
DEVELOPMENT OF AUTOMATED ENROLMENT SYSTEM OF STA. FE NATIONAL HIGH SCHOOL

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ABSTRACT

Sta Fe National High School started its operation in the school year 1993-1994, under Government Permit No. 012, series 1993 as Sta. Fe National High School with the passage of Republic Act 8045 and by calendar year 2002 the school was included in the Government Appropriation Act (GAA) under RA 9162 in the Philippine Government. It has a total enrollment of 601. It has a concrete nine classrooms, two for completion, two temporary classrooms and one computer room. It has thirteen classes, five sections for Grade Seven, two sections for Grade Eight and Grade Nine, and two sections for Grade Ten. They have twenty-one teachers in all. One enrolling officer as the registrar officer and a treasurer manages the enrollment system. The objectives of the study were to determine the performance level of the automated enrollment system in terms of: (a) Reliability; (b) Usability; and (c) Efficiency.

The development of the system employed, Microsoft Visual Basic 6.0 was used in developing Graphical user Interface or GUI and System Query Language or SQL as database of the system. Program coding was done in Visual Studio. Reliability and Usability were strongly agreed that they were attributes on the system. The Efficiency geared the highest average weighted of 4.90, described as strongly agree.

Recommendations are: to install network connectivity, just a local connectivity for monitoring and facilitations; rigid training for the end users should be undertaken, to include the maintenance of supplementary hardware and software facility; and alternative action when electricity interruption may occur.

KEYWORDS: Efficiency, Graphical User Interface, Query Language, Simulation, Stochastic Model, Visual Studio

INTRODUCTION

SFNHS started its operation in the school year 1993-1994, under Government Permit No. 012, series 1993 as Sta. Fe National High School with the passage of Republic Act 8045 and by calendar year 2002 the school was included in the Government Appropriation Act (GAA) under RA 9162 in the Philippine Government. It has a total enrollment of 601. It has a concrete nine classrooms, two for completion, two temporary classrooms and one computer room. It has thirteen classes, five sections for Grade Seven, two sections for Grade Eight and Grade Nine, and two sections for Grade Ten. They have twenty-one teachers in all. One enrolling officer as the registrar officer and a treasurer, manages the enrollment system.

According to Besel, (2000) data processing is divided into two kinds of processing: database processing and transaction processing. A database is a collection of common records that can be searched, accessed, and modified, such as bank account records, school transcripts, and income tax data. In database processing, a computerized database is used as the central source of reference data for the computations. Transaction processing refers to interaction between two computers in which one computer initiates a transaction and another computer provides the first with the data or computation required for that function.

Hence, the development of automated SFNHS enrollment system greatly provides excellent and reliable transactions with accuracy and efficiency database that is properly secured. Automated data management, accessibility and manipulation of records made easy due to the database availability as repository of all files.

OBJECTIVES

- Determine the performance level of the automated enrollment system in terms of:
- Reliability;
 - Usability; and
 - Efficiency

MATERIALS

**SOFTWARE QUALITY EVALUATION TOOL
 (BASED ON ISO 9126 SOFTWARE QUALITY STANDARD)**

TITLE OF SYSTEM: DEVELOPMENT OF AUTOMATED ENROLMENT SYSTEM OF STA. FE NATIONAL HIGH SCHOOL

DIRECTION: In all the identified software quality metrics below, please check the appropriate column stating your approval or disapproval on the degree of accomplishment per requirements identified.

5-Strongly Agree, 4 – Agree, 3 - Slightly Agree, 2 – Slightly Disagree, 1-Strongly Disagree

ISO SOFTWARE METRICS	Rating				
	5	4	3	2	1
Reliability					
The system is free from errors.					
The system validates user inputs.					
Data is recoverable after system network failures with minimal operator assistance.					
Usability					
The system is user-friendly (texts are visible; buttons and textboxes are of exact size)					
The system is easy to learn and operate.					
The system works at all workstations available at the SFNHS.					
Efficiency					
The system displays all requested data promptly.					
The system processes the test results and print at a reasonable time.					
The system adhere to standards or conventions relating to efficiency					

SOFTWARE EMPLOYED

Microsoft Visual Basic 6.0 was used developing Graphical user Interface or GUI and System Query Language or SQL as database of the system. Program coding was done in Visual Studio.

RESPONDENTS

The study was conducted in Sta Fe National High School in Borongan City, Eastern Samar. Alpha test was conducted by 15 Employees.

METHOD

STATISTICAL TOOL

Average weighted mean was used on determining the extent of applicability of ISO software characteristics. The mean values and qualitative descriptions were employed to determine its extent of applicability of ISO 9126 software characteristics:

Mean Value Qualitative Description

4.10 – 5.00 Strongly Agree
 3.10 - 4.00 Agree
 2.10 – 3.00 Slightly Agree

1.10 – 2.00 Slightly Not Disagree
 0.00 – 1.00 Strongly Disagree

RESULTS

TABLE -1: Frequency Distribution of Respondents' Perception on the Quality of the Software Based on ISO 9126

Characteristic	Level of Agreement					Weighted Mean	Interpretation
	(SA) 5	(A) 4	(S L A) 3	(S L N A) 2	(S N A) 1		
Reliability							
The system is free from errors.	13	2	0	0	0	4.86	Strongly Agreed
The system validates user inputs.	13	1	1	0	0	4.8	Strongly Agreed
Data is recoverable after system network failures with minimal operator assistance.	10	3	1	1	0	4.8	Strongly Agreed
Usability							
The system is user-friendly (texts are visible; buttons and textboxes are of exact size)	13	2	0	0	0	4.86	Strongly Agreed
The system is easy to learn and operate.	15	0	0	0	0	5	Strongly Agreed
The system works at all workstations available at the SFNHS.	9	2	2	2	0	4.2	Strongly Agreed
Efficiency							
The system displays all requested data promptly.	10	5	0	0	0	4.66	
The system processes the test results and print at a reasonable time.	12	3	0	0	0	4.8	Strongly Agreed
The system adhere to standards or conventions relating to efficiency	11	2	2	0	0	4.6	Strongly Agreed

Legend: (SA)=Strongly Agree; (A)=Agree; (SLA)=Slightly Agree; (SLN)=Slightly Not Agree; (SNA)=Strongly not Agree

TABLE -2: Average Weighted Mean of Respondent's Perception on the Attributes of the Developed Automated Enrolment System of SFNHS

Theorem Attributes	Average Weighted Mean	Interpretation
Reliability	4.82	Strongly Agreed
Usability	4.68	Strongly Agreed
Efficiency	4.68	Strongly Agreed

Reliability and usability were strongly agreed that they were attributes on the system. The Efficiency geared the highest average weighted of 4.90, described as strongly agree.

CONCLUSION AND RECOMMENDATIONS

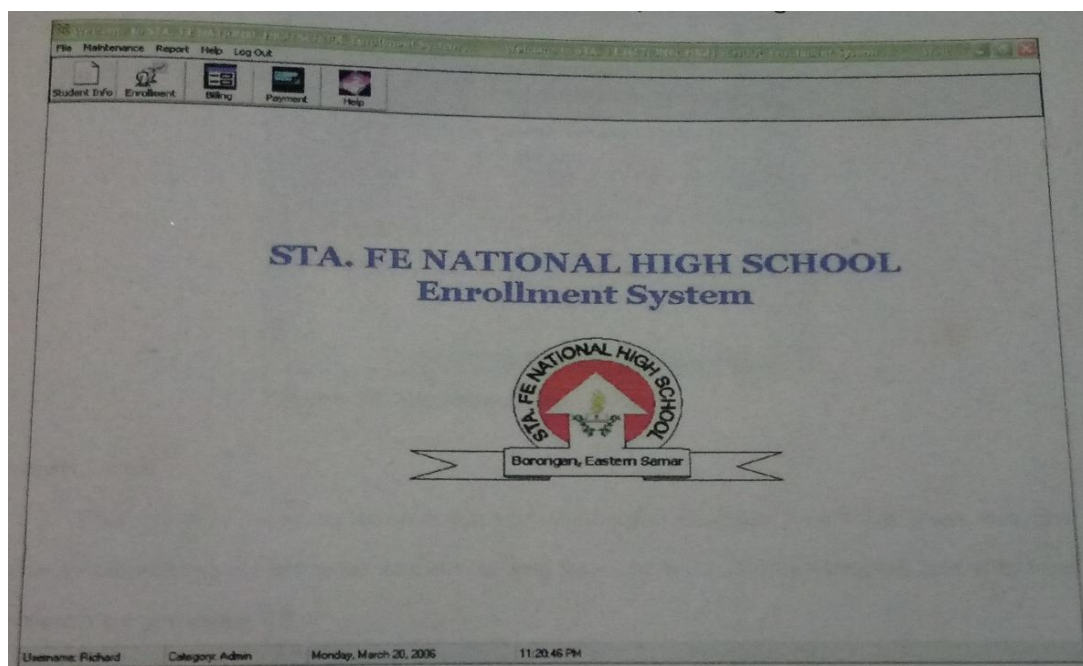
The developed automated enrolment system was very efficient for a small size school like Sta Fe National High School, very helpful to the stakeholders and the workers of the institution. Very useful for a growing school as a starting benchmark.

It was recommended to install a network of connectivity, even a local connectivity for monitoring and facilitations. Rigid training for the end users should be undertaken, to include the maintenance of supplementary hardware and software facility, as well as alternative action when electricity interruption may occur.

REFERENCES

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SCREEN INTERFACE



Student Personal Information

Student No. 06-0006 Last Name First Name M. I.
 Date of Birth // Place of Birth Gender
 Address: Street Brgy. Town
 School Last Attended:
 Credentials:
 Card Form137 Birth Certificate Good Moral Check All
 Remarks:
 Parents:
 Father's Name Mother's Name
 Authorized Guardian

Save Cancel Close

Student Number	Last Name	First Name
06-0001	Balanay	
06-0002	Beato	
06-0003	Brozas	
06-0004	Geronimo	
06-0005	Alura	

Teacher

Teacher ID 06-022 Last Name First Name M. I.

Save Cancel Close

I.D. Number	Last Name	First Name
06-001	Agus	Antonieta
06-002	Agus	Arnold
06-003	Afable	Eva
06-004	Apelado	Cecelia
06-005	Basada	Melita

Form for entry of: Profiling of Students, Teachers, and Payment

Enrollment

School Year Last Attended

Student ID Student Name
 School Year Year Level
 General Average

Present School Year

Year Level Section
 School Year Adviser Code

Save Cancel Close

Grade Rec No	Student Name
G06-000001	Balanay, Anthony
G06-000002	Beato, Sandra
G06-000003	Brozas, Martin
G06-000004	Geronimo, Jenn...
G06-000005	Alura, Madelyn
G06-000006	Bohol, Jessele
G06-000007	Baylon, Jaylon
G06-000008	Lazarra, Elmer
G06-000009	Balanay, Anthony
G06-000010	Balanay, Anthony
G06-000011	Alicantara, Jasmin
G06-000012	Bornate, Allan
G06-000013	Acol, Jordan
G06-000014	Balanay, Anthony
G06-000015	Gade, Mechelle
G06-000016	Tiu, Ritichelle

Enrollment

Please Click on "General Average" to Update Record

School Year Last Attended

Student ID: Student Name:

School Year: Year Level:

General Average:

Present School Year

Year Level: Section:

School Year: Adviser Code:

Save Cancel Close

Grade Rec No	Student Name
G06-000001	Balanay, Anthony
G06-000002	Beato, Sandra
G06-000003	Brozas, Marvin
G06-000004	Geronimo, Jenn...
G06-000005	Alura, Madelyn
G06-000006	Bohol, Jessele
G06-000007	Baylon, Jaylon
G06-000008	Lazara, Elmer
G06-000009	Balanay, Anthony
G06-000010	Balanay, Anthony
G06-000011	Acantara, Jasmin
G06-000012	Bornate, Allan
G06-000013	Acol, Jordan
G06-000014	Balanay, Anthony
G06-000015	Gade, Mechelle
G06-000016	Tiu, Ritzhelle

Department of Education
 Sta. Fe National High School
 Sta. Fe, Borongan, Eastern Samar

LIST OF TEACHERS Monday, April 03, 2006

TeacherID:	Last Name	First Name	M.I.	Advisory Class
06-001	Agus	Antonieta	C.	First Year - Sampaguita
06-002	Agus	Arnold	O.	First Year - Camia
06-003	Afable	Eva	L.	-
06-004	Apelado	Cecelia	C.	First Year - Aster
06-005	Basada	Melita	A.	First Year - Rose
06-006	Beato	Minerva	V.	Second Year - Mango
06-007	Casilano	Marina	P.	-
06-008	Cidro	Milagros	D.	Third Year - Nana
06-009	Cosipeg	Gemma	G.	Third Year - Molave
06-010	Eusibio	Ma. Nickita	J.	Third Year - Mahogany
06-011	Gabornes	Marianito	A.	Second Year - Avocado
06-012	Lafaja	Rovera	P.	Second Year - Lansones
06-013	Liabore	Lilia	C.	Fourth Year - Rizal
06-014	Maggili	Cleofe	L.	-
06-015	Odrion	Socrates	D.	-
06-016	Ortiguera	Perlita	B.	-
06-017	Pajares	Eva	G.	Fourth Year - Bonifacio
06-018	Palada	Rosalinda	E.	-
06-019	Baculongan	Manie Rose	P.	-
06-020	Tavera	Emma	M.	First Year - Dahlia
06-021	Quinto	Esthera	N.	-


REPORT of Listof : Teachers, Enrolled Students, Payment made by Students,

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 Sta. Fe, Borongan, Eastern Samar

STUDENT GRADE RANKING
 2005-2006
 First Year

Monday, April 03, 2006

SN	Lastname	Firstname	M.I	Gen. Ave.
06-0023	Grata	Janice Dyan	F	95
06-0010	Fermino	Fresilda	O	90
06-0022	Lim	Jan Michael	D	90
06-0002	Beato	Sandra	C.	90




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Sta. Fe National High School
 Sta. Fe, Borongan, Eastern Samar

Monday, April 03, 2006

LIST OF STUDENT BY SECTION

Section	Level	School Year	
Sampaguita	First Year	2006-2007	
Student Number	Last Name	First Name	M.I.
06-0001	Balanay	Anthony	A
06-0005	Alura	Madelyn	S.
06-0017	Quiloña	Janice Dyan	G
Total Number of Students			3




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 Sta. Fe, Borongan, Eastern Samar

Tuesday, April 11, 2006

Student Contribution and Payment

Name **Balanay, Anthony A.**

Code	Description	Debit	Credit
AT-0001	Anti-TB	50	0
ID-0001	Identification Card	50	0
PT-0001	Parents Teacher Asso	25	0
RC-0001	Red Cross	75	0
SB-0001	Student Body	100	0
SO-0001	School Organ	75	0
-----	Amount Paid	0	300
-----	Amount Paid	0	75
TOTAL		375	375
Balance		Php	0



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Tuesday, April 11, 2006

Student Contribution and Payment

Name **Afable, Kenneth Rey**

Code	Description	Debit	Credit
AT-0001	Anti-TB	50	0
PT-0001	Parents Teacher Asso	25	0
RC-0001	Red Cross	75	0
SB-0001	Student Body	100	0
SO-0001	School Organ	75	0
TOTAL		325	0
Balance		Php	325