Cruz District Schools use the web application.

2.1 Adding new student to the system

2.2 Updating student information

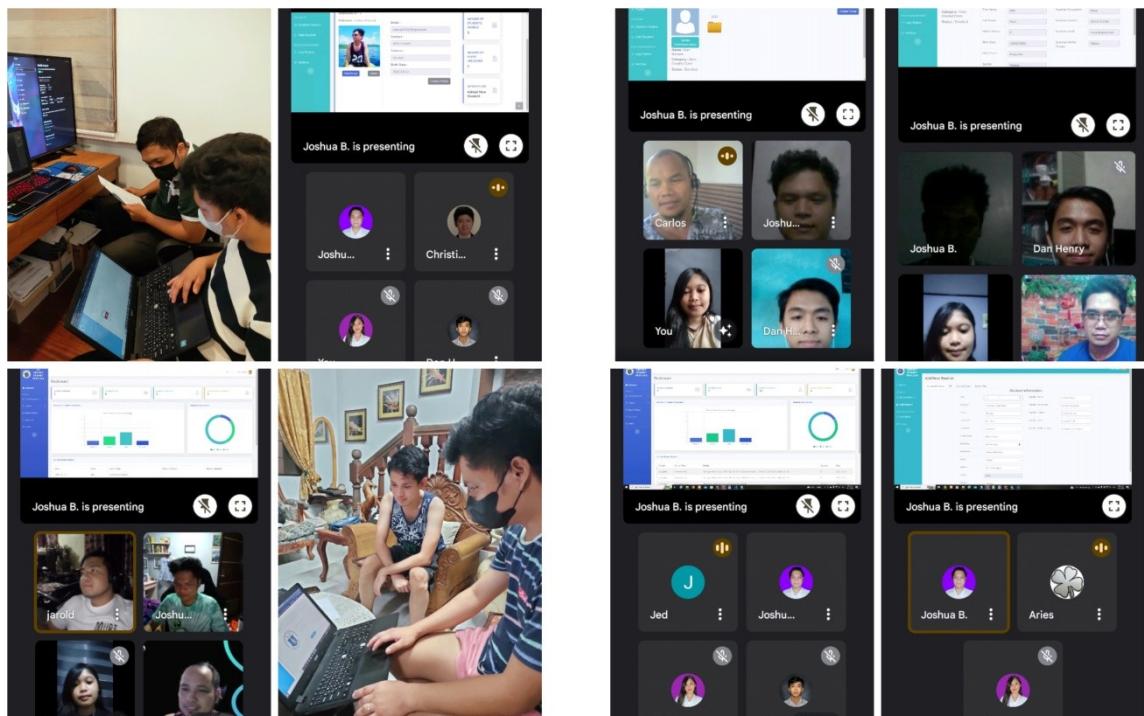
2.3 Uploading the IEP, ILP, ILMP, BIR and Promotion of the student

2.4 Adding parents observation to the student

The researchers used black-box testing to validate the functionality of the developed system. Black box testing is a method of software testing that examines a system entirely from the outside, with the operator or tester unaware of what is happening inside the system to generate responses to test actions.

The functionality of the developed system is included in the questionnaire, and the IT tester is not required to see the code. The researchers construct a series of questions that show the system's functionality and features. The researchers presented their system in two ways, via Google Meet and face-to-face, to determine whether the functionalities in LWD files are actually needed.

After constructing a system questionnaire, the researchers began demonstrating the system through face-to-face with the Head of IT Department, Mr. Jerem Micah Rivera, on December 7, 2022 (9:10-9:40 am) at the Municipality of Nagcarlan, Laguna. The system demonstration continued on December 8, 2022, via Google Meet with Mr. Christian Jay Tantan, Mr. Carlos Camar, and Mr. Reymart Pielago, as well as face-to-face with Mr. Zynell Mangilin.. The next system demonstration happened on December 9, 2022 via Google Meet with Mr. John Mark Arguelles, Mr. Jarold Salmazan, and Mr. Earl Anthony Silvania. And the last system demonstration occurred on December 11, 2022 via Google Meet with Mr. Jed Malveda. The tester manages the system in order to test the features and functions of the system and gather feedback from the testing questionnaire.



**Feedback of IT Experts for the Black Box Testing**

<b>System Evaluators</b>	<b>Name</b>	<b>Feedback</b>
1	Mr. John Mark Arguilles	
2	Mr. Jarold Salmazan	
3	Mr. Earl Silvania	
4	Mr. Jerem Micah Rivera	
5		

6 Mr. Jed B. Malveda

7 Mr. Zynell Mangilin

8 Mr. Reymart Joseph  
Pielago

9 Mr. Carlos Camar

10 Mr. Christian Jay  
Tantan

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### **Test case scenario for the functionality of Admin**

<b>Indicator</b>	<b>No. of Testers</b>	<b>Passed (Frequency)</b>	<b>Failed (Frequency)</b>	<b>Percentage</b>
1. Click <b>Login</b>	10	10	0	100%
2. <b>Dashboard</b>	10	10	0	100%
3. <b>Student Folder</b>	10	10	0	100%
4. <b>Pending Users</b>	10	10	0	100%
5. <b>Enrolment Record</b>	10	10	0	100%
6. <b>Progress Report</b>	10	10	0	100%
7. <b>Log History</b>	10	10	0	100%
8. <b>Archive</b>	10	10	0	100%
9. <b>Logout</b>	10	10	0	100%

### **Test case scenario for the functionality of Teachers**

Indicator	No. of Testers	Passed (Frequency)	Failed (Frequency)	Percentage
1. Click <b>Login</b>	10	10	0	100%
2. <b>Profile</b>	10	10	0	100%
3. <b>Student Folder</b>	10	10	0	100%
4. <b>Add New Student</b>	10	10	0	100%
5. <b>Log History</b>	10	10	0	100%
6. <b>Archive</b>	10	10	0	100%
7. <b>Logout</b>	10	10	0	100%

### Test case scenario for the functionality of Principal's Secretary

Indicator	No. of Testers	Passed (Frequency)	Failed (Frequency)	Percentage
1. Click <b>Login</b>	10	10	0	100%
2. <b>Dashboard</b>	10	10	0	100%
3. <b>Student Folder</b>	10	10	0	100%
4. <b>Pending Users</b>	10	10	0	100%
5. <b>Add user Account</b>	10	10	0	100%
6. <b>Enrolment Record</b>	10	10	0	100%
7. <b>Progress Report</b>	10	10	0	100%
8. <b>Log History</b>	10	10	0	100%
9. <b>Logout</b>	10	10	0	100%

### Test case scenario for the functionality of Principal

Indicator	No. of Testers	Passed (Frequency)	Failed (Frequency)	Percentage
1. Click <b>Login</b>	10	10	0	100%
2. <b>Dashboard</b>	10	10	0	100%
3. <b>Student Folder</b>	10	10	0	100%
4. <b>Pending Users</b>	10	10	0	100%
5. <b>Enrolment Record</b>	10	10	0	100%
6. <b>Progress Report</b>	10	10	0	100%
7. <b>Log History</b>	10	10	0	100%
8. <b>Logout</b>	10	10	0	100%

### Test case scenario for the functionality of Parents

Indicator	No. of Testers	Passed (Frequency)	Failed (Frequency)	Percentage
1. Click <b>Login</b>	10	10	0	100%
2. <b>Student Profile</b>	10	10	0	100%
3. <b>Add Observation</b>	10	10	0	100%
4. <b>Logout</b>	10	10	0	100%

**Research Objective No. 3:** To evaluate the efficiency and usability of the system by letting the principal, teachers, and parents use the web application

#### 3.1 Quality Factors of the System

#### 3.2 Perceived Ease of Use

### 3.3 Perceived of Usefulness

### 3.4 User Satisfaction

### 3.5 Attitude Towards Using

The technology acceptance model, which includes quality factors, perceived ease of use, perceived of usefulness, user satisfaction, and attitude toward using, was tested by the researcher with the help of the schools in Sta. Cruz District of Laguna; Sta. Cruz Elementary School, Bagumbayan Elementary School and Gatid Elementary School. The questionnaire was developed in collaboration with Technology Acceptance Model (TAM) and ISO/ISEC 25010:2011. The researcher used TAM as a category and ISO/ISEC 25010:2011 as criteria.

### ***Pictures of Survey***



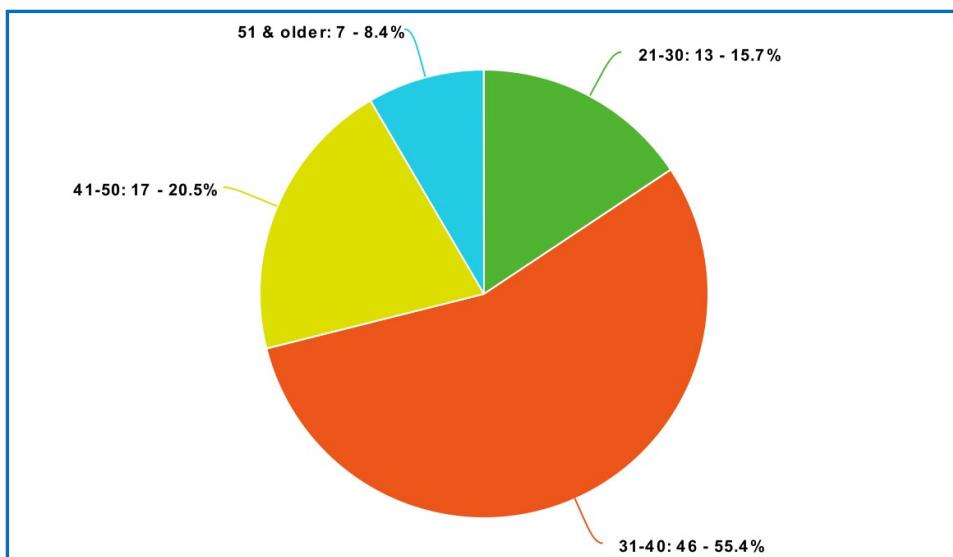




## Demographic Profile of the Respondents

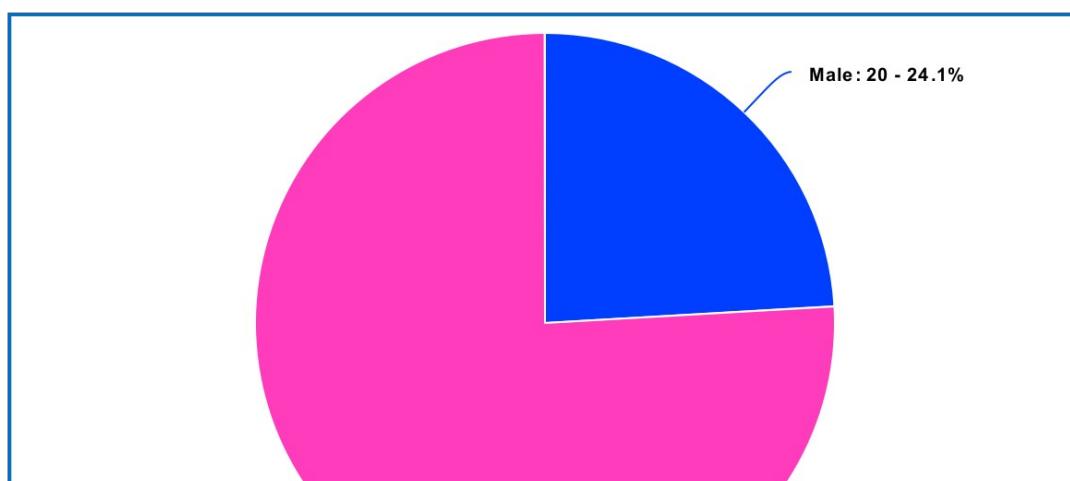
The figure below represents the demographic profile of the respondents based on their age, gender, and total number individuals who completed the questionnaire in each school using a web-based system.

### A. Age



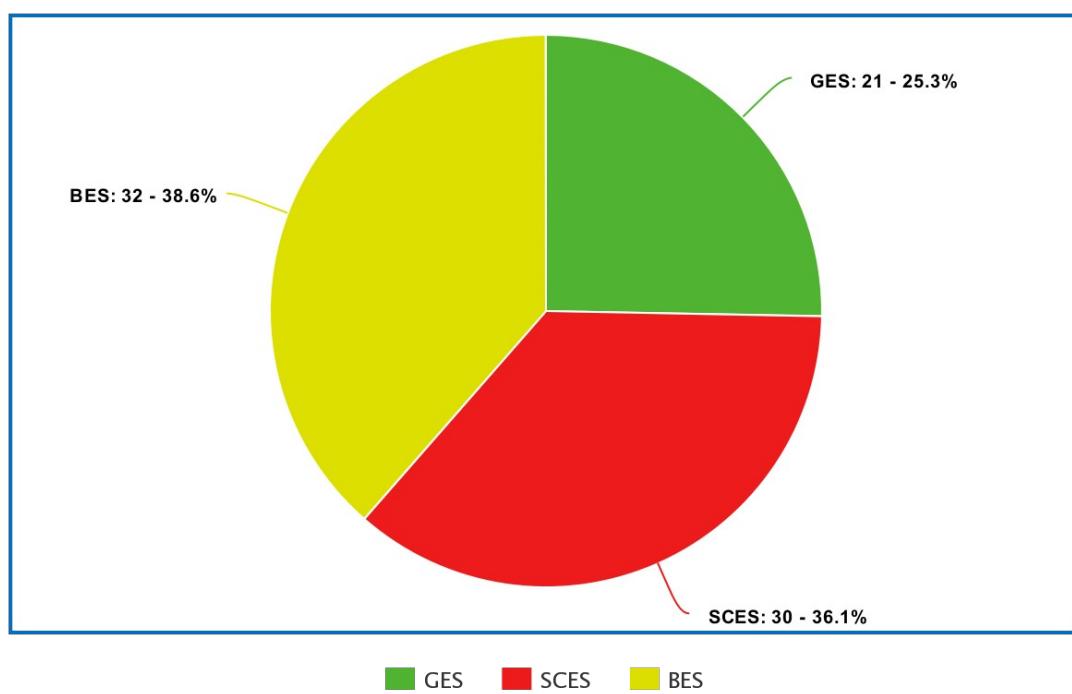
The chart above displays the division of the total responses for the evaluation. The age range that the researchers had chosen for the evaluation questionnaire served as the demographic basis. In accordance with the graph, there are 55.4% of people aged 31 to 40, 20.5% aged 41 to 50, 15.7% aged 21 to 30, and 8.4% aged 51 and above.

### B. Gender



The divisions of the 83 total respondents during the evaluation are shown in the graph above. The graph shows that 75.9% of the population is female and 24.1% is male. The demography was based on the gender that the researchers had chosen on the evaluation questionnaire.

### C. Total Number of Respondents



The divisions of the 83 total respondents during the evaluation are shown in the figure above. The demography was based on the total number of respondents from each school that the researchers had put on the evaluation questionnaire. The graph shows that 38.6% is from Bagumabayan Elementary School, 36.1% is from Sta. Cruz Central Elementary School, and 25.3% is from Gatid Elementary School.

### **User Acceptance Survey Results and Interpretation**

This section summarizes the outcomes of the user acceptance questionnaires in a table format. The results of the Principals, Principal's Secretary, and Teachers of SCES are presented below as well as the Parents of the LWD students.

Level of Accebility of the SCES Principals, Principal's Secretary, Teachers and Parents in terms of Quality Factors

<b>Indicator</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Verbal Interpretation</b>
<b>1. Functional appropriateness.</b> The system is fully functional; all features are working based on its intended behavior.	4.37	0.60	
<b>2. Availability.</b> The system is available and can perform without problem with required use.	4.27	0.63	
<b>3. User Interface Aesthetics.</b> The system design is user friendly	4.43	0.68	
<b>Total Average:</b>	4.36		

Level of Acceptability of the SCES Principals, Principal's Secretary, Teachers and Parents in terms of Perceived Ease of Use

Indicator	Mean	Standard Deviation	Verbal Interpretation
1. <b>Learnability.</b> Learning to use this system is easy for me.	4.03	0.61	
2. <b>Operability.</b> The function of the developed system can lessen the time and work of the user.	4.5	0.67	
3. <b>Appropriateness recognizability.</b> I believed the developed system is appropriate for the user's needs.	4.43	0.68	
<b>Total Average:</b>	4.32		

Level of Acceptability of the SCES Principals, Principal's Secretary, Teachers and Parents in terms of Perceived Usefulness

Indicator	Mean	Standard Deviation	Verbal Interpretation
1. <b>Usability.</b> Using this system will help me finish my job of finding the information needed and lessen the time of my work.	4.07	0.68	
2. <b>Operability.</b> I believed that system is easy to operate and input the information and assessment of the students.	4.13	0.62	
3. <b>Learnability.</b> The developed system has simple features that can be easily learn by the user.	4.33	0.75	
<b>Total Average:</b>	4.18		

Level of Acceptability of the SCES Principals, Principal's Secretary, Teachers and Parents in terms of User Satisfaction

Indicator	Mean	Standard Deviation	Verbal Interpretation

1. The system is very useful in terms of managing and storing the data and assessment of Learners with Disabilities students.	4.2	0.65	
2. I believed that I can operate the system properly.	4.2	0.75	
3. The developed system satisfies and meets the user's expectation with the system.	4.26	0.68	
<b>Total Average:</b>	4.22		

Level of Accebility of the SCES Principals, Principal's Secretary, Teachers and Parents in terms of Attitude towards Using

Indicator	Mean	Standard Deviation	Verbal Interpretation
1. I prefer using the developed system in my job.	3.9	0.87	
2. I found the system to be quite simple to use.	4.3	0.69	
3. I like using the system.	4.07	0.73	
<b>Total Average:</b>	4.09		

The results of the Principals, Principal's Secretary, and Teachers of BES are presented below as well as the Parents of the LWD students.

Level of Accebility of the BES Principals, Principal's Secretary, Teachers and Parents in terms of Quality Factors

Indicator	Mean	Standard Deviation	Verbal Interpretation
1. <b>Functional appropriateness.</b> The system is fully functional; all features are working based on its intended behavior.	4.63	0.54	

2. <b>Availability.</b> The system is available and can perform without problem with required use.	4.56	0.50	
3. <b>User Interface Aesthetics.</b> The system design is user friendly	4.66	0.47	
<b>Total Average:</b>	4.62		

Level of Acceptability of the BES Principals, Principal's Secretary, Teachers and Parents in terms of Perceived Ease of Use

Indicator	Mean	Standard Deviation	Verbal Interpretation
1. <b>Learnability.</b> Learning to use this system is easy for me.	4.53	0.50	
2. <b>Operability.</b> The function of the developed system can lessen the time and work of the user.	4.69	0.46	
3. <b>Appropriateness recognizability.</b> I believed the developed system is appropriate for the user's needs.	4.5	0.5	
<b>Total Average:</b>	4.57		

Level of Acceptability of the BES Principals, Principal's Secretary, Teachers and Parents in terms of Perceived Usefulness

Indicator	Mean	Standard Deviation	Verbal Interpretation
1. <b>Usability.</b> Using this system will help me finish my job of finding the information needed and lessen the time of my work.	4.56	0.50	
2. <b>Operability.</b> I believed that system is easy to operate and	4.59	0.49	

input the information and assessment of the students.			
<b>3. Learnability.</b> The developed system has simple features that can be easily learn by the user.	4.62	0.48	
<b>Total Average:</b>	4.59		

Level of Accebility of the BES Principals, Principal's Secretary, Teachers and Parents in terms of User Satisfaction

Indicator	Mean	Standard Deviation	Verbal Interpretation
1. The system is very useful in terms of managing and storing the data and assessment of Learners with Disabilities students.	4.78	0.41	
2. I believed that I can operate the system properly.	4.53	0.50	
3. The developed system satisfies and meets the user's expectation with the system.	4.72	0.45	
<b>Total Average:</b>	4.68		

Level of Accebility of the BES Principals, Principal's Secretary, Teachers and Parents in terms of Attitude towards Using

Indicator	Mean	Standard Deviation	Verbal Interpretation
1. I prefer using the developed system in my job.	4.25	0.75	
2. I found the system to be quite simple to use.	4.72	0.45	

3. I like using the system.	4.41	0.49	
<b>Total Average:</b>	4.46		

The results of the Principals, Principal's Secretary, and Teachers of GES are presented below as well as the Parents of the LWD students.

Level of Acceptability of the GES Principals, Principal's Secretary, Teachers and Parents in terms of Quality Factors

Indicator	Mean	Standard Deviation	Verbal Interpretation
4. <b>Functional appropriateness.</b> The system is fully functional; all features are working based on its intended behavior.	4.57	0.58	
5. <b>Availability.</b> The system is available and can perform without problem with required use.	4.52	0.73	
6. <b>User Interface Aesthetics.</b> The system design is user friendly	4.71	0.45	
<b>Total Average:</b>	4.6		

Level of Acceptability of the GES Principals, Principal's Secretary, Teachers and Parents in terms of Perceived Ease of Use

<b>Indicator</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Verbal Interpretation</b>
<b>4. Learnability.</b> Learning to use this system is easy for me.	4.67	0.64	
<b>5. Operability.</b> The function of the developed system can lessen the time and work of the user.	4.76	0.43	
<b>6. Appropriateness recognizability.</b> I believed the developed system is appropriate for the user's needs.	4.67	0.47	
<b>Total Average:</b>	4.7		

Level of Acceptability of the GES Principals, Principal's Secretary, Teachers and Parents in terms of Perceived Usefulness

<b>Indicator</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Verbal Interpretation</b>
<b>4. Usability.</b> Using this system will help me finish my job of finding the information needed and lessen the time of my work.	4.76	0.43	
<b>5. Operability.</b> I believed that system is easy to operate and input the information and assessment of the students.	4.71	0.45	
<b>6. Learnability.</b> The developed system has simple features that can be easily learn by the user.	4.67	0.47	
<b>Total Average:</b>	4.71		

Level of Acceptability of the GES Principals, Principal's Secretary, Teachers and Parents in terms of User Satisfaction

<b>Indicator</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Verbal Interpretation</b>
4. The system is very useful in terms of managing and storing the data and assessment of Learners with	4.61	0.58	

Disabilities students.			
5. I believed that I can operate the system properly.	4.52	0.79	
6. The developed system satisfies and meets the user's expectation with the system.	4.71	0.55	
<b>Total Average:</b>	4.61		

Level of Accebility of the GES Principals, Principal's Secretary, Teachers and Parents in terms of Attitude towards Using

<b>Indicator</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Verbal Interpretation</b>
4. I prefer using the developed system in my job.	4.57	0.66	
5. I found the system to be quite simple to use.	4.62	0.58	
6. I like using the system.	4.65	0.57	
<b>Total Average:</b>	4.61		

## CHAPTER V

### SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

The findings from the previous chapter are covered in more detail in this chapter. The study is briefly summarized in this chapter, along with the research's findings. Finally, it discusses the challenges of limitation and future study.

#### **Summary**

The study entitled "SPLWD: Student Profiling for Learners with Disabilities in Santa Cruz District" was created by the researchers. The study's main goal was to simplify and improve the reliability of the manual recording of student profiles and other information, such as student specialization, grades, etc., in Special Education schools. Their work was completed after much effort. The role of computerized systems is to assist in creating a secure system, ensuring that all records are saved and secured. A computerized recording has the advantages of taking up less time, being more precise than a manual, and making it simple to record and retain the student's

profile. Also, parents can add to the teachers' knowledge of their children by merely sharing their observations.

Since the District of Santa Cruz was prone to flooding, a system was built to help keep the data secure, and it will be saved via cloud storage. The typical Santa Cruz District method of student profiling for students with special needs was the focus of the research. The system was created with a primary focus on student profiling for learners with disabilities using laptop and desktop computers.

The study's goal was to retain records in a uniform manner for teachers' convenience, as well as to help secure all sensitive information and produce reliable results. The developers used questionnaires that included indicators such as perceived ease of use, perceived usefulness, experience, attitude toward using, and behavioral intention of use to address the overall performance of the developed system. The programming tools used was Visual Studio Code, XAMPP, and Libre Office

The results were satisfactory to the evaluators after the researcher's collected comments by distributing the questionnaire to the school and parents.

Following completion of the evaluation, the research will proceed. The chapter provides a summary of the study's conclusions and recommendations.

## **Conclusion**

These conclusions were reached by the researchers based on the study's findings and include the following:

1. The goal of this study, "SPLWD: Student Profiling for Learners with Disabilities at Santa Cruz District," was to collect information about students who had special needs.
2. In order for parents to access the system, students' LRN serves as a tool.
3. Researchers develop a system that can store and create student profiles that will benefit teachers and schools.

## **Recommendations**

Recommendations for further study to enhance the system are provided below:

1. The system's functionality and design should be improved for more attractive user experience and more engaging features.
2. Future research can create a system that is designed for all students, not just those with specific needs.

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## **APPENDIX A**

# **Technical Background**

**a. Planning and Requirement Analysis Phase**

**CAPSTONE PROJECT 1: AUDIO INTERVIEW**

**GROUP CODE: BW09**

**TITLE: “SPLWD: Student Profiling for Learners with Disabilities in Sta. Cruz District of Laguna”**

**INTERVIEWERS: Pascual, Joshua B., Nual Irish Cathlyn E.**

**Interviewee: Mr. Armin O. Cabrales**

**Position: Principal IV (Sta. Cruz Central Elementary School)**

**Date of Interview: June 2, 2022**

**Location of Interview: A Kamatoy St. Santa Cruz, Laguna**

**JOSHUA:** For formality po, we are... student po kami ng LSPU, ahh...

currently 3rd year po kami. Yung Interview po namin for capstone project po. Ah, ang capstone project namin ay maggagawa po kami ng isang website or application na makakatulong po sa offices.

Ngayon po, na-address po ni Ma'am na... may current na po kaming na ipropose po na title which is Record Management, kasama nga po yung SPED na features. Kaso ang sinabi po sa amin ni Ma'am ay mag focus na lang po sa SPED. Dun pa... Kaya po ngayon need po namin na palawakin yung scope kasi po sa isang school po, kokonti lang yung SPED na... hindi po kami pinayagan na ganon lang po kadami yung macover, since kayo... ayon po yung... ang nais lang po naming malaman ay kung ilan po yung SPED student po sa... kahit po dito or sa buong district po ng Sta. Cruz.

**Mr Cabrales:** More or less ah... within the district meron tayong mga 200 SPED learners. Oo. Dito meron tayong 89 learner... SPED learners, sa Sta. Cruz Central Elementary School and ah... if I were you, you focus on one school. Oo. And then ah... also this capstone project ay umm... mas focus in what area... are you going to do?

**JOSHUA:** Ah... Profiling po sana...

**IRISH:** Opo. For SPED students po.

**Mr Cabrales:** Profiling. So Profiling.

**JOSHUA:** Or kayo po kung may masa-suggest po kayong makakatulong na for SPED po.

**Mr Cabrales:** Ah.. its upon. Ah... kasi kayo ang gagawa ano yoong sa inyo ay mas mabilis na... mas mabilis sa inyo, hindi kayo mahihirapan and then yung makakatulong naman sa paaralan, especially to our SPED teachers, SPED learners yung inyong gagawin.

**JOSHUA:** Yes po, bali po kung profiling po sa tingin nyo po makakatulong siya as... ganto po yung magiging ano niya. Ah... lahat po nung SPED students po... yung profile po mapupunta po don. Ah bali po may nainterview na din kami na SPED Teachers na meron nga daw pong ah assessment para sa isang SPED student, Tas po parang may level

nga po ba ng approach about doon sa bata, depende po doon sa ano nya, tama po ba? Pwede po kami makahingi ng further ano po don sa assessment at yung approach po?

**Mr Cabrales:** Yes, yung assessment kasi, ito ay ginagawa ng Mga ano, ng ah... mga expert. Oo. Sa... in this ah... area ano. And ah... hinihingi lang naming yun... yung result noong assessment para for school ah... record and then it is confidential kaya kung ah... profiling ang gagawin niyo hihingi parin tayo ng pahintulot sa mga magulang.

**JOSHUA:** Yes po.

**Mr Cabrales:** Oo. For confidentiality and then syempre yoon Data Privacy Act ay ating iiimpliment. Wag natin kalilimutan yon.

**IRISH:** Okay po.

**JOSHUA:** Opo.

**Mr Cabrales:** Then other details ah... pwede ninyong itanong sa ating mga guro.

**JOSHUA:** Ahh sige po. Sino po kayang pwede naming makausap regarding.

**Mr Cabrales:** Si Sir... ang ating grade leader ng SPED ay si Sir Hermie Lahon.

**IRISH:** Opo.

**Mr Cabrales:** You can ask Mr...

**JOSHUA:** Nandito po kaya...

**Mr Cabrales:** Oo nandiyan sila, ang ating mga teachers ay naandian.

**JOSHUA:** Pwede po kaya makahingi ng referral po kung sakali, o ma, makausap kami na...

**Mr Cabrales:** Just show this ano... letter, na approve ko para ma-entertain kaya.

**JOSHUA:** Salamat po.

**Mr Cabrales:** Okay.

**JOSHUA:** Thank you Sir.

**IRISH:** Thank you po.

**Mr Cabrales:** You're Welcome.

## CAPSTONE PROJECT 1: AUDIO INTERVIEW

**GROUP CODE: BW09**

**TITLE: "SPLWD: Student Profiling for Learners with Disabilities in Sta. Cruz District of Laguna"**

**INTERVIEWERS: Pascual, Joshua B., Nual Irish Cathlyn E.**

**Interviewee: Ms. Mariel Ansay**

**Position: Teacher in Special Education (Sta. Cruz Central Elementary School)**

**Date of Interview: June 2, 2022**

**Location of Interview: A Kamatoy St. Santa Cruz, Laguna**

**JOSHUA:** Ma'am, Good Morning. Ano pong pangalan nyo po ma'am?

**Ms. Ansay:** Ako nga pala si Mariel Ansay.

**JOSHUA:** Ano pong hawak nyo po sa SPED?

**Ms. Ansay:** Hearing Impaired.

**JOSHUA:** Hearing Impaired po. Ayun po Ma'am, ano pong... meron nga po bang level na tinatawag nung bata. Kunyari po ina-assess sa assessment po, may level po ba talaga yung bata...

**Ms. Ansay:** Ang H.I., depende sa observation ng teacher kung pwedeng i-assess ang bata kasi ang H.I. ay nalalaman na kung ano yung madaling madetect kung ano yung ano nga kasi diba sa Hearing

Impairment nga. Kaya lang namin ina-assess minsan kung magkakaron ng multi-disability ang bata.

**JOSHUA:** Opo. Tas meron po bang ah... tinatawag na approach para po turuan sila, meron po bang ganon?

**Ms. Ansay:** Meron. Yung, yun nga yung una Sign Language, Tapos magkakaron din kami ng... Speech Lesson, Speech Therapy.

**JOSHUA:** Sa ngayon po, may currently po ba kayo na ginagamit na system or application na ginagamit po pagtuturo? Na makatulong po sa...

**Ms. Ansay** Ahh wa... ano yun lang, pag sa application, wala. Pero yung ginagamit naming way para maturuan, diba ngayon ay modular at online, so pumapasok kami minsan sa online, nag sesend na lang kami ng video sa bata. Minsan nag vivideo kami sa bahay, sinesend nalang naming sa mga parents para yun ang gagamitin ng bata.

Pero sa application wala.

**JOSHUA:** Opo. Currently po ilan po yung handle nyo na bata?

**Ms. Ansay:** Ako, pito. Grade 1, grade 2, grade 3.

**JOSHUA:** Ahh ayun nga po. Balak po kasi naming gawin ay, Student Profiling na, yun po yung sinuggest samin ni Ma'am na pag pukosan (focus) nalang po. Tapos, ayun nga po balak po naming gawan ng website na lahat ng bata po na ano na... SPE... Special Education Student, nandon na po lahat ng profile. Parang makikita na doon kung ano, kung ano po yung ano nila disabilities. Pero nasabi naman po ni Sir Armin kung ano, may ano daw po yun, ah... privacy ma kailangan naming ng consent dun sa nanay para makuha naming yung details

po. Ayun po.

**Ms. Ansay:** Kahit kaming mga teacher ay kailangan namin muna ng approval sa parents bago ipost naming sa Social Media, kahit halimbawa ih, ilalagay naming ang picture ng bata sa documents, nahingi parin naman kami ng approval sa parents kasi meron na talaga tayong batas about diyan. Data Privacy Act.

**JOSHUA:** Opo. Data Privacy. Ayun po. Sa...

**IRISH:** Yung sa Online po, kamusta naman po yung nagiging ano nyo po. Yung feedback po ng bata sa online?

**Ms. Ansay:** Okay naman. Nakakasabay naman sila kasi meron din naman kaming... parang nagkakaron din kami ng online na communication. Google Meet, minsan ay Zoom. Ganon. Para mas madaling makachat ng bata ang message.

**JOSHUA:** Tas ano po, ngayon po may ginagamit po kayong ah... parang Log, pinaglalagyan ng mga kuniyari po tulad ng improvement nung bata? Ganun kung...

**Ms. Ansay:** Ano Toy?

**JOSHUA:** Yung mga improvement po nung bata. Parang may Log or may Log Book po ba kayo don. Observation po, parang ganon?

**Ms. Ansay:** Meron. Sa Google Meet, ay sa google meet. Sa Google Drive nilalagay yon. Tapos ay meron naman kaming mga, tawag dito... mga Class Record, doon naming nilalagay yung mga performance rating ng mga bata

**JOSHUA:** Bali kada kalian po yung sa Observation?

**Ms. Ansay:** Quarterly.

**JOSHUA:** Quarterly po. Ah bali... okay na yon

**IRISH:** Yun lang po Ma'am thank you po.

**JOSHUA:** Thank you po.

## CAPSTONE PROJECT 1: AUDIO INTERVIEW

**GROUP CODE: BW09**

**TITLE: "SPLWD: Student Profiling for Learners with Disabilities in Sta. Cruz District of Laguna"**

**INTERVIEWERS: Pascual, Joshua B., Nual Irish Cathlyn E.**

**Interviewee: Ms. Mary Joice Nhel B. Ella**

**Position: Teacher in Special Education (Sta. Cruz Central Elementary School)**

**Date of Interview: June 2, 2022**

**Location of Interview: A Kamatoy St. Santa Cruz, Laguna**

**JOSHUA:** Kayo po Ma'am. Ah... Ano pong name po niyo ma'am?

**Ms. Ella:** Ako nga pala si Ma'am Mary Joyce Nhel B. Ella pero Ma'am Joyce na lang. Ang handle ko Non Categ, ang disability ko ay... na hinahandle ay may mga intellectually disabled, meron ding autism.

**JOSHUA:** Okay po.

**Ms. Ella:** Then...

**JOSHUA:** Ayun nga po, ah... may mga ap... ah assess... pano po yung assessment po niyo don sa bata?

- Ms. Ella:** Meron kaming ah... Doktor talaga. Ah Development... Developmental Pediatrician na nag a-assess. Sila yung ah... nag i-... nagda-diagnose talaga. Nagbibigay ng pag sinabing autism yung bata. Pero as kami, hindi kami pwedeng magbigay o mag label na... Ah ang batang to autism base sa observation. So kami may bukod na Doktor talagang ah parang, tinatak para sya yung mag assess.
- JOSHUA:** Naka... may, may level nga po ba yung bata ng ganon? May level din po ba sa autism at sa ano intellectual?
- Ms. Ella:** Meron kaming sinasabing cato... category na merong ah mild, moderate, ah... severe, at tsaka yung profound
- JOSHUA:** Opo. Tapos. Opo. Yung apat na po yon, may approach din po ba na, ng pag tuturo na ano... na para po dun sa level po nung bata?
- Ms. Ella:** Yung in terms sa pag tuturo kasi, kami ay more on ano kami, hindi sya... hindi... kumbaga sa isang bata, magkakaibang approach hindi porket sila lahat mild na autism, isang atake. Dipende pa rin as individual kaya meron kaming sinasabing I.E.P., Individualize ah... Individual Educational Plan. Kumbaga sa bawat plan nayon, halibawa si bata ay hindi pa kayang umupo ng 5 minutes, pano mo tuturuan sya magsulat. So yun muna, dun ka muna magfo-focus. Ganon. Parang kumbaga, yun yung approach namin sa kanila. Sa ibang bata naman iba. Kasi may bata naman kaya nang tumagal ng ah... 1 hour pwede namang sa pagsulat namin sya tuturuan. Ganon.
- JOSHUA:** Yung sa ano yun, yung sa Online Learning?
- IRISH:** Oo.

**JOSHUA:** Ito?

**IRISH:** Yung po sa... nag o-online learning din po sila? Yung nag-aano din po kayo ng module, video, ganon po.

**Ms. Ella:** Meron din po kami.

**IRISH:** Kamusta naman po yung approach po dun ng mga bata.

**Ms. Ella:** Yun pong sa nag-oonline class po namin, ah... dipende po kasi sa bata ih. May bata po kasi na meron ng ano eh, eye... eye... eye contact. May bata na hindi kayang pumirmi, pero may guide naman kasi ng magulang, sa panahon ngayon may guide naman, kaya ba... kaya naman ng bata sumunod. Kumbaga... talagang sa tulong ng magulang... talagang... atsaka lang naming parang nagagawa yung... yung, yung ganon. Nagiging possible siya. Pero dun sa mga bata naming kayang umupo mag-isa, yon pwede naman sila, Pwede rin, nakakapag operate din sila.

**IRISH:** Okay po. Ilan po yung students na hawak nyo po na...

**Ms. Ella:** Sa mismong section ko?

**IRISH:** Opo.

**Ms. Ella:** Ang handle ko ngayon ay 12.

**JOSHUA:** 12 po.

**Ms. Ella:** Pero yung may kakayanang mag Online Class ay halos parang mga dalawa lang, tatlo. Ganon.

**JOSHUA:** Bali yung the rest po, nagka face-to-face po ba?

**Ms. Ella:** Sa ngayon po ay wala kaming face-to-face, modular kaming lahat or yung iba po nakakapag online.

**JOSHUA:** Sa Enrollment po, bali hindi po ba bumaba yung enrollment ng ano, ng special education...

**Ms. Ella:** Bumaba nga po kasi...

**JOSHUA:** Dat po ilan po talaga?

**Ms. Ella:** Nung face-to-face ay nasa hundred plus kami eh. 160, ngayon ay 89 nalang...

**JOSHUA:** 89 nalang... Bali yun lang po. Thank you po.

**IRISH:** Thank you po.

### **CAPSTONE PROJECT 1: AUDIO INTERVIEW**

**GROUP CODE: BW09**

**TITLE: “SPLWD: Student Profiling for Learners with Disabilities in Sta. Cruz District of Laguna”**

**INTERVIEWERS: Pascual, Joshua B., Nual Irish Cathlyn E.**

**Interviewee: Ms. Gina Salcedo**

**Position: Teacher in Special Education (Sta. Cruz Central Elementary School)**

**Date of Interview: June 2, 2022**

**Location of Interview: A Kamatoy St. Santa Cruz, Laguna**

**IRISH:** Kay Ma'am naman po.

**JOSHUA:** Ayun Ma'am, ah... ano pong pangalan nila Ma'am?

**Ms. Salcedo:** Ah... ako si Ma'am Gina Salcedo. So ang ang handle naman yung matataanda na. So kasi... ang range, nag re-range sila ng ah pif... 14 to 20 up na kasi sila ay more on skills na kami. So unlike sa kanila , sa

mga level nila, mga bata pa, kami kasi yun, yung mga nakikita niyo siguro yug mga SPED na is yung malalaki na, matatanda na, so more on skills na kami. Pero may time din na nag o-online kami pag kumustahan, ganyan pero hindi na kami masyadong dun sa academics. More on skills na lang. Halimbawa nagluluto, naggagarden. Ganun nalang ang kalimitang itinuturo sa kanila and ang pinakang goal naming sa kanila ay ano lang, maging independent, at saka mas ano namin talaga eh yun... yung matanggap sila sa work, kung kaya nila. Dipende rin sa kanilang mga ability and skills.

**JOSHUA:** Bale ma'am yung handle nyo po is diba po ay sa age naman po, pero yung disabilities po nila, ano po.

**Ms. Salcedo:** Ang disabilities namin ay halos ganto rin, pare parehas: I.D., may Down syndrome, may cerebral palsy, pero malimit sa amin ay, I.D., Intellectual Disability. Kasi nga sila yung marurunong sa bahay, maglinis, magluto.

**JOSHUA:** Bale yung handle nyo po ay magkakasaka... halo halo basta po may bracket lang po ng age. Hanggang anong age po?

**Ms. Salcedo:** Bali pagkanag edad na ang ang aming bata ng 14 ano, 14... up sa akin na.

**JOSHUA:** Kayo na po yung naghahandle nun.

**Ms. Salcedo:** Sa transition level na sila. Sila kasi yung mga, yung kumabaga sa ano yung wala nang pag-asang mapunta ng regular. Talagang ano sila, more on livelihood na sila and skills, hindi na sila sa acad.

**JOSHUA:** Ayun po ma'am ah... bali yun lang po sana yung ma... ma... ta... for interview. May last na tanong na lang po kami, sa tingin nyo po, ah ano Web Application or website na makakatulong po sa SPED,sa

tingin nyo lang po bukod po sa yung inaano po kasi naming ngayon ay profiling eh... kayo po kung ano po yung mas makakatulong siguro sa inyo po.

**Ms. Salcedo:** Kasi samin sa sign language, noon may pumunta na dito, ganyan din. Parang ang ginagawa nilang apps is merong... umm... naggawa sila... kumuha sila ng estudyante sa depstud tas nagsa-sign, tas nilagay nila dun sa apps. Tapos parang ii... ahh... sasabihin lang ng parents yung word tapos lalabas na dun kung anong sign yon.

**JOSHUA:** Ang galling!

#### **CAPSTONE PROJECT 1: AUDIO INTERVIEW**

**GROUP CODE: BW09**

**TITLE: “SPLWD: Student Profiling for Learners with Disabilities in Sta. Cruz District of Laguna”**

**INTERVIEWERS: Pascual, Joshua B., Nual Irish Cathlyn E.**

**Interviewee: Ms. Mariel Ansay, Ms. Mary Joice Nhel B. Ella, Ms. Gina Salcedo**

**Position: Teacher in Special Education (Sta. Cruz Central Elementary School)**

**Date of Interview: June 2, 2022**

**Location of Interview: A Kamatoy St. Santa Cruz, Laguna**

**Teachers:** Halimbawa is... halimbawa is ano ba yon, halimabwa “My Name is”, ganon. Halimbawa kasi merong parents na hindi talaga marunong

pang mag sign ih. Halibawa makikipag communicate sila sa bata, oo diba makikipag communicate, "What is your name?" lalabas na doon. Tas ipapakita lang noon sa parents... ah nung parents sa bata. Oh kaya halimbawa kahit kayo, may... may... may na... meron kayong apps, tas may naka salamuha kayong deaf, oh tas gusto nyong kausapin, ah parang magsasalita lang kayo don sa phone, tas parang lalabas na don sa phone, don sa... may lalabas na video kung ano yung sign nyo. Yun yung ginawa nila noon. Malaking tulong na malaking tulong para sa mga... sa mga regular na tao o, bata na makipag communicate sa mga deaf, sa commun... sa SPED ng... ng ano namin. Yun yung apps na ginawa nila noon.

**JOSHUA:** Sa tingin nyo po Ma'am, yung ano kung sakaling online yung ano, online po yung mga profile ng bata, makakatulong din po kaya yun?

**Teachers:** Oo! Malaking bagay naman nayun!

**JOSHUA:** Na pwede din po don maglagay ng ano ng log, kunyari po, eto yung ano, yung ano nya nung naobserve, naobserbahan nyo po nung quarter nayun, parang magkakaron po ng, kasama po sa profile yung observation po nung quarter nayun, parang ganun po.

**Teachers:** Oo, gagawa sila ng... oo parang sa I.E.P. lang na, mas madaling madetect. Halimbawa ih lilipat si bata...

**JOSHUA:** Opo, madali po.

**Teachers:** Mas madaling makukuha ang profile ng bata.

**Teachers:** Pwede. Pwede.

**JOSHUA:** Opo.

**Teachers:** Tas yung performance ba, kung ano ba sya, kung saang level na ba

sya,...

**Teachers:** Kung san sya magaling...

**Teachers:** Kung na-accomplish na ba nya to, sa I.E.P. talaga. Tas kung individualize, kasi ang bata, sa kanila kasi iba yung sa buhat kasi... regular kasi yung kanila. Samin kasi yung nabanggit ko kanina individualize, yon pwede yon kung papasok sa I.E.P. namin.

**Teachers:** Para maging Digitalize nadin yung I.E.P. natin.

**Teachers:** Halimbawa specific skill, para malaman namin ang history kung maifo-forward na namin ang bata sa kanila.

**JOSHUA:** Madali pong...

**Teachers:** Oo, yung mga sick, ah... about 5-14 years old na hindi na kaya sa regular, ah... school.

**JOSHUA:** Bali yung ano po, yung pag e-endorse po sa ibang

**Teachers:** Or kung mag sa-swap kami, mag-iiba iba ng ano or magta-transfer sila, pwedeng publicity sa teacher, pwede naming i-forward.

**JOSHUA:** Bali, Ma'am, nangyayari nga po na nagkakapalit palit po kayo ng hinahandle?

**Teachers:** Oo, possible.

**JOSHUA:** Sige po. Ayun po. Pero ngayon po, currently may ginagamit po kayong Central School na Website na kasama po yung papers ng SPED?

**Teachers:** Panong Website?

**JOSHUA:** Website po or application na...

**Teachers:** Kasi ano sila ih, parang ah... confidential.

**JOSHUA:** Opo.

- Teachers:** Hindi pwedeng ma-access kung kani- kanino. Pero sa ngayon wala rin kaming website. Yung sabi mo nga paglalagyan natin ng about sa kanila...
- JOSHUA:** Tas ayun po Ma'am, ah... ilang po kayo ngayong SPED Teacher po?
- Teachers:** Ngayon ay walo na ngayon.
- JOSHUA:** Tas yun po, ano po yung...
- Teachers:** Ano sya... yung parang sa assessment, yung halimbawa naka encode yung kanilang personal info, then yung assessment ng Doctor sa kanila, yun yung gusto rin sana naming, para incase na mawala yung mga hardcopy nila na record, meron kami sa computer. Parang ididi...
- JOSHUA:** Digitalize. Opo.
- Teachers:** Para kung halimbawa mabaha, mabasa, meron kaming record sa...
- IRISH:** Yun, pwede po yun.
- Teachers:** Balak palang naming pero di pa namin...
- JOSHUA:** Yun po din yung... prefer po samin ni Ma'am Mia po, bali ayun po yung iaano namin... ipopropose po ulit kasi yung prinopose po naming dati ay... ano po parang additional features lang po si SPED yung log history nga po, ngayon po pinalawak po kasi. Eh kasi po don sa una naming client na napuntahan, currently ay 40 lang po yung SPED, parang gusto po ni Ma'am na lumaki yung mag-aano, mag bebenift po. Bali Ma'am kung sakali, willing po kayo makipag cooperate sana no... research process po tulad po ng paggagawa nga po ng... opo. Tas ah yun nga po, kung ah... hihingi po kami ng

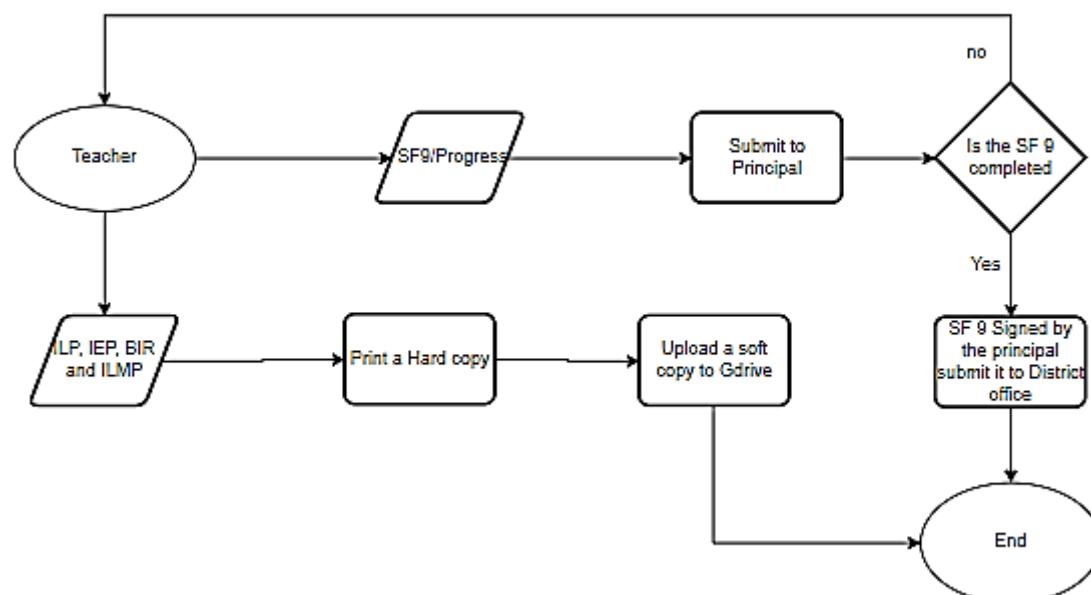
- permiso dun sa parents, ano po kayang kailangan namin, mahihingi po naming sa inyo yung list ng parents without...
- Teachers:** Ah... siguro gagawa ng waver, papaalam muna, gagawa ng letter. Kasi yung data nila, Data Privacy yun ih. Confidential kasi sila, hindi pwede maglabas ng...
- JOSHUA:** Sige po.
- Teachers:** Parang gawa na lang kayo... halimbawa hihingiin nyo yung profile ng bata, at tsaka ng parents, gawa na lang kayo ng letter, na pwede naming ipasa sa parents na pipirmahan naming sa kanila na pumapayag sila. Para makuha natin ang profile ng bata.
- JOSHUA:** Opo. Bali ano... Ma'am, wala na pong ibang SPED na na ano...
- Teachers:** School?
- JOSHUA:** Hindi po, SPED po na impairment po na ano, yung bracket po ng ano bay un, na...
- Teachers:** Wala na...
- JOSHUA:** Wala na po. Dito currently po sa Central...
- Teachers:** Visually impaired kasi ay nasa Bagumbayan. Yun yung disability na wala samin.
- JOSHUA:** Opo, nalipat na po?
- Teachers:** Oo, nandon sa kanila.
- IRISH:** Ma'am pwede po ulit matanong kung ano yung I.E.P. po?
- Teachers:** Individual Educational Plan.
- JOSHUA:** I.E.P.?
- IRISH:** Thank you po! Opo.
- JOSHUA:** Meron po siya sa L.I.S.?

- Teachers:** Meron don yung mismong ano lang, diagnosis lang. Kung halimbawa autism ba sya... pero yung...
- JOSHUA:** Observation po wala?
- Teachers:** Wala. Wala.
- IRISH:** Wala po.
- Teachers:** Meron din kasi kaming pag walang assessment, meron don na difficulty lang. Kasi dalawang category lang.
- JOSHUA:** Bali yung difficulty po, wala pa po siyang... diagnosis?
- Teachers:** Walang diagnosis ng Doktor.
- JOSHUA:** Pero hindi po talaga siya kailangan.
- Teachers:** Ah... ano po?
- JOSHUA:** Hindi po kailangan, kung meron po talagang SPED na hindi kailangan ng diagnosis or...
- Teachers:** Kailangan talaga. Yung kasi yung... pag ganon naman ang case non yung mga, kumbaga wala pang budget. Pero kita naman namin na willing yung magulang na i-enroll dito, yun... pero yun ay priority namin for ah... assessment.
- JOSHUA:** Ay, Ma'am, baka po naano kayo don sa word na disability baka po may ibang word po kayong ginagamit, baka po kasi nakaka ano kami don sa paggamit po ng word na yun. Ano pong ginagamit nyo?
- Teachers:** Pero kasi... so far LWD. Oo, yun na kasi yung... Datu kami, Learners With Special Needs. Tas pinaltan uli kami, LWD. Datu SPED, naging LSEM, LWD...
- JOSHUA:** LWD na po?
- Teachers:** Learners with Disability

- JOSHUA:** Yun na lang gamitin natin sa title?
- Teachers:** Learners with special needs. Pwede rin gamitin.
- JOSHUA:** Pero current, SPED parin po ang tawag sa Department nyo po? Or...
- Teachers:** LWD
- JOSHUA:** LWD na?
- Teachers:** Yun yung latest na ano samin ih.
- IRISH:** Okay po.
- JOSHUA:** Thank you po Ma'am, Maraming Salamat po sa time.
- IRISH:** Thank you po.

### Current Process Flowchart

The diagram below shows the current process of handling documents of Learners with Disabilities in Sta. Cruz District.



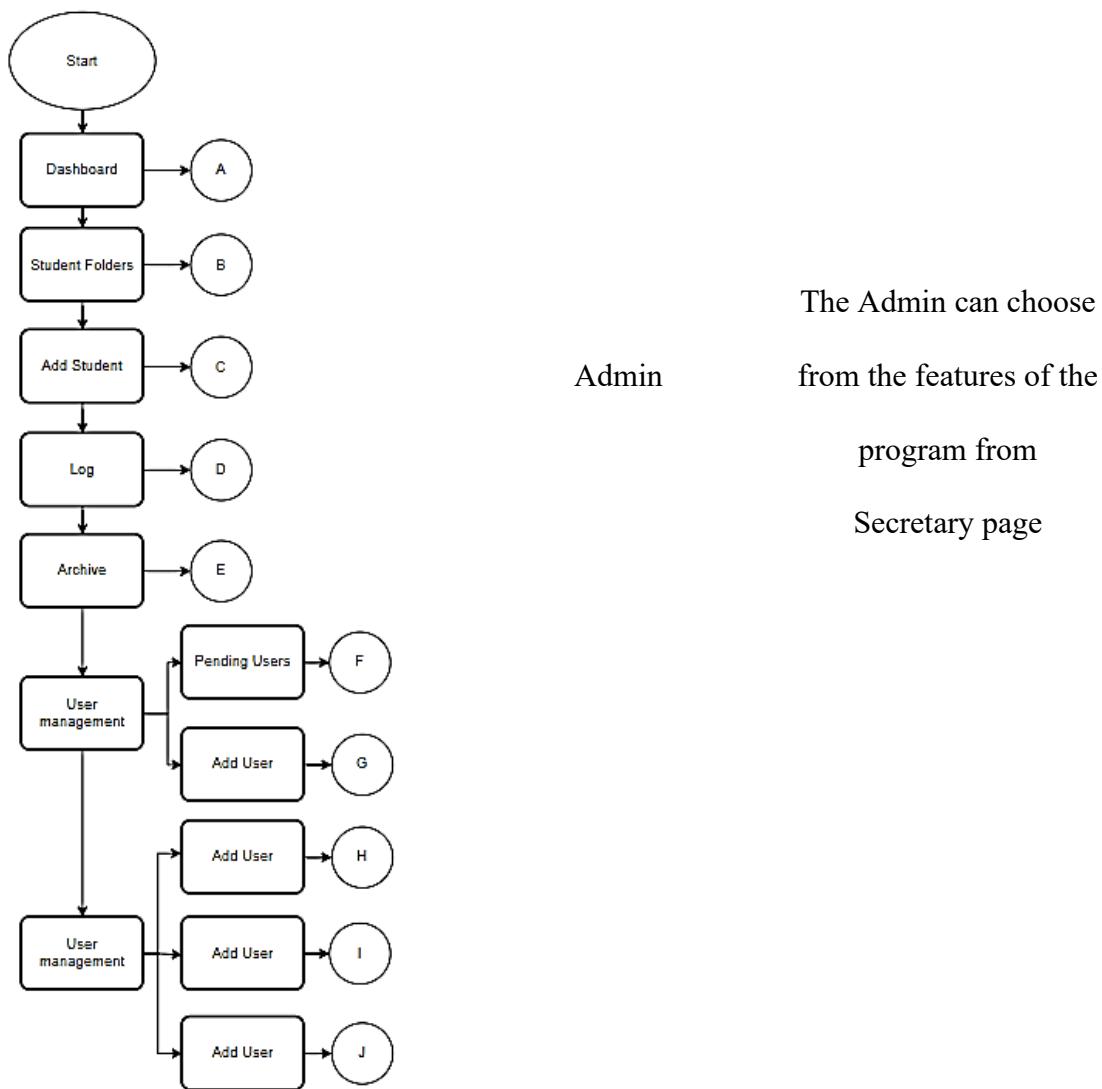
**Figure 20.** The image above shows the current process of documents in Sta. Cruz District.

### **Proposed Process Flowchart**

This section displays the suggested process from the system.

### **The Home Page Admin Account**

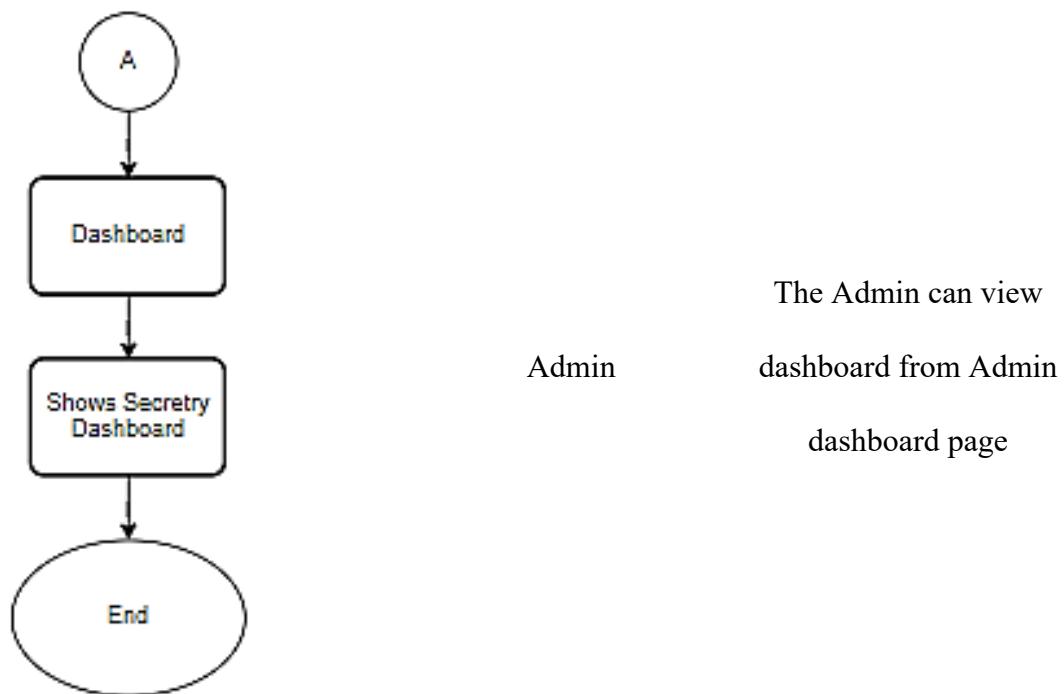
<b>Process Flow</b>	<b>People Involved</b>	<b>Description</b>
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**Figure 20.** This shows how the Secretary can choose from a variety of processes Once they have logged into the system. Each menu option has its own Possess equivalents.

### The Dashboard Admin Account

Process Flow	People Involved	Description
--------------	-----------------	-------------

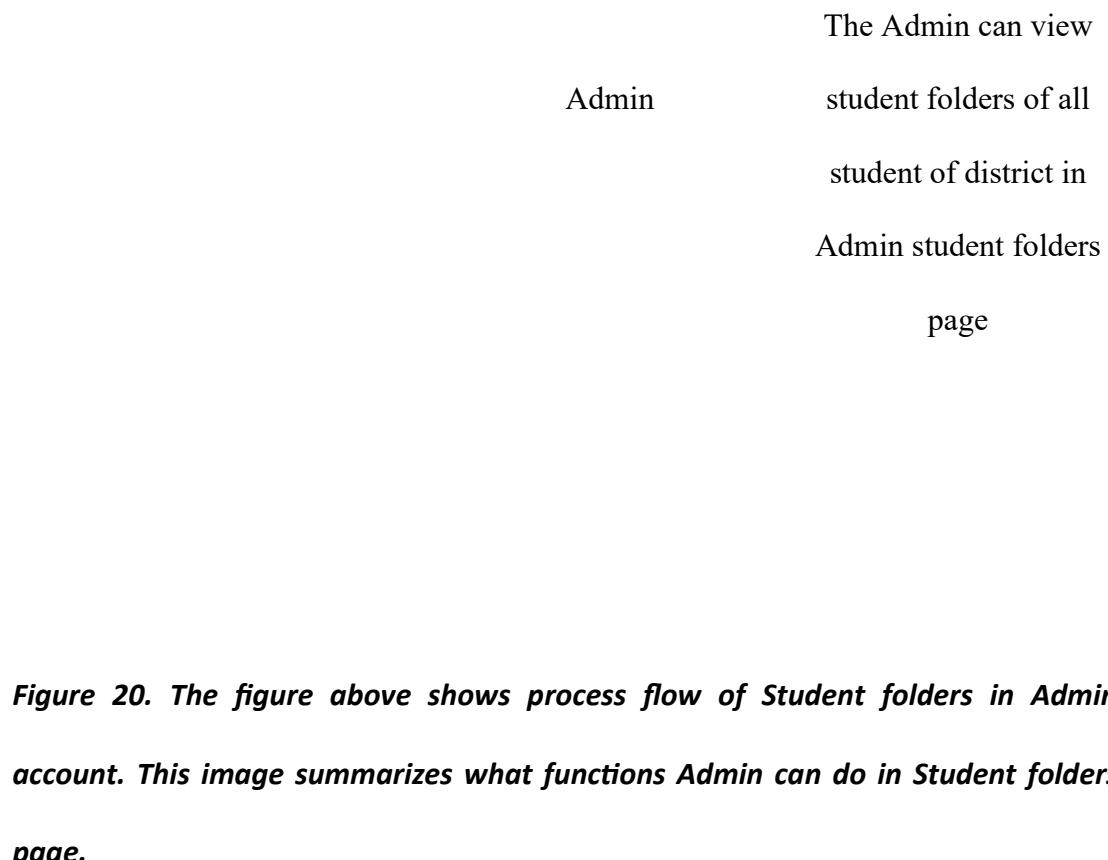


**Figure 20.** The figure above shows process flow of Dashboard in Admin account. This image summarizes what functions Admin can do in Dashboard page.

### The Student Folders Admin Account

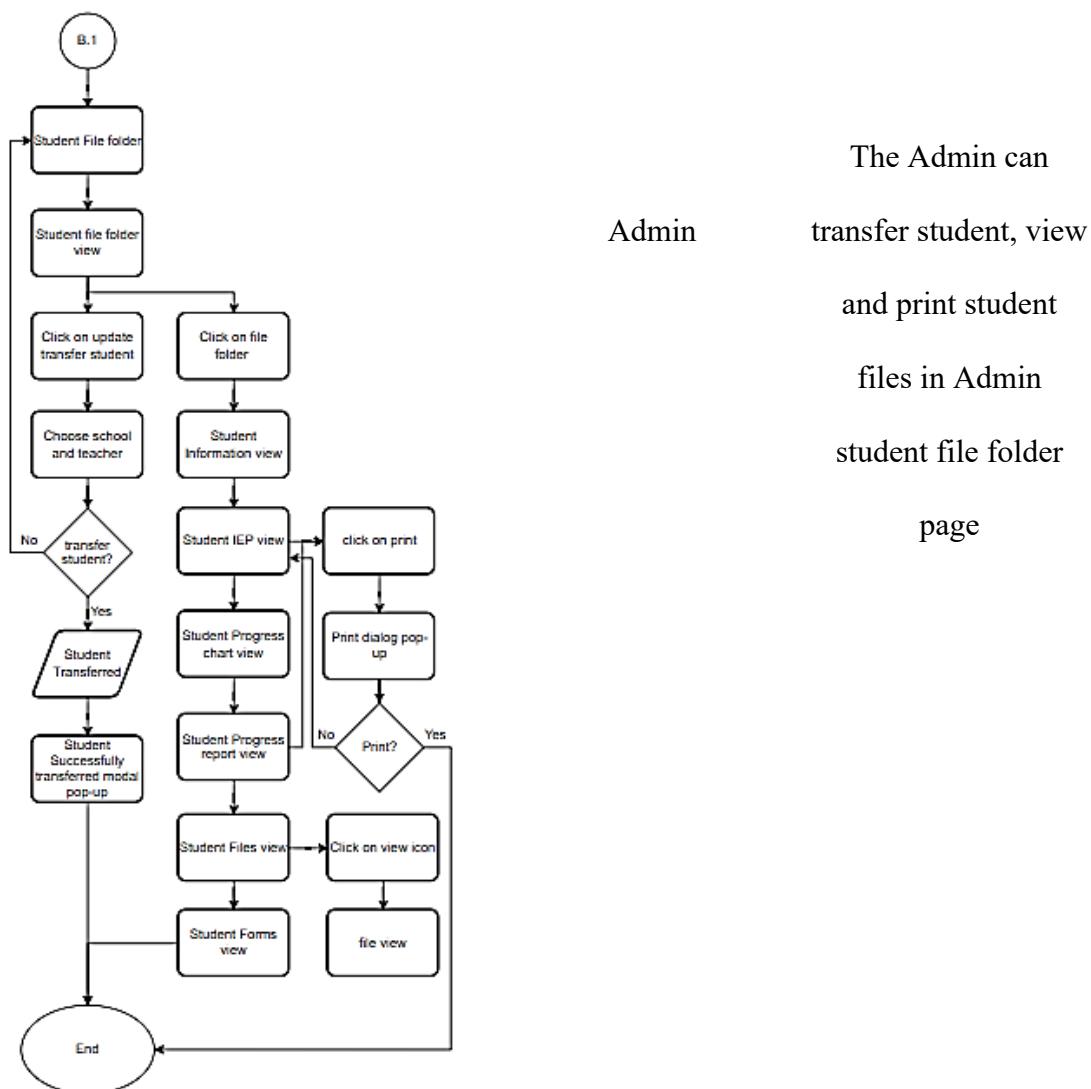
Process Flow	People Involved	Description
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### The Student File Folders Admin Account

Process Flow	People Involved	Description
--------------	-----------------	-------------



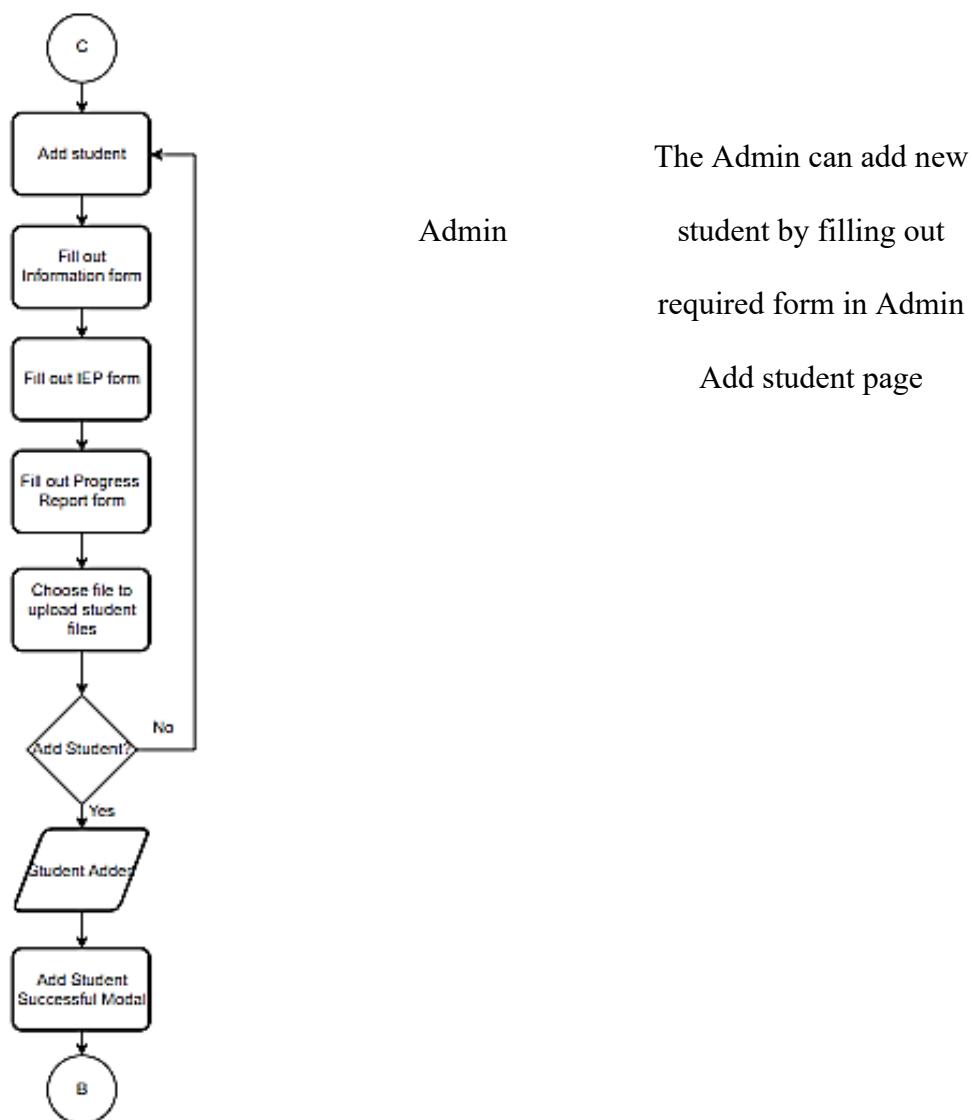
**Figure 20.** The figure above shows process flow of Student file folders in Admin account. This image summarizes what functions Admin can do in Student file folder page.

### The Add Student Admin Account

#### Process Flow

#### People Involved

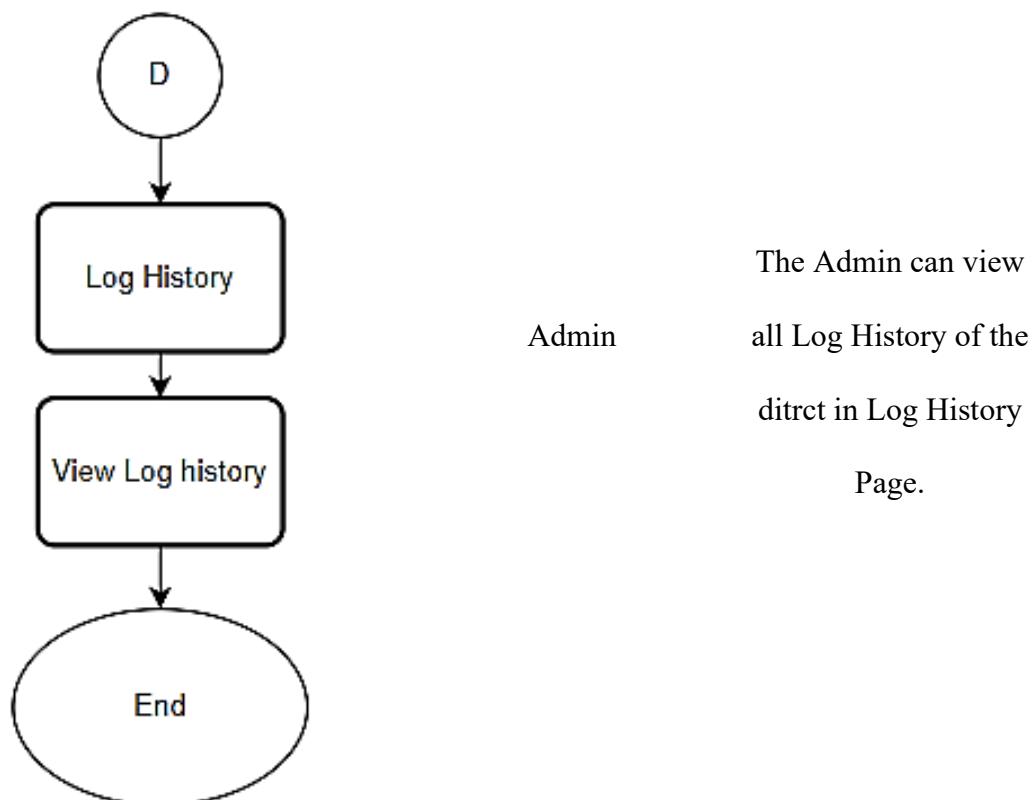
#### Description



**Figure 20.** The figure above shows process flow of Student file folders in Admin account. This image summarizes what functions Admin can do in Student file folder page.

### The Log History Process Admin Account

Process Flow	People Involved	Description
--------------	-----------------	-------------

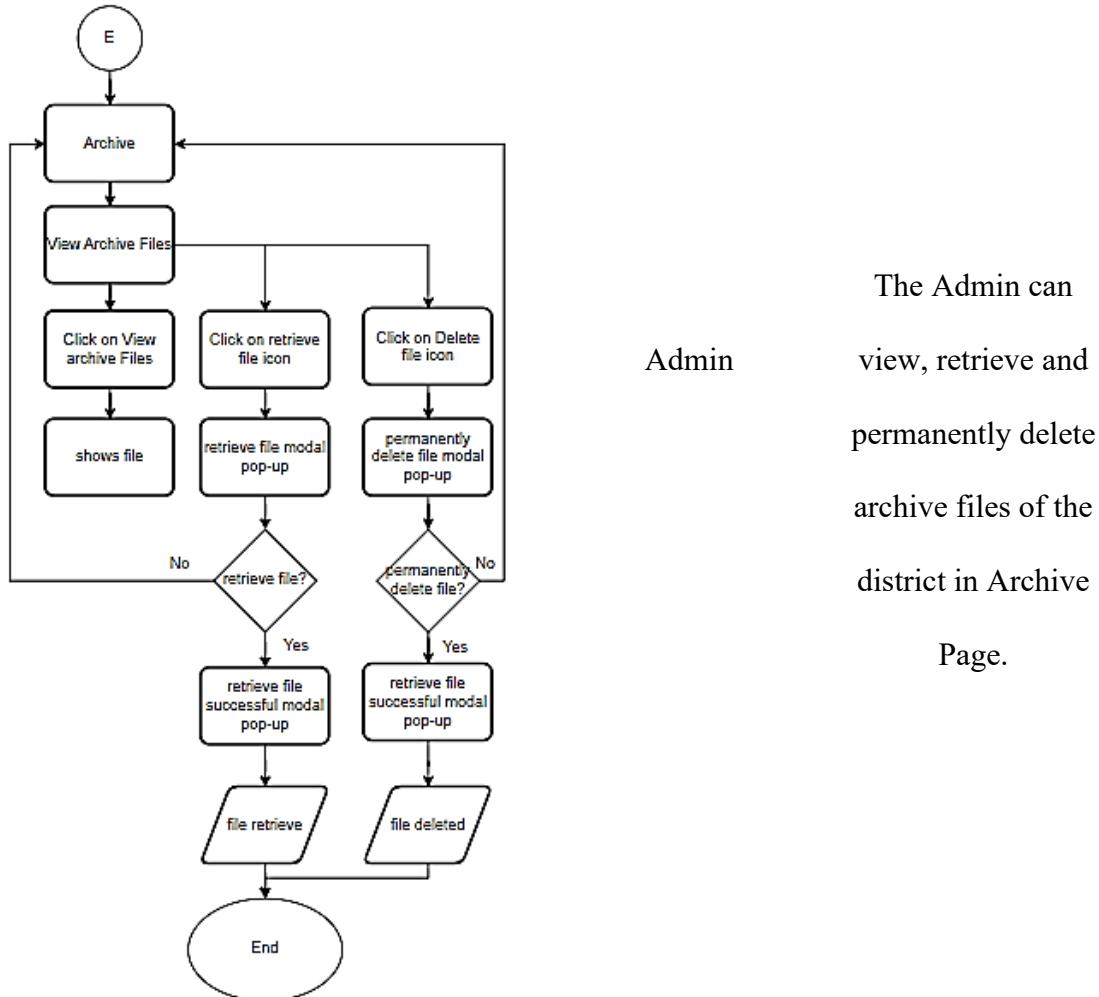


**Figure 20.** The figure above shows process flow of Log History in Admin account.

This image summarizes what functions Admin can do in Log History page.

### The Archive Process Secretary Account

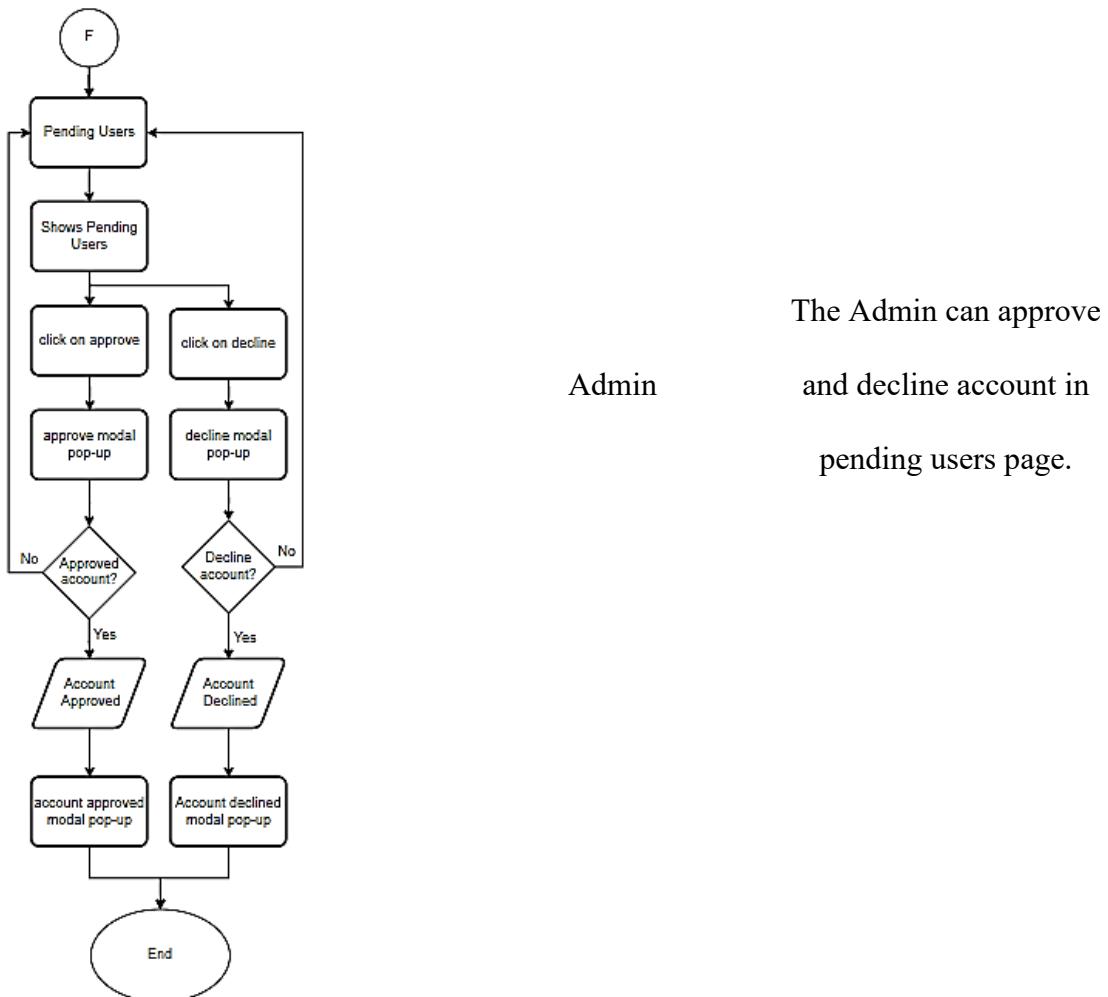
Process Flow	People Involved	Description
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**Figure 20.** The figure above shows process flow of Archive in Admin Account. This image summarizes what functions Admin can do in Archive page.

### The Pending Users Process Admin Account

Process Flow	People Involved	Description
--------------	-----------------	-------------

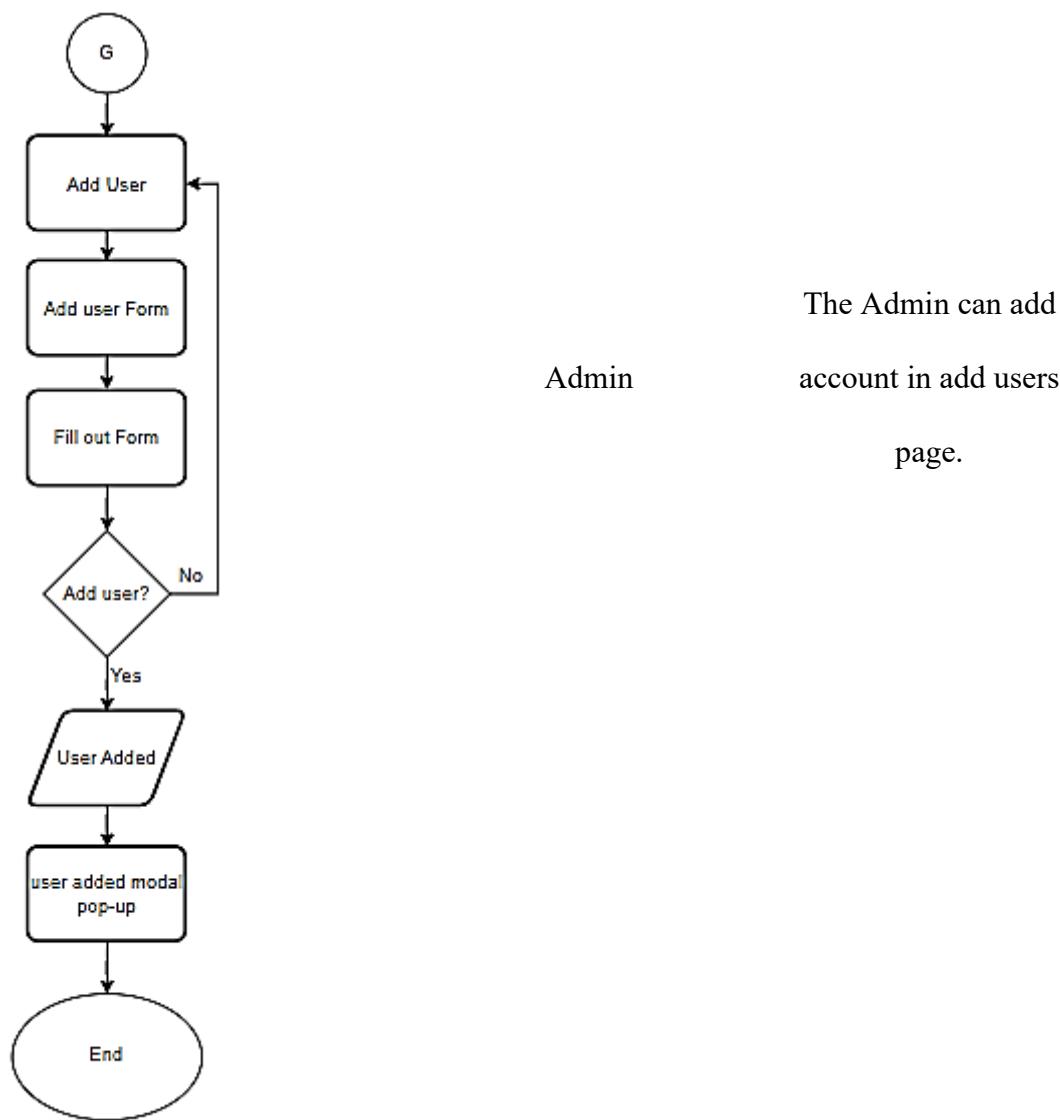


**Figure 20.** The figure above shows process flow of Pending users in Admin Account.

This image summarizes what functions Admin can do in Pending users page.

### The Add user Process Admin Account

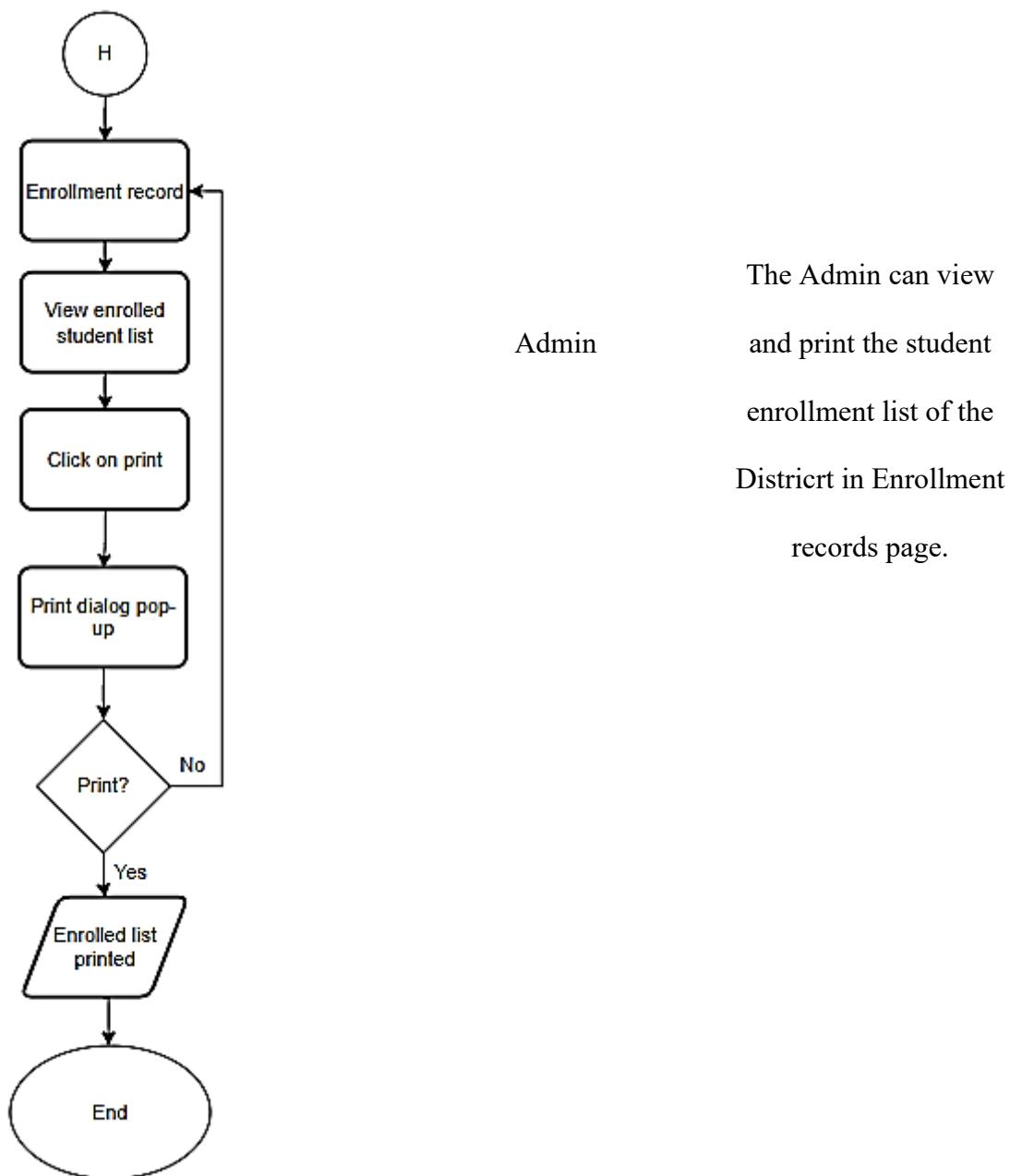
Process Flow	People Involved	Description
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**Figure 20.** The figure above shows process flow of Add user in Admin Account. This image summarizes what functions Admin can do in Add user page.

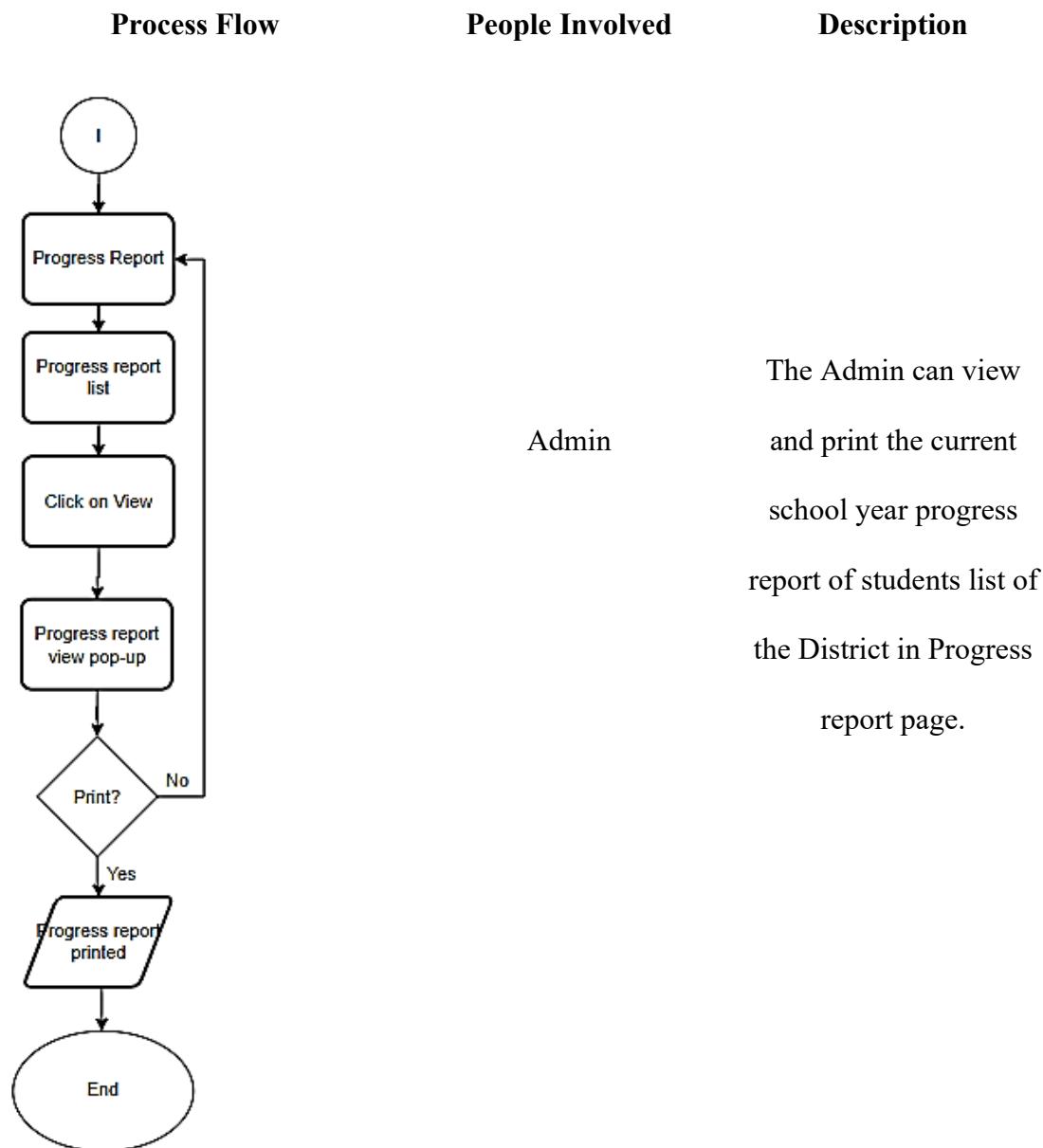
### The Add user Process Admin Account

Process Flow	People Involved	Description
--------------	-----------------	-------------



**Figure 20.** The figure above shows process flow of Enrollment records in Admin Account. This image summarizes what functions Admin can do in Enrollment records page.

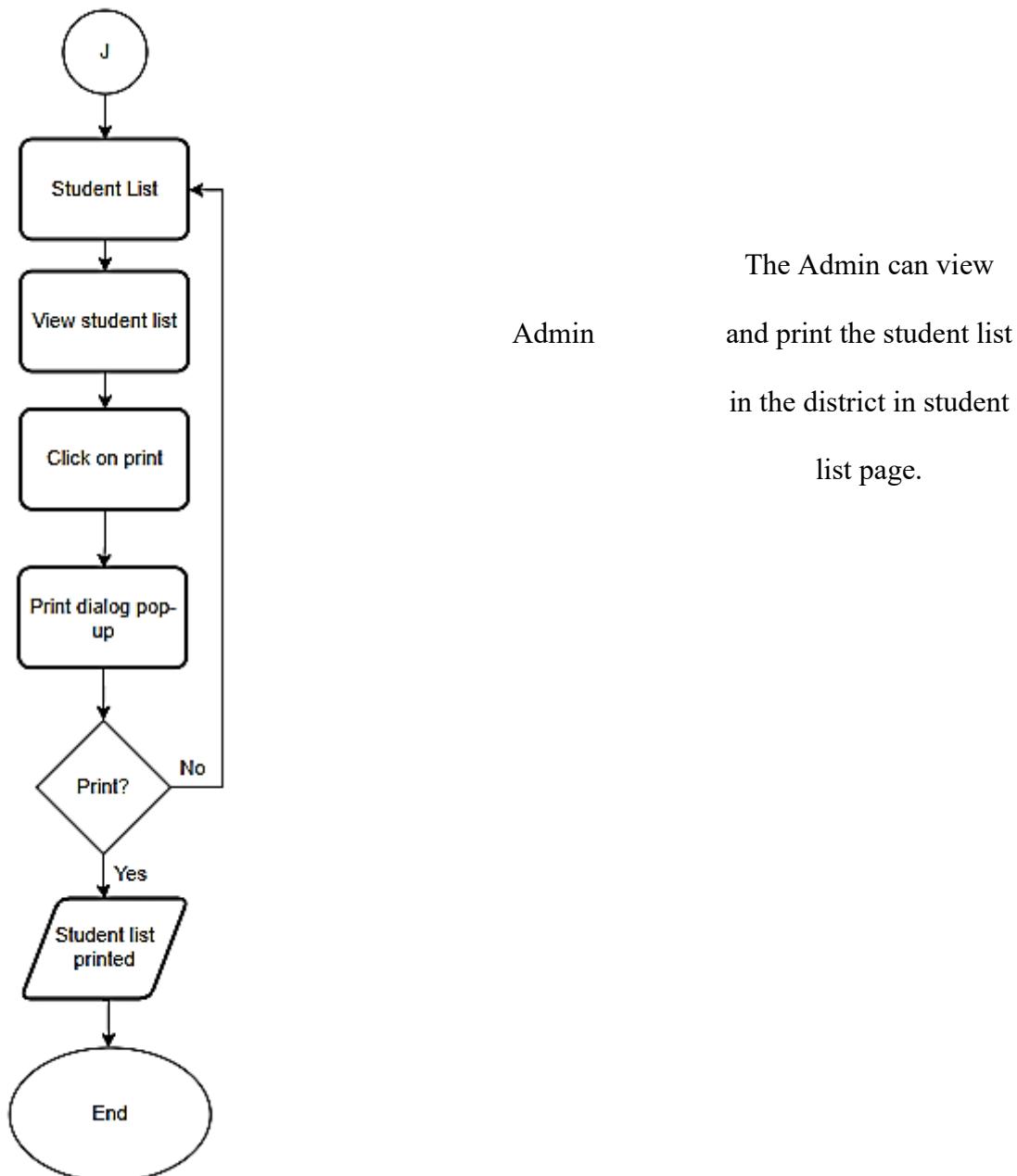
### The Add user Process Admin Account



**Figure 20.** The figure above shows process flow of Progress reports page in Admin Account. This image summarizes what functions Secretary can do in Progress reports page.

#### The Add user Process Admin Account

Process Flow	People Involved	Description
--------------	-----------------	-------------



**Figure 20.** The figure above shows process flow of Student list in Admin Account.

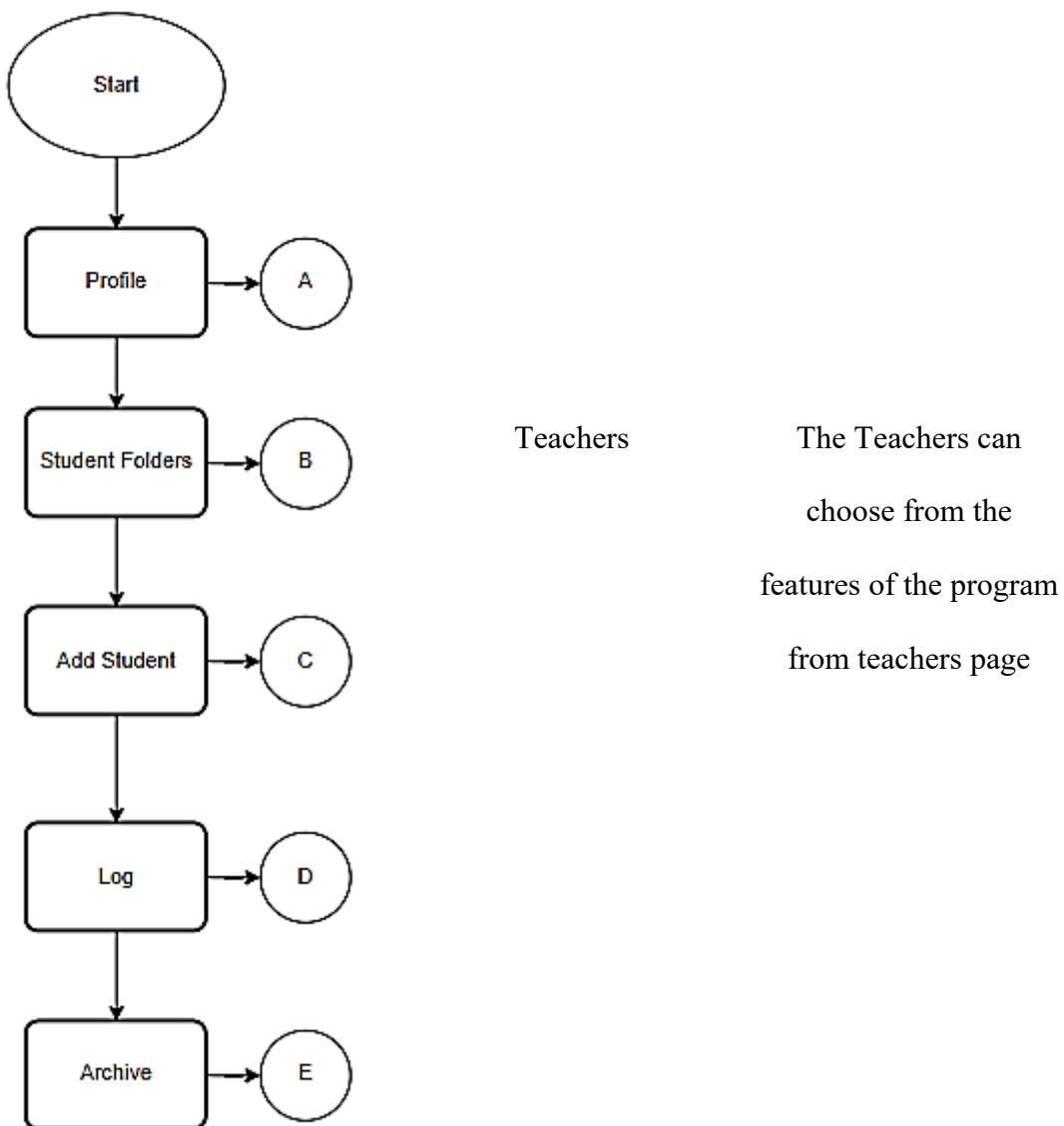
This image summarizes what functions Admin can do in Student list page.

### The Teacher Home Page

#### Process Flow

#### People Involved

#### Description



**Figure 20.** This shows how the Teachers can choose from a variety of processes

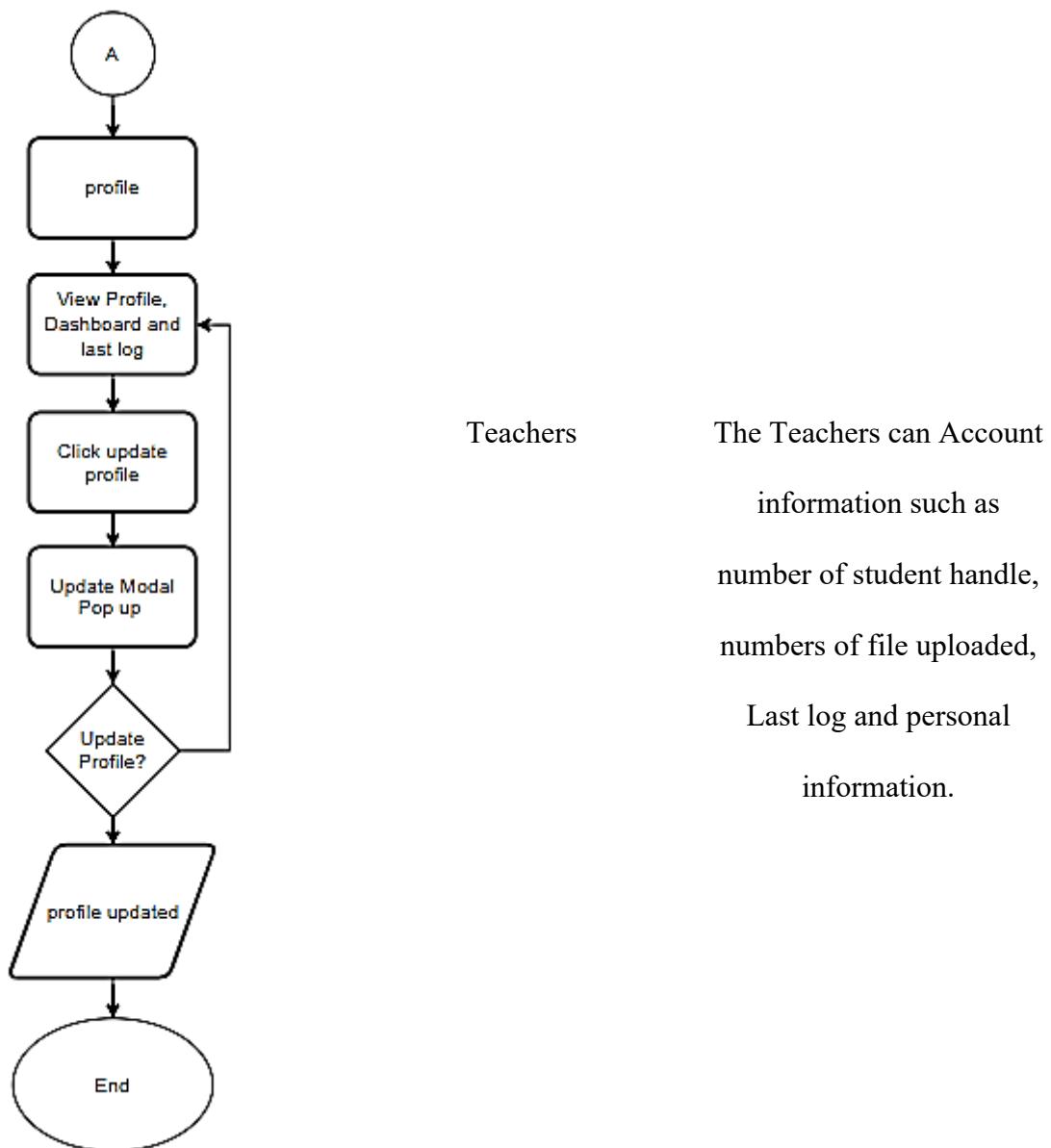
Once they have logged into the system. Each menu option has its own Possess equivalents.

### The Teacher Profile Process

#### Process Flow

#### People Involved

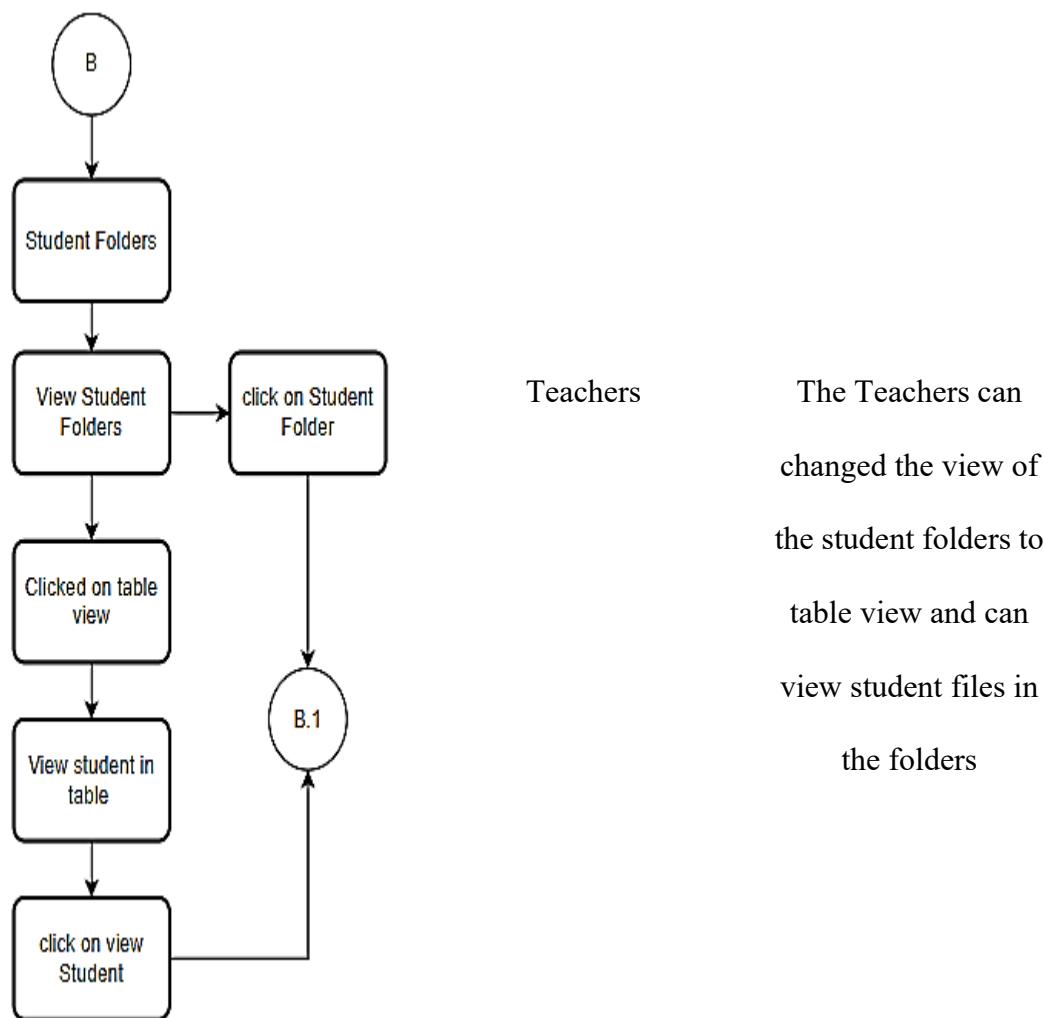
#### Description



**Figure 20.** The figure above shows process flow of teachers profile. This image summarize what functions teachers can do in this page.

### The Student Folders Process Teachers account

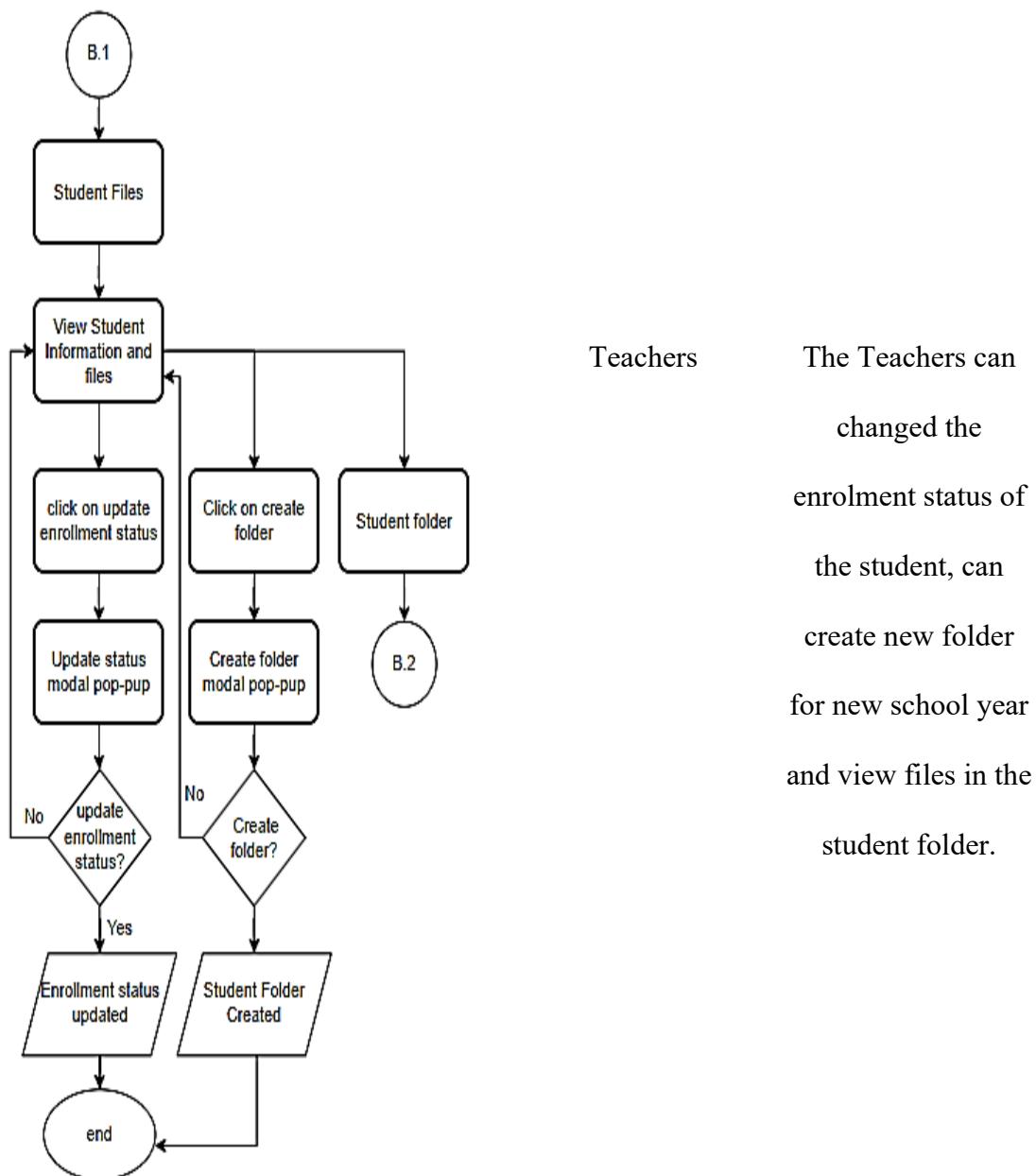
Process Flow	People Involved	Description
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**Figure 20.** The figure above shows process flow of student folders in teachers account .This image summarize what functions teachers can do in student folders page.

### The Student Files Process Teachers account

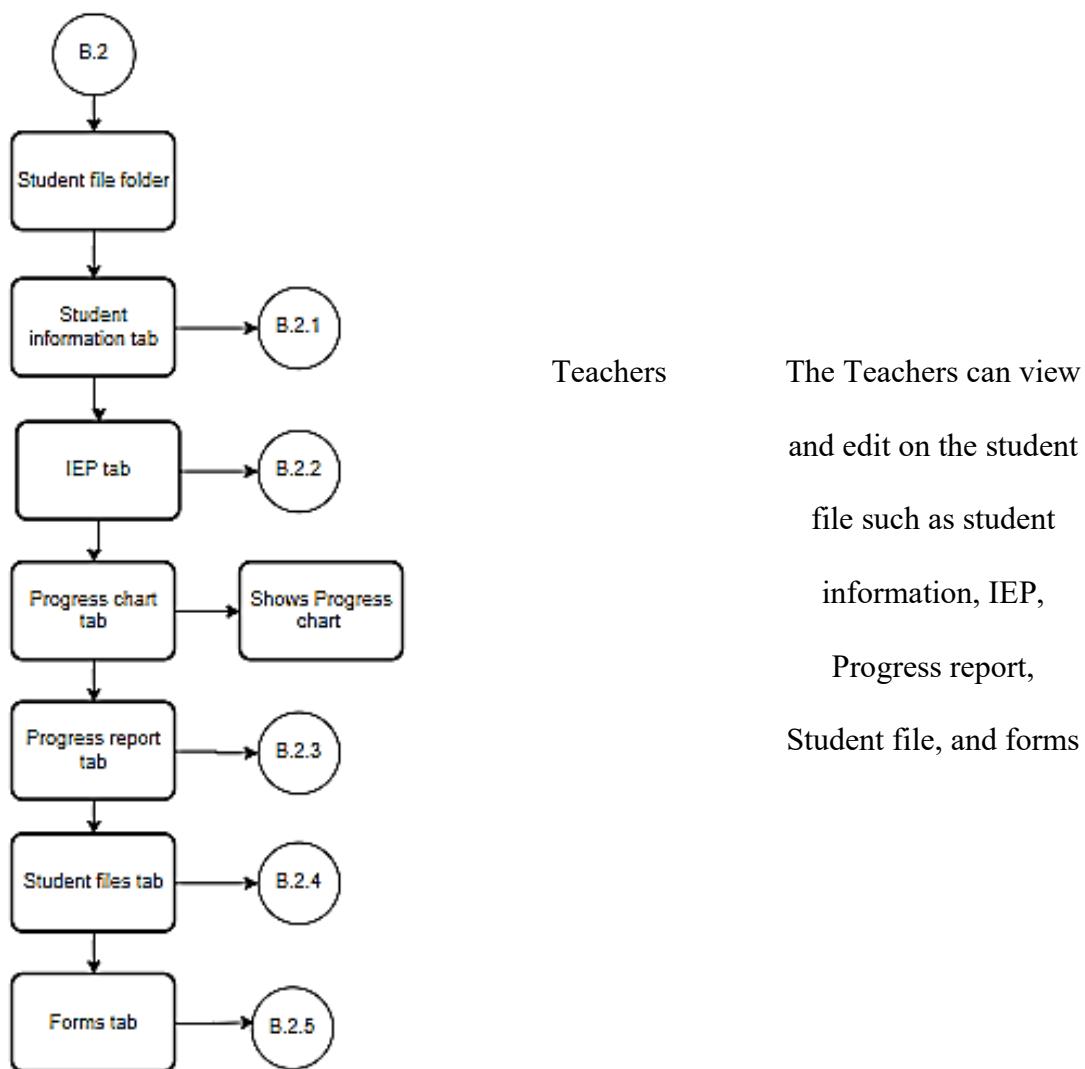
Process Flow	People Involved	Description
--------------	-----------------	-------------



**Figure 20.** The figure above shows process flow of student file folders in teachers account .This image summarize what functions teachers can do in student folders page.

### The Student file Folders Process Teachers account

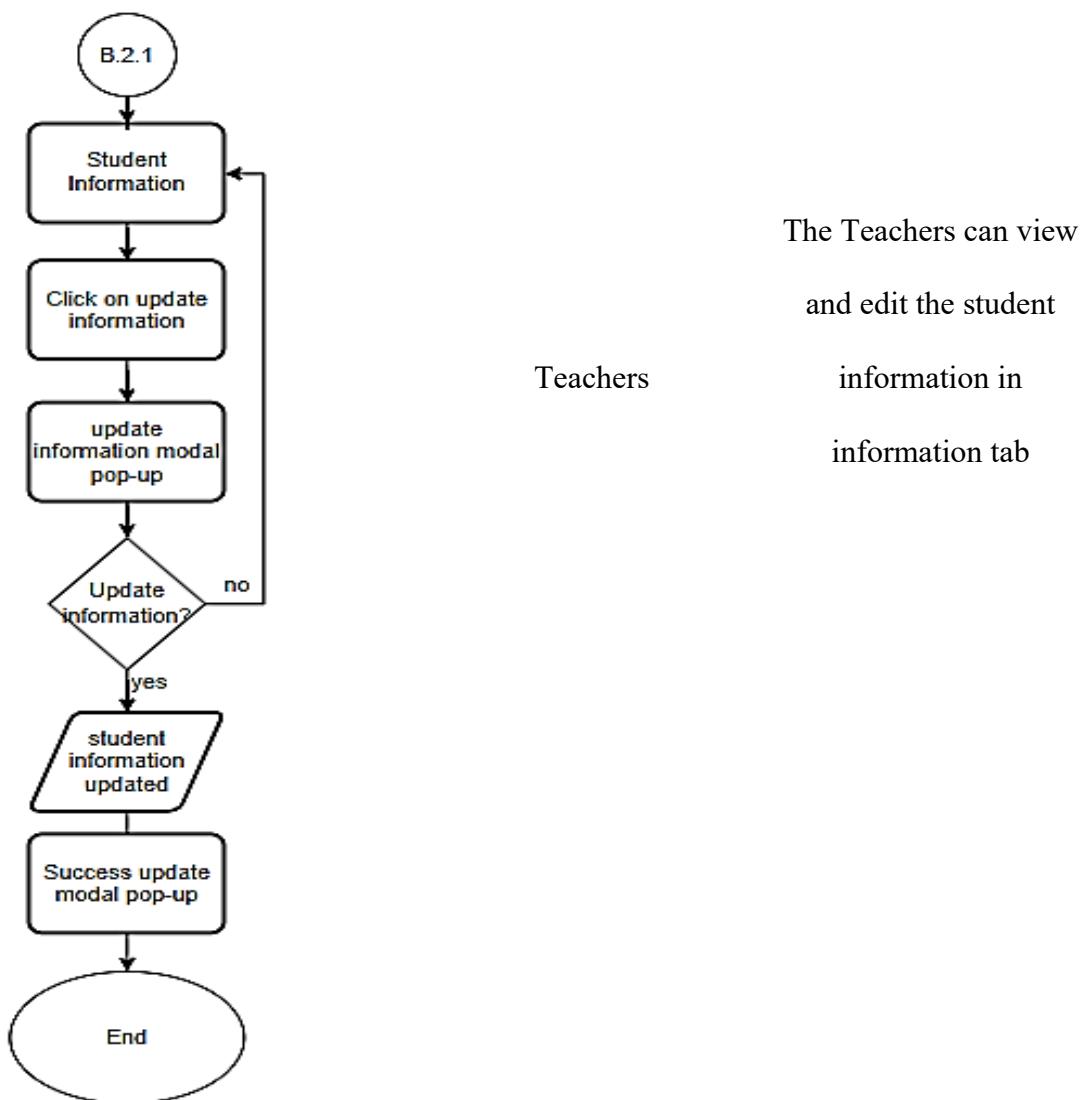
Process Flow	People Involved	Description
--------------	-----------------	-------------



**Figure 20.** The figure above shows process flow of student file folders in teachers account .This image summarize what functions teachers can do in student file folders page.

### The Student Information tab Process Teachers account

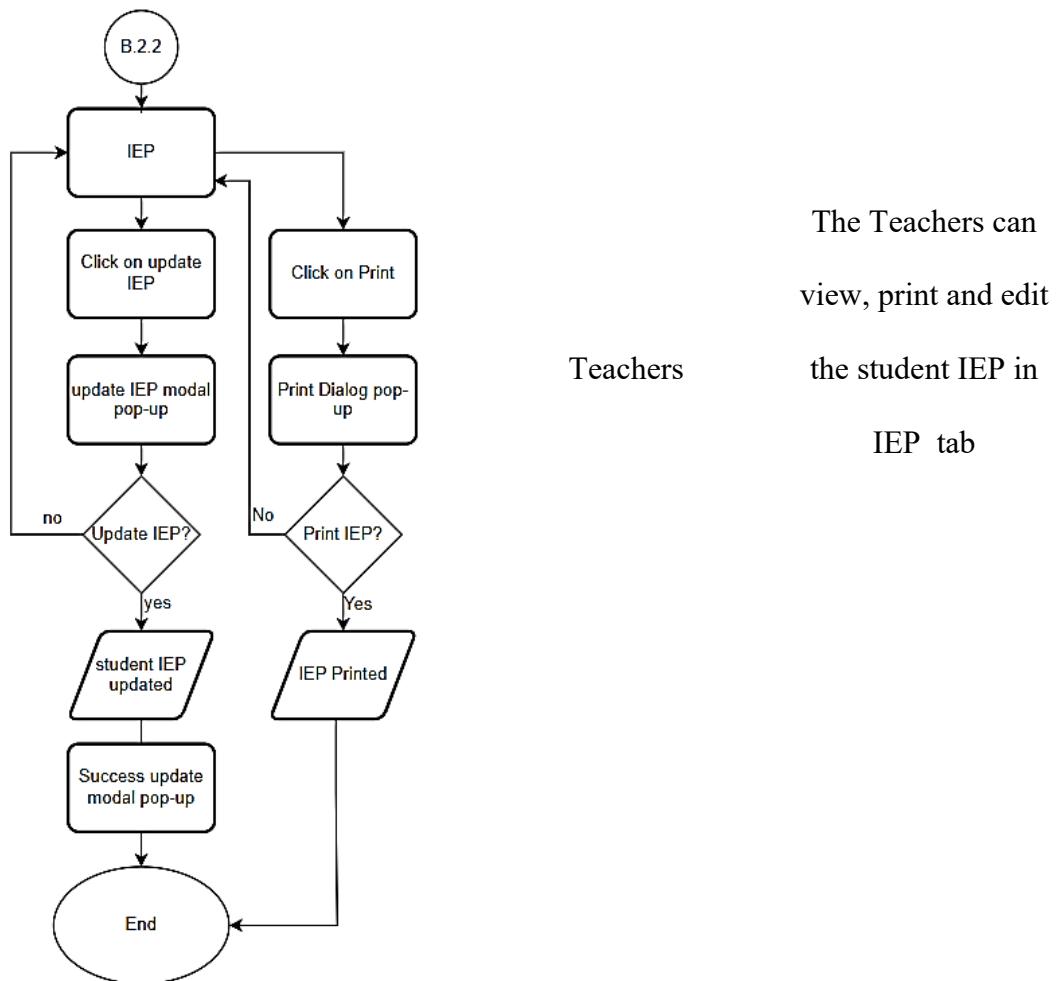
Process Flow	People Involved	Description
--------------	-----------------	-------------



**Figure 20.** The figure above shows process flow of student information tab in teachers account .This image summarize what functions teachers can do in student information tab.

### The Student IEP tab Process Teachers account

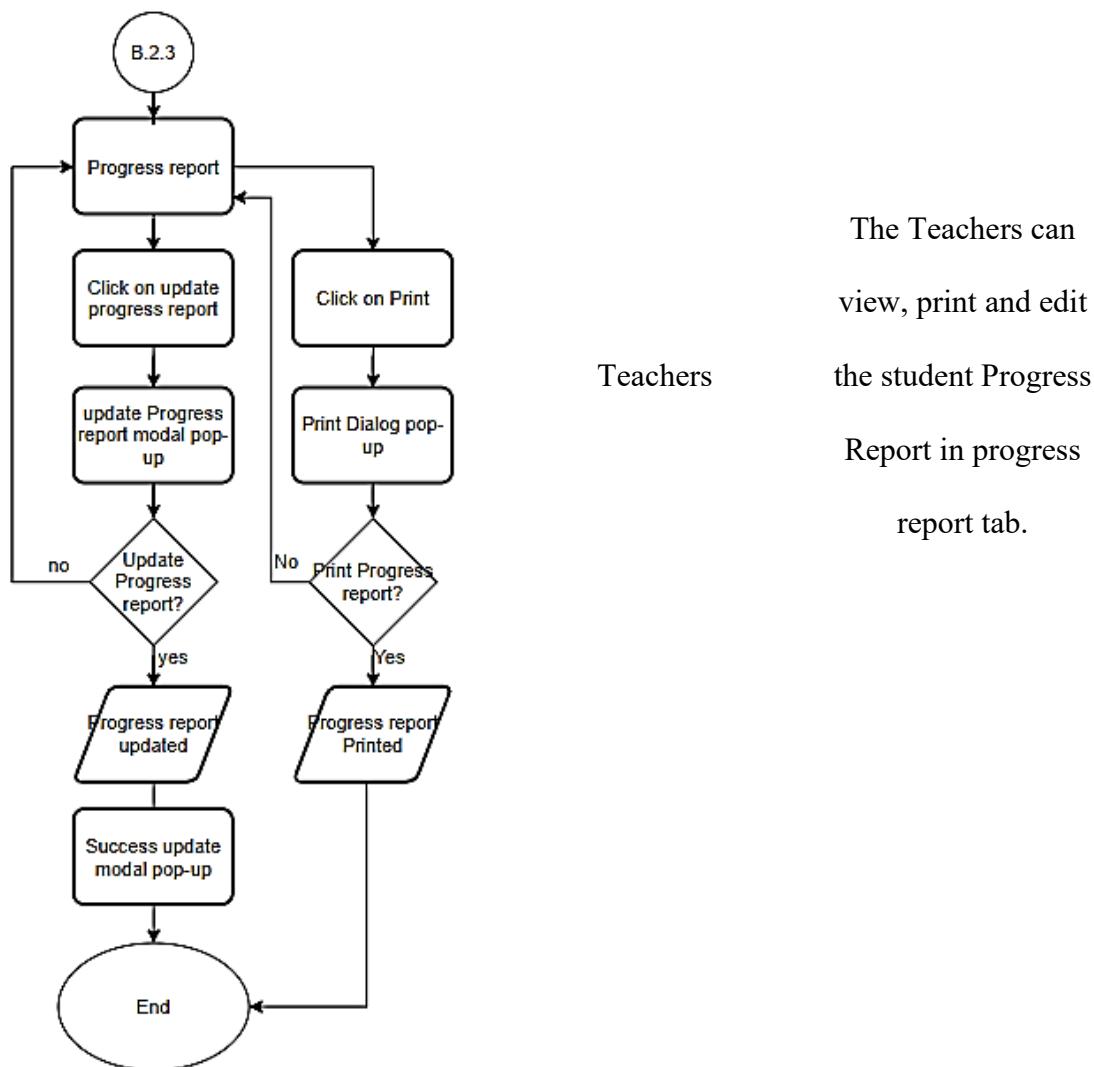
Process Flow	People Involved	Description
--------------	-----------------	-------------



**Figure 20.** The figure above shows process flow of IEP tab in teachers account .This image summarize what functions teachers can do in IEP tab.

### The Student Progress Report tab Process Teachers account

Process Flow	People Involved	Description
--------------	-----------------	-------------



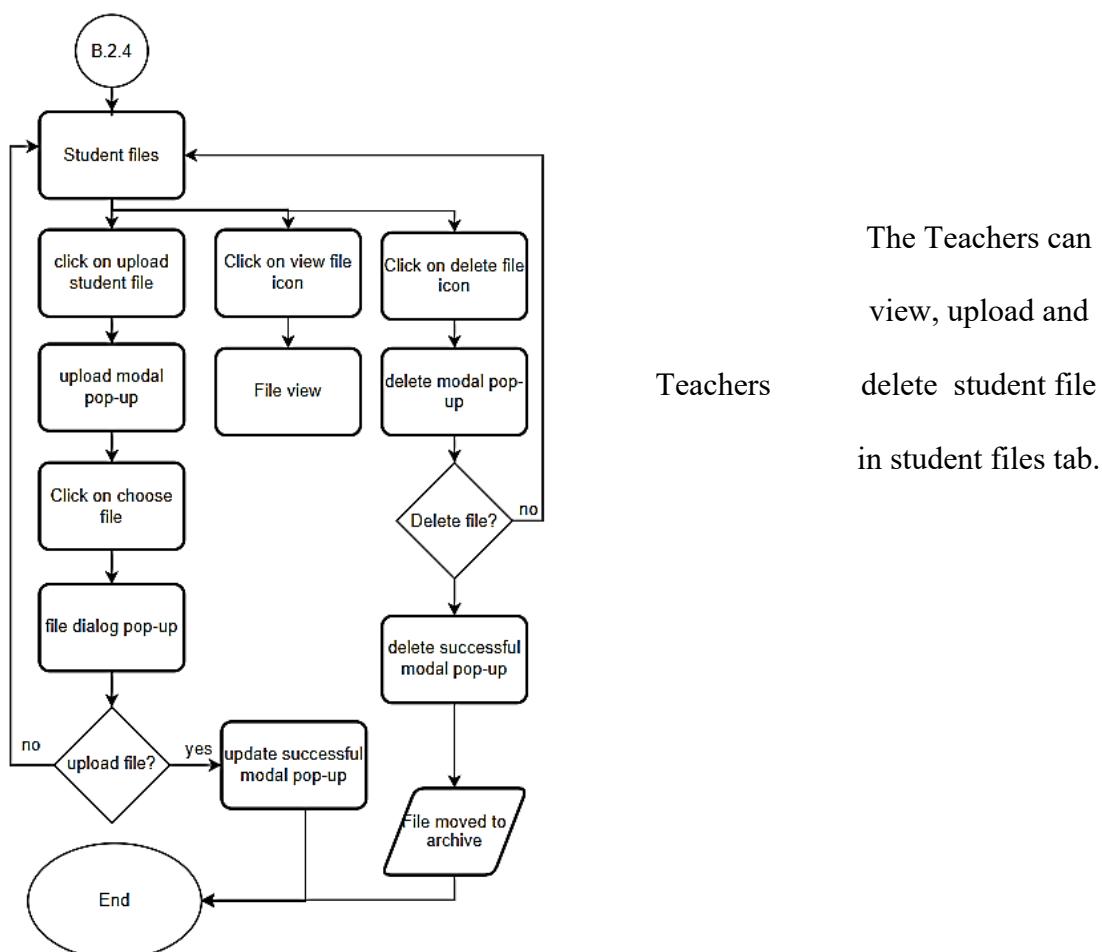
**Figure 20.** The figure above shows process flow of student Progress report tab in teachers account .This image summarize what functions teachers can do in student Progress report tab.

### The Student Filestab Process Teachers account

#### Process Flow

#### People Involved

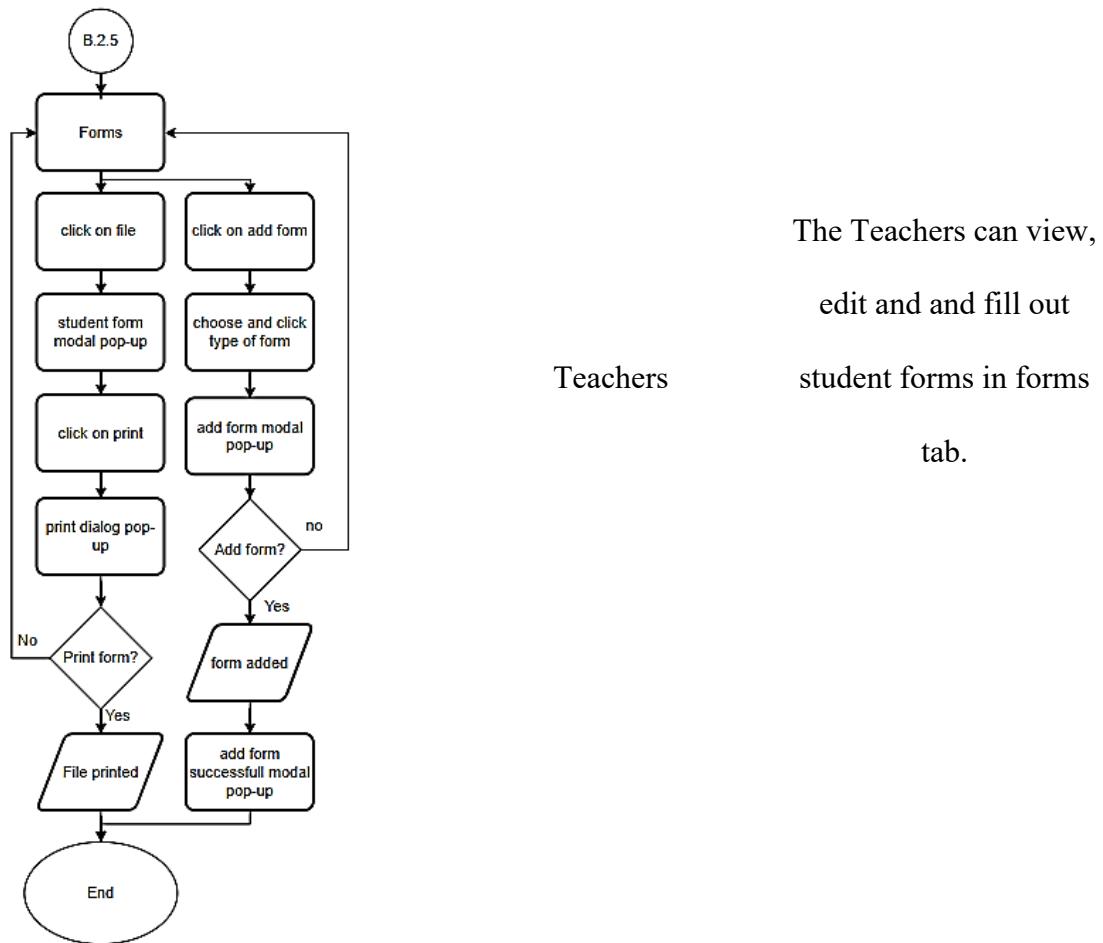
#### Description



**Figure 20.** The figure above shows process flow of student files tab in teachers account .This image summarize what functions teachers can do in student files tab.

### The Student Forms tab Process Teachers Account

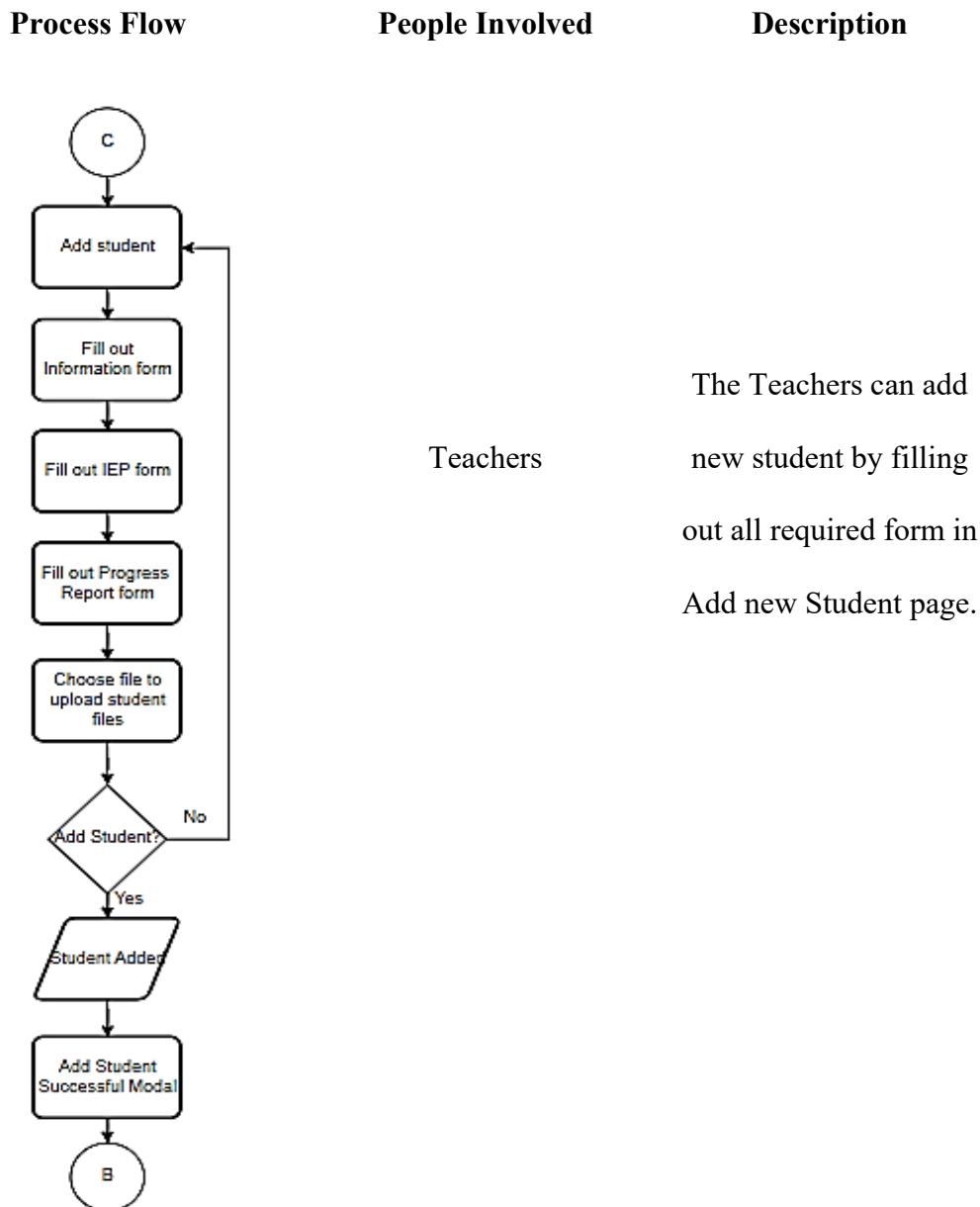
Process Flow	People Involved	Description
--------------	-----------------	-------------



**Figure 20.** The figure above shows process flow of Forms tab in teachers account.

This image summarizes what functions teachers can do in forms tab.

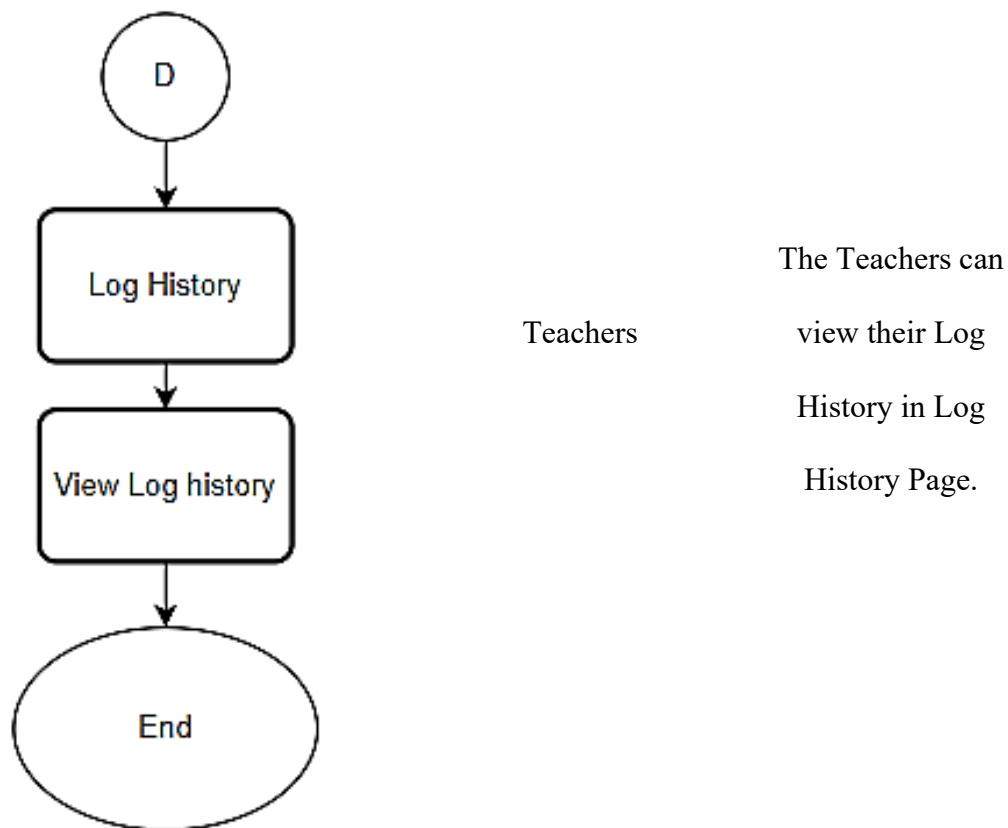
### The Student Forms tab Process Teachers Account



**Figure 20.** The figure above shows process flow of adding new student in teachers account. This image summarizes what functions teachers can do in Add Student page.

#### The Log History Process Teachers Account

Process Flow	People Involved	Description
--------------	-----------------	-------------

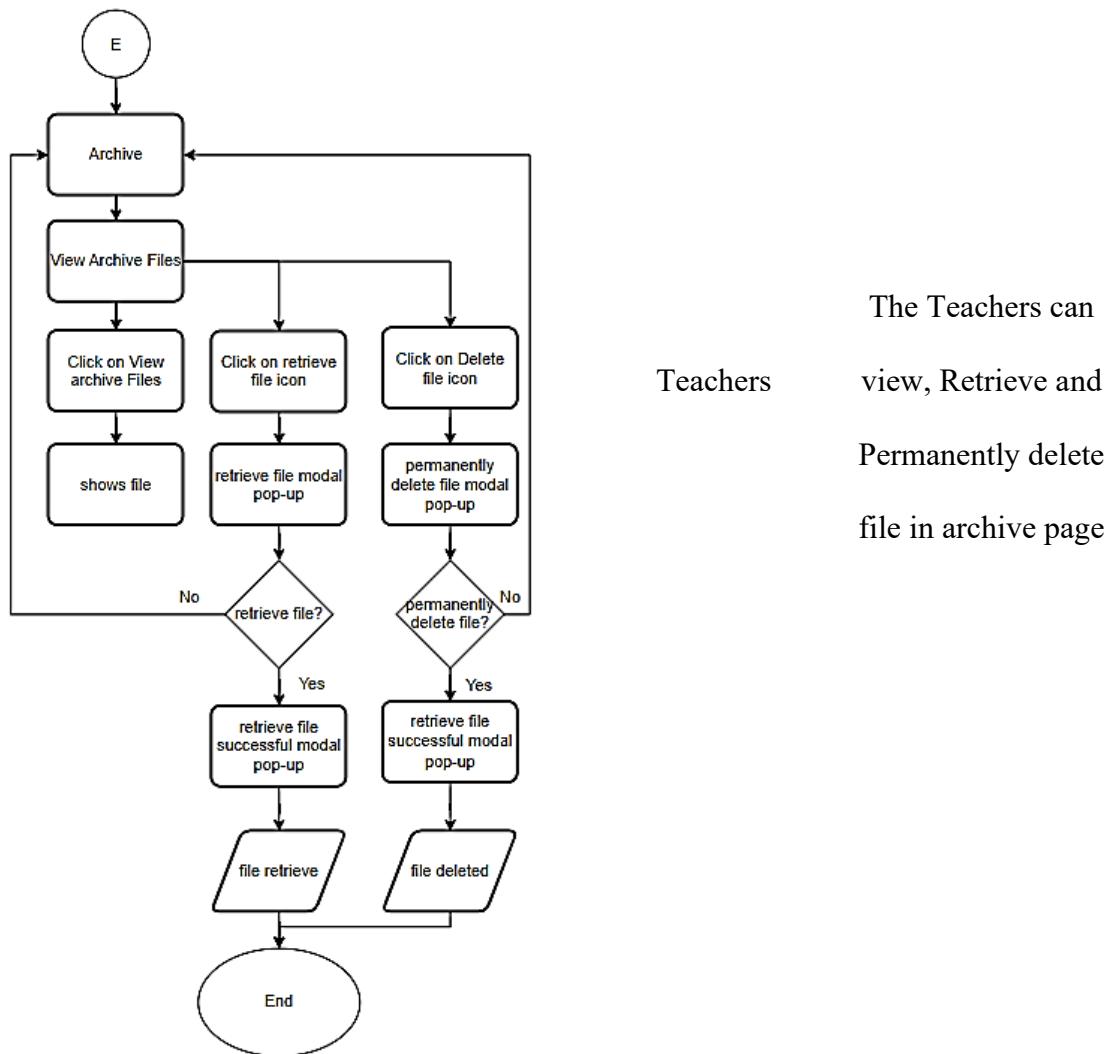


**Figure 20.** The figure above shows process flow of Log History in teachers account.

This image summarizes what functions teachers can do in Log History page.

### The Archive Process Teachers Account

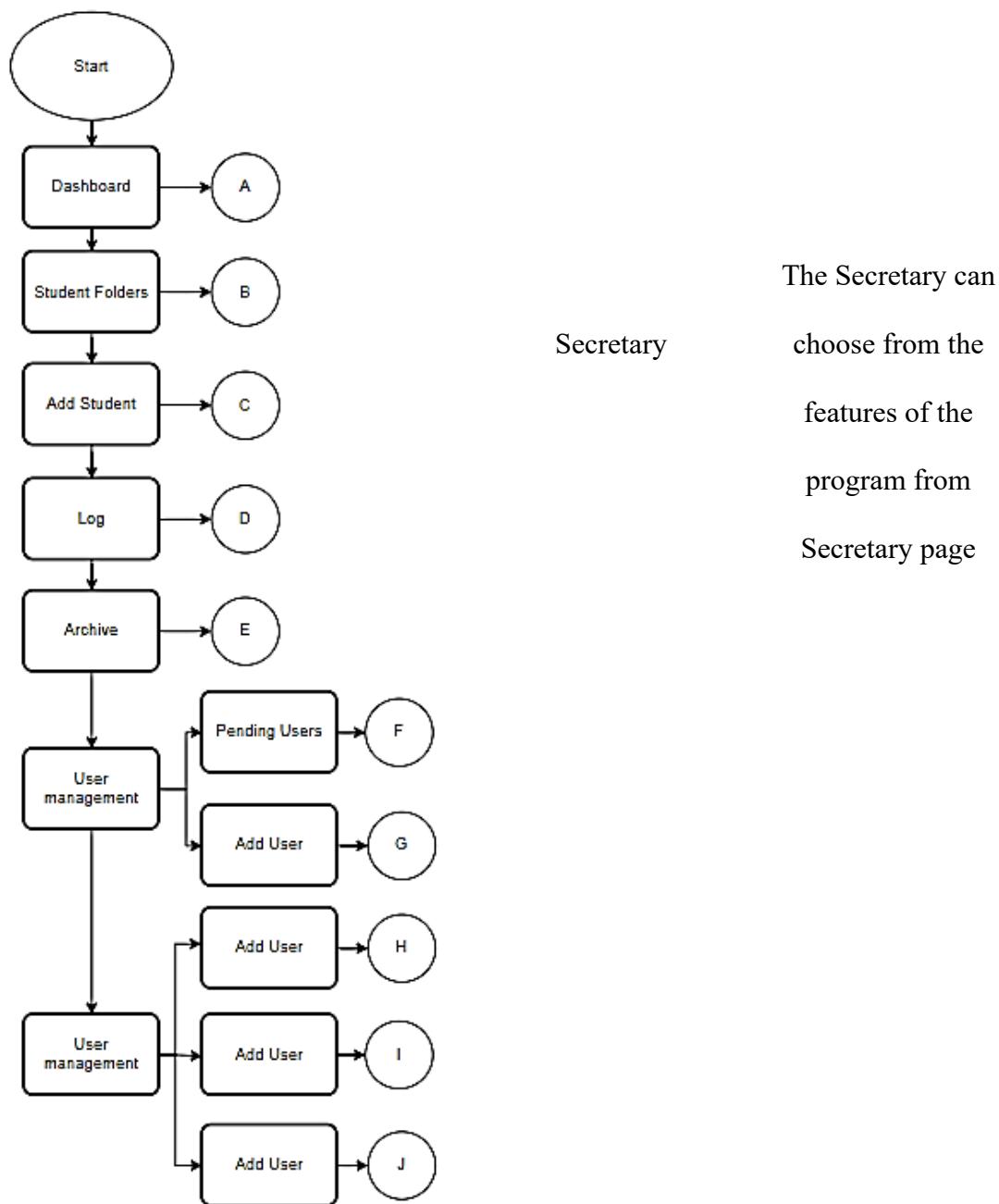
Process Flow	People Involved	Description
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**Figure 20.** The figure above shows process flow of Archive in teachers account. This image summarizes what functions teachers can do in Archive page.

### The Home Page Secretary Account

Process Flow	People Involved	Description
--------------	-----------------	-------------

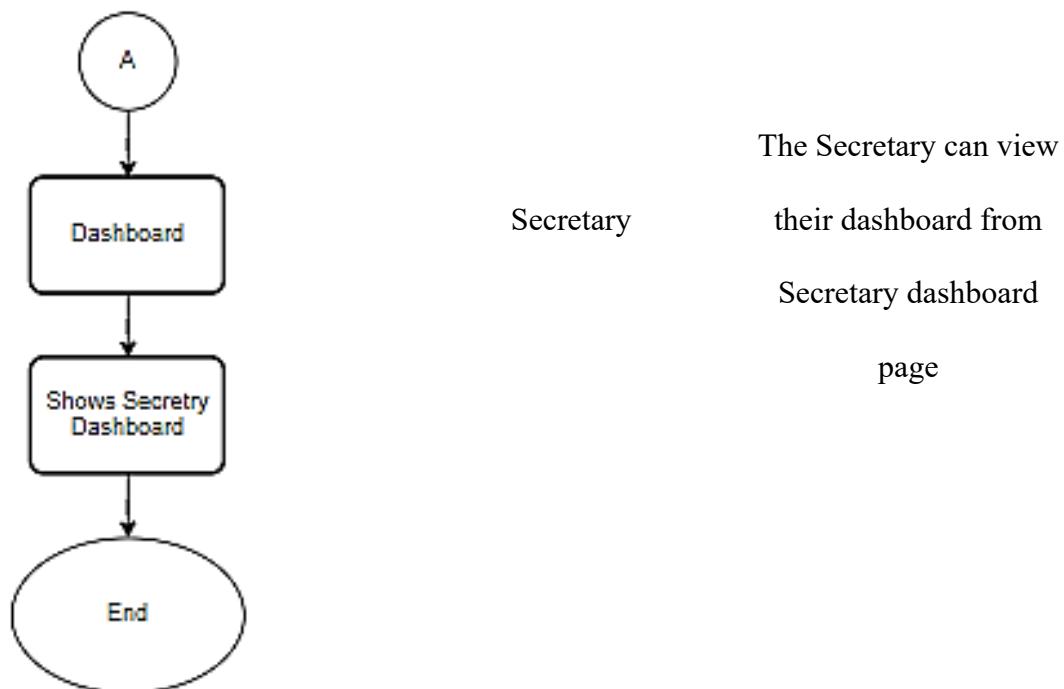


**Figure 20.** This shows how the Secretary can choose from a variety of processes

Once they have logged into the system. Each menu option has its own Possess equivalents.

### The Dashboard Secretary Account

Process Flow	People Involved	Description
--------------	-----------------	-------------

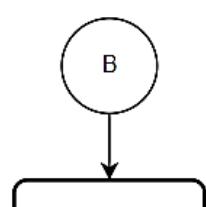


**Figure 20.** The figure above shows process flow of Dashboard in secretary account.

This image summarizes what functions secretary can do in Dashboard page.

### The Student Folders Secretary Account

Process Flow	People Involved	Description
--------------	-----------------	-------------

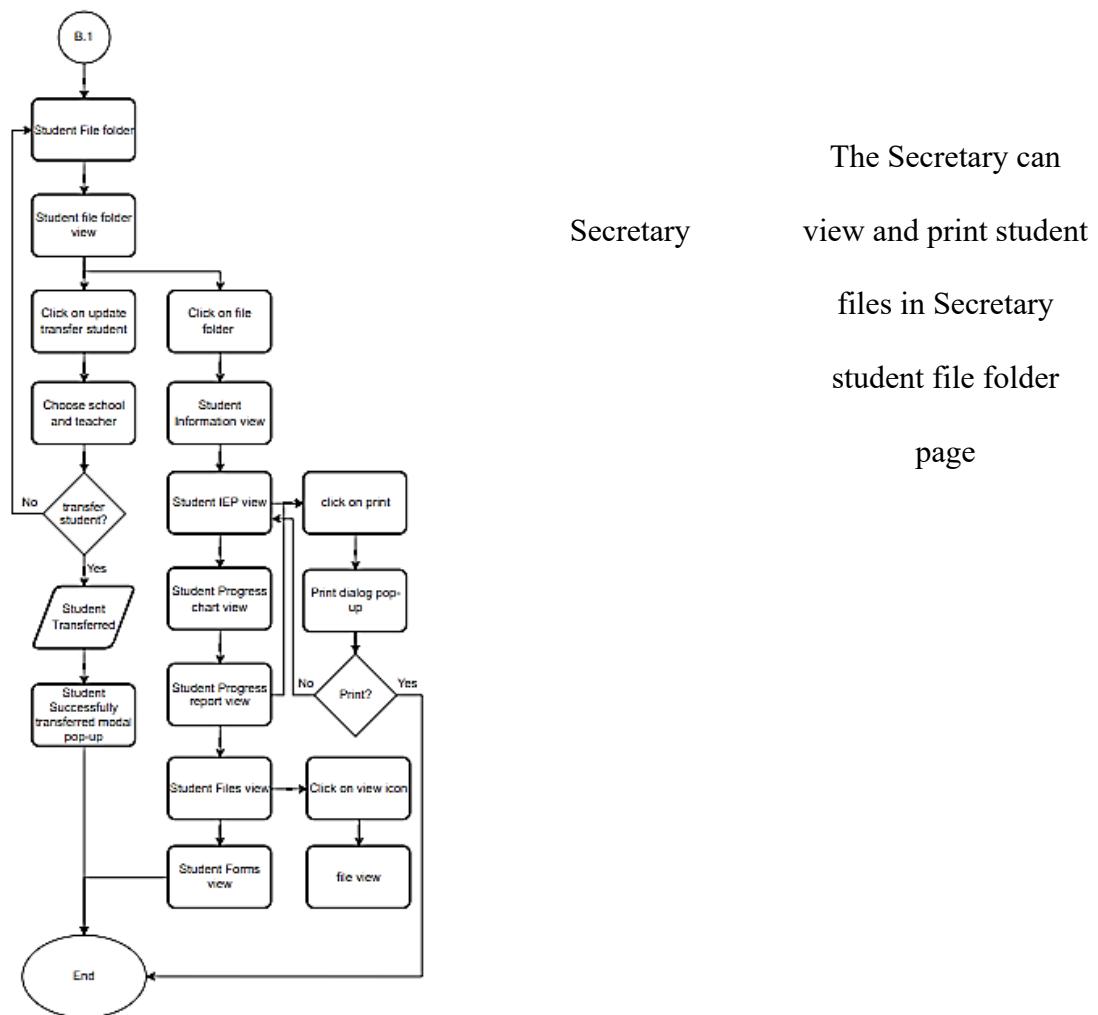


The Secretary can view  
Secretary student folders in  
Secretary student folders  
page

**Figure 20.** The figure above shows process flow of Student folders in secretary account. This image summarizes what functions secretary can do in Student folders page.

### The Student File Folders Secretary Account

Process Flow	People Involved	Description
--------------	-----------------	-------------



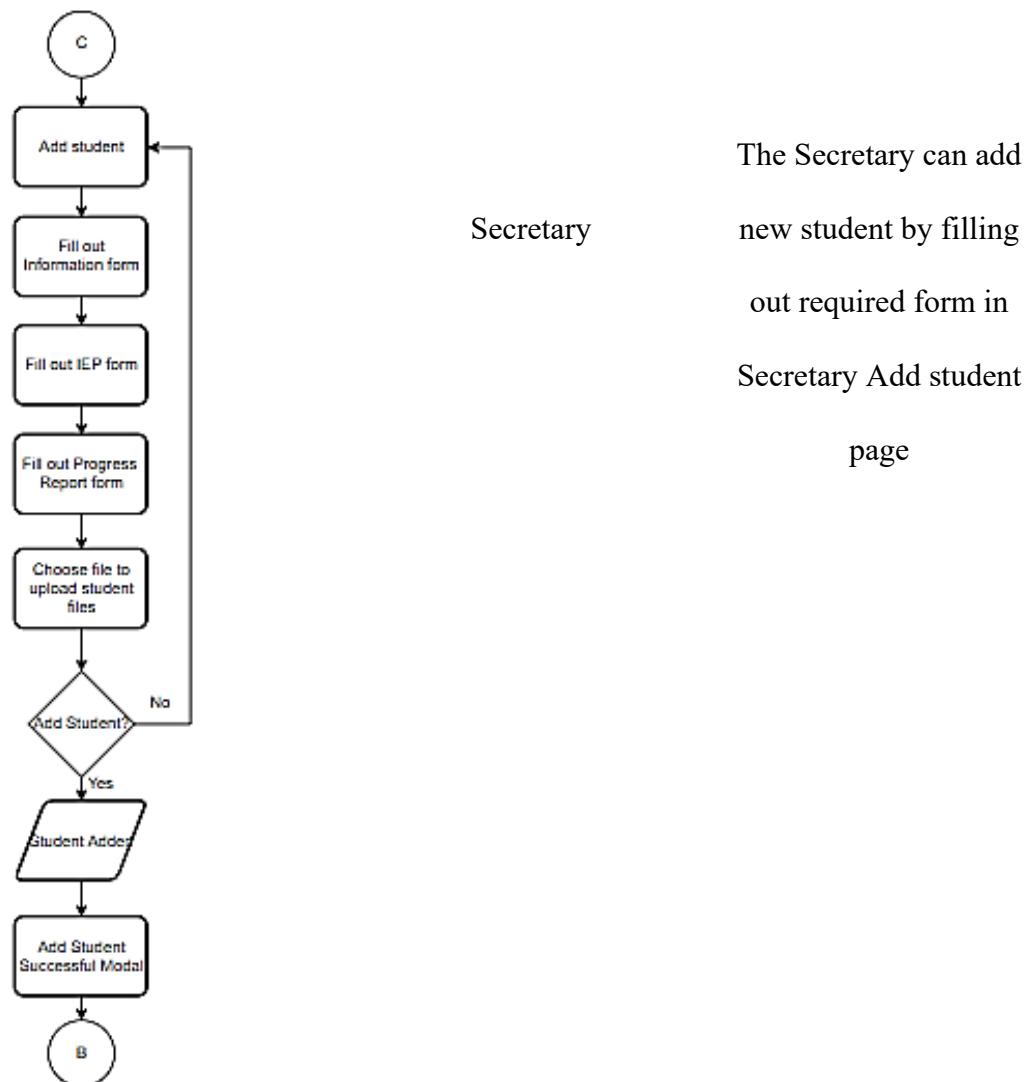
**Figure 20.** The figure above shows process flow of Student file folders in secretary account. This image summarizes what functions secretary can do in Student file folder page.

### The Add Student Secretary Account

#### Process Flow

#### People Involved

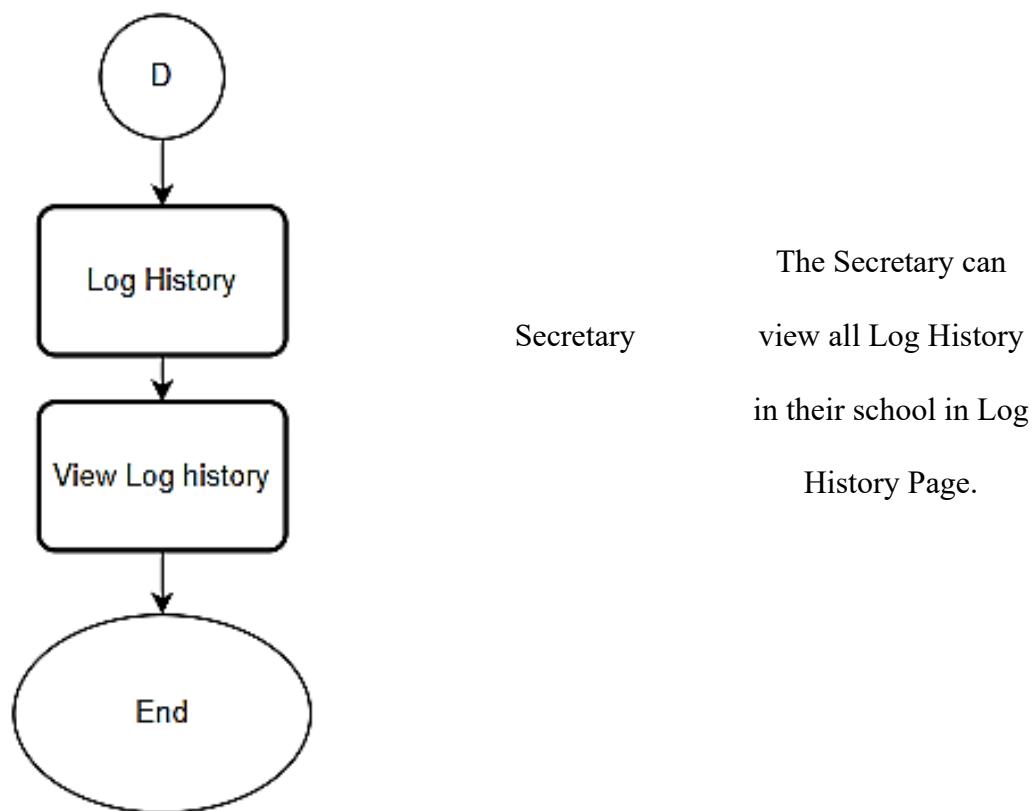
#### Description



**Figure 20.** The figure above shows process flow of Student file folders in secretary account. This image summarizes what functions secretary can do in Student file folder page.

### The Log History Process Secretary Account

Process Flow	People Involved	Description
--------------	-----------------	-------------

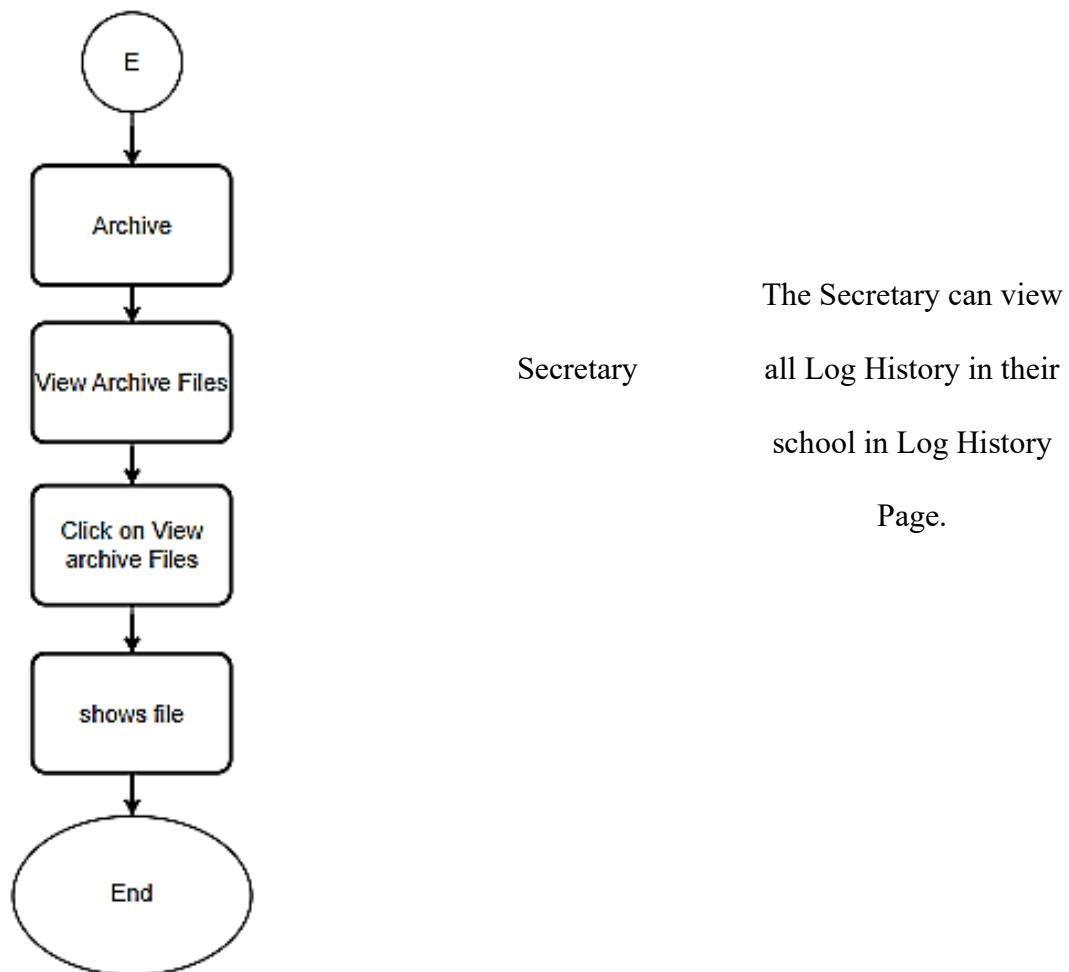


**Figure 20.** The figure above shows process flow of Log History in Secretary account.

This image summarizes what functions Secretary can do in Log History page.

### The Log History Process Secretary Account

Process Flow	People Involved	Description
--------------	-----------------	-------------

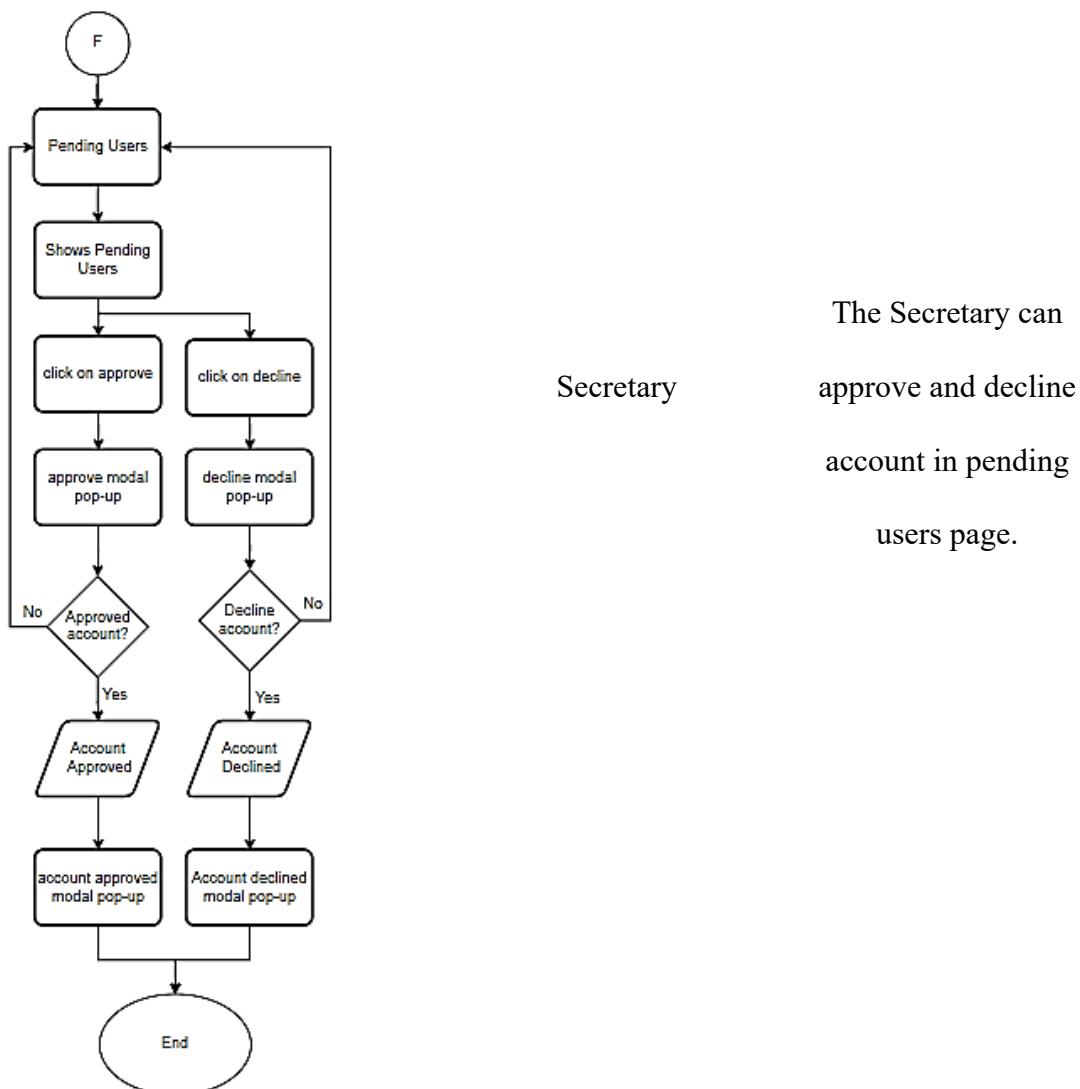


**Figure 20.** The figure above shows process flow of Log History in Secretary Account.

This image summarizes what functions Secretary can do in Log History page.

### The Pending Users Process Secretary Account

Process Flow	People Involved	Description
--------------	-----------------	-------------



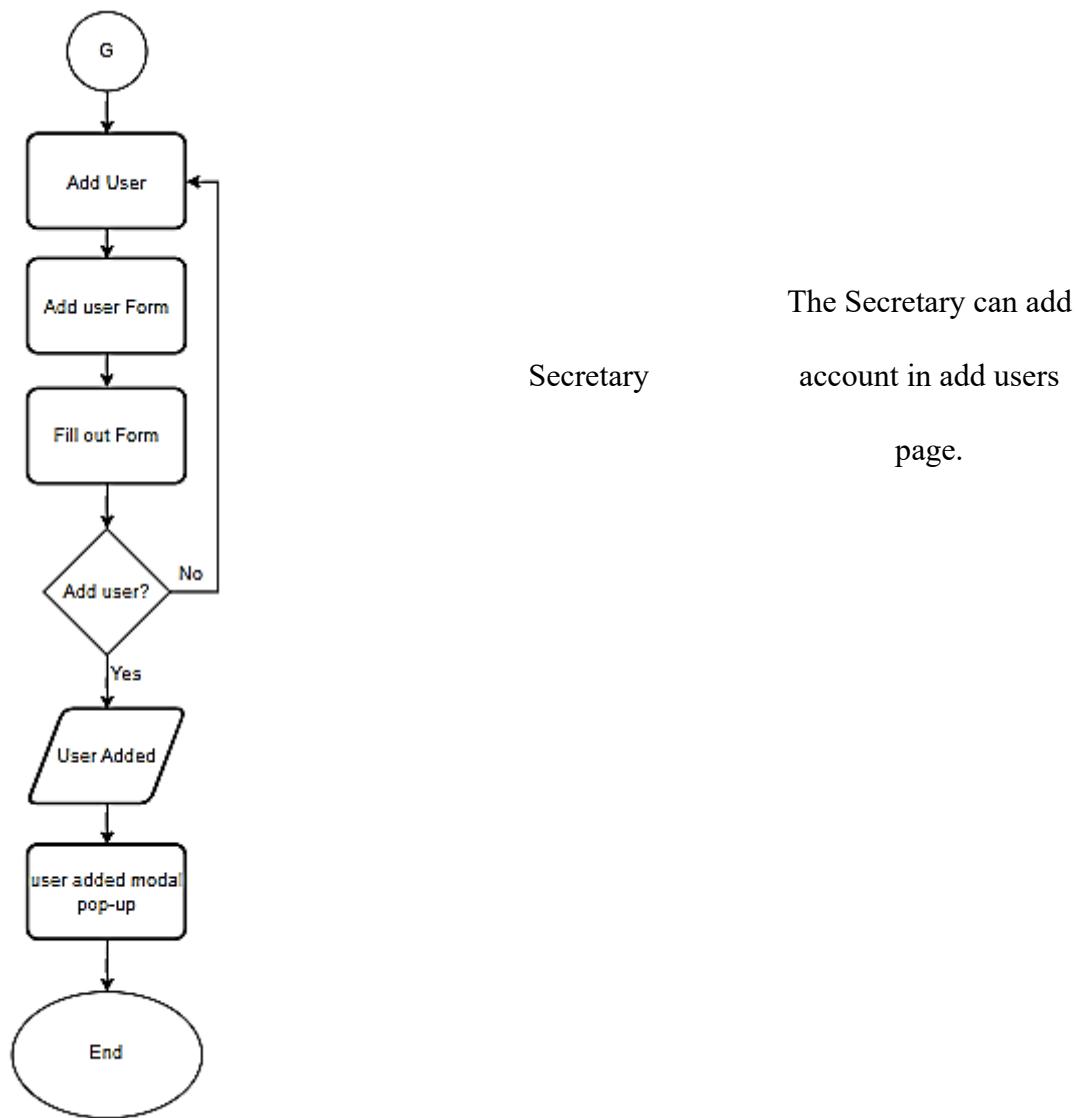
**Figure 20.** The figure above shows process flow of Pending users in Secretary Account. This image summarizes what functions Secretary can do in Pending users page.

### The Add user Process Secretary Account

Process Flow

People Involved

Description

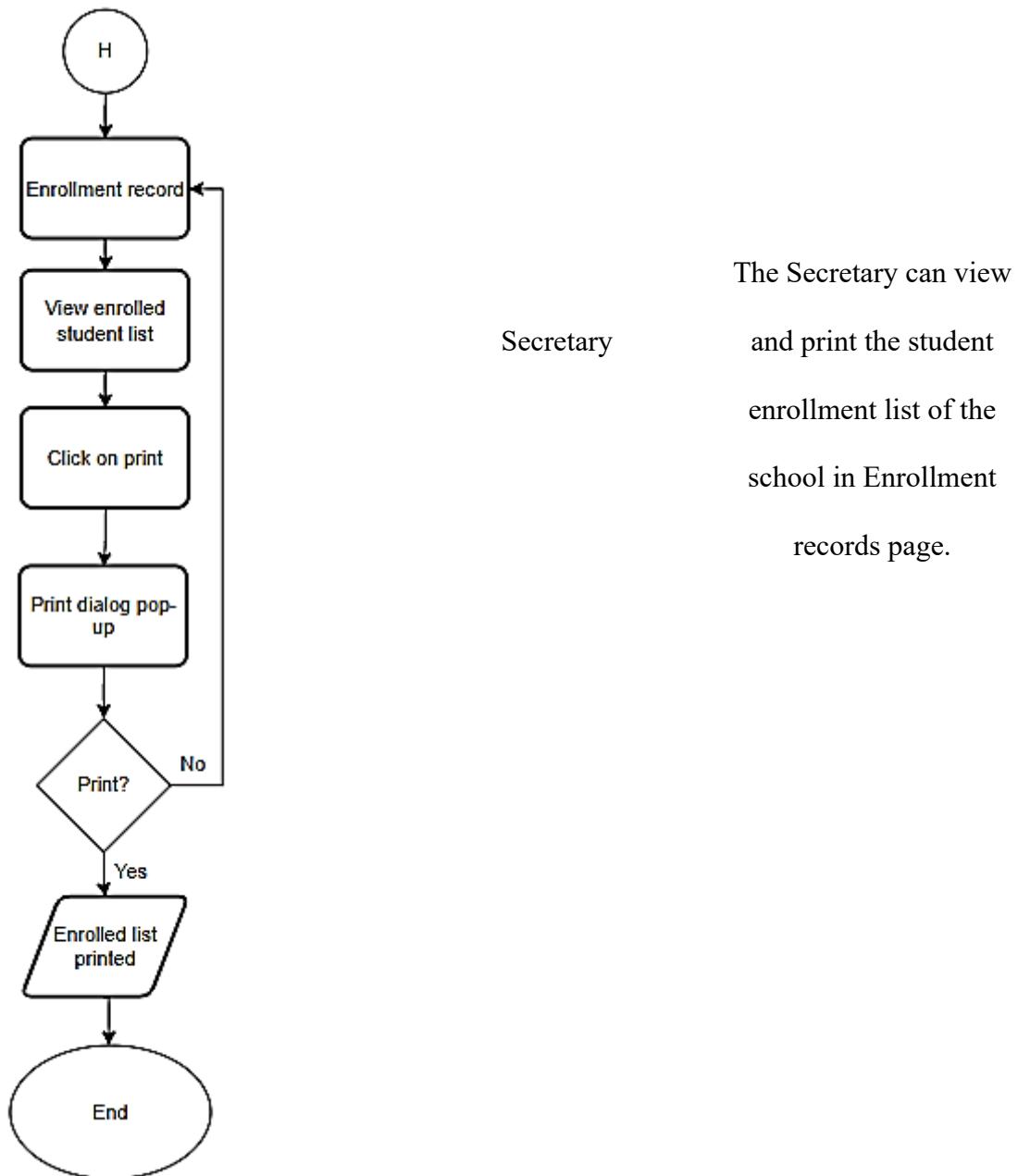


**Figure 20.** The figure above shows process flow of Add user in Secretary Account.

This image summarizes what functions Secretary can do in Add user page.

### The Add user Process Secretary Account

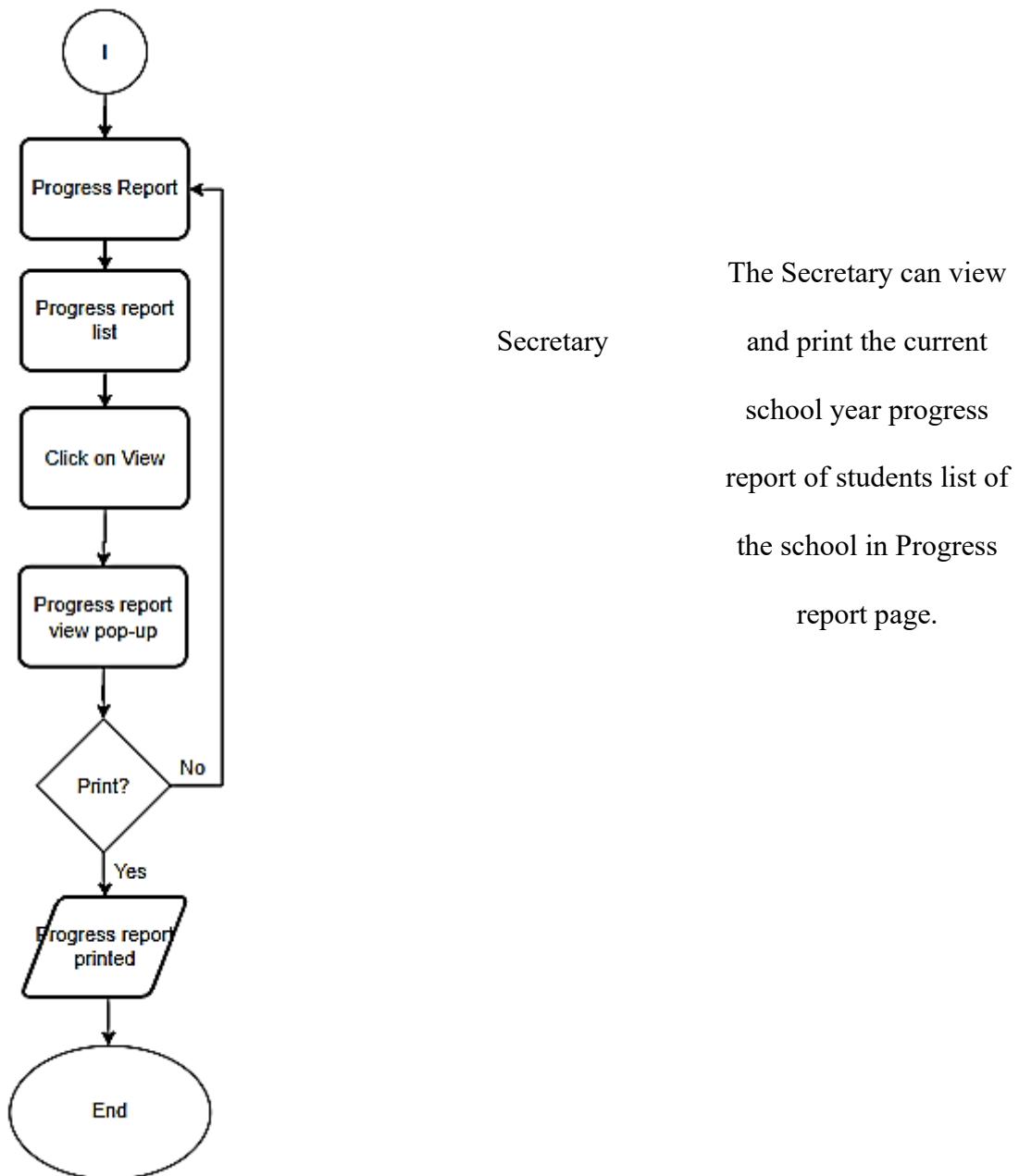
Process Flow	People Involved	Description
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**Figure 20.** The figure above shows process flow of Enrollment records in Secretary Account. This image summarizes what functions Secretary can do in Enrollment records page.

#### The Add user Process Secretary Account

Process Flow	People Involved	Description
--------------	-----------------	-------------



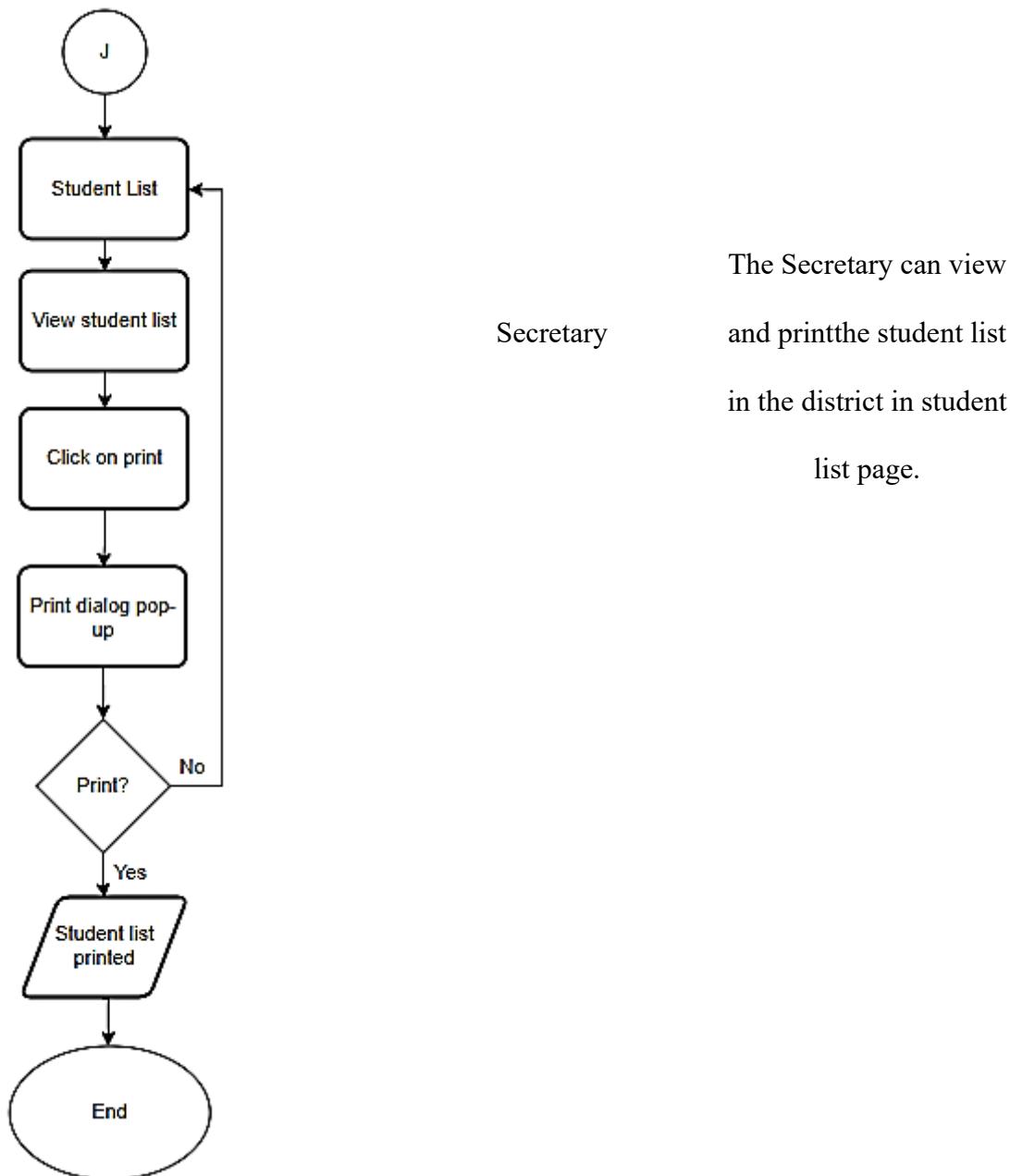
**Figure 20.** The figure above shows process flow of Progress reports page in Secretary Account. This image summarizes what functions Secretary can do in Progress reports page.

#### The Add user Process Secretary Account

##### Process Flow

##### People Involved

##### Description

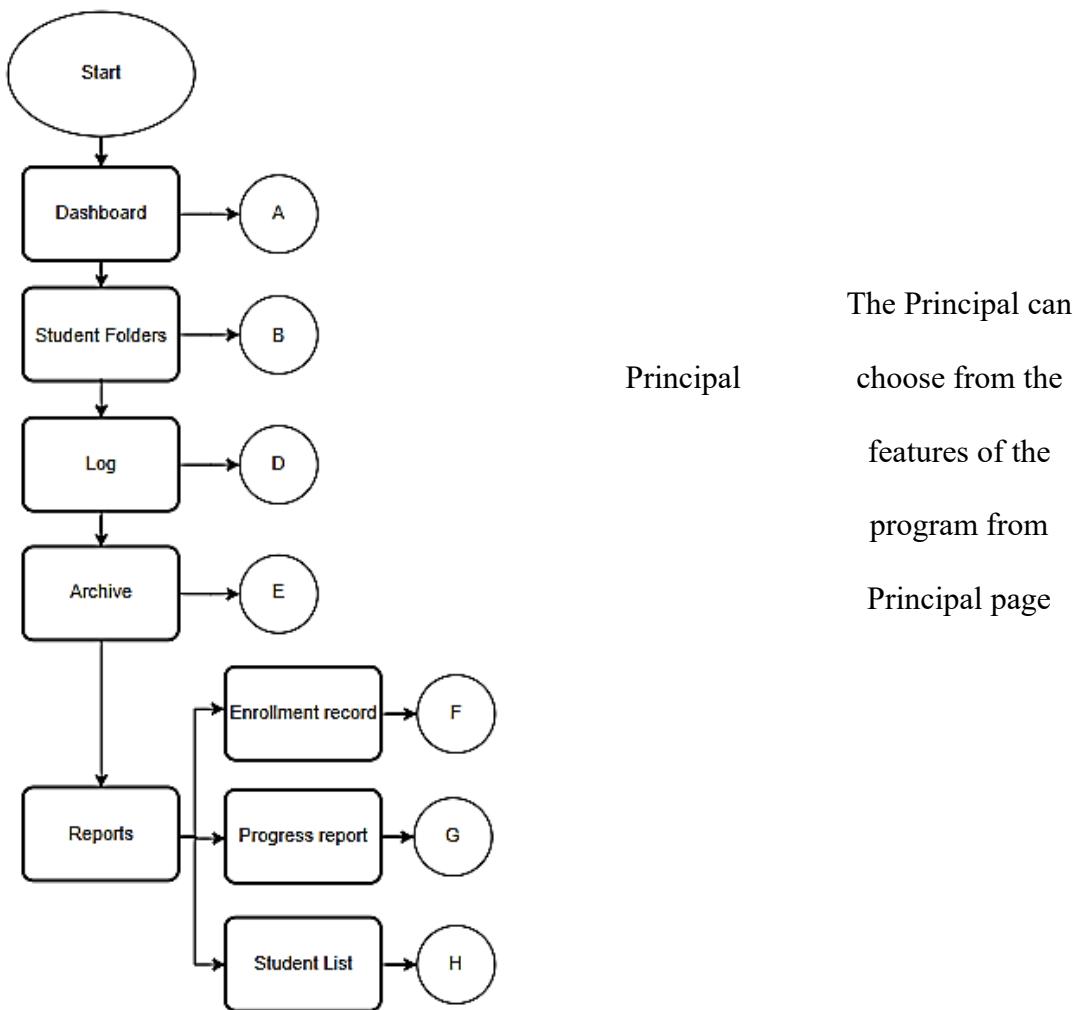


**Figure 20.** The figure above shows process flow of Student list in Secretary Account.

This image summarizes what functions Secretary can do in Student list page.

#### The Home Page Principal Account

Process Flow	People Involved	Description
--------------	-----------------	-------------

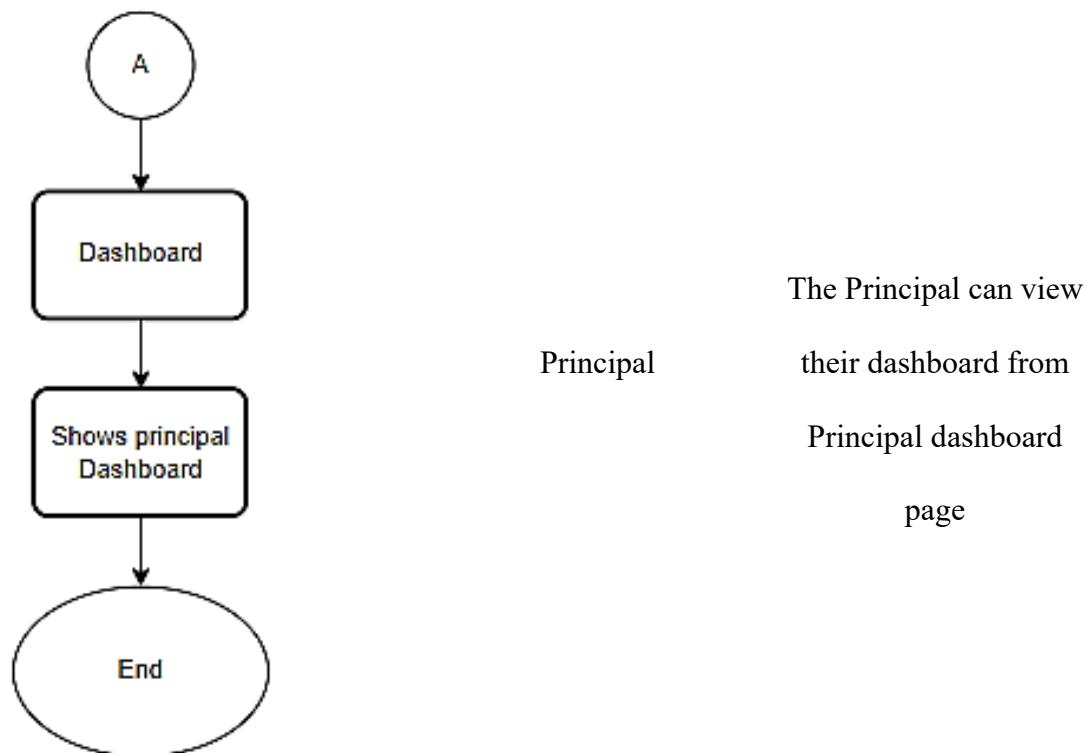


**Figure 20.** This shows how the Principal can choose from a variety of processes

Once they have logged into the system. Each menu option has its own Possess equivalents.

### The Dashboard Principal Account

Process Flow	People Involved	Description
--------------	-----------------	-------------

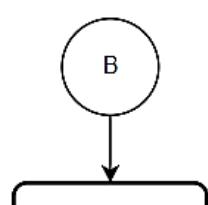


**Figure 20.** The figure above shows process flow of Dashboard in secretary account.

This image summarizes what functions secretary can do in Dashboard page.

### The Student Folders Principal Account

Process Flow	People Involved	Description
--------------	-----------------	-------------

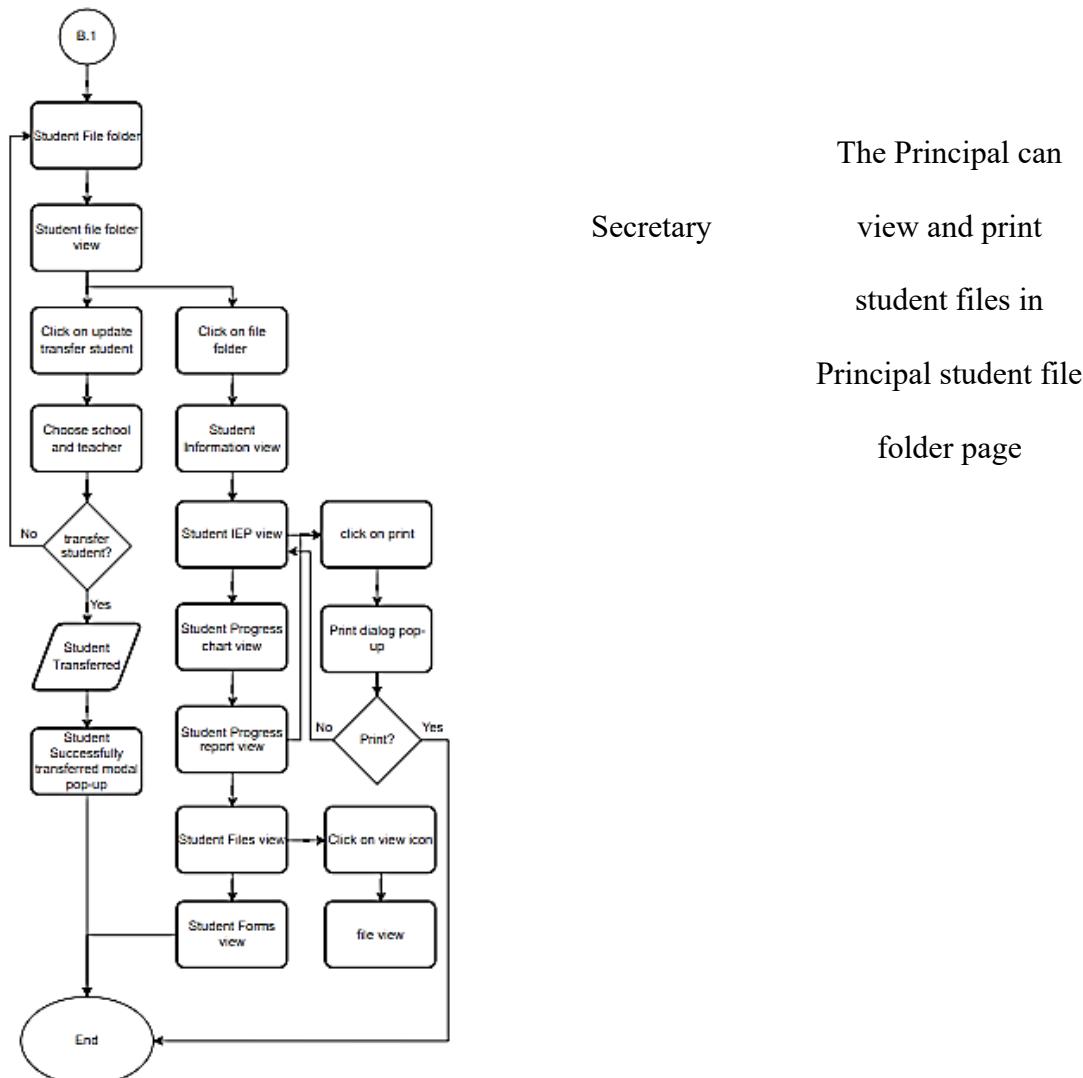


The Principal can view  
Secretary student folders in  
Principal student folders  
page

**Figure 20.** The figure above shows process flow of Student folders in Principal account. This image summarizes what functions Principal can do in Student folders page.

### The Student File Folders Principal Account

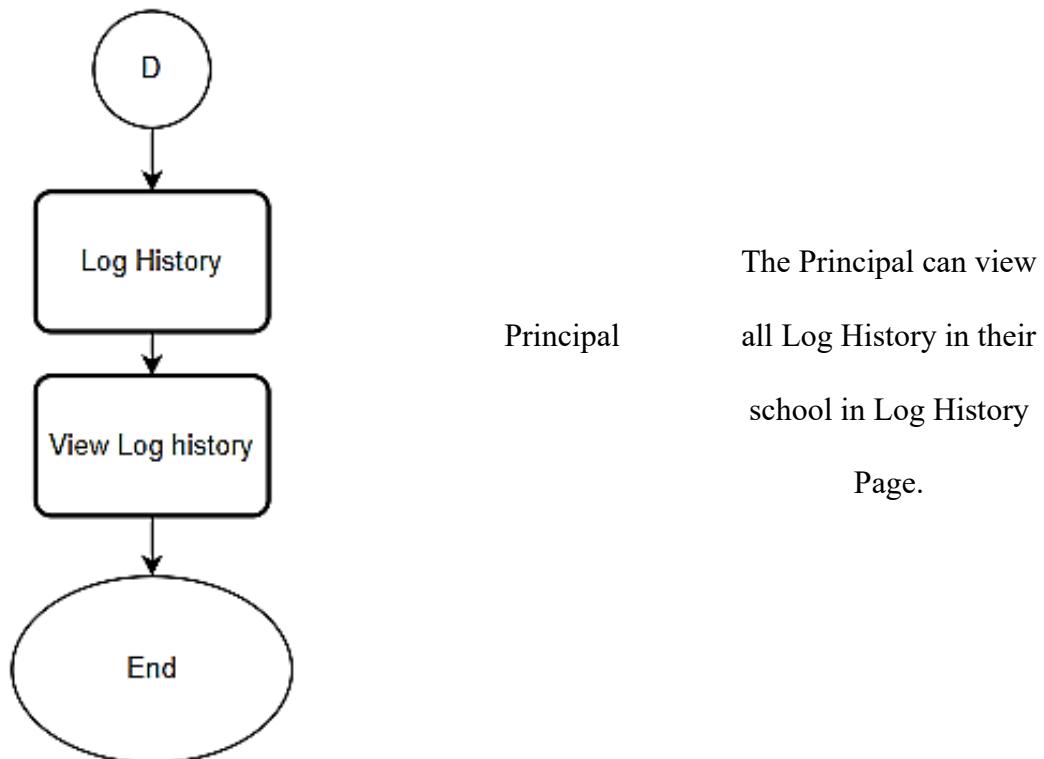
Process Flow	People Involved	Description
--------------	-----------------	-------------



**Figure 20.** The figure above shows process flow of Student file folders in Principal account. This image summarizes what functions Principal can do in Student file folder page.

### The Log History Process Principal Account

Process Flow	People Involved	Description
--------------	-----------------	-------------

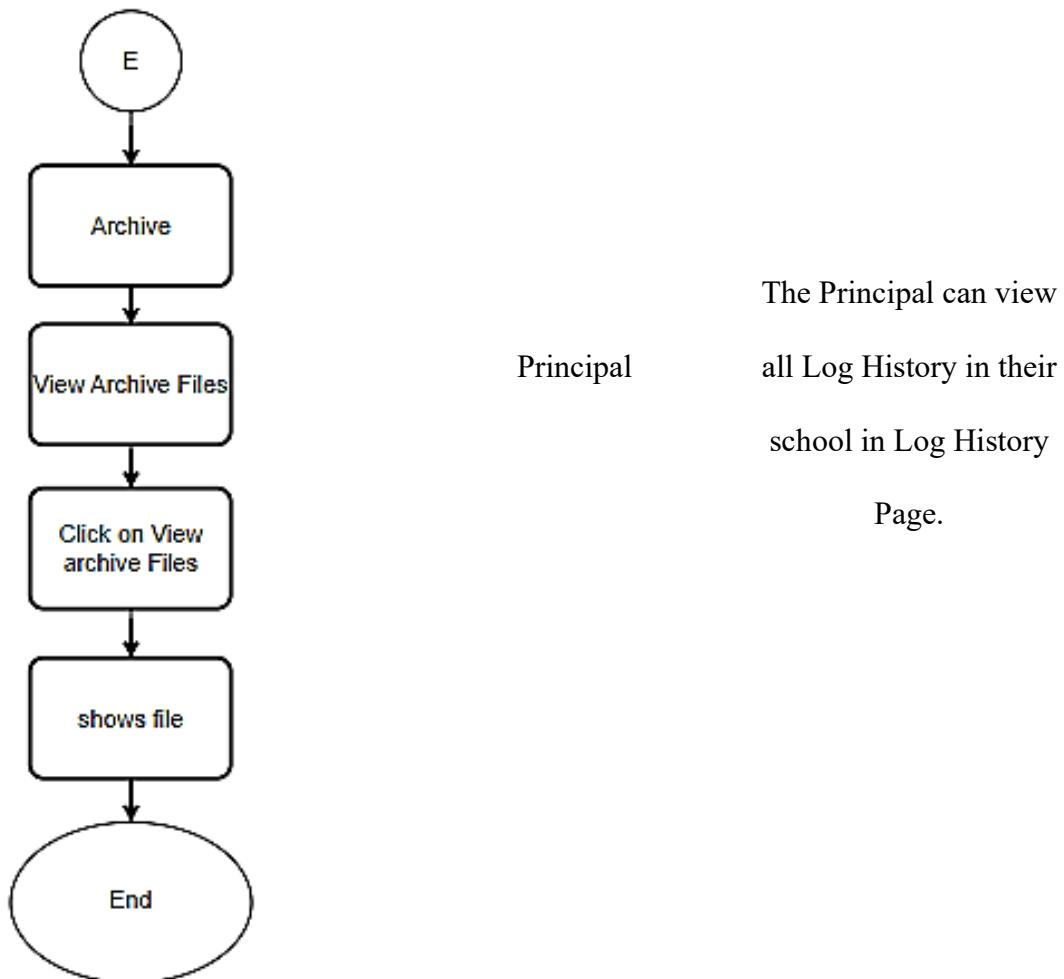


**Figure 20.** The figure above shows process flow of Log History in Principal account.

This image summarizes what functions Principal can do in Log History page.

### The Archive Process Principal Account

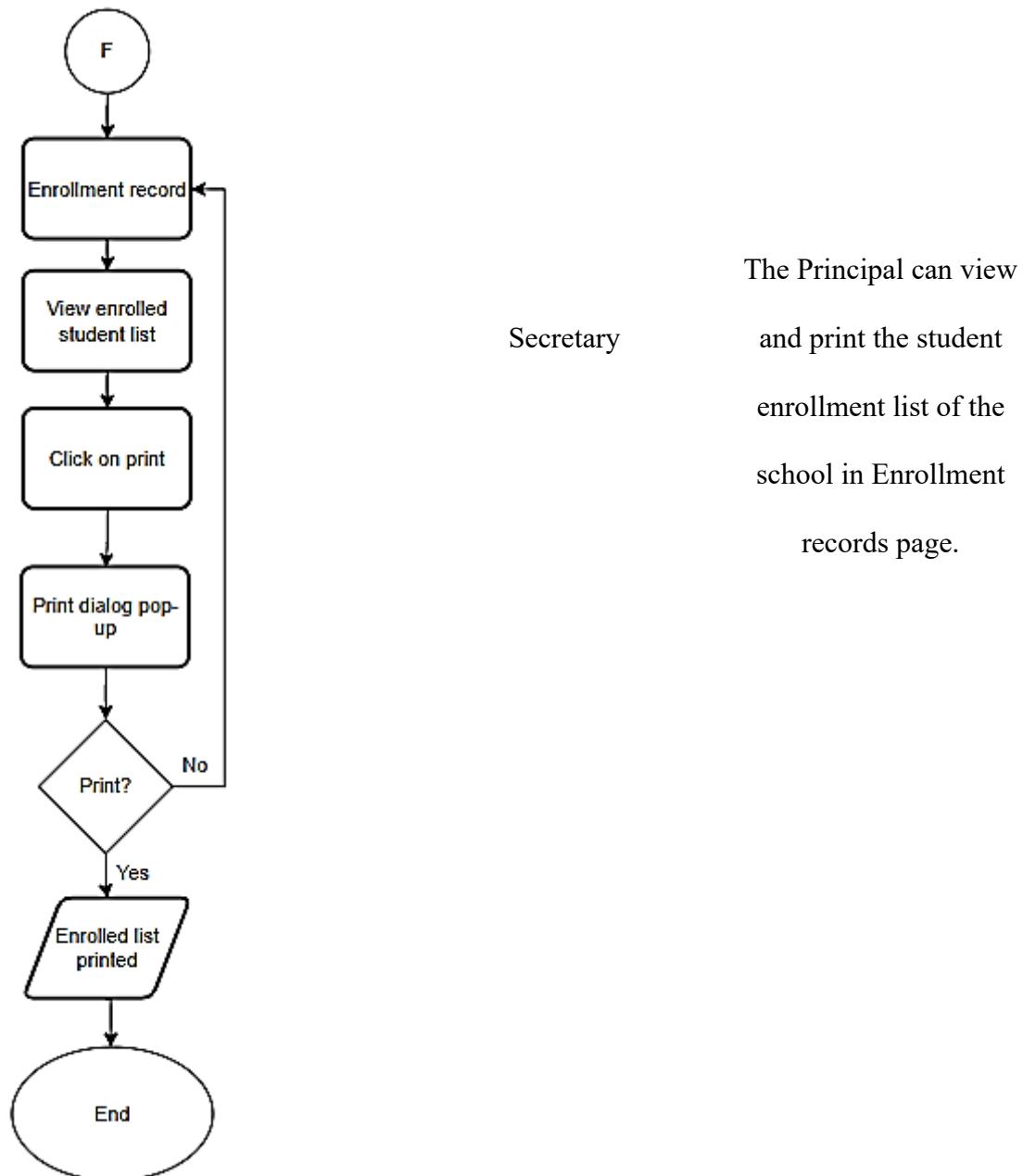
Process Flow	People Involved	Description
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**Figure 20.** The figure above shows process flow of Log History in Principal Account. This image summarizes what functions Principal can do in Log History page.

#### The Enrollment records Process Principal Account

Process Flow	People Involved	Description
--------------	-----------------	-------------



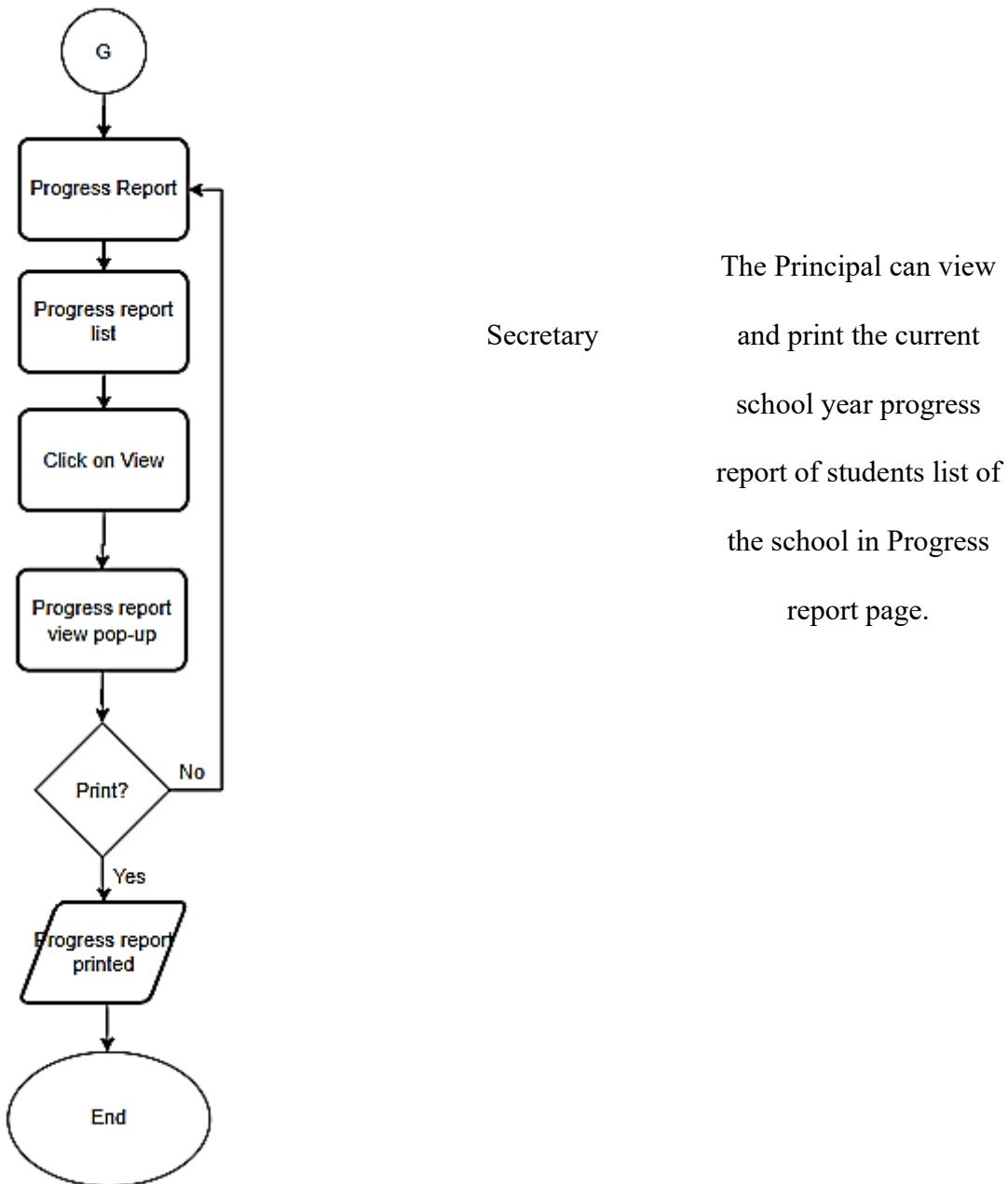
**Figure 20.** The figure above shows process flow of Enrollment records in Principal Account. This image summarizes what functions Principal can do in Enrollment records page.

#### The Progress report Process Principal Account

Process Flow

People Involved

Description



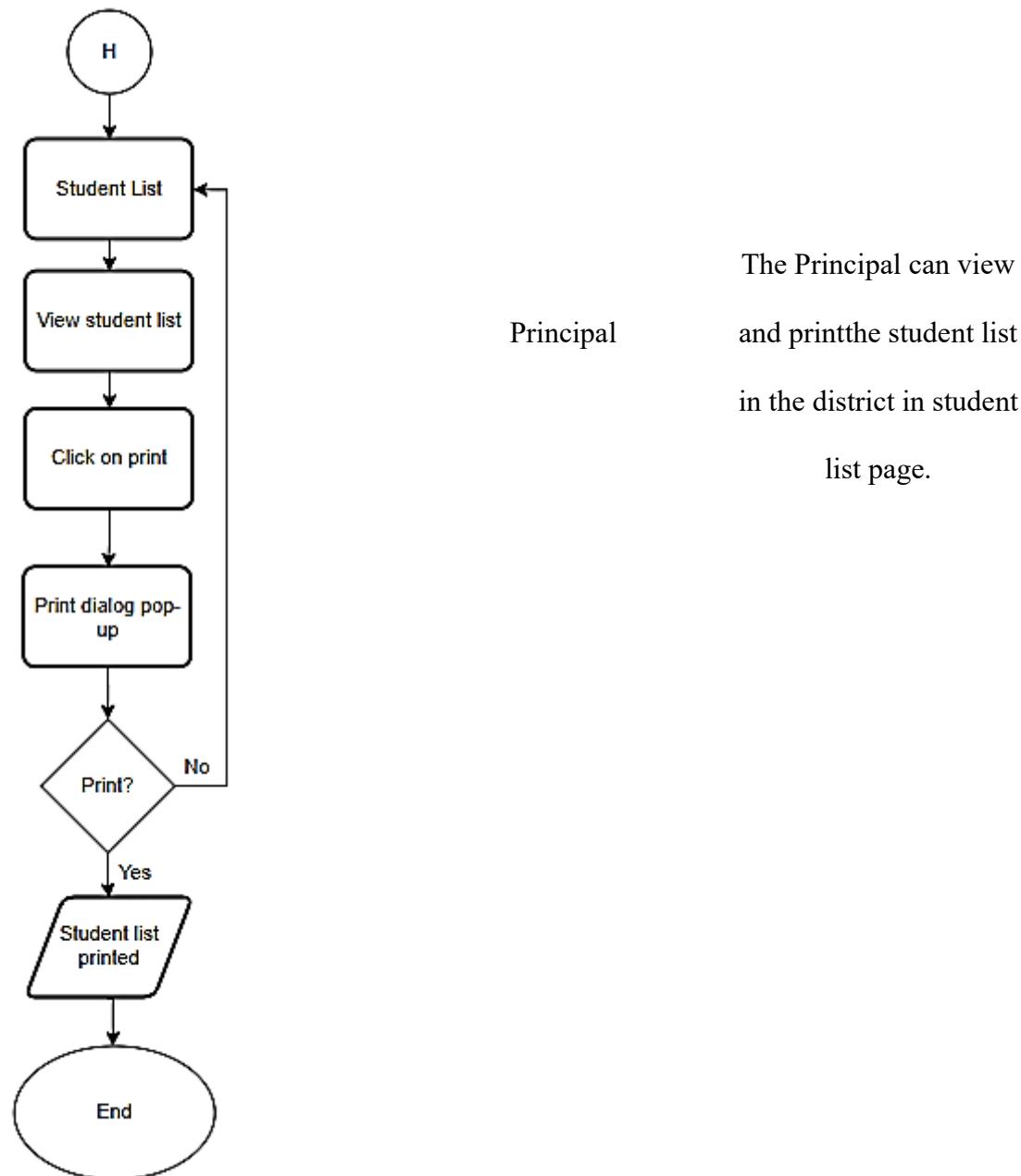
**Figure 20.** The figure above shows process flow of Progress reports page in Principal Account. This image summarizes what functions Principal can do in Progress reports page.

#### The Student List Process Principal Account

##### Process Flow

##### People Involved

##### Description



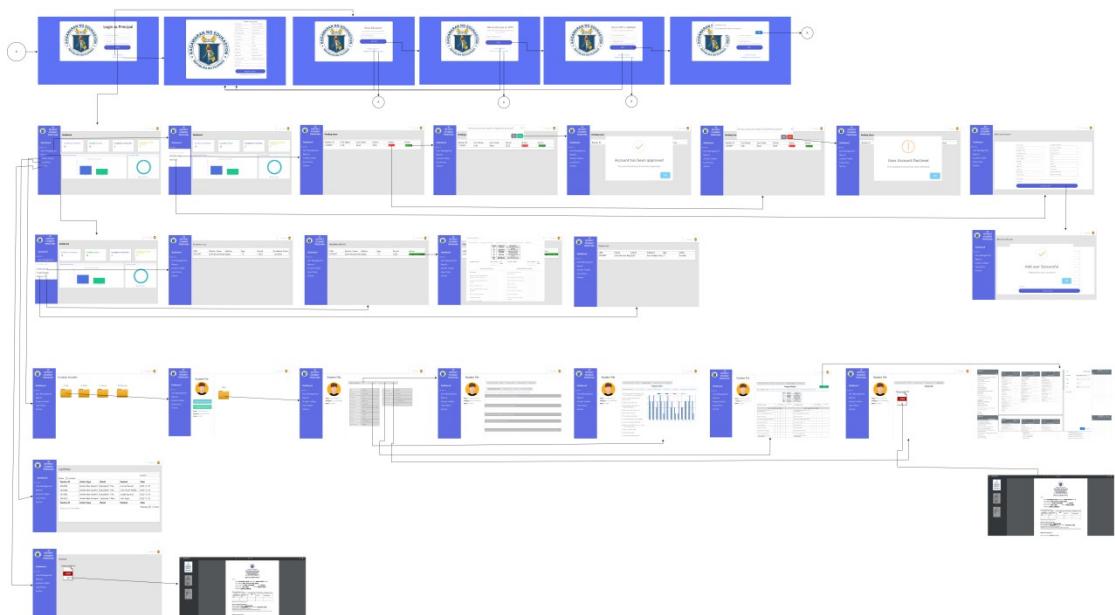
**Figure 20.** The figure above shows process flow of Student list in Principal Account.

This image summarizes what functions Principal can do in Student list page.

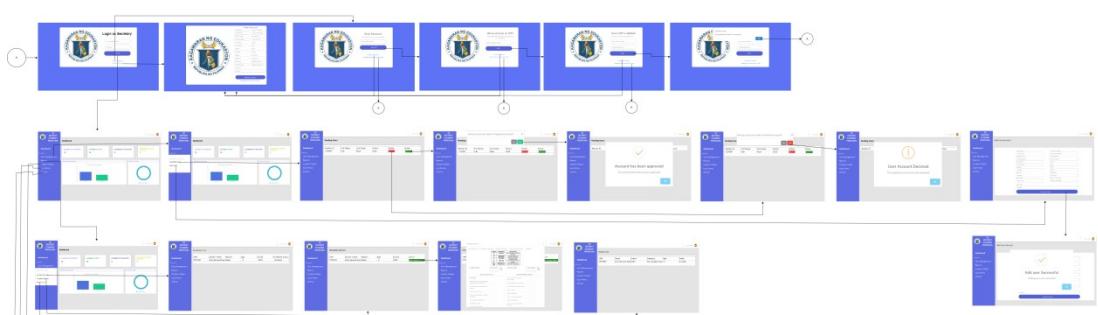
### Storyboard (Teachers)



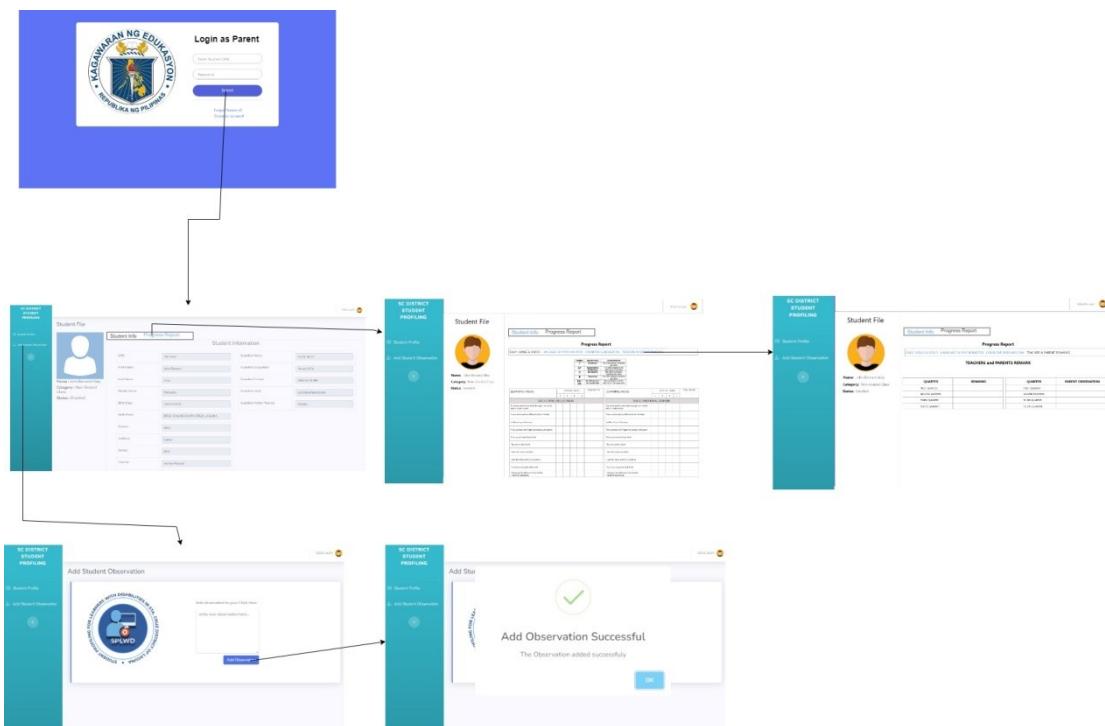
### Storyboard (Principal)



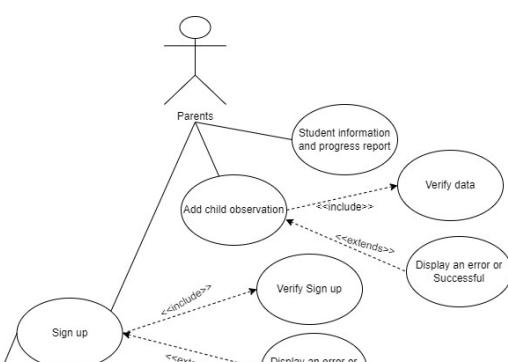
### Storyboard (Secretary)



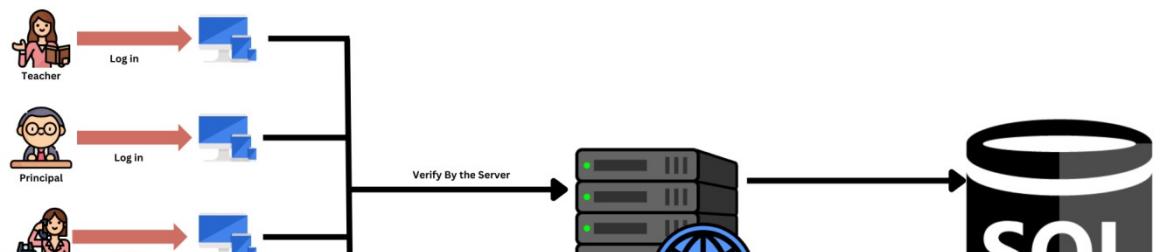
## Storyboard (Parents)



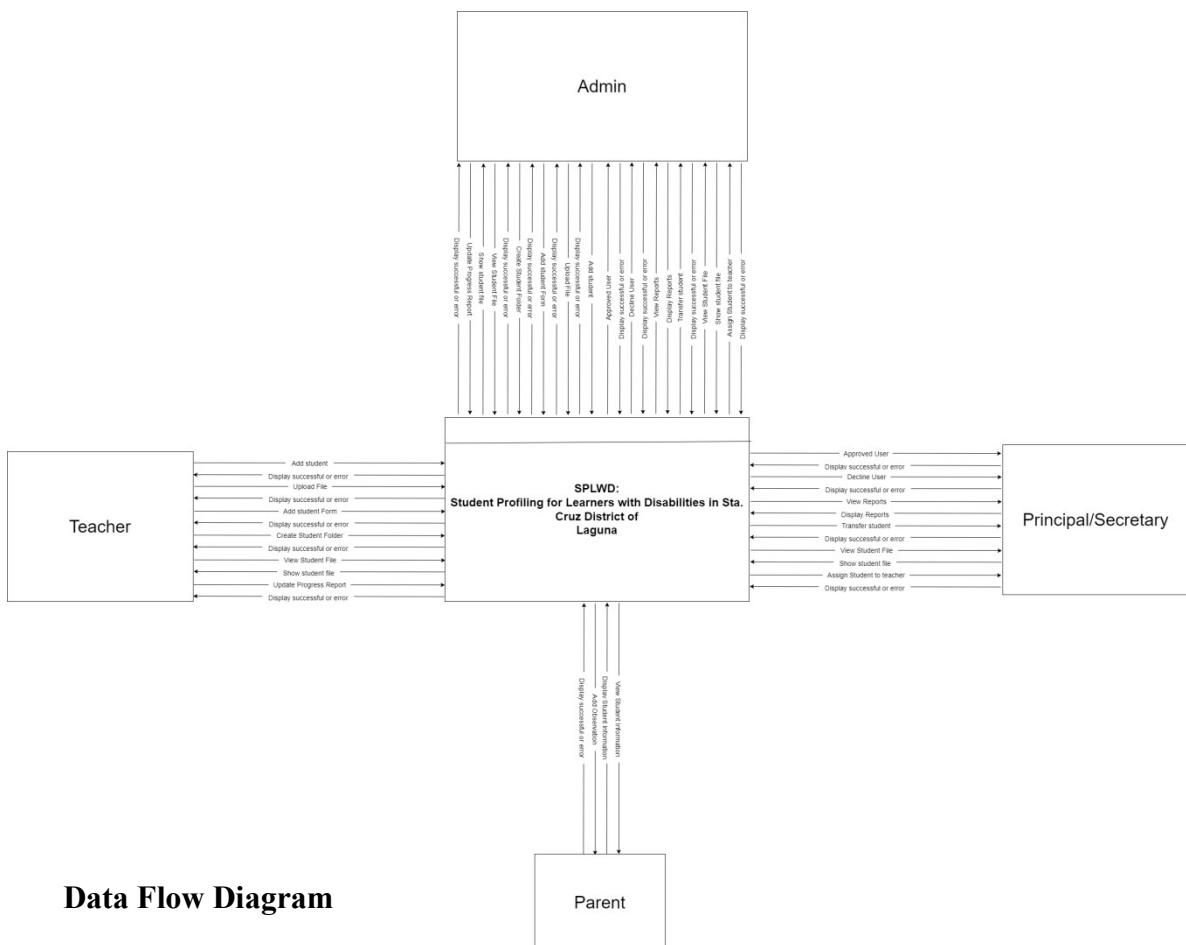
## Proposed Use Case Diagram

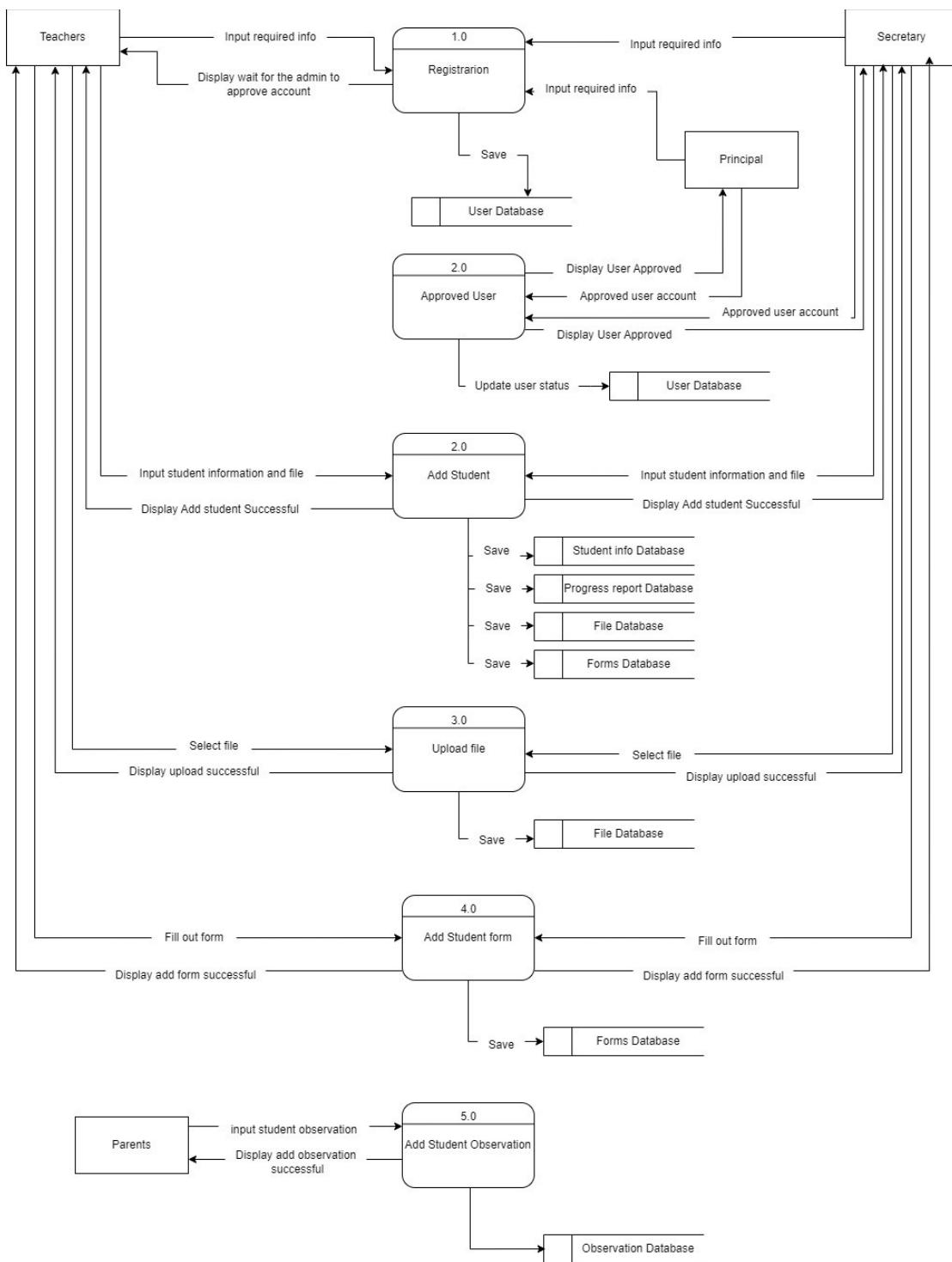


## System Architecture



## System Context Diagram





## Data Dictionary

**Table 29:** Data dictionary for Users

<b>Field Name</b>	<b>Key</b>	<b>Description</b>	<b>Length</b>	<b>Field type</b>
user_id	PK	ID of users Teachers	11 7	INT
teacher_id	FK	Employee number		
fname		First name of user	50	VARCHAR
mname		Middle name of user	50	VARCHAR
lname		Last name of user	50	VARCHAR
contact_no		Contact number of user	15	VARCHAR
gender		Gender of the user	6	VARCHAR
address		Address of user	255	VARCHAR
birth_date		Birth date of the user	255	DATE
image		photo of user	255	VARCHAR
category		Category of user	1	INT
status		Status of user registration	20	VARCHAR
email		Password of user	100	VARCHAR
password		Signature of the user	150	VARCHAR

**Table 30.** Data dictionary for User Types

<b>Field Name</b>	<b>Key</b>	<b>Description</b>	<b>Length</b>	<b>Field type</b>
ut_id	PK	User type ID	11	INT
user_type	FK	User type name	50	VARCHAR

The table above shows the table for user type, this is to identify what kind of user is a user based on its ID.

**Table 31.** Data dictionary for Students

Field Name	Key	Description	Length	Field type
student_id	PK	ID of student	11	INT
lrn	FK	lrn of student	7	INT
fname		First name of student	50	VARCHAR
mname		Middle name of user	50	VARCHAR
lname		Last name of student	50	VARCHAR
contact_no		Guardian contact number of student	15	VARCHAR
gender		Gender of the student	6	VARCHAR
address		Address of student	255	VARCHAR
birth_date		Birth date of the student	255	DATE
birth_place		Birth place of student	100	VARCHAR
m_tongue		Mother tongue of the student	100	VARCHAR
guardian		Guardian of the student	100	VARCHAR
work		Work of the guardian	100	VARCHAR
email		Email address of the guardian	100	VARCHAR
enroll_status		Enrollment status of student	100	VARCHAR
image		photo of student	255	VARCHAR

**Table 30.** Data dictionary for student category

Field Name	Key	Description	Length	Field type
category_id	PK	User type ID	11	INT
category	FK	User type name	50	VARCHAR

The table above shows the table for student category, this is to identify what category student belongs based on its category.

**Table 32.** Data dictionary for folder

Field Name	Key	Description	Length	Field type
folder_id	PK	ID of the folder	11	INT
lrn	FK	lrn of student	7	INT
folder_year		School year of the	4	int

teacher	FK	Teacher ID of the folder	11	int
date_added		Date when the folder is created		Date

**Table 33.** Data dictionary for IEP difficulty

Field Name	Key	Description	Length	Field type
iep_id	PK	IEP id where difficult belongs	11	INT
lrn	FK	Student LRN	7	INT
teacher_id	FK	Teacher ID	11	
folder_id	FK	Folder ID	2	INT
d_seeing		What type of difficulty student has	2	VARCHAR
d_seeing		What type of difficulty student has	2	VARCHAR
barrier_3		What type of difficulty student has	2	VARCHAR
barrier_4		What type of difficulty student has	2	VARCHAR

**Table 33.** Data dictionary for IEP barriers

Field Name	Key	Description	Length	Field type
barrier_id	PK	ID of users	11	INT
iep_id	FK	IEP id where barrier belongs	11	INT
lrn	FK	Student LRN	7	INT
folder_id	FK	Folder ID	11	INT
barrier_1		What type of	255	VARCHAR

barrier_2	teaching barrier student has What type of teaching barrier	255	VARCHAR
barrier_3	student has What type of teaching barrier	255	VARCHAR
barrier_4	student has What type of teaching barrier student has	255	VARCHAR

**Table 33.** Data dictionary for IEP Functional

Field Name	Key	Description	Length	Field type
functional_id	PK	ID of users	11	INT
iep_id	FK	IEP id where functional belongs	11	INT
lrn	FK	Student LRN	7	INT
folder_id	FK	Folder ID	11	INT
functional_1		Functional performance evaluation	255	VARCHAR
functional_2		Functional performance academic, developmental and/or functional strengths	255	VARCHAR
functional_3		What type of Functional performance academic, developmental and/or functional needs	255	VARCHAR

functional_4	What type of teaching barrier student has Functional performance	255	VARCHAR
functional_5	parental concern Functional performance evaluation	255	VARCHAR
functional_1_2	Functional performance academic, developmental	255	VARCHAR
functional_2_2	and/or functional strengths	255	VARCHAR
functional_3_2	What type of teaching barrier student has Functional performance	255	VARCHAR
functional_4_2	academic, developmental and/or functional strengths	255	VARCHAR
functional_5_2	Functional performance parental concern	255	VARCHAR
functional_1_3	Functional performance evaluation Functional performance academic, developmental	255	VARCHAR
functional_2_3	and/or functional strengths	255	VARCHAR

functional_3_3	What type of teaching barrier student has Functional performance	255	VARCHAR
functional_4_3	academic, developmental and/or functional strengths Functional	255	VARCHAR
functional_5_3	performance parental concern	255	VARCHAR

**Table 35.** Data dictionary for IEP Goals

Field Name	Key	Description	Length	Field type
goal_id	PK	ID of student	11	INT
iep_id	FK	IEP id where goals belongs	11	INT
lrn	FK	Student LRN	2	INT
folder_id	FK	Folder ID	2	INT
interest		Students interest	255	VARCHAR
goal		Teachers goal	255	VARCHAR
Intervention		Teacher intervention	255	VARCHAR
timeline		Students timeline	255	VARCHAR
Individual_responsible		Students individual responsiveness	255	VARCHAR
remarks		Teachers remark	255	VARCHAR
progress		Teachers next step and student progress	255	VARCHAR

**Table 33.** Data dictionary for IEP Functional

<b>Field Name</b>	<b>Key</b>	<b>Description</b>	<b>Length</b>	<b>Field type</b>
special_factor_id	PK	ID of users	11	INT
iep_id	FK	IEP id where team belongs	11	INT
lrn	FK	Student LRN	7	INT
folder_id	FK	Folder ID	2	INT
factor_1		If the student having difficulty relating with people	3	CHAR
factor_2		appropriateness of developing	3	CHAR
factor_3		If the student having difficulty in moving or walking	3	CHAR
factor_4		If the student having difficulty in seeing	3	CHAR
factor_5		If the student having difficulty in communicating	3	CHAR
factor_6		If the student having difficulty in concentrating	3	CHAR
factor_7		If the student having difficulty in hearing	3	CHAR
factor_8_type		Type of special factor	3	CHAR
factor_9		Functional performance academic, developmental and/or functional strengths	3	CHAR

comment_3	Comment If the student having difficulty in moving or walking	255	VARCHAR
comment_4	Comment If the student having difficulty in moving or walking	255	VARCHAR
comment_5	Comment If the student having difficulty in communicating	255	VARCHAR
comment_6	Comment If the student having difficulty in communicating	255	VARCHAR
comment_7	Comment If the student having difficulty in Hearing	255	VARCHAR
comment_8	Comment if the student need assistive tool	255	VARCHAR

**Table 33.** Data dictionary for IEP Team

Field Name	Key	Description	Length	Field type
Iep_team_id	PK	IEP team ID	11	INT
iep_id	FK	IEP id where team belongs	11	INT
lrn	FK	Student LRN	7	INT
folder_id	FK	Folder ID	11	INT
psych		Psychologist who assesst the student	50	VARCHAR
nurse		Nurse present in the assessment	50	VARCHAR

therapist	Therapist present in the assessment	50	VARCHAR
language	Language use during the assessment	100	CHAR
If_18	If student will not be 18 in one year	3	CHAR
distribution	Distribution it either folder or receiving teacher	50	VARCHAR
date	Date of the assessment		DATE
guidance	Guidance councilor present in the assessment	50	VARCHAR
principal	Current principal during the assessment	50	VARCHAR
sp_teacher	Special education teacher	50	VARCHAR

**Table 35.** Data dictionary for IEP Transition

Field Name	Key	Description	Length	Field type
transition_id	PK	ID of student	11	INT
iep_id	FK	IEP id where transition belongs	11	INT
lrn	FK	Student LRN	7	INT
folder_id	FK	Folder ID	11	INT
interest		Students interest	255	VARCHAR
work		Work opportunities	255	VARCHAR
skills		Transition or intervention skills	255	VARCHAR
Individual_respons ible		Students individual responsiveness	255	VARCHAR

remarks	Teachers remark	255	VARCHAR
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**Table 35.** Data dictionary for ILMP

Field Name	Key	Description	Length	Field type
ilmpID	PK	ID of student	11	INT
ilmp_id	FK	IEP id where transition belongs	11	INT
lrn	FK	Student LRN	7	INT
folder_id	FK	Folder ID	11	INT
learning_area		Learning area	255	VARCHAR
learner_need		Learners need	255	VARCHAR
intervention		Student intervention	255	VARCHAR
monitoring_date		Monitoring date of ILMP		DATE
insignificant		Insignificant progress	255	VARCHAR
significant		Significant progress	255	VARCHAR
mastery		Mastery of the student	255	VARCHAR

**Table 35.** Data dictionary for ILMP group

Field Name	Key	Description	Length	Field type
Ilmp_group_id	FK	IEP id where transition belongs	11	INT
lrn	FK	Student LRN	7	INT
folder_id	FK	Folder ID	11	INT
c_1		Intervention status choice one	3	CHAR
c_2		Intervention status choice two	3	CHAR
c_3		Intervention status choice three	3	CHAR

**Table 33.** Data dictionary for ILP

<b>Field Name</b>	<b>Key</b>	<b>Description</b>	<b>Length</b>	<b>Field type</b>
ilp_id	PK	ID of users	11	INT
lrn	FK	Student LRN	7	INT
folder_id	FK	Folder ID	11	INT
school_year		School year of ILP	11	INT
principal		Current principal of the school year	50	VARCHAR
		ILP		
educ_history		Educational history of student	255	VARCHAR
interview_learner		Interview with learner	255	VARCHAR
strength_1		Strength of the student in daily living skill	255	VARCHAR
strength_2		Strength of the student in developmental	255	VARCHAR
strength_3		Strength of the student in psychomotor	255	VARCHAR
strength_4		Strength of the student in cognitive	255	VARCHAR
strength_5		Strength of the student in creativity	255	VARCHAR
strength_6		Strength of the student in behavioral	255	VARCHAR
strength_7		Strength of the student in orientation and mobility	255	VARCHAR

need_1	Need of the student in daily living skill	255	VARCHAR
need_2	Strength of the student in developmental	255	VARCHAR
need_3	Need of the student in psychomotor	255	VARCHAR
need_4	Need of the student in cognitive	255	VARCHAR
need_5	Need of the student in creativity	255	VARCHAR
need_6	Need of the student in behavioral	255	VARCHAR
need_7	Need of the student in orientation and mobility	255	VARCHAR

**Table 35.** Data dictionary for ILP assessment

Field Name	Key	Description	Length	Field type
assessment_id	PK	Assessment ID Where ILP the	7	INT
ilp_id	FK	assessment belongs	11	INT
lrn	FK	Student LRN	7	INT
folder_id	FK	Folder ID	11	INT
type_assessment		Intervention status choice one	50	VARCHAR
date		Intervention status choice two		DATE

chronological_age	Intervention status choice three	3	INT
administrator	Who administer the assessment	50	VARCHAR
result	Result of the assessment	255	VARCHAR
date_interview	Date of the interview		DATE
date_interview_student	Date of the interview to student		DATE
adviser	Adviser of the student	100	VARCHAR

**Table 33.** Data dictionary for ILP priority

Field Name	Key	Description	Length	Field type
priority_id	PK	ID of users	11	INT
lrn	FK	Student LRN	7	INT
Ilp_id	FK	ILP ID where priority belongs	11	INT
folder_id	FK	Folder ID	11	INT
priority_1		Priority in daily living skill	255	VARCHAR
priority_2		Priority in developmental	255	VARCHAR
priority_3		Priority in psychomotor	255	VARCHAR
priority_4		Priority in cognitive	255	VARCHAR
priority_5		Priority in creativity	255	VARCHAR
priority_6		Priority in behavioral	255	VARCHAR
priority_7		Priority in orientation and mobility	255	VARCHAR

**Table 33.** Data dictionary for ILP transition

<b>Field Name</b>	<b>Key</b>	<b>Description</b>	<b>Length</b>	<b>Field type</b>
transition_id	PK	ID of users	11	INT
lrn	FK	Student LRN	7	INT
Ilp_id	FK	ILP ID where transition belongs	11	INT
folder_id	FK	Folder ID	11	INT
transition_1		Transition of student one	255	VARCHAR
transition_2		Transition of student two	255	VARCHAR
transition_3		Transition of student three	255	VARCHAR
transition_4		Transition of student four	255	VARCHAR
transition_5		Transition of student five	255	VARCHAR

**Table 33.** Data dictionary for log history

<b>Field Name</b>	<b>Key</b>	<b>Description</b>	<b>Length</b>	<b>Field type</b>
log_id	PK	Log history ID	11	INT
lrn	FK	Student LRN	7	INT
teacher_id	FK	Teacher ID	11	INT
action_type		What type of action teacher done	100	VARCHAR
previous		Previous file or detail of action	11	INT
updated		Updated file or details of action	255	VARCHAR
details		Details of log history	255	VARCHAR
school		School where the	100	VARCHAR

teacher belong
----------------

**Table 33.** Data dictionary for Parent Observation

Field Name	Key	Description	Length	Field type
observation_id	PK	Log history ID	11	INT
lrn	FK	Student LRN	7	INT
teacher_id	FK	Teacher ID	11	INT
action_type		What type of action teacher done	100	VARCHAR
previous		Previous file or detail of action	11	INT
updated		Updated file or details of action	255	VARCHAR
details		Details of log history	255	VARCHAR
school		School where the teacher belong	100	VARCHAR

**Table 33.** Data dictionary for Progress report

Field Name	Key	Description	Length	Field type
progress_id	PK	Progress ID	11	INT
lrn	FK	Student LRN	7	INT
folder_id	FK	Folder ID	11	INT
type		Index of the progress report	255	VARCHAR
q1		Grade of the student in quarter one	2	CHAR
q2		Grade of the student in quarter two	2	CHAR
q3		Grade of the student in quarter	2	CHAR

q4	three Grade of the student in quarter four	2	CHAR
----	---	---	------

**Table 33.** Data dictionary for Student File

Field Name	Key	Description	Length	Field type
student_file_id	PK	Progress ID	11	INT
lrn	FK	Student LRN	7	INT
folder_id	FK	Folder ID	11	INT
Teacher_id	FK	Teacher ID	11	INT
year		Year of the file	2	CHAR
		Grade of the file		
file_type		type of the student file	100	VARCHAR
file_name		File name of the student file	255	VARCHAR
descripition		Description of the file	100	VARCHAR
date		Date the file uploaded		DATE
status		Status of the file	100	VARCHAR
school		School wher the file uploaded	6	CHAR

**Table 33.** Data dictionary for Teacher remark

Field Name	Key	Description	Length	Field type
remark_id	PK	Remark ID	11	INT
lrn	FK	Student LRN	7	INT
folder_id	FK	Folder ID	11	INT
teacher_id		Teacher ID	11	INT
remark_q1		Remark of the student in quarter one	255	VARCHAR

remark_q2	Remark of the student in quarter two	255	VARCHAR
remark_q3	Remark of the student in quarter three	255	VARCHAR
remark_q4	Remark of the student in quarter four	255	VARCHAR
ramark_date	Remark date		DATE

## b. Project Schedule

### Project Schedule

**Table 39.** Project Schedule

<p>Title:  <b>SPLWD: Student Profiling for Learners with Disabilities in Sta. Cruz District of Laguna</b></p>
<p>Project Team:</p> <ol style="list-style-type: none"> <li>1. Joshua B. Pascual</li> <li>2. Irish Cathlyn E. Nual</li> <li>3. Dan Henry T. Bonozo</li> </ol>
<p>ADVISER:</p> <p>Mrs. Mia Villarica</p>

Tasks Description	Predecessor	People Involved	Target Date	Milestones
<b>Phase 1: Conception and Project Initiation</b>				
a. Preliminary interview with Mr. Armin Cabrales, Principal IV of Sta. Cruz Elementary School	Signed communication letter	Project Team, Mr. Armin Cabrales	June 2, 2022	Gathered information about the assessment of LWD students
b. Title presentation and approval		Project Team, Mrs. Mia Villarica Mr. Gerald Villaran Mr. Mark	June 15, 2022	Title approved

		Bernardino Mr. Gener Mosico		
c. In this Phase, MOA will be the output	SCES has agreed to participate in the study	Pascual, Project Team, Mr. Armin Cabrales Mr. Luis M. Germina	June 17, 2022	
d. SCES is interviewed in order to gather information and features that will be added to the system to meet their needs.		Project Team, Ms. Mariel Ansay Ms. Mary Joice Nhel Ella Ms. Gina Salcedo	June 22, 2022	
e. Storyboard illustration and conceptualization of program flow.		Project Team,	June, 28, 2022	Storyboard has been created
<b>Phase 2: Project Planning</b>				
a. Coordination and consultative meetings with the school administrators	Approval of the school administrators	Project Team, Ms. Mariel Ansay Ms. Mary Joice Nhel Ella Ms. Gina Salcedo	June 30, 2022	
b. Devise Training plan for a specific user of the system		Project Team, Ms. Mariel Ansay Ms. Mary Joice Nhel Ella Ms. Gina Salcedo	July 4, 2022	

c. Schedule of project testing for users	Coordinate with the user for scheduling the project testing with them in person	Project Team, Ms.Mariel Ansay Ms. Mary Joice Nhel Ella Ms. Gina Salcedo	July 20, 2022	
d. Project orientation and launching	Evaluation of user readiness and approval by the school administrator	Project Team, Ms.Mariel Ansay Ms. Mary Joice Nhel Ella Ms. Gina Salcedo	July 22, 2022	
<b>Phase 3: Project Execution</b>				
a. Perform pretest examination for the users	Meeting with the school administrators	Project Team, Ms.Mariel Ansay Ms. Mary Joice Nhel Ella Ms. Gina Salcedo	July 27, 2022	
b. Conduct a suggestions after the pretest		Project Team,	July 29, 2022	
c. Consolidate the user suggestions		Project Team,	August 1, 2022	
<b>Phase 4: Project Monitoring and Control</b>				
a. Plan a consultation program		Project Team,	August 4, 2022	
b. Test and implement the consultation program		Project Team,	August 8, 2022	
c. Conduct an interview to the participants to assess the skills and knowledge transfer		Project Team,	August 10, 2022	

d. Develop a strategy for collecting information regarding the system usage.		Project Team,	August 12, 2022	
e. Create the terminal report for the project		Project Team,	August 14, 2022	
<b>Project 2: SYSTEM DEVELOPMENT</b>				
<b>Phase 1: Conception and Project Initiation</b>				
a. Creation of use case diagram.		Project Team,	June 20, 2022	
b. Creation of Sequence Diagram		Project Team,	June 21, 2022	
c. Creation of Data flow diagram		Project Team,	June 23, 2022	
d. d. Creation of Data Model		Project Team,	June 24, 2022	
<b>Phase 2: UI/UX Planning</b>				
a. Creation of wireframes		Project Team,	Jun2 25, 2022	
b. Selection of color palette, font-face, and UI design implementation.		Project Team,	June 26, 2022	
<b>Phase 3: Rapid Application Development</b>				
a. Requirements planning		Project Team,	June 27, 2022	
b. User design b1. Prototype b2. Test b3. Refine		Project Team,	June 29, 2022	
c. Construction		Project Team,	July 1, 2022	
<b>Phase 4: Project Monitoring and Control</b>				
a. Plan a consultation for user concerns or inquiries.		Project Team,	July 3, 2022	
b. Implement the planned consultation.		Project Team,	July 4, 2022	
c. Set up a weekly consultation with the user to discuss their concerns and suggestions.		Project Team,	July 5, 2022	
d. Create the terminal report for the project.		Project Team,	July 8, 2022	

Phase 5: Project Completion				
a. Continuously monitor and support the system for maintenance to formulate a 2nd revision of the system and possible project expansion.		Project Team, Ms. Mariel Ansay Ms. Mary Joice Nhel Ella Ms. Gina Salcedo	December 2022	

### People Involved and their responsibilities

#### a) Project Heads

Joshua B. Pascual	-	Back-End/Document Editor
Irish Cathlyn E. Nual	-	Document Editor
Dan Henry T. Bonozo	-	Document Editor

#### b) Members and their functions

##### SPLWD Designs and Build Team

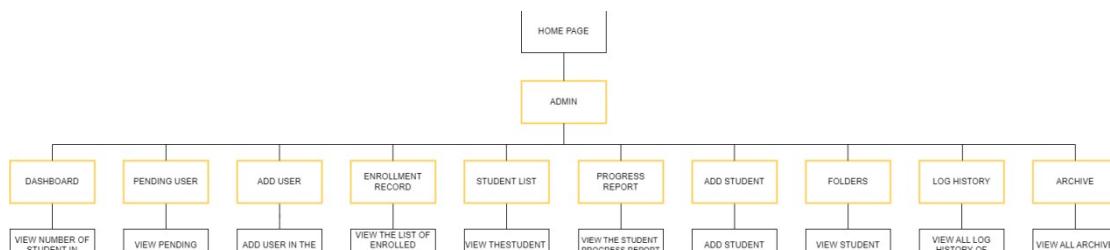
Head:	Joshua B. Pascual
Members:	Irish Cathlyn E. Nual
	Dan Henry T. Bonozo

#### c) Consultants

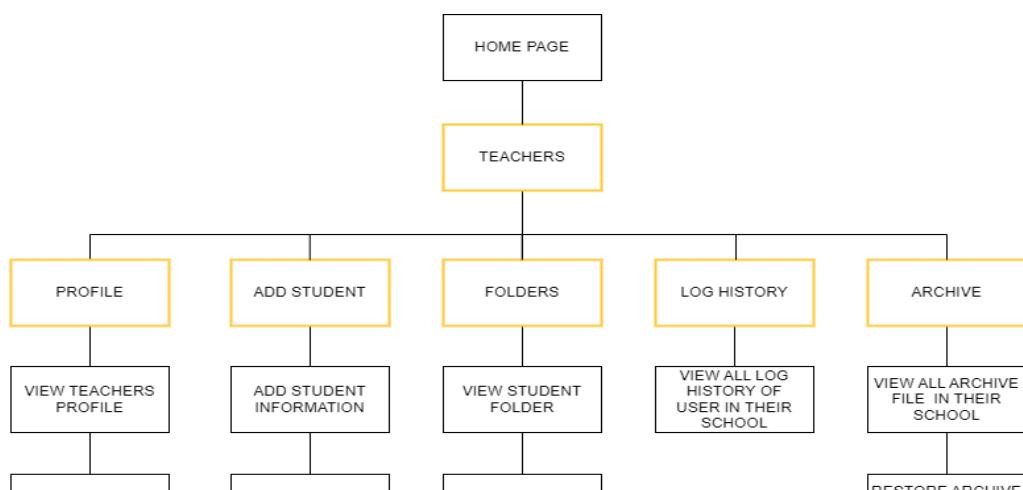
Mia V. Villarica	-	Adviser
Gerald Villaran	-	Subject Matter Expert
Alliana Miranda	-	Technical editor
Cherobie Aranas	-	Statistician
Cezanne Dimaculangan	-	Language Critic

The table above shows the researchers' project schedule. The preliminary phase, system development testing, and user evaluation phase are all included. The researchers used these stages as a guide or a starting point to decide what they would do next.

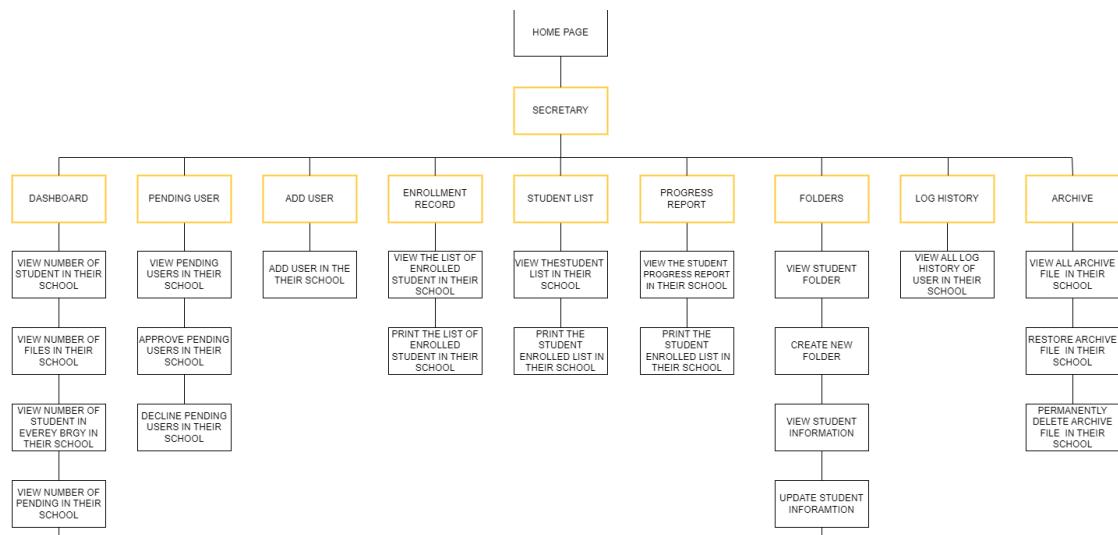
### Hierarchical Input Process Output Model



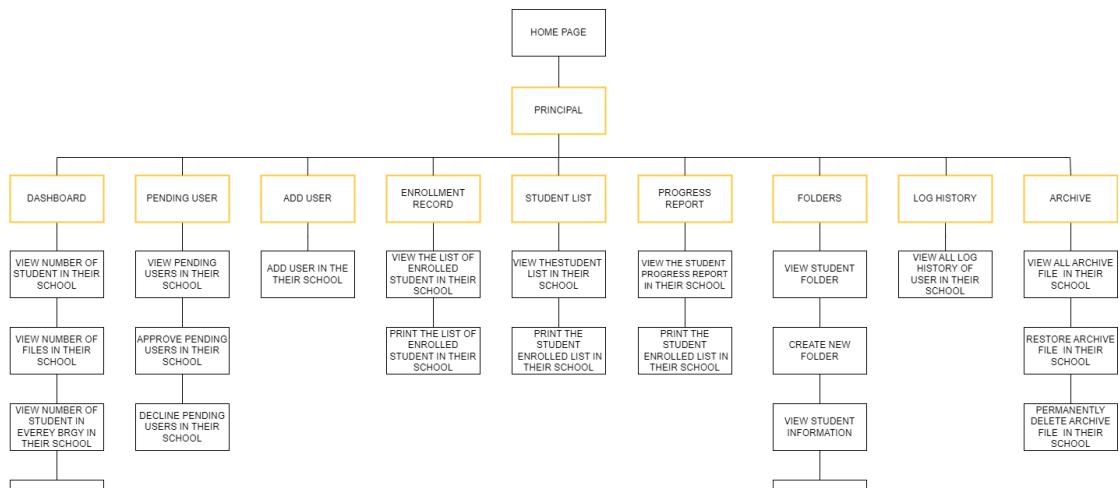
**Figure 60.** Admin HIPO. The figure above illustrates the module of the system hierarchy to show the system design in the Admin account.



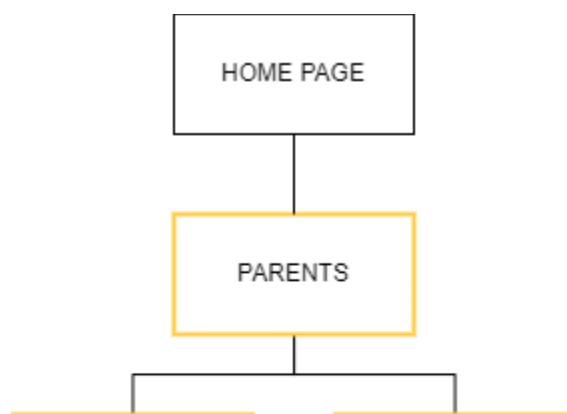
**Figure 60.** Teachers HIPO. The figure above illustrates the module of the system hierarchy to show the system design in the teachers account.



**Figure 60.** Secretary HIPO. The figure above illustrates the module of the system hierarchy to show the system design in the Secretary account.



**Figure 60.** Principal HIPO. The figure above illustrates the module of the system hierarchy to show the system design in the Principal account.



**Figure 60.** Parents HIPO. The figure above illustrates the module of the system hierarchy to show the system design in the Parents account.

## Hardware and Software Resources

**Table 40.** Hardware Requirements

HARDWARE REQUIREMENTS	Existing
Laptop or Desktop Computer	Yes
RAM 4GB or Higher	Yes
Processor Intel Celeron or higher or any equivalent.	Yes
CPU (Intel/AMD Architecture) (64/86 bit)	Yes
Mobile Phone at least 2G ready	Yes

The table above shows the hardware requirements needed to run TxTTOMS. The “Existing” column shall be filled with “Yes” if the needed hardware is existing in the client's store and “No” if not. Based on the interviews the clients stated that they have these required hardware.

**Table 41.** Software Requirements

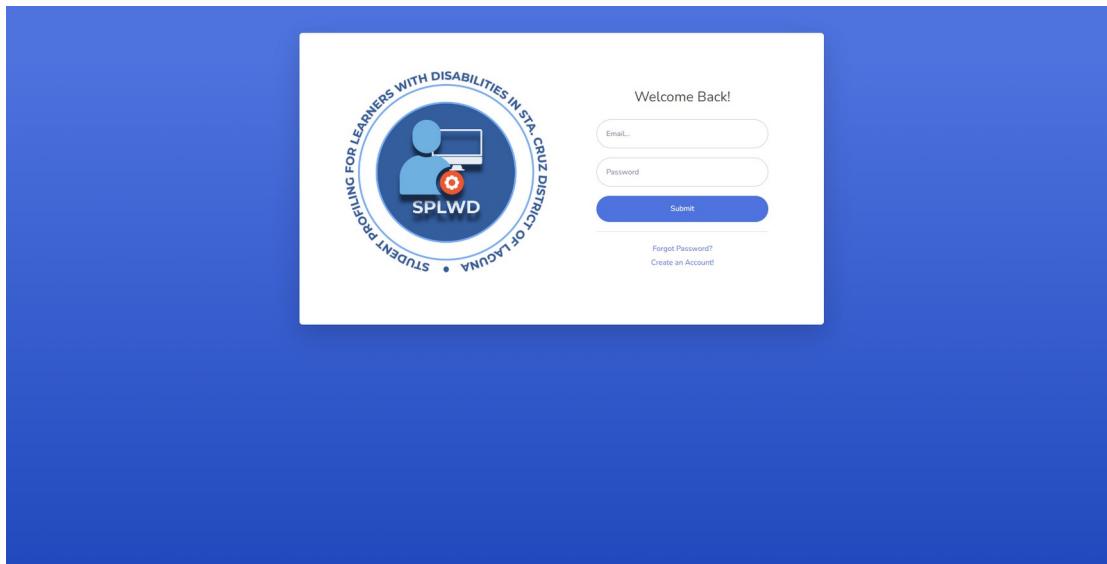
SOFTWARE REQUIREMENTS	Existing
Windows OS 7 or 10(32/64-bit)	Yes
Web Browser	Yes
Wi-Fi or Data Internet connection	Yes
Strong Cell Phone Signal	Yes

The table above illustrates the software requirements needed to run TxTTOMS. The “Existing” column shall be filled with “Yes” if the needed software is existing in the client's device and “No” if not. Based on the interviews the clients stated that they have these required software.

### **Input, Output, Reports Screenshots**

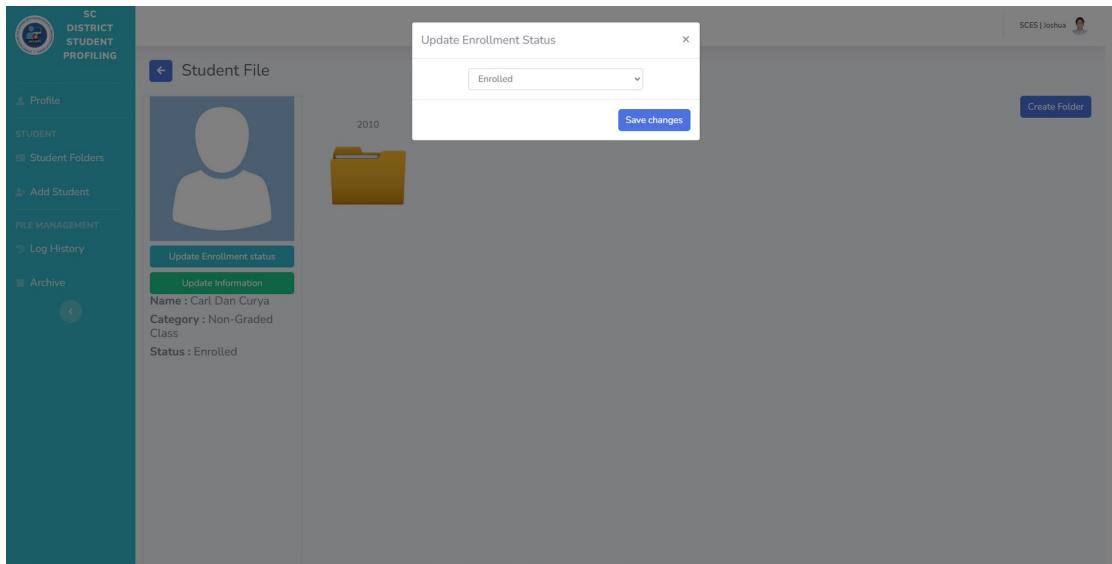
#### **Input Screenshot**

Teacher's Login



## Teacher's Update Information

## Update Enrollment Status



## Update Student Information

The screenshot shows a 'Student File' interface with a modal window titled 'Update Student Information'. The form contains the following data:

LRN:	2071549
Category:	Non-Graded Class
Status:	Enrolled
First Name:	Carl Dan
Last Name:	Curya
Middle Name:	Fei
Birth Date:	24/04/2015
Birth Place:	BRGY. CALIOS SANTA CRUZ, LAGUNA
Gender:	Male
Address:	Calios
School:	SCES
Teacher:	Joshua Pascual
Mother Tongue:	Filipino
Guardian Name:	SHARON CURYA
Guardian Occupation:	Tailor
Guardian Contact:	09438961234
Guardian email:	curyasharon@gmail.com
Guardian Mother Tongue:	Filipino

## Update Student IEP

**A. PERSONAL INFORMATION**

Grade/Level: 1  
 Difficulty in Seeing  
 Difficulty in Hearing  
 Difficulty in Communicating  
 Difficulty in Moving/Walking  
 Difficulty in Concentrating/Paying Attention  
 Difficulty in Remembering/ Understanding  
 Other (please specify) [Text Area]

Interpreter or other Accommodations Needed: [Text Area]

Name : Carl D Category : No Class Status : Enrol

**MEETING INFORMATION:**  
DATE OF MEETING: 10/10/2022  
DATE OF LAST IEP: 10/10/2022

**PURPOSE OF MEETING:**  
 Interim IEP  
 Initial IEP  
 Term IEP  
 IEP Following 3-Yr, Reevaluation  
 Revision to IEP Date: 11/11/2022  
 Exit/Graduation

IEP Revision Without a Meeting At the request of  
 Parent  
 School

IEP Review Date: 11/11/2022

**COMMENTS:**  
The attendance of the parent or guardian is needed during next meeting

**Close** **Save changes**

## Update Student Progress Report

**DAILY LIVING & SOCIO**

SYMBOL	DESCRIPTION	EXPLANATION
P	Proficient	The child always manifests the skills
AP	Approaching Proficiency	The child manifests the skills most of the time
D	Developing	The child sometimes manifests the skills
B	Beginning	The child seldom manifests the skills
NO / NA	Not Observed / Not Applicable	No manifestation of the skills at all / Not applicable

**LEARNING AREAS**

	Periodic Rating	final rating		
	1	2	3	4

**DAILY LIVING SKILL DOMAIN**

Self feeding	Expresses need to eat drink through non-verbal and or verbal means	Chews and swallows different kinds of foods	Swallows liquid like soup	Picks up food with fingers or scoops with spoon	Periodic Rating	final rating		
	[Rating Scale]	[Rating Scale]	[Rating Scale]	[Rating Scale]	1	2	3	4

**SOCIO-EMOTIONAL DOMAIN**

Uses courteous expressions appropriately	Asks an apology when necessary	Pays attention to someone talking	Plays with peers	Makes friends easy	Follows rules and regulations	Periodic Rating	final rating		
	[Rating Scale]	[Rating Scale]	[Rating Scale]	[Rating Scale]	[Rating Scale]	1	2	3	4

**FINAL DOMAIN**

Periodic Rating	final rating		
1	2	3	4

## Upload Student File

Upload Student File

File type	Year	Description	Action
INDIVIDUALIZED EDUCATION PLAN			<input type="button" value="Choose File"/> No file chosen
INDIVIDUAL LEARNERS PLAN			<input type="button" value="Choose File"/> No file chosen
INDIVIDUAL LEARNING MONITORING PLAN			<input type="button" value="Choose File"/> No file chosen
BEHAVIOR INTERVENTION REPORT			<input type="button" value="Choose File"/> No file chosen

## Add Student IEP

Individualized Education Plan

Information IEP Team Functional Performance Consideration Barriers Goals & Transition

A. PERSONAL INFORMATION

LEARNER: Carl Dan Fei Curya  
Gender: Male  
Birth Date: 2015-04-24  
Grade/Level: I  
LRN: 2071549  
Current School: SCES  
Address of School: SCES  
Mother Tongue Spoken: Filipino  
Address: Calios  
Gender: Male  
Parent/Guardian/Caregiver: SHARON CURYA

DIFFICULTIES (Select most relevant):

Difficulty in Seeing  
 Difficulty in Hearing  
 Difficulty in Communicating  
 Difficulty in Moving/Walking  
 Difficulty in Concentrating/Paying Attention  
 Difficulty in Remembering/Understanding  
Other (please specify)

MEETING INFORMATION:

DATE OF MEETING

DATE OF LAST IEP

PURPOSE OF MEETING:

Interim IEP  
 Initial IEP  
 Term IEP  
 IEP Following 3-Yr, Reevaluation  
 Revision to IEP Date

IEP Revision Without a Meeting At the request of

Parent  
 School

IEP Review Date

COMMENTS:

## Add Student ILP

The screenshot shows the 'Add ILP' (Individual Learner's Profile) form. The student profile on the left indicates Name: Carl Dan Curya, Category: Non-Graded Class, and Status: Enrolled. The main form has tabs for 'Part I' and 'Part II'. Part I includes fields for Name (Carl Dan Curya), Date of Birth (2015-04-24), Age (2), Address (Calios), Type of learner (Non-Graded Class), LRN (2071549), School year (dd/mm/yyyy), Adviser (dropdown), Principal (dropdown), and Record of Assessments (table). Part II includes sections for 'Interview with Parents/Guardian' (Name: SHARON CURYA, Contact Number: 09438961234, Date of interview: dd/mm/yyyy), 'Developmental and educational History' (text area), and 'Interview with the Learner' (Date of interview: dd/mm/yyyy). There is also a note about Interests/Hobbies/Talents: Food preparation.

## Add Student ILMP

The screenshot shows the 'Add ILMP' (Individual Learning Monitoring Plan) form. The student profile on the left is the same as the previous form. The main form has tabs for 'Part I' and 'Part II'. Part I includes fields for Learner's name (Carl Dan Curya), Grade level (1), Learning Area (dropdown), Learner's Needs (dropdown), Intervention Strategies Provided (dropdown), Monitoring Date (dd/mm/yyyy), and Learner's Status (table with columns for Insignificant Progress, Significant Progress, and Mastery). Part II includes sections for 'Intervention Status' (checkboxes: 'Learner is not making significant progress in a timely manner. Intervention strategies need to be revised.', 'Learner is making significant progress. Continue with the learning plan.', and 'Learner has reached mastery of the competencies in learning plan.') and buttons for 'Close' and 'Add ILMP'.

## Add Student BIR

### Add New Student

**Add New Student**

**Student Information**

LRN:	Student LRN	Guardian Name:	Guardian Name
Category:	Hearing impaired Class	Guardian Occupation:	Guardian Occupation
Status:	Enrolled	Guardian Contact:	Guardian Contact
First Name:	First Name	Guardian email:	Guardian Email
Last Name:	Last Name	Guardian Mother Tongue:	Guardian Mother Tongue
Middle Name:	Middle Name		
Birth Date:	dd/mm/yyyy		
Birth Place:	Student Birth Place		
Gender:	Gender		
Address:	Select Barangay		
School:	SCES		
Teacher:	Teacher		

## Principal's Add Users Account

**Add Users Account**

First name	Contact Number
First Name	Contact Number
Middle Name	Employee ID
Middle Name	Employee ID
Last name	School
Last Name	BES
Gender	Email
Gender	Password
Address	Repeat Password
Address	Repeat Password
Birth Date	Confirm Password
dd/mm/yyyy	Repeat Password
User Type	
Teacher	

Create Account

## Secretary's Add Users Account

Add Users Account

First name	Contact Number
First Name	Contact Number
Middle Name	Employee ID
Middle Name	Employee ID
Last name	School
Last Name	BES
Gender	Email
Gender	Email
Address	Password
Address	Password
Birth Date	Confirm Password
dd/mm/yyyy	Repeat Password
User Type	
Teacher	
<b>Register Account</b>	

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## Transfer Student

Transfer Student

Transfer Student to :

SCES

Select Adviser:

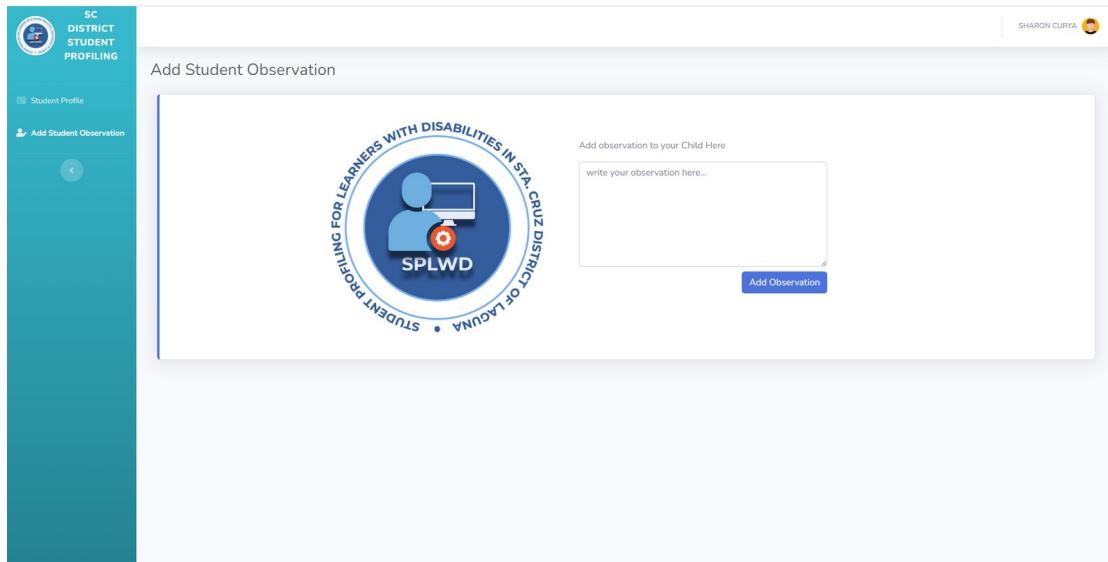
Teacher

Save changes

Student File

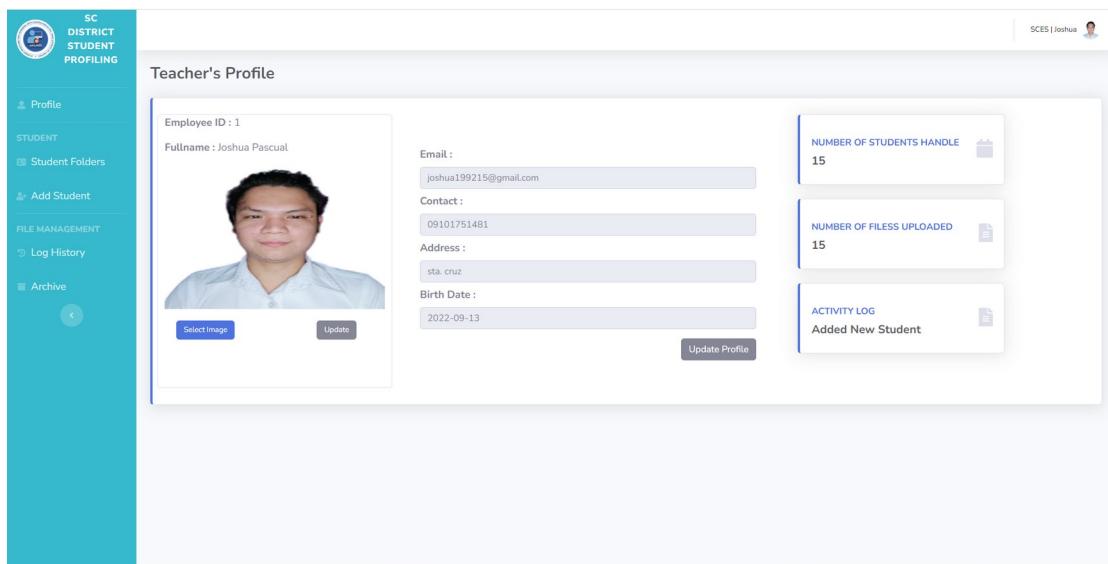
Name : Carl Dân Curya  
Category : Non-Graded Class  
Status : Enrolled

## Parent's Add Student Observation



## Output Screenshot

### Teacher's Profile



## Student Folders

## Table View of Student Folders

LRN	Student Name	Age	Teacher	School	Status	Action
1234567	J.a	0	Irish Nual/Armin CabralesCarmelita ReodicaCarmelita Reodica/Joshua1 Curya	SCES	Enrolled	<button>View</button>
2012351	Roby Marena	9	Joshua Pascual	SCES	Enrolled	<button>View</button>
2012376	John Jeremy Juanito	9	Joshua Pascual	SCES	Enrolled	<button>View</button>
2015023	Mark Antony Rebong	7	Joshua Pascual	SCES	Enrolled	<button>View</button>
2018354	Edie Mayson Javier	8	Joshua Pascual	SCES	Enrolled	<button>View</button>
2019834	Justine Lazaro	9	Joshua Pascual	SCES	Enrolled	<button>View</button>
2034265	Christopher Mike Salazar	8	Joshua Pascual	SCES	Graduated	<button>View</button>
2038740	Khyle Aaron Javier	7	Joshua Pascual	SCES	Enrolled	<button>View</button>
2045209	Mark Glenn Estrada	9	Joshua Pascual	SCES	Enrolled	<button>View</button>
2054109	Jake Levis Martinez	8	Joshua Pascual	SCES	Enrolled	<button>View</button>
LRN	Student Name	Age	Teacher	School	Status	Action

Showing 1 to 10 of 15 entries

## Teacher's Log History

**Log History**

Teacher	Action Type	Details	Student	Date
Joshua Pascual	Log in			2023-02-16 10:58:41pm
Joshua Pascual	Log in			2023-02-16 10:30:48pm
Joshua Pascual	Log in			2023-02-16 10:29:22pm
Joshua Pascual	Log in			2023-02-16 10:28:09pm
Joshua Pascual	Log in			2023-02-16 10:20:44pm
Joshua Pascual	Log in			2023-02-16 08:16:25pm
Joshua Pascual	Log in			2023-02-16 08:47:11am
Joshua Pascual	Log in			2023-02-16 06:01:16am
Joshua Pascual	Log in			2023-02-15 10:05:13pm
Joshua Pascual	Log in			2023-02-15 08:39:16pm

Showing 1 to 10 of 81 entries

## Teacher's Archive Files

**Archive Files**

INDIVIDUAL LEARNERS PLAN    INDIVIDUAL LEARNERS PLAN    INDIVIDUAL LEARNERS PLAN    INDIVIDUAL LEARNERS PLAN

## Secretary's Dashboard

The dashboard displays the following key metrics:

- NUMBER OF STUDENTS: 15
- NUMBERS OF FILES: 16
- NUMBER OF TEACHERS: 4
- PENDING ACCOUNT REQUESTS: 0

**Number of Student Overview:**

Barangay	Number of Students
Calios	8
Bagumbayan	7
Pitmbao	1
Gatid	1

**Student every school:**

**Current Users Actions:**

Date	User	Action Type	Recent file/data	Recent Updated
2022-12-12	Joshua	Added New Student		
2022-12-12	Joshua	Added New Student		
2022-12-12	Joshua	Added New Student		

## Secretary's Pending Users

## Student's Enrollment List

The enrollment list table includes the following columns:

LRN	Student Name	Address	Age	School	Enrollment Status
1234567	Ja	Gatid	0	SCES	Enrolled ✓
2012351	Roby Marona	Bagumbayan	9	SCES	Enrolled ✓
2012376	John Jeremy Juanito	Bagumbayan	9	SCES	Enrolled ✓
2015023	Mark Antony Rebong	Calios	7	SCES	Enrolled ✓
2018354	Edie Mayson Javier	Calios	8	SCES	Enrolled ✓
2019834	Justine Lazaro	Calios	9	SCES	Enrolled ✓
2038740	Khyle Aaron Javier	Pitmbao	7	SCES	Enrolled ✓
2045209	Mark Glenn Estrada	Calios	9	SCES	Enrolled ✓
2054109	Jake Levis Martinez	Calios	8	SCES	Enrolled ✓
2071549	Carl Dan Curya	Calios	7	SCES	Enrolled ✓
LRN	Student Name	Address	Age	School	Enrollment Status

Showing 1 to 10 of 12 entries

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## View Progress Report

The screenshot shows a web-based application titled "SC DISTRICT STUDENT PROFILING". The left sidebar contains navigation links: Dashboard, INTERFACE, User Management, Reports (selected), Student Folders, Log History, and Archive. The main content area is titled "Progres Report" and displays a table of student information:

LRN	Student Name	Address	Age	School	Action
2071549	Carl Dan Curya	Catios	7	SCES	<a href="#">View Progress Report</a>
2045209	Mark Glenn Estrada	Catios	9	SCES	<a href="#">View Progress Report</a>
2075309	Renier John Garaho	Bagumbayan	7	SCES	<a href="#">View Progress Report</a>
2018354	Edie Mayson Javier	Catios	8	SCES	<a href="#">View Progress Report</a>
2038740	Khyle Aaron Javier	Ptimba	7	SCES	<a href="#">View Progress Report</a>
2012376	John Jeremy Juanito	Bagumbayan	9	SCES	<a href="#">View Progress Report</a>
2019834	Justine Lazaro	Catios	9	SCES	<a href="#">View Progress Report</a>
2012351	Roby Marena	Bagumbayan	9	SCES	<a href="#">View Progress Report</a>
2054109	Jake Levis Martinez	Catios	8	SCES	<a href="#">View Progress Report</a>
2015023	Mark Antony Rebong	Catios	7	SCES	<a href="#">View Progress Report</a>
2098675	Harold Brix Reyes	Catios	7	SCES	<a href="#">View Progress Report</a>
1234567	Ja	Gatid	0	SCES	<a href="#">View Progress Report</a>

## Secretary's Student List

The screenshot shows the same web-based application. The left sidebar includes "Reports" (selected). The main content area is titled "Student List" and displays a table of student information:

LRN	Name	School	Category	Age	Status
1234567	J a a	SCES	Hearing impaired Class	0	Enrolled
2012351	Roby Mendoza Marena	SCES	Non-Graded Class	9	Enrolled
2012376	John Jeremy Santos Juanito	SCES	Non-Graded Class	9	Enrolled
2015023	Mark Antony Jalon Rebong	SCES	Non-Graded Class	7	Enrolled
2018354	Edie Mayson Bancud Javier	SCES	Non-Graded Class	8	Enrolled
2019834	Justine Llanta Lazaro	SCES	Non-Graded Class	9	Enrolled
2034265	Christopher Mike Kapistrano Salazar	SCES	Non-Graded Class	8	Graduated
2038740	Khyle Aaron Carion Javier	SCES	Non-Graded Class	7	Enrolled
2045209	Mark Glenn Aran Estrada	SCES	Non-Graded Class	9	Enrolled
2054109	Jake Levis Kenda Martinez	SCES	Non-Graded Class	8	Enrolled

Below the table, it says "Showing 1 to 10 of 16 entries" and has navigation buttons for Previous, Next, and page numbers 1, 2.

## Secretary's Student Folders

The screenshot shows the 'Student Folders of SCES' section. On the left is a blue sidebar with navigation options: Dashboard, INTERFACE (User Management, Reports, Student Folders, Log History, Archive), and SC DISTRICT STUDENT PROFILING. The main area displays a grid of student folders under the heading 'Enrolled Students'. Each folder contains the student's name: C. Curya, M. Estrada, R. Garaho, E. Javier, K. Javier, J. Juanito, J. Lazaro, R. Marena, J. Martinez, M. Rebong, H. Reyes, and J. a.

## Secretary's Student File

The screenshot shows the 'Student File' section. The left sidebar is identical to the previous screenshot. The main area displays a student profile for 'Jake Levis Martinez' with the category 'Non-Graded Class' and status 'Enrolled'. A yellow folder icon labeled '2022' is shown next to the profile. The profile includes a placeholder image and a 'Transfer Student' button.

## Secretary's Student IEP

**Individualized Educational Plan**

**I. PRESENT LEVELS OF ACADEMIC ACHIEVEMENT AND FUNCTIONAL PERFORMANCE**

**Result of initial or most recent evaluation of school and division assessments:**

- He has difficulty in remembering some concepts being taught.
- Able to perform simple fine motor and gross motor activities.
- Needs to understand what he reads.

**Description of academic, developmental and/or functional strengths:**

- The learner is lagging behind his peers in communication.
- Needs to learn how to read words, phrases, sentences, and story.
- Needs to compute simple mathematical equation (addition, subtraction, multiplication, and division)

**Description of academic, developmental and/or functional needs:**

- Jake is able to follow instruction.
- He has difficulty in reading and understanding simple sentences.

## Secretary's Progress Chart

**Progress Chart**

	DAILY LIVING SKILLS	SOCIO-EMOTIONAL	LANGUAGE DEVELOPMENT	PYSCHOMOTOR	COGNITIVE	BEHAVIORAL DEVELOPMENT
1. Expresses need to eat drink through non-verbal and or verbal means						
2. Chews and swallows different kinds of foods						
3. Swallows liquid like soup						
4. Picks up food with fingers or scoops with spoon						
5. Picks up and eats finger food						
6. Sips and drinks liquid						
7. Eats with spoon and fork						
8. Uses the table knife for spreading						
9. Cuts food using the table knife						
10. Distinguishes edible and non-edible foods & substances						
11. Peels / unwraps food						
12. Uses table napkins						
13. Exhibits table settings skills						
14. Uses comfort room/toilet bowl to urinate or defecate						
15. Uses toilet paper to clean-up and disposes it properly						
16. Uses dipper properly						

localhost/sc\_district\_profiling/secretary/student\_file.php?id=2054109&folder\_id=12#progresschart

## Secretary's Progress Report

The screenshot shows the 'Progress Report' tab selected in the navigation bar. The student information for Jake Levis Martinez is displayed, including his name, category (Non-Graded Class), and status (Enrolled). Below this is a legend for skill levels:

SYMBOL	DESCRIPTION	EXPLANATION
P	Proficient	The child always manifests the skills
AP	Approaching Proficiency	The child consistently manifests the skills most of the time
D	Developing	The child sometimes manifests the skills
B	Beginning	The child seldom manifests the skills
NO / NA	Not Observed / Not Applicable	No manifestation of the skills at all / Not applicable

The report is divided into two main sections: LEARNING AREAS and SOCIO-EMOTIONAL DOMAIN. Under LEARNING AREAS, there is a 'Daily Living Skill Domain' section with four items: Self feeding, Expresses need to eat drink through non-verbal and or verbal means, Chews and swallows different kinds of foods, and Swallows liquid like soup. Each item has a table for Periodic Rating (1-4) and final rating. Under SOCIO-EMOTIONAL DOMAIN, there are four items: Uses courteous expressions appropriately, Asks an apology when necessary, Pays attention to someone talking, and Plays with peers. Each item has a table for Periodic Rating (1-4) and final rating.

## Secretary's Student File

The screenshot shows the 'Student files' tab selected in the navigation bar. The student information for Jake Levis Martinez is displayed, including his name, category (Non-Graded Class), and status (Enrolled). Below this is a link labeled 'INDIVIDUAL LEARNERS PLAN' with a PDF icon.

## Secretary's Student Forms

The screenshot shows the 'Student File' section of the SC District Student Profiling system. On the left is a blue sidebar with navigation links: Dashboard, INTERFACE (User Management, Reports, Student Folders, Log History, Archive), and a circular icon. The main area has a header 'Student File' with a back arrow. It displays a student profile picture and the following details:

- Name: Jake Levis Martinez
- Category: Non-Graded Class
- Status: Enrolled

Below this, tabs for 'Student Information', 'IEP', 'Progress Chart', 'Progress Report', 'Student files', and 'Forms' are visible. The 'Forms' tab is selected, showing a sub-section titled 'Learners with Disabilities Forms' with tabs for 'IEP' and 'ILP'. An IEP document icon is shown.

## Secretary's Student Information

The screenshot shows the 'Student File' section of the SC District Student Profiling system. The left sidebar is identical to the previous screenshot. The main area has a header 'Student File' with a back arrow. It displays a student profile picture and the following details:

- Name: Jake Levis Martinez
- Category: Non-Graded Class
- Status: Enrolled

Below this, tabs for 'Student Information', 'IEP', 'Progress Chart', 'Progress Report', 'Student files', and 'Forms' are visible. The 'Student Information' tab is selected, showing a grid of form fields:

LRN:	2054109	Guardian Name:	CANDY MARTINEZ
First Name:	Jake Levis	Guardian Occupation:	Vendor
Last Name:	Martinez	Guardian Contact:	09754209753
Middle Name:	Kenda	Guardian email:	martinezcandy@gmail.com
Birth Date:	08/11/2014	Guardian Mother Tongue:	Filipino
Birth Place:	BRGY. CALIOS, STA. CRUZ, LAGUNA		
Gender:	Male		
Address:	Calios		
School:	SCES		
Teacher:	Joshua Pascual		
Mother Tongue:	Filipino		

## Secretary's Log History

### Secretary's Archive Files

The screenshot shows the 'Archive Files' section of the SC DISTRICT STUDENT PROFILING system. On the left is a blue sidebar with navigation links: Dashboard, INTERFACE (User Management, Reports, Student Folders), Log History, and Archive. The main area is titled 'Archive Files' and contains four thumbnail previews of 'INDIVIDUAL LEARNERS PLAN' files, each ending in '.PDF'. Each preview includes small red and green trash/recycle bin icons.

## Principal's Dashboard

The screenshot shows the 'Dashboard' section of the SC DISTRICT STUDENT PROFILING system. The left sidebar is identical to the Secretary's interface. The main dashboard features several key metrics: 'NUMBER OF STUDENTS' (15), 'NUMBERS OF FILES' (16), 'NUMBER OF TEACHERS' (4), and 'PENDING ACCOUNT REQUESTS' (0). Below these are two data visualizations: a bar chart titled 'Number of Student Overview' showing student counts for Calios, Bagumbayan, Pimbao, and Gatid; and a donut chart titled 'Student every school' showing the distribution across BES, GES, and SCES. At the bottom is a table titled 'Current Users Actions' listing three recent logins by user 'Joshua'.

Date	User	Action Type	Recent file/data	Recent Updated
2022-12-12	Joshua	Added New Student		
2022-12-12	Joshua	Added New Student		
2022-12-12	Joshua	Added New Student		

## Principal's Enrollment List

The screenshot shows the 'Enrollment List' page within the SC District Student Profiling system. The left sidebar includes links for Dashboard, User Management, Reports (selected), Student Folders, Log History, and Archive. The main content area has a title 'Enrollment List' and a table with columns: LRN, Student Name, Address, Age, School, and Enrollment Status. The table contains 12 entries. A green 'Print' button is at the top right, and a search bar is below it. At the bottom, there are navigation links for Previous, Next, and a page number indicator (1, 2).

LRN	Student Name	Address	Age	School	Enrollment Status
1234567	J a	Gatid	0	SCES	Enrolled ✓
2012351	Roby Marena	Bagumbayan	9	SCES	Enrolled ✓
2012376	John Jeremy Juanito	Bagumbayan	9	SCES	Enrolled ✓
2015023	Mark Antony Rebong	Calios	7	SCES	Enrolled ✓
2018354	Edie Mayson Javier	Calios	8	SCES	Enrolled ✓
2019834	Justine Lazaro	Calios	9	SCES	Enrolled ✓
2038740	Khyle Aaron Javier	Ptimba	7	SCES	Enrolled ✓
2045209	Mark Glenn Estrada	Calios	9	SCES	Enrolled ✓
2054109	Jake Levis Martinez	Calios	8	SCES	Enrolled ✓
2071549	Carl Dan Curya	Calios	7	SCES	Enrolled ✓
LRN	Student Name	Address	Age	School	Enrollment Status

Showing 1 to 10 of 12 entries

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## Principal's Progress Report

The screenshot shows the 'Progress Report' page within the SC District Student Profiling system. The left sidebar includes links for Dashboard, User Management, Reports (selected), Student Folders, Log History, and Archive. The main content area has a title 'Progress Report' and a table with columns: LRN, Student Name, Address, Age, School, and Action. The table contains 12 entries. Each row has a green 'View Progress Report' button in the Action column. A search bar is at the top right, and navigation links are at the bottom.

LRN	Student Name	Address	Age	School	Action
1234567	J a	Gatid 18	0	SCES	<button>View Progress Report</button>
2012351	Roby Marena	Bagumbayan 11	9	SCES	<button>View Progress Report</button>
2012376	John Jeremy Juanito	Bagumbayan 9	9	SCES	<button>View Progress Report</button>
2015023	Mark Antony Rebong	Calios 13	7	SCES	<button>View Progress Report</button>
2018354	Edie Mayson Javier	Calios 7	8	SCES	<button>View Progress Report</button>
2019834	Justine Lazaro	Calios 10	9	SCES	<button>View Progress Report</button>
2038740	Khyle Aaron Javier	Ptimba 8	7	SCES	<button>View Progress Report</button>
2045209	Mark Glenn Estrada	Calios 5	9	SCES	<button>View Progress Report</button>
2054109	Jake Levis Martinez	Calios 12	8	SCES	<button>View Progress Report</button>
2071549	Carl Dan Curya	Calios 3	7	SCES	<button>View Progress Report</button>
LRN	Student Name	Address	Age	School	Action

Showing 1 to 10 of 12 entries

Previous 1 2 Next

## Principal's Student List

The screenshot shows the 'Student List' page within the SC District Student Profiling system. The left sidebar includes navigation links for Dashboard, INTERFACE (User Management, Reports, Student Folders, Log History, Archive), and a circular icon. The main content area has a title 'Student List' and a table with columns: LRN, Name, School, Category, Age, and Status. The table lists 16 entries, such as Jaa, Roby Mendoza Marena, and Jake Levis Kenda Martinez. A search bar and a print button are at the top right. At the bottom, it says 'Showing 1 to 10 of 16 entries' and includes a navigation bar with 'Previous', page numbers '1' (highlighted), '2', and 'Next'.

LRN	Name	School	Category	Age	Status
1234567	Jaa	SCES	Hearing Impaired Class	0	Enrolled
2012351	Roby Mendoza Marena	SCES	Non-Graded Class	9	Enrolled
2012376	John Jeremy Santos Juanito	SCES	Non-Graded Class	9	Enrolled
2015023	Mark Antony Jalos Rebong	SCES	Non-Graded Class	7	Enrolled
2018354	Edie Mayson Bancud Javier	SCES	Non-Graded Class	8	Enrolled
2019834	Justine Llanta Lazaro	SCES	Non-Graded Class	9	Enrolled
2034265	Christopher Mike Kapistrano Salazar	SCES	Non-Graded Class	8	Graduated
2038740	Khylo Aaron Carion Javier	SCES	Non-Graded Class	7	Enrolled
2045209	Mark Glenn Aran Estrada	SCES	Non-Graded Class	9	Enrolled
2054109	Jake Levis Kenda Martinez	SCES	Non-Graded Class	8	Enrolled

## Principal's Pending Users

## Principal's Student Folders

The screenshot shows the 'Student Folders of SCES' page. The left sidebar includes navigation links for Dashboard, INTERFACE (User Management, Reports, Student Folders, Log History, Archive), and a circular icon. The main content area has a title 'Student Folders of SCES' and a filter bar with 'Enrolled' (selected), Main Streamed, Graduated, and Transferred. Below is a section titled 'Enrolled Students' showing six student folders with names: C. Curya, M. Estrada, R. Garaho, E. Javier, K. Javier, and J. Juanito. Below each name is a folder icon. The names listed are J. Lazaro, R. Marena, J. Martinez, M. Rebong, H. Reyes, and J. a.

## Principal's Student File

The screenshot shows the 'Student File' interface for a student named Carl Dan Curya. On the left is a sidebar with navigation links: Dashboard, INTERFACE (User Management, Reports, Student Folders, Log History, Archive), and a back arrow. The main area has a blue header bar with a back arrow and the title 'Student File'. Below the header is a placeholder image of a person, a yellow folder icon labeled '2010', and a summary table:

Name : Carl Dan Curya
Category : Non-Graded Class
Status : Enrolled

## Principal's Student Information

The screenshot shows the 'Student File' interface with detailed student information. The sidebar and header are identical to the previous screenshot. The main area has a blue header bar with a back arrow and the title 'Student File'. Below the header is a placeholder image of a person and a summary table:

Name : Carl Dan Curya
Category : Non-Graded Class
Status : Enrolled

Below this, there is a tab navigation bar with 'Student Information', 'IEP', 'Progress Chart', 'Progress Report', 'Student files', and 'Forms'. The 'Student Information' tab is selected, showing a grid of form fields:

Student Information	
LRN:	2071549
First Name:	Carl Dan
Last Name:	Curya
Middle Name:	Fei
Birth Date:	24/04/2015
Birth Place:	BRGY. CALIOS SANTA CRUZ, LAGUNA
Gender:	Male
Address:	Calios
School:	SCES
Teacher:	Joshua Pascual
Mother Tongue:	Filipino
Guardian Name:	SHARON CURYA
Guardian Occupation:	Tailor
Guardian Contact:	09438961234
Guardian email:	curyasharon@gmail.com
Guardian Mother Tongue:	Filipino

## Principia's Student IEP

The screenshot shows the 'Student File' section of the SC District Student Profiling system. The left sidebar includes links for Dashboard, INTERFACE (User Management, Reports, Student Folders, Log History, Archive), and a circular 'Logout' button. The main content area has tabs for Student Information, IEP, Progress Chart, Progress Report, Student files, and Forms. The 'IEP' tab is selected, displaying the 'Individualized Educational Plan' for student Carl Dan Curya. The student's profile picture is shown, along with details: Name: Carl Dan Curya, Category: Non-Graded Class, Status: Enrolled. Below this, there are sections for 'Functional Performance', 'Consideration', 'Barriers', and 'Goals & Transition'. A note states: 'The learner is lagging behind his peers in communication.' A warning message is present: 'Warning: Undefined array key 2 in C:\xampp\htdocs\sc\_district\_profiling\principal\student\_file.php on line 4757'. Another section for 'Description of academic, developmental and/or functional strengths:' notes: 'He has difficulty in remembering some concepts being taught.' A second warning message is shown: 'Warning: Undefined array key 2 in C:\xampp\htdocs\sc\_district\_profiling\principal\student\_file.php on line 4772'. A third section for 'Description of academic, developmental and/or functional needs:' is partially visible. A final warning message is at the bottom: 'Warning: Undefined array key 1 in C:\xampp\htdocs\sc\_district\_profiling\principal\student\_file.php on line 4784'.

## Principal's Student Progress Chart

The screenshot shows the 'Student File' section of the SC District Student Profiling system. The left sidebar includes links for Dashboard, INTERFACE (User Management, Reports, Student Folders, Log History, Archive), and a circular 'Logout' button. The main content area has tabs for Student Information, IEP, Progress Chart, Progress Report, Student files, and Forms. The 'Progress Chart' tab is selected, displaying two line graphs for student Carl Dan Curya. The top graph tracks progress across 13 categories under 'DAILY LIVING SKILLS', 'SOCIO-EMOTIONAL', 'LANGUAGE DEVELOPMENT', 'PSYCHOMOTOR', 'COGNITIVE', and 'BEHAVIORAL DEVELOPMENT'. The bottom graph tracks progress across 16 specific skills, such as 'Expresses need to eat drink through non-verbal and or verbal means', 'Chews and swallows different kinds of foods', 'Swallows liquid like soup', etc. The legend indicates four quarters: Quarter 1 (blue), Quarter 2 (purple), Quarter 3 (orange), and Quarter 4 (yellow).

## Principal's Student Progress Report

**SC DISTRICT STUDENT PROFILING**

**Student File**

Name : Carl Dan Curya  
Category : Non-Graded Class  
Status : Enrolled

SYMBOL	DESCRIPTION	EXPLANATION
P	Proficient	The child always manifests the skill or behavior.
AP	Approaching Proficient	The child manifests the skill or behavior most of the time.
D	Developing	The child sometimes manifests the skill or behavior.
B	Beginning	The child seldom manifests the skill or behavior.
NO / NA	Not Observed / Not Applicable	No manifestation of the skills at all / Not applicable.

TEACHERS REMARK

QUARTER

REMARKS

LEARNING AREAS

Periodic Rating	final rating
1 2 3 4	

Daily Living Skill Domain

Self feeding	Expresses need to eat drink through non-verbal and verbal means	Chews and swallows different kinds of foods	Swallows liquid like soup	Picks up food with fingers or scoops with spoon
--------------	---	---	---------------------------	---

LEARNING AREAS

Periodic Rating	final rating
1 2 3 4	

SOCIO-EMOTIONAL DOMAIN

Uses courteous expressions appropriately	
Asks an apology when necessary	
Pays attention to someone talking	
Plays with peers	
Makes friends easy	
Follows rules and regulations	

## Principal's Student Files

### Principal's LWD Forms

**SC DISTRICT STUDENT PROFILING**

**Student File**

Name : Carl Dan Curya  
Category : Non-Graded Class  
Status : Enrolled

IEP ILP

IEP of 2022-10-10

Learners with Disabilities Forms

## Principal's Log History

### Principal's Archive Files

SC DISTRICT STUDENT PROFILING

Archive Files

INDIVIDUAL LEARNERS PLAN .PDF

INDIVIDUAL LEARNERS PLAN .PDF

INDIVIDUAL LEARNERS PLAN .PDF

INDIVIDUAL LEARNERS PLAN .PDF

Copyright © BW09 2022-2023

## Parent's Student Profile

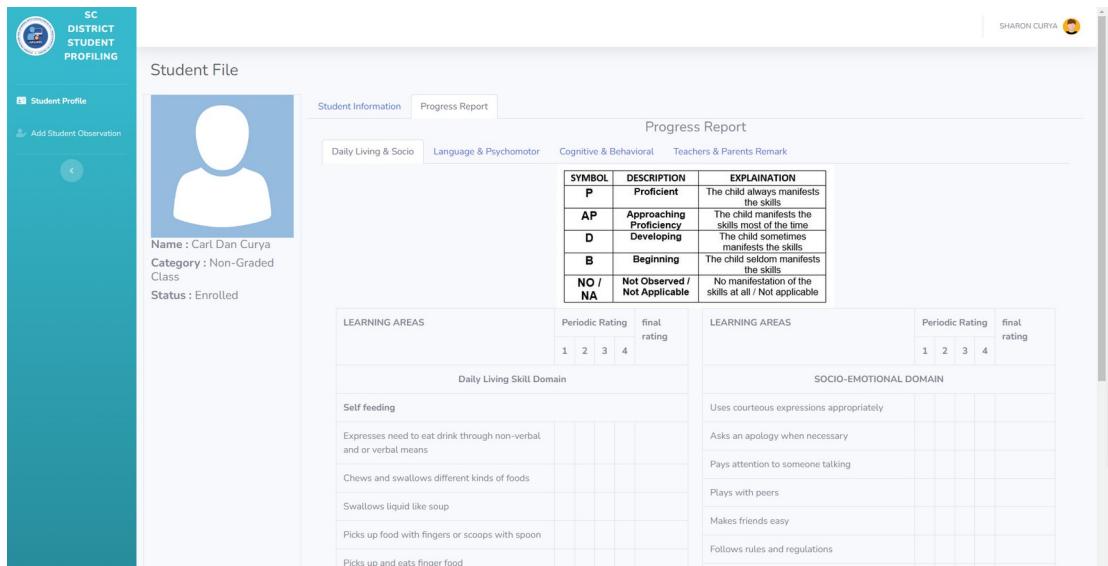
SC DISTRICT STUDENT PROFILING

Student File

Name : Carl Dan Curya  
Category : Non-Graded Class  
Status : Enrolled

Student Information	Progress Report
LRN: 2071549	Guardian Name: SHARON CURYA
First Name: Carl Dan	Guardian Occupation: Tailor
Last Name: Curya	Guardian Contact: 09438961234
Middle Name: Fei	Guardian email: curyasharon@gmail.com
Birth Date: 24/04/2015	Guardian Mother Tongue: Filipino
Birth Place: BRGY. CALIOS SANTA CRUZ, LAGUNA	
Gender: Male	
Address: Calios	
School: SCES	
Teacher: Joshua Pascual	
Mother Tongue: Filipino	

## Parent's Student Progress Report



The screenshot shows a web-based application for student profiling. On the left, a teal sidebar contains the logo 'SC DISTRICT STUDENT PROFILING' and navigation links for 'Student Profile' and 'Add Student Observation'. The main area is titled 'Student File' and displays a placeholder image of a person. Below the image, the student's details are listed: Name: Carl Dan Curya, Category: Non-Graded Class, Status: Enrolled.

The interface includes tabs for 'Student Information' and 'Progress Report'. Under 'Progress Report', there are four sub-tabs: 'Daily Living & Socio', 'Language & Psychomotor' (which is selected), 'Cognitive & Behavioral', and 'Teachers & Parents Remark'. A legend titled 'Progress Report' defines five levels:

SYMBOL	DESCRIPTION	EXPLANATION
P	<b>Proficient</b>	The child always manifests the skills
AP	<b>Approaching Proficiency</b>	The child manifests the skills most of the time
D	<b>Developing</b>	The child sometimes manifests the skills
B	<b>Beginning</b>	The child seldom manifests the skills
NO / NA	<b>Not Observed / Not Applicable</b>	No manifestation of the skills at all / Not applicable

The 'Language & Psychomotor' section is divided into two main domains: 'LEARNING AREAS' and 'SOCIO-EMOTIONAL DOMAIN'. The 'LEARNING AREAS' domain is further divided into 'Daily Living Skill Domain' and 'Socio-Emotional Domain'. The 'Daily Living Skill Domain' includes items like 'Self feeding', 'Expresses need to eat drink through non-verbal and or verbal means', 'Chews and swallows different kinds of foods', 'Swallows liquid like soup', 'Picks up food with fingers or scoops with spoon', and 'Picks up and eats finer food'. The 'SOCIO-EMOTIONAL DOMAIN' includes items like 'Uses courteous expressions appropriately', 'Asks an apology when necessary', 'Pays attention to someone talking', 'Plays with peers', 'Makes friends easy', and 'Follows rules and regulations'.

## Testing and Evaluation Instruments

This section displays the testing and evaluation tools that were used by the researchers during the user evaluation and testing phase of the study.

### **Technology Acceptance Model (TAM) Questionnaire – for Parents**



Republic of the Philippines  
**Laguna State Polytechnic University**  
 Province of Laguna

**COLLEGE OF COMPUTER STUDIES**

December 6, 2022

Ginang/Ginoo,

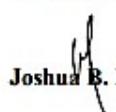
Isang mapagpalang araw po, Kami po ay mag aaral na nasa ikaapat na taon sa kurong Bachelor of Science in Information Technology major in Web and Mobile Application Development Program mula sa Laguna State Polytechnic University ng Sta. Cruz Laguna. Kasalukuyan po kaming nagsasagawa ng isang pananaliksik tungkol sa Special Education na may paksang "SPLWD: Student Profiling for Learners with Disabilities in Sta. Cruz District of Laguna".

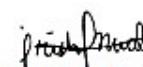
Kaugnay nito, hinihiling po namin ang inyong permiso na bigyang pagkakataon na makapagsurvej sa inyong mga magulang. Upang maisakatuparan ang aming isinasagawang pag-aaral sa konseptong papel. Ang inyo pong mga isasagot ay mananatiling pribado.

Kalakip po ng liham na to ang mga tanong sa panayam. Maraming Salamat po at nawa'y makamit namin ang positibong tugon ninyo kaugnay kahilingang ito.

Lubos na gumagalang,

Mga Mananaliksik:

  
**Joshua B. Pascual**

  
**Irish Cathlyn E. Nual**

  
**Dan Henry T. Bonozzo**

**Noted by:**

**DR. MIA V. VILLARICA**  
 Research Implementing Unit Head, CCS

**Approved by:**

**Armin O. Cabrales**  
 P-IV, SCES



LAGUNA STATE POLYTECHNIC UNIVERSITY

BRGY. BUBUKAL STA. CRUZ, LAGUNA

**"SPLWD: Sta. Cruz District Student Profiling for Learners with Disabilities"**

**PART I. Profile Information of the Respondents**

**Directions:** Fill the needed information below before answering the statements.

**Panuto:** Isaad ang mga hinihingi na impormasyon.

NAME: \_\_\_\_\_

AGE: \_\_\_\_\_

GENDER: \_\_\_\_\_

**PART II: Questions to be used to evaluate the Web System**

**Directions:** Put a check (/) on the number you think is an appropriate rating for each statement based on the Likert scale given below.

**Panuto:** Lagyan ng tsek (/) ang numerong sa iyong palagay ay nararapat para sa paksa base sa Likert scale sa ibaba.

5 – STRONGLY  
AGREE  
4 – AGREE

3 – UNDECIDED  
2 – DISAGREE

1 – STRONGLY  
DISAGREE

I. Quality Factors		5	4	3	2	1
1	The system is fully functional; all features are working based on its intended behavior. (Ang sistem ay ganap na nagagamit at ang lahat ng katangian ay gumagana base sa nilalayon nitong gawi.)					
2	The system is operational and capable of meeting the requirements based on the required use. (Ang sistem ay gumagana ng walang problema base sa intensyon nito nang paggamit.)					
3	The system can be effortlessly operated by the user. (Ang disenyo ng sistem ay mabilis matutunan na gamitin.)					

II. Perceived Ease of Use		5	4	3	2	1
1	The web application is user friendly for beginners. (Ang sistem ay mabilis gamitin para sa mga baguhan.)					
2	The function of the developed system can lessen the time and work of the user. (Ang tungkulin ng nagawang sistem ay kayang mapadali ang oras at trabaho ng user.)					
3	I believed the developed system is appropriate for the user's needs. (Naniniwala ako na angkop ang sistem sa pangangailangan ng mga user.)					

III. Perceived of Usefulness		5	4	3	2	1
1	Using this system will help me finish my job of finding the information needed and lessen the time of my work. (Sa pag gamit ng sistem ay natutulungan ako nitong mahanap ang mga kailangan kong impormasyon at napapabilis nito ang oras ng aking trabaho.)					
2	I believed that system is easy to operate and input the information and assessment of the students. (Naniniwala ako na ang sistem ay mabilis gamitin sa paglalagay ng impormasyon at pagsusuri sa mga estudyante)					
3	The developed system has simple features that can be easily learn by the user. (Ang ginawang sistem ay may simple na disenyo at maaring matutunan agad ng user.)					

<b>IV. User Satisfaction</b>		<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>1</b>	The system is very useful in terms of managing and storing the data and assessment of Learners with Disabilities students. (Ang sistem ay kapaki-pakinabang ayon sa tuntunin nitong pamamahala at pag-iimbak ng datos ng mga learners with disabilities.)					
<b>2</b>	I believed that I could operate the system properly. (Naniniwala ako na kaya kong gamitin ang sistem nang maayo.)					
<b>3</b>	The developed system satisfies and meets the user's expectation with the system. (Ang nagawang sistem ay natugunan ang ekspektasyon ng user.)					

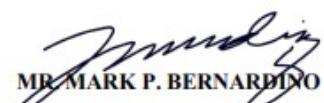
<b>V. Attitude Towards Using</b>		<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>1</b>	I prefer using the developed system in my job. (Gusto ko na gamitin ang nagawang sistem sa aking trabaho.)					
<b>2</b>	I found the system to be quite simple to use. (Nalaman ko na ang sistem ay simple na gamitin.)					
<b>3</b>	I like using the system. (Gusto ko na ginagamit ang sistem)					

**PART III. Comments and Suggestions**



**THANK YOU & GOD BLESS!**

Validated by:



MR. MARK P. BERNARDINO

Technical Editor

**Blackbox Testing Questionnaire**

**User's Manual**

**Relevant Source Code**

# APPENDIX B

## Communication

## Letters and Forms

**Communication Letters**

**ISO Forms**

**Final Oral Defense Rating Sheet**

**Summary of Recommendations for Final Oral Defense**



## APPENDIX C

### Curriculum Vitae

**Tester's Curriculum Vitae**

**Researcher's Curriculum Vitae****Education**

● **Primary**  
2002 - 2003  
*Gatid Elementary School*

● **Secondary**  
2007 - 2008  
*Pedro Guevara Memorial National High*



## **NUAL, IRISH CATHLYN E.**

I am seeking for an effective on-the-job training program where I can put my knowledge into practice, grow as a career person, and apply my skills to use.

### **SEMINAR ATTENDED**

---

**NOVEMBER 2022**