Automated, Systematized, Enrolment Program (A.S.E.P): An Efficient Way of data Gathering for Enrolment

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ABSTRACT

Automated, Systematized, Enrolment Program (A.S.E.P.) is an electronic enrolment system program designed by the researchers for schools for schools: Raja Soliman Science and Technology High School and Antonio A. Maceda Integrated School (JHS). The data gathering in A.S.E.P. is automatic. The acquisition of needed information about the enrolment status is done in real time. The main goal of A.S.E.P. is to address the problems encountered in pre-data collection, data collection, learner information system (LIS) encoding, and data retrieval.

The tool used to assess the usefulness of A.S.E.P. was validated by the SRCs of RSSTHS and AAMIS and the PSDS of SDO-Manila. Purposive sampling was used in selecting the participants for the survey questionnaire. There were 26 female and 18 male respondents. Twenty (20) of the respondents were in the age range of 24-35 years old; twelve (12) were in the 36–46-year-old range; and twelve (12) were in the 47–59-year-old range. Thirty-six (36) of the participants were regular teachers (TI-TIII), four (4) master teachers, three (3) head teachers, and one (1) guidance counsellor. The results of the survey questionnaire revealed that respondents "agree" to statements 1, 2, and 6. They "strongly agree" to statements 3, 4, 7, 8, 9, and 10. They "disagree" in statement 5. Similarly, based on the evaluation in the use of ASEP, it "exceeded the standards" with an overall mean of 3.18 and a standard deviation of 0.05.

A.S.E.P. can be utilized to collect enrolment data efficiently. User-friendly, editable, sustainable, rapid, efficient, and real-time capabilities increased enrolment data gathering. Valid and accurate data were collected. It addressed enrolment concerns by conforming to the enrolment method and procedure, reduced duplicated data, automatically generated school form 1, categorized learners by gender, and captured real-time data on 4p's, vaccination status, SPED, assistive devices, and indigenous. This study's conclusions can be utilized to adjust and improve public school enrolment, creating a modified A.S.E.P.

Keywords: Automated, Systematized, Enrolment, Program, System

1. Main text

1. 1 Introduction

Enrolment procedure is based on DepEd order no. 3 s. 2018[7]. Hence this is modified due to the pandemic. The Department of Education released an enrolment manual which aims to provide salient information on basic questions that the public may ought to know in ensuring that their children will receive proper education. This is then revised based on DepEd order no. 8 s. 2020[3], thus creating a modified enrolment guidelines for parents, legal guardians, school heads and teachers in the enrolment of learners.

Automated, Systematized, Enrolment Program (A.S.E.P.) is an electronic enrolment system program designed by the researchers for schools with Junior High School and Senior High School students in the Division of City Schools - Manila. Its main feature is a programmed system in the enrolment process. The data gathering in A.S.E.P is automatic thus acquisition of needed information in the enrolment status is real time.

The main goal of A.S.E.P is to address the problems encountered in the pre-data collection, data collection, Learner Information System (LIS) encoding and data retrieval. In the pre-data collection, designated teachers and focal persons did not facilitate the enrolment to ensure their safety; errors are encountered in the established digital and physical platform; misleading information in the dissemination of enrolment procedures. In the actual data collection, information from advisers, parents, and platforms are difficult to gather. Some entries in the digital platform are multiple thus creating a data redundancy. Collecting data also requires time which in turn causes a delay in all reports. In the Learner Information System (LIS), the data collection of advisers in MLESF takes time due to consolidation of teachers. In the data retrieval, the daily status report takes time due to manual gathering of data from enrolment.

A.S.E.P was implemented in the Junior High and Senior High Schools of Raja Soliman Science and Technology High School and Antonio A. Maceda Integrated School (JHS). Results of this study will be used in modifying the enrolment system in public schools and creating a modified version of A.S.E.P.

The Department of Education issues Guidelines on enrolment process in the Context of the Continuing National Public Health Emergency due to Covid-19 – DepEd order no. 32 s. 2022[5]. These policies and regulations provided by the DepEd helps the school heads, teachers, parents/guardians in the new enrolment process. Despite these guidelines, problems still commenced in the enrollment process. Below are the problems that will be addressed by the researchers.

1. What are the features of A.S.E.P. that improve the data gathering process?
2. How efficient is A.S.E.P in terms of the following: functionality, reliability, validity, usability, and sustainability?
3. How does the A.S.E.P. addresses the problems in the enrollment process?

1.2 Methodology

The concept behind the generation of Automated, Systematized, Enrolment Program (A.S.E.P.) is to transform the traditional way of public enrolment system into an electronic enrolment system. This is to provide solution to the emerging problems in data gathering, data encoding and data retrieval in public schools' enrolment system. It may also lessen the tedious enrolment procedure in the public enrolment system. Below is the enrolment system in A.S.E.P.
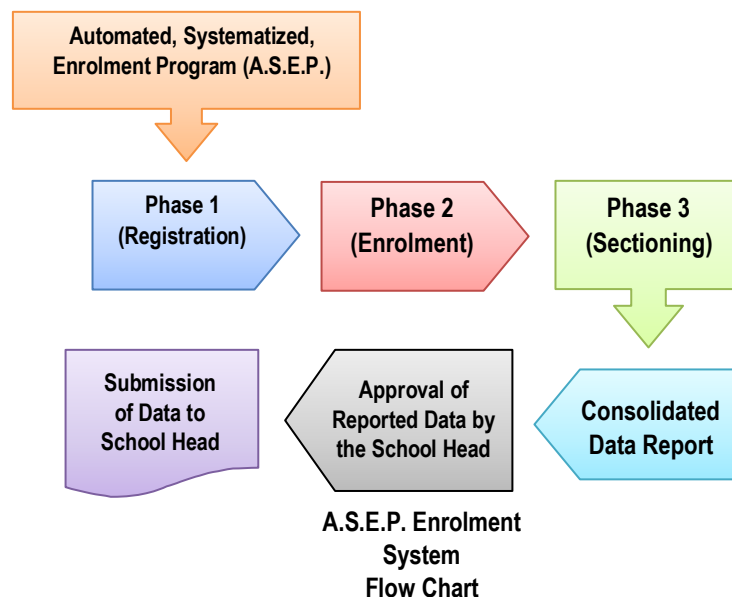

Figure 1. A.S.E.P. Data Gathering Procedure

In the Phase 1 of A.S.E.P. enrolment system, the participants were students, guardian/s and teachers. During the registration phase, student/s, parent/s or guardian/s and teacher/s may register through google form given by the curriculum chairs. This google form is provided by the system administrator (researchers).

In the Phase 2 of A.S.E.P. enrolment system, the participants are curriculum chairs, advisers, system administrators and ICT coordinators. During the enrolment phase, students are required to submit the necessary documents for enrolment. Students need to confirm the processing of their enrolment through text messages, electronic mail or personal appearance in school. Submitted documents will be subject for verification of the curriculum chair. After the verification process, the curriculum chair may choose to tick the following: enrolled, temporary enrolled, deletion.

In the Phase 3 of A.S.E.P. enrolment system, the participants are curriculum chairs, administrators, advisers, and ICT coordinator. During the sectioning phase grade level curriculum chairs will assign the section for

each enrolled student. After the sectioning phase, data will be automatically consolidated in real time. This data is linked to the school head for checking and approval. Copy furnished data are linked in SDO-Manila.
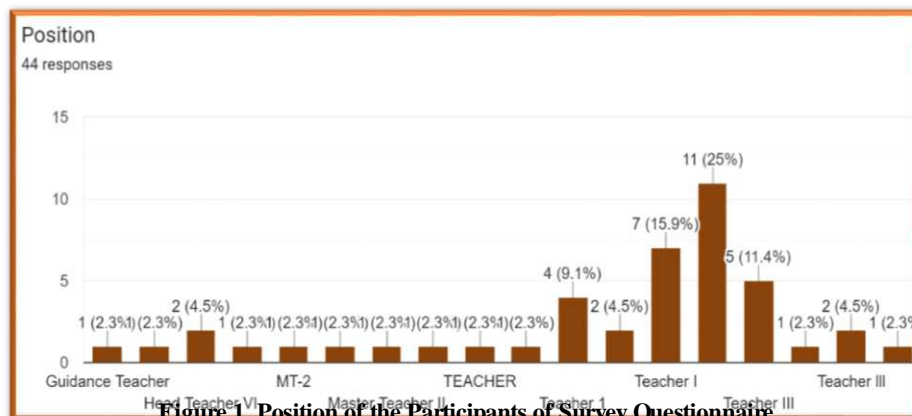
1.3 Data and Result

Figure 1. Position of the Participants of Survey Questionnaire

Figure 1 above illustrates that there were thirty-six (36) regular teachers (TI-TIII), four (4) master teachers, three (3) head teachers, and one (1) guidance counsellor. Figure 2 below shows that there were 26 female respondents and 18 male respondents. Figure 3 below reveals that twenty (20) of the respondents were in the age range of 24-35 years old; twelve (12) were in the 36–46-year-old range; and twelve (12) were in the 47–59-year-old range.
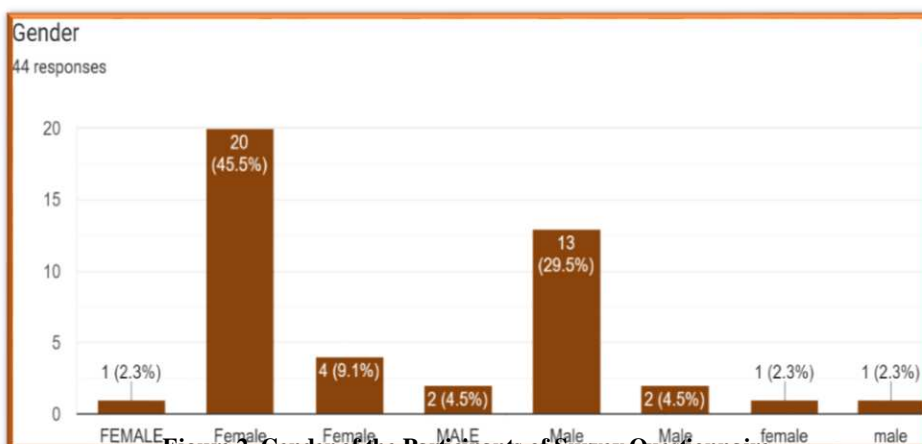

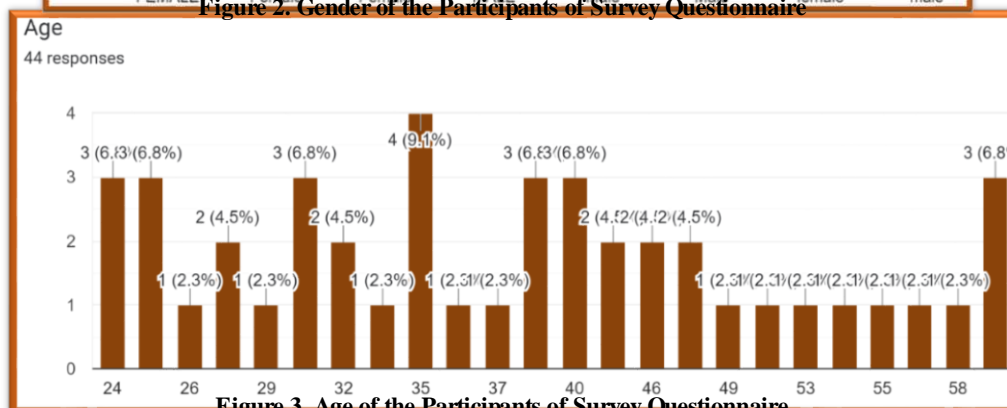**Figure 2. Gender of the Participants of Survey Questionnaire**

Figure 3. Age of the Participants of Survey Questionnaire

1.3.1 Demographic Profile

Participant/s	No. of People

System Administrator	2
School Heads	2
Assistant Principals	1
SHS - ICT Coordinators	1
SHS Curriculum Chairs/Head Teachers	10
Guidance Teacher	2
Advisers/Teachers	41
Total	59

Table 1. Source of Data and Information

The table 1 above, provides the summary of the total number of participants in A.S.E.P. enrolment system. Participants are the system administrator, school heads, assistant principals, ICT coordinators, curriculum chairs, head teachers, guidance teachers and advisers. Below is the role of each participant in this action research.

System Administrator – the system administrator oversees the entire enrolment system.

School Head – the school head check and approves the collected data in junior high and senior high school

Assistant Principal – the assistant principal monitors the enrolment flow in senior high school

Grade Level Curriculum Chair – the curriculum chairs verify, confirm, and assign section to the enrollees

ICT Coordinator – the role of ICT coordinator is school-based system administrator

Purposive sampling technique is a non-probability testing method, and it happens when "elements selected for the sample are chosen by the decision of the researcher, which will lead to saving time and money" [1]. This technique was used by the researchers to gather the necessary data for A.S.E.P. In the sampling procedure, the researchers created a (10) ten items Likert-scale scheme survey based on the action research questions. This was validated by the school research coordinators of Raja Soliman Science and Technology School and Maceda High School, SIRC Committee of Maceda High School and public school district supervisor of District IV. Scoring and interpretation of the gathered data was adapted from the book "Action Research" [8].

1.4 Discussion

Scoring and interpretation of the gathered data from the validated researcher made survey (ten (10) item Likert scale scheme) was analyzed based on the "Action Research" book [8]. It was further treated using the quantitative methods: mean and standard deviation [2], assuming that the distribution of data (interval/ratio) is not skewed [9]. Mean is arithmetic average of the scores, calculated by adding all the scores and dividing by the total number of scores [2]. Standard deviation is considered the most useful index of variability. It is a single number that tells us the variability, or spread, of a distribution (group of scores) [2].

Statements	Mean	SD	Interpretation
1. A.S.E.P. is user friendly.	3.16	0.81	Exceeds standards
2. Programming used in A.S.E.P. can be easily edited, promoting sustainability.	3.14	0.82	Exceeds standards
3. Data gathered in A.S.E.P. conforms with the enrolment system and prescribed procedure.	3.18	0.81	Exceeds standards
4. Data gathering in A.S.E.P. is real-time.	3.32	0.80	Exceeds standards

5. A.S.E.P is hard to use. *	3.23	0.74	Exceeds standards
6. A.S.E.P. reduce significantly repeated data.	2.98	0.90	Met standards
7. A.S.E.P. automatically generates School Form 1.	3.11	0.89	Exceeds standards
8. E-data gathering of A.S.E.P. is fast and efficient.	3.25	0.78	Exceeds standards
9. A.S.E.P. easily categorizes enrolled learners from male to female.	3.20	0.82	Exceeds standards
10. Data needed in MLES form like number of 4p's, vaccination status, SPED, assistive devices, and indigenous can be determined real time.	3.20	0.85	Exceeds standards
OVERALL	3.18	0.05	Exceeded standards

Table 2. Descriptive Statistics of A.S.E.P.

The element of satisfaction with A.S.E.P. states that 4 is "strongly agree", 3 is "agree", 2 is "disagree", and 1 is "strongly disagree". Results of the survey questionnaire shown in table 2 above, revealed that most of the respondents "agree" to statements 1, 2, and 6. They also "strongly agree" to statements 3, 4, 7, 8, 9, and 10, and "disagree" to statement 5. This signifies that A.S.E.P. is really an effective tool in data gathering for enrolment.

Similarly, based on the evaluation in the use of ASEP as seen in Figure 4 below, it "exceeded the standards" in items number 1 (3.16, 0.81), 2 (3.14, 0.82), 3 (3.18, 0.81), 4 (3.32,0.80), 5 (3.23, 0.74), 5 (3.23, .074), 7 (3.11, 0.89), 8 (3.25, 0.78), 9 (3.20, 0.82) and 10 (3.20, 0.85). It *"met the standards"* for item number 6 (2.98, 0.90). In general, A.S.E.P. *"exceeded the standards"* with an overall mean of 3.18 and a standard deviation of 0.05.
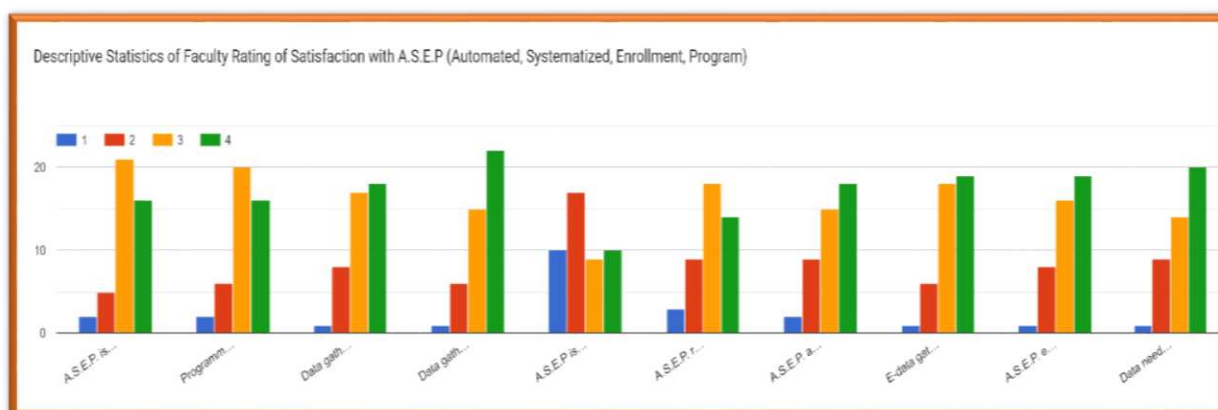

Figure 4. Summary of Faculty's Rating of Satisfaction in the use of A.S.E.P.

1.5 Conclusion

As a result, automated systematized, enrolment program can be used as an efficient tool for data gathering in the enrolment process. It's user friendly, editable, sustainable, fast and efficient, and real-time features improves the data gathering process in enrolment. Data gathered are also reliable and valid. It addresses the problems in enrolment in such a way that it conforms with the enrolment system and prescribed procedure, reduced significantly repeated data, generated the school form 1 automatically, learners were categorized from male to female, and real time data capture of number of 4p's, vaccination status, SPED, assistive devices, and indigenous.

These results of this study can be used in modifying and improving the enrolment system in public schools, thus creating a modified version of A.S.E.P.

Acknowledgment

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