# Curriculum Management's Implementation of the E-Sistem Penilaian Purata Nilaian Gred from The Perspective of Teachers of Selected MRSM in Selangor

Nik Samhanin binti Mohd Ghazali (Corresponding Author),
Mahadi bin Ismail

Faculty of Education, International Islamic University Malaysia (IIUM)

**Abstract**
The objective of this study is to examine teachers' perception of the e-SPPNG system in terms of perceived usefulness, ease of use, and usage of the actual system for strategic curriculum management in the selected Maktab Rendah Sains Mara (MRSM) in Selangor. This study was designed quantitatively where the data was collected from a survey involving one-hundred-seventy-six (176) MRSM teachers. The respondents were chosen randomly and conveniently from two MRSMs in Selangor and have experience in using the SPPNG system. Based on descriptive analysis, it was found that most of the teachers had a positive perception toward the implementation of the e-SPPNG system in curriculum management. This shows that they believed the e-SPPNG system is useful and easy to use. Overall, the results of this research were significant in illustrating the usage of the e-SPPNG among MRSM teachers.
**Keywords:** e-SPPNG System, Curriculum Management, MRSM Teachers, Perceived Usefulness, Ease of Use, and Usage of the Actual System

**Introduction**
An online management information system can help increase the efficiency and effectiveness of school curriculum management by providing real-time access to data, facilitating communication and collaboration among stakeholders, and automating administrative tasks. According to Drucker (1982) management as a social process designed to gain the cooperation, participation, and involvement of members in an organization to achieve the organization's goals is also relevant in the education field. School management involves coordinating the efforts of various stakeholders such as teachers, students, parents, and administrators to achieve educational objectives (Halimah et al., 2014). Effective management in education requires the ability to motivate, communicate, and work collaboratively with these stakeholders to ensure that the school curriculum is well-designed and implemented. (Morphet et al., 1982) emphasized that the efficiency of curriculum management is important to ensure the accomplishment of organizations' goals. Looking at the various benefits that can be obtained from the usage of the online management information system, the education system at the Maktab Rendah Sains MARA (MRSM) also adopted this innovation. Currently,

MRSM has adopted online approaches in its education system which include the e-Sistem Penilaian Purata Nilaian Gred (e-SPPNG) system to assist teachers in managing data and information more efficiently and systematically. The provision of this central centralized management system makes it easier for the MARA Secondary Education Division (BPM) to make a comparative analysis or identify weaknesses of its education management system, therefore suggesting the things that need to be improved. The e-SPPNG system facilitates the entry of scores, PNG calculations, and students' data online. The whole MRSM started to fully utilize the e-SPPNG system for managing students' records online as well as the education process. The implementation of e-SPPNG among MRSM teachers has reached a 10-year period (Department of Secondary Education MARA, 2020). There is a need to investigate the MRSM teachers' experiences towards the usage of e-SPPNG especially in terms of its usefulness, ease of use, and use of an actual system for curriculum management strategy.

This study analyses the acceptance of MRSM teachers towards the e-SPPNG system using the TAM Model (Technology Acceptance Model) (Davis, 1989). Based on the model, there are two models whereby two external variables are perceived usefulness and perceived ease of use of the e-SPPNG system. The two internal factors which will be highlighted in this research and the actual system use as the endpoint for everyone to be able to do with technology. Each of these factors has a different degree of influence on the actual usage of the e-SPPNG system in improving the efficiency of curriculum management in MRSM. Several external factors are added according to the context of the study in terms of psychology, technology, and school management which will be highlighted in this research.

## Literature Review
### Technology Acceptance Model (TAM)
There were several previous research conducted on the use of the technology acceptance model (TAM) regarding the use and acceptance of the Internet (Musa et al., 2012 a). The Internet has become an important medium today and some of these Internet advancements are beginning to dominate and influence the behavior of modern communities. Davis (1989), as cited in Musa et al (2012 b) which suggested two controls on internal belief as the key determinants in TAM. One of the constraints of this internal belief is the notion of usefulness (Perceived Usefulness PU). The second belief piece is a simple (Perceived Ease of Use PEOU) response. As such, the TAM model is used by researchers as a fundamental framework for this study in analyzing the relationship between Internet usage in curriculum management through the system of e-SPPNG and teachers' perceptions in two MRSMs in Selangor.

This previous research provided a fundamental basis for this current study. The motivational factors highlighted in this current research are categorized into perceived usefulness and perceived ease of use. The TAM model of external variable motivation suggests that teachers' attention could sustain the perceived level of using system 11 curriculum management in school. A variety of strategic methods of system curriculum management are employed by the school management to help reduce the burden on teachers (Neagley & Evans, 1967). However, the role of the top management in ensuring the actual use of the system in curriculum management to enable information to be used easily and save time for management purposes is highlighted as one of the external motivation factors in this study. It can lead to failure in managing the data management system if the top management cannot make use of the teacher's ability to use e-SPPNG. According to the TAM model, teachers

establish relevant to keep information-motivated systems in the process of the curriculum management plan. Failing to perceive the future usefulness and ease of use of system e-SPPNG can demotivate parents from using the e-SPPNG system. The TAM model also highlights the key element of acceptance that can boost teachers' motivation in using the e-SPPNG system. On the contrary, acceptance deficiency would affect teachers' motivation in using the e-SPPNG system. Thus, the positive perception of the actual use of the system towards curriculum management and the good acceptance among teachers are seen as the external motivation factors in this study (Zabukovsek & Bobek, 2013).
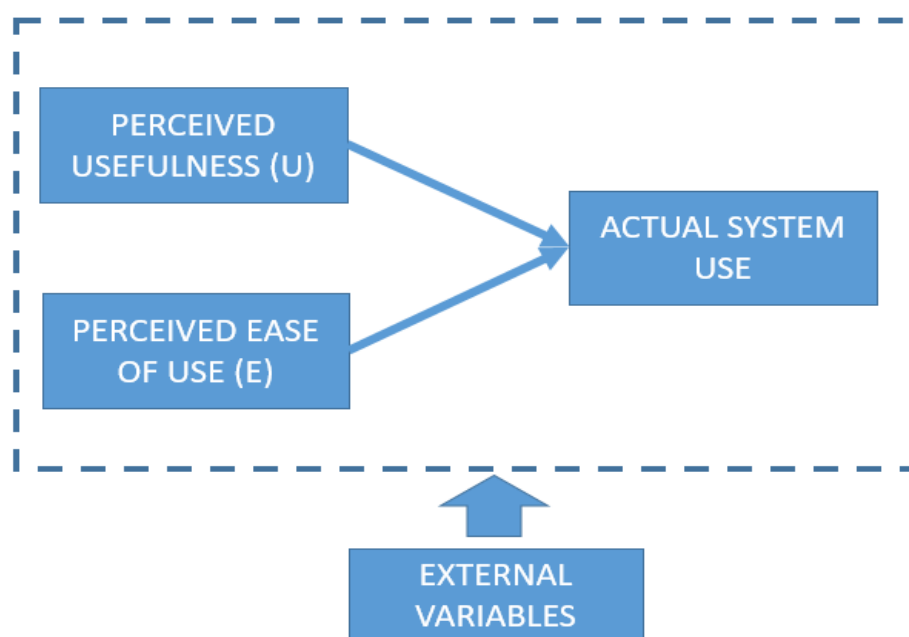


Figure 2.1 The Technology Acceptance Model (TAM) Source: (Davis, 1989).

Among the pioneer research on curriculum system management was a study by (Saad & Daud, 2020) which investigated the perception and the use of EMIS Online system curriculum management from the perspective of teachers: a qualitative analysis using a questionnaire for teachers who use EMIS Online. The findings showed that the respondents were satisfied with the EMIS online aside from getting current information and management information about students.  As stated in *Buku Panduan Unit Peperiksaan dan Penilaian Maktab,* among the many factors of technological acceptance among teachers in using EMIS Online were individual, technological, environmental, and cultural aspects (Unit Ujian dan Peperiksaan Bahagian Pendidikan Dan Latihan (Menengah) MARA**,** 2015).

**e-SPPNG System**
Rubric-based Online Scoring System Development aims to develop a scoring system software rubric-based online for MRSM to help accelerate the scoring process in producing the academic and curriculum results of students in a school. The system was developed using an Internet-based system through the program codes of ASP, HTML, and JavaScript. Now, it is known as the e-SPPNG system (Ismail, personal communication, 2000).
The previous resources provided that many systems contribute to the performance achievement of a school, but most are conventional and limited in use (Goodhue & Thompson, 1995). This study aims at providing useful insights that will help MARA to improve its quality in terms of curriculum management, especially in all MRSMs throughout Malaysia. The

teachers, students, parents, and the top management need to foster a good relationship to achieve excellent academic and curriculum performance (Halimah & Eow, 2014). The school has taken the initiative to help teachers to key in the examination results by introducing the online system which enables the teachers to perform their tasks without having to attend school. It allows information and results of the students to be delivered easily and quickly for teachers' further action. Besides that, teachers can provide feedback and communicate their opinions and ideas (Robbins, 1978), as well as plan the curriculum management based on the information available in the e-SPPNG system. Thus, understanding can be maximized, and conflicts can be minimized between teachers, students, parents, and the top management of MRSM.

**External Variable Factors Implementation e-SPPNG in Curriculum Management**
The external variable factors refer to two external factors namely the perceived usefulness and perceived ease of use. The two internal factors which will be highlighted in this research and the actual system use are the endpoints for everyone to be able to do with technology. Implementation of the e-SPPNG system in curriculum management is an important factor to determine the attitude of teachers in the actual system use. When these elements of the Technology Acceptance Model (TAM) are in place, teachers will have the attitude and intention to use the technology (Fishbein & Ajzen, 1975). However, the perception may change depending on different work experiences because everyone is different. Several external factors relevant to the context of the study are added, namely psychology, technology, and school management which will be highlighted in this research.

**Psychology**
Teachers' implementation of Rubric-based Online Scoring System Development is due to the internal factor of the teachers. Hikmi et al (1999) conducted a survey involving over 1000 respondents among teachers using the Rubric-based Online Scoring System Development to analyze the result and categories of teachers' perceptions regarding the acceptance of using that system (Goodlad, 1966). The study proved that psychological factors such as committing fewer mistakes when using the system stimulate the interest among teachers towards the usage of the e-SPPNG system. As the system is easy and practical to be used whereby teachers do not have to refer to the manual of usage, this also psychologically motivates the teachers to use the system. This current research will explore the teachers' perception towards the e-SPPNG system in MRSMs in Selangor which encourages the teachers to accept the e-SPPNG's perceived usefulness and actual system of use.

**Technology**
The technological factor is very important to investigate the acceptance of a technology developed. Previous research stated that the system's quality, information quality, and service quality can be considered to determine the acceptance or rejection of the developed system (Al-Busaidi & Al-Shihi, 2010). The system is said to be quality when it assists the teachers to accomplish given tasks, swiftly, therefore affecting teachers' acceptance perception of the system, in this case, the e-SPPNG system. In the context of e-SPPNG system, the features are students' information, examination result by semester, and *Ujian Standard Kecergasan Fizikal Kebangsaan* (SEGAK) assessment. Such features can help save time and money as teachers do not have to print out the students' results which can inspire the perception of easy and beneficial to be used. This current research will explore teachers' perception towards the

implementation system e-SPPNG in MRSM Selangor with regards to perceived usefulness, ease to use, and actual system of use.

## School Management

The development of technology related to curriculum management in MRSM generally involves the support of various parties such as the administration, academic, and Student Affairs Division in MARA. The collaboration between organizations and essential technical infrastructure is vital to ensure the effectiveness and efficiency of e-SPPNG usage. *For this study, the maintained student's personal information at MRSM from form 1 to form 5. Their personal information is kept properly and easily for any academic and curriculum planning. The system is efficient and fast in uploading academic results, the curriculum for SEGAK assessment, as well as knowing the debt balance for student contribution payments. As the e-SPPNG administrators provide repossessions to teachers' inquiries, the teachers will consider the e-SPPNG system as useful and easy to use. This current research will explore teachers' perception of the e-SPPNG system in curriculum management in MRSM Selangor, by taking into consideration the factors of e-SPPNG content features, facilities, and technical support in encouraging teachers to accept the usage of the e-SPPNG system.

## Research Objectives

There are four research objectives to be achieved in this research which are

1. To explore the MRSM teachers' perception towards the implementation of the e-SPPNG system in terms of perceived usefulness in curriculum management in MRSM.
2. To examine the MRSM teacher's perception towards an e-SPPNG system in terms of ease of use in curriculum management in MRSM.
3. To identify the MRSM teachers' perception towards smart records and the actual usage of the e-SPPNG system to be applied in curriculum management in MRSM.
4. To examine if there are any differences between the different years of teaching experience and the actual usage of the e-SPPNG system.

## Research Methodology

The current quantitative study employs a descriptive ex post facto research design to analyze the teachers' perception towards the implementation of e-SPPNG in curriculum management in two MRSMs in Selangor. As the approach of this study is quantitative, the researcher utilized a survey as the instrument for collecting the data. The questionnaire was used as an appropriate method for measuring perceptions. The analysis focuses on the statistically significant relationship between the benefits of e-SPPNG and the improvement in curriculum management plan in two MRSMs in Selangor.

This study employed convenient sampling whereby 170 teachers teaching Form 1 until Form 5 from two MRSMs in Selangor were selected as participants in this study. The samples consisted of teachers with different years of teaching experience. This was purposively done in analyzing the statistical significance between working experience and teachers' perception towards the e-SPPNG system in curriculum management which is one of the research objectives. This randomization process was to ensure no biasedness in the sample and that it represented the intended population in providing concrete answers for the established goals and research questions.

The data collected through the questionnaire consisted of two parts. Part A contained demographic questions in the form of nominal data, and Part B contained 5-point Likert scale questions in the form of ordinal data. These data were analysed descriptively using the Statistical Package for the Social Sciences (SPSS) to answer the research questions established. Charts and graphs were used to illustrate the data visually in terms of the mean score and the standard deviation. Descriptive statistic (means, frequencies, and standard deviations) was used to summarize the demographic information of the respondents and to answer the first research question (teachers' perception towards e-SPPNG system in terms of perceived usefulness for strategic curriculum management). Responses in the "Agree" and "Strongly Agree" categories were combined into just one category of agreement, while "Disagree" was used to represent only categories of disagreement and partiality. The mean scores were computed on the perceived usefulness, perceived ease of use, and actual system of use. If a significant difference was detected, the effect size would be computed to estimate the impact of the difference.

**Section A: Demographic Background of Respondents**
The two demographic information in Section A were gender and years of teaching experience. In this study, there were 133 (78%) female respondents and 37 (22%) male respondents. The total numbers of respondents were 170 (100%) teachers who teach in the two MRSM in Selangor. The number of respondents for male and female were unequally distributed.

Table 4.1
*Respondents' Gender by Gender*

| Gender | N | % |
|--------|-----|-----|
| Male | 37 | 22 |
| Female | 133 | 78 |
| **Total** | **170** | **100** |

The respondents' years of teaching experience is summarised in Table 4.2 below:

Table 4.2
*Respondents' Years of Teaching of Experiences*

| Teaching Experience | N | % |
|---------------------|-----|-----|
| 5 years and below | 21 | 12 |
| 6-15 | 97 | 57 |
| 16-25 | 40 | 24 |
| 26-35 | 9 | 5 |
| **Total** | **170** | **100** |

The respondents have grouped accordingly into 4 ranges of years of working experience.
Based on Table 4.2, 97 (57%) respondents have been teaching for 6 to 15 years. The average age of the respondents was at the age of 2 years of working experience and the median age of the respondents was 2 and a half years of working experience.

**The Level of Teachers' Perception Towards the Implementation of the e-SPPNG System**

The next study finding is to answer the level of teachers' perception towards the implementation of system e-SPPNG regarding the three elements explained before. A table is used to illustrate the level of teachers' perception by looking at the range of mean for the 15 items. The data shall be explained by referring to the table of teachers' perceptions towards the implementation of system e-SPPNG.

Table 4.3
*The Level of Teachers' Perception of the e-SPPNG System*

| Total Score Item | The level of teachers' perception of the e-SPPNG System |
|---|---|
| 1.00 - 2.33 | Low |
| 2.34-3.66 | Moderate |
| 3.67-5.00 | High |

Section B: Result Based on Research Questions

**Research Question 1: What is the level of teachers' perception of the perceived usefulness of the e-SPPNG?**

**a)       Perceived Usefulness**

The mean score was 4.294 which indicated that the teachers had a high perception of the usefulness of the implementation of e-SPPNG. Davis (1989) Stated that the primary motivation for employees is that the system design is helpful in performing the tasks better whereby relates to this study, it can be said that the teachers accredited the usefulness of the e-SPPNG system as it helps them in their job. The e-SPPNG system is beneficial for the teachers as it reduces data repetition load, saves time, and reduces the insignificant activity in the school management curriculum in an effort of improving the school performance. Table 4.4 below, shows the number of respondents according to their level of agreement on the perceived usefulness of the e-SPPNG system.

Table 4.4

*Level of Teachers' Perception in terms of e-SPPNG Perceived Usefulness (n=170)*

| No | Items | SD N (%)   D N (%) | NS N (%) | SA N (%)   A N (%) | Mean | SD |
|---|---|---|---|---|---|---|
| 1 | An e-SPPNG benefit to me in: Overall, the system is useful for work (P). | 1   7 <br> 0.6 4.1 | 14 <br> 8.2 | 84   64 <br> 49.4   37.6 | 4.3118 | 0.83728 |
| 6 | Using e-SPPNG system increases productivity (SM). | 0   9 <br> 0   5.3 | 16 <br> 9.4 | 81   64 <br> 47.6 37.6 | 4.2765 | 0.84267 |
| 11 | Using e-SPPNG system enhances work performance (SM). | 0   10 <br> 0   5.9 | 18 <br> 10.6 | 70   72 <br> 41.2   42.4 | 4.1882 | 0.84956 |
| 16 | Using e-SPPNG system saves time (T). | 0   8 <br> 0 4.7 | 18 <br> 10.6 | 85   59 <br> 50.0 34.7 | 4.3000 | 0.84160 |
| 21 | e-SPPNG system can help performing tasks quickly (T). | 0   8 <br> 0 4.7 | 20 <br> 11.8 | 82   60 <br> 48.2 35.3 | 4.2706 | 0.84809 |
| | **Average Mean and St.D** | | | | **4.294** | **.800374** |

SA= Strongly Agree, A= Agree, Net= Neutral, SD= Strongly Disagree, D= Disagree

Table 4.4 shows the extent of the respondent's perception of implementation e-SPPNG in terms of perceived usefulness in curriculum management in the two MRSM in Selangor. Overall, 50% of the respondents (n=85) strongly agreed that using the e-SPPNG system saves time. This indicated that most of the teachers at the two MRSM Selangor experienced this feeling as the mean score was at M=4.300, which equals to a moderate level of perception. This is because, in most MRSM, e-SPPNG is compulsory to be used as it is easier for teachers at MRSM to record and publish student exam results as well as plan the curriculum management especially during the academic day with parents.

The mean score for the item of "Overall, the system is useful for work" was M=4.3118 (standard deviation. 83728) which indicated a high level of perception. The item of "Using e-SPPNG system saves time" recorded a mean score of M= 4.3000 (standard deviation .84160). For the item of "Using the e-SPPNG system increases productivity", the mean score was M= 4.2765 (deviation standard 0.84267) and the mean score for the item of "Using e-SPPNG system enhances work performance" was M=4.1182 (standard deviation 0.84956).

**Research Question 2: What is the level of teachers' perception towards the perceived ease of use of e-SPPNG?**

**a) Perceived Easiness**

The mean score was 3.95 which signify the moderate levels of teachers' perception towards the system e-SPPNG. According to TAM, perceived ease of use is a primary motivational factor for accepting and using e-SPPNG system. Perceived ease of use is defined as the degree to which an individual believes that using e-SPPNG will be free of physical and mental efforts. In

this case, high level of teachers' perception indicates that teachers found that using e-SPPNG system helps to better plan curriculum management as this system offers online computerised scoring system compared to the conventional manual scoring system which is much more time consuming. Compared the conventional scoring system, if teachers record students' information and scores using applications such as Microsoft Excel, they are not online and for the novice users, they even manually calculate the scores and put into the record. Table 4.5 below illustrates the number of teachers agreed on the perception of easiness when using the e-SPPNG system.

Table 4.5
*Level of Teachers' Perception in terms of e-SPPNG Perceived Easiness (n=170)*

| No | Items | SD D N N (%) (%) | NS N (%) | SA A N N (%) (%) | Mean | SD |
|---|---|---|---|---|---|---|
| 1 | e-SPPNG benefits me in terms of: Overall, an e-SPPNG usage system is easy to use (T) | 1 13 0.6 7.6 | 25 14.7 | 51 80 30 47.1 | 3.9824 | 0.90019 |
| 6 | Users make fewer mistakes when using the system usage (P). | 0 20 0 5.3 | 28 9.4 | 40 82 23.5 48.2 | 3.8353 | 0.92111 |
| 11 | e-SPPNG helps to better plan curriculum management (SM) | 0 15 0 8.8 | 33 19.4 | 62 60 36.5 35.3 | 3.9941 | 0.95767 |
| 16 | When using e-SPPNG, users do not refer to the manual because it is easy to use (P) | 2 15 1.2 8.8 | 28 16.5 | 61 64 35.9 37.6 | 3.9824 | 0.99391 |
| 21 | e-SPPNG system is erroneous. (T) | 1 16 0.6 9.4 | 25 14.7 | 58 70 34.1 41.2 | 3.9882 | 0.96070 |
| | **Average Mean and St.D** | | | | **3.956** | **.849776** |

SA= Strongly Agree, A= Agree, Net= Neutral, SD= Strongly Disagree, D= Disagree

Table 4.5 shows that 48.2% (n=82) of the respondents agreed with the item of item "Users make less mistake in usage". This shows that simple and practical system helps teachers to be more efficient in their work, in this case, planning and administering the curriculum management thus easing their burden and stress.

The item of "e-SPPNG helps to better plan curriculum management" recorded a mean score of M=3.9941 (standard deviation .95767) which indicated a high level of perception. The item of "e-SPPNG system is erroneous" recorded the mean score of M= 3.9882 (standard deviation .96070). The mean score for the item of "When using the e-SPPNG users do not refer to the manual because it is easy to use" was M= 3.9824 (deviation standard .99391) and the item of

"Users make fewer mistakes in usage" recorded the mean score of M=3.8353 (standard deviation .92111).

**Research Question 3: What is the level of teachers' actual use of e-SPPNG?**
**a) Perceived Actual Usage**
The mean score for this was 4.04118 which indicated a high level of perception among the teachers. Teachers highly perceived the e-SPPNG system used as the actual usage. Actual system use refers to how often and the volume of the system is used by the user (Davis, 1989). This indicates that teachers highly use it. Based on the Technology Acceptance Model (TAM), the perceived usefulness and easiness will combine to form the actual usage of the system e-SPPNG. In this case, the high level of teachers' perception of the usage of the e-SPPNG system which is already achieved a high level also increases the teachers' perception towards the actual usage of the school's Facebook to the high level. Table 4.6 below shows the number of teacher perception towards the actual usage of system e-SPPNG.

Table 4.6
*Level of Teachers' Perception in Terms of e-SPPNG Perceived Actual Usage (n=170)*

| No | Items | SD N (%) D N (%) | NS N (%) | SA N (%) A N (%) | Mean | SD |
|---|---|---|---|---|---|---|
| 1 | An e-SPPNG benefit to me in: Users want to use the e-SPPNG system in the school curriculum (P) | 2 12 1.2 7.1 | 33 19.4 | 52 71 30.6 41.8 | 3.9353 | 0.94302 |
| 6 | I encourage teachers to use e-SPPNG for all matters related to curriculum management. (P) | 0 12 0 7.1 | 31 18.2 | 54 73 42.9 31.8 | 4.1059 | 0.94241 |
| 11 | I have been asked by the school to help the other teachers to implement e-SPPNG at the school. (T) | 2 19 1.2 11.2 | 25 14.7 | 73 51 42.9 31.8 | 4.0235 | 1.06562 |
| 16 | I will use the e-SPPNG system for all matters, especially curriculum matters (SM) | 0 20 0 11.8 | 22 12.9 | 68 60 40 35.3 | 4.0353 | 1.00233 |
| 21 | I never use the conventional method anymore since the e-SPPNG system exists (SM) | 3 14 1.8 8.2 | 24 14.1 | 79 50 46.5 29.4 | 4.1059 | 1.04370 |
| | **Average Mean and St.D** | | | | **4.04118** | **.87514** |

SA= Strongly Agree, A= Agree, Net= Neutral, SD= Strongly Disagree, D= Disagree

Table 4.6 indicated that the item "I never use the conventional method anymore since the e-SPPNG system exists" was strongly agreed by 46.5 % (n=79) of the respondents. This relates to the factors of school management, whereby the use of this system for academic excellence management programs student representative leadership, homeroom management, informative body curriculum management, association club, and game sports was impactful. Besides that, teachers also use information in this system to teach and facilitate observation programs.

The items "I encourage a teacher to use an e-SPPNG system in all matters related to curriculum management" and "I never use the conventional method anymore since the e-SPPNG system exists" recorded the mean score of M=4.1059 (standard deviation 0.94241 and 1.04370.) respectively which indicated a high level of perception among the teachers. The item "I will use e-SPPNG for all matters, especially the curriculum matters", recorded a mean score of M= 4.0353 (standard deviation 1.00233) and lastly, the item "I have been asked by the school to help the other teachers to implement e-SPPNG at the school" scored the mean score of M= 4.0235 (standard deviation 0.94241).

Table 4.7
*Mean Score and Level of Teachers' Perception Towards e-SPPNG*

|  | **Usefulness** | **Easiness** | **Actual Usage** |
|---|---|---|---|
| Means | 4.294 | 3.956 | 4.04118 |
| Teacher's Perception Level | High | High | High |

**Research Question 4: Are there any significant differences between teachers of different duration of teaching experience and actual use of e-SPPNG?**

The researcher decided to use the Independence Sample of the T-test to prove any statistical difference between the level of teachers' perception of the actual use of e-SPPNG and their years of teaching experience. Based on the descriptive analysis of the year of teaching experience, the participants were divided into five groups namely Group 1 (5 years and below), Group 2 (6-15 years), Group 3 (16-25 years), Group 4 (26-35 years) and Group 5 (35 years and above). The details for each group are presented in Table 4.8.

Table 4.8
*Level of Teachers' Perception of Actual Usage of e-SPPNG and Years of Teaching Experience*

|  | **Frequency** | **Mean** | **SD** | **Level** |
|---|---|---|---|---|
| 5 years and below | 21 | 18 | 4.89898 | Very High |
| 6 to 15 years | 97 | 20.5773 | 4.18787 | High |
| 16 to 25 years | 40 | 20.575 | 3.99928 | High |
| 26 to 35 years | 9 | 20.7778 | 5.78312 | Very High |
| 35 years and above | 3 | 17 | 3.60555 | High |

The results for this research question also found that there were no statistically significant differences in the level perception of the perceived actual usage of system e-SPPNG among teachers at the two MRSM Selangor, based on their groups of years of experience. The results

of the level perception on the perceived actual usage of system e-SPPNG among teachers based on their group of years of teaching experience were resulted at (F=2.072, p=.087). This indicated that there was no statistically significant difference between the level perception of the perceived actual usage of system e-SPPNG and years of teaching experience. The details of the result are shown in the table below.

Table 4.9
*ANOVA*

|  | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 154.793 | 4 | 38.698 | 2.072 | .087 |
| Within Groups | 3081.001 | 165 | 18.673 |  |  |
| Total | 3235.794 | 169 |  |  |  |

From Table 4.9, there were no statistically significant differences between level perception on the perceived actual usage of system e-SPPNG and the teachers' years of teaching experience at the two MRSMs in Selangor.

**Conclusion**
The findings of this study provide a clearer picture of the teachers' perception of the e-SPPNG system based on the TAM Model (Technology Acceptance Model) (Davis, 1989) in terms of perceived usefulness, ease of use, and usage of the actual system were found to be significant and positive for strategic curriculum management. The Independence sample of the T-test revealed that was not a statistically significant difference between the level perception of the perceived actual usage of the system e-SPPNG and years of teaching experience in the selected Maktab Rendah Sains Mara (MRSM) in Selangor. The e-SPPNG system can play a significant role by providing real-time access to data. Such systems can give teachers a better understanding of student progress and performance, which can inform instructional decisions and interventions. It is recommended that further research be done in depth through the integration of the e-SPPNG system for merit demerit system in curriculum management. This could involve conducting interviews or focus groups with MRSM teachers to explore their experiences with this system in more detail.  Besides that, the Malaysia Education Blueprint 2013-2025 encourages maintaining good student discipline for creating a conducive learning environment. The e-SPPNG system can be the proper way of recording to keep track of students' behavior. This is one of the ways for teachers to create better intervention programs academic and non-academic based on merit demerit system integration using the e-SPPNG system. It is hoped that the proposed framework will contribute to scholars, MRSM as well as educators in providing fruitful insight. Thus, it's far advocated for futureresearchers to do an empirical study of the anticipated framework.

## References

Al-Busaidi, K. A., & Al-Shihi, H. (2010). Instructors' Acceptance of Learning Management Systems: A Theoretical Framework. *Communications of The IbIMA*, 1-10.

Baron, M. A., Boschee, F., & Jacobson, M. (2008). *Performance-based education: Developing programs through strategic planning.* Lanham: Rowman & Littlefield Education.

Unit Ujian dan Peperiksaan Bahagian Pendidikan Dan Latihan (Menengah) MARA. (2015), *Buku Panduan Unit Peperiksaan dan Penilaian Maktab*. Kuala Lumpur.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319-340.

Drucker, P. F. (1982). *Innovation and entrepreneurship: Practice and principle*. Retrieved from https://www.academia.edu/38623791/Innovation_and_entrepreneurship_Peter_ F_Drucker. Department of Secondary Education MARA, 2020). (title of book/article?

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research.* Addison-Wesley.

Goodhue, D. L., & Thompson, R. L. (1995). Task technology fit and individual performance. *MIS Quarterly19*, 213-23.

Goodlad, J. I. (1966). *The development of a conceptual system for dealing with problems of curriculum and instruction*. University of California Institute for Development and Educational Activities.

Halimah, B. A. M., Eow, Y. L., & Chuah, B. E. (2014). *Penglibatan ibu bapa dan komuniti dalam memperkasakan sekolah*. Paper presented at Seminar Nasional Pengurusan dan Kepimpinan Pendidikan kali ke 20, Genting Highlands.

Hikmi, S. N., Ali, M. N., Abd. Rahman, A., & Hassan, R. (1999). *Kaedah analisa dan rekabentuk sistem. Jabatan Sistem Makluma*t. Fakulti Sains Komputer, Universiti Teknologi Malaysia.

Inlow, G. M. (1966). *The emergence of the curriculum*. Wiley.

Musa, A. H., Zulkiple, A. G., Shobi, M. I., Jusang, B., & Siti Zobidah, O. (2012). *Kredibiliti Maklumat Sebagai Faktor Anteseden yang Mempengaruhi Tanggapan Pengguna dalam Model Penerimaan Maklumat Berkaitan Islam di internet*. Universiti Kebangsaan Malaysia.

Morphet, E. L., John, R. L., & Reller, T. L. (1982). *Educational Organization and Administration concept.* Prentice-Hall, Inc.

Musa, A. H., Zulkiple, A. G., Sobhi, M., Jusang, B., & Zobidah, S. O. (2012) Tahap penerimaan maklumat berkaitan Islam di internet dari perspekstif model penerimaan teknologi (TAM). *Media dan Komunikasi : Transformasi dan Hala Tuju. Pusat Pengajian Media dan Komunikasi*, pp. 104-120.

Neagley, R. L., & Evans, N. D. (1967). *Handbook for effective curriculum development.* Englewood Cliffs NJ: Prentice-Hall.

Robbins, S. P. (1978). "Conflict Management" and "Conflict Resolution" Are Not Synonymous Terms. *California Management Review, 21*(2), 67–75.

Saad, A., & Daud, E. D. (2020). The Acceptance of an online Educational Management Information System (EMIS) among Data and Information Teachers. *Journal of Information Systems and Digital Technologies, 2*(2), 1–17.

Zabukovsek, S. S., & Bobek, S. (2013). TAM-based external factors related to ERP solutions acceptance in organizations. *International Journal of Information Systems and Project Management 1*(4),25-38.