# A Development of Tahfiz Selangor School System

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Abstract:     This paper aims to imperatively help society to find the best Tahfiz school for their children through the advancement of data tracking. The research team developed an online Tahfiz database system which includes Tahfiz schools in Selangor (registered or non-registered with JAIS). The data were collected through questionnaire, online survey, group interview as well as case studies from respondents, including JAIS, PINTA, PITAS, parents/guardians, students and teachers of Tahfiz school. This online database system was developed using Ampps Software, MySQL Benchwork 6.3, Adobe Dreamweaver CC 2015, Notepad++, and Windows 10. It will be ran on the UNISEL server. The data was enhanced and analyzed using statistical techniques and queries done in the MySQL Benchwork 6.3, Microsoft Excel, and also Google Form. This paper concludes that the system can provide, display, analyse and manage a heuristic series of all Tahfiz schools in Selangor. The system is also designed as a one-stop centre for both the clients and their customers.

## 1 INTRODUCTION

In the light of recent events, as Selangor state moves towards the transformation of Smart City and focusing on Smart Education, Tahfiz schools are also on the rise in Malaysia, especially in Selangor states that since 2011 to 2017, there has been up to 900 new private Islamic schools in Malaysia. Author emphasizes that parents trust Islamic schools, including Tahfiz schools, as a place of character building and religious knowledge, other than a place to instill moral values and other extensive knowledge needed by a Muslim youth. In Selangor, parents actively search for Tahfiz schools available for their children, either for primary or secondary level. They search for the schools via the schools' webpages, Facebook page, or other webpages that give a list of these schools, like the Jabatan Kemajuan Islam Malaysia (JAKIM) SIMPENI page (url: http://simpeni.islam.gov.my). Unfortunately, not all parents are aware of these pages.

In Selangor, Tahfiz school owners need to register their schools for it to be easily tracked down and to get either financial or social aid from the government. According to Jabatan Agama Islam Selangor (JAIS), information on the current registration process is in the JAIS webpage. However, the actual registration process has to be done manually at the Islamic Education Unit either at JAIS or its respective district center. This complex registration process involves getting a one year temporary license after obtaining recommendations from the local district and state Islamic authorities. Then these schools need to get recommendations from the local district council, fire department, and JAIS within three years in order to be given an operating permit. This permit has to be renewed every five years. Only schools with these permits are considered registered.

This paper studies a heuristic series of all Tahfiz Selangor schools. There are nine districts in Selangor, which are Gombak, Hulu Langat, Hulu Selangor, Klang, Kuala Langat, Kuala Selangor, Petaling, Sabak Bernam, and Sepang. The series are collected from JAIS, PINTA and PITAS database. It also analyzes statistics for report generation for JAIS. The statistical and analyzed data can be saved in the system, where future reports can refer back to the older reports for data comparison. Lastly, an online Tahfiz school database system is developed, focusing on registered and unregistered schools, and also school performances. Hence, this makes the system a one-

stop center for both the clients and their customers.

## 2 LITERATURE REVIEW

Smart Schools are the most revolutionary way to instil technological advancement into the education system. According to (Omidinia et al., 2012) Smart Schools are learning institutions that have been integrated with ICT systematically in their teaching-learning practices and school management. This is to prepare future generations for the Information Age and the days of Global Village. This statement is true and supported by (Prendes et al., 2010) in their research titled "ICT Competence of Future Teachers." Since its inception in Malaysia in 1996, Smart Schools have achieved excellence in Malaysian education system (Sua, 2012) and have managed to settle many relevant issues such as management and administration, social skills, policies, and many more.

The success of its implementation into the national education system even made countries like Iran refer to Malaysia before implementing Smart School into their education system. Its implementation have improved many things, especially communication between parents and schools.

The biggest advantage when integrating ICT is that education management can be more efficient, effective and productive (Ghavifekr et al., 2013). This is also supported and emphasized by (Afshari et al., 2012) and (Hassan et al., 2015). Paper processes lack control when dealing with complex processes such as synchronizing data and communication between administration head, teachers, and staff. Ultimately, implementing Smart Schools does have problems when schools have no electricity, frequent power outages, lack of proper infrastructure and computer literacy (Lateh and Muniandy, 2010) but the problem decreases when there are more internet coverage and structures built since the implementation of the 1Malaysia programme in 2010.

However, the Tahfiz community still have not followed this technological advancement. They still use manual process to register students and school management. (Omidinia et al., 2012) did point out that issues related to non-implementation could be due to financial support other than inexperienced teachers, besides having the correct networking equipment such as internet router, desktop, modem, internet-line, and many more.

In this research paper, author will focus on the issue of registering schools and its importance relating to the National Education Act. The research is based on implementing online registration technology

that can enable parents to track Tahfiz schools and for JAIS officials to generate report on it. Therefore, the authors will highlight the current technology implemented for online registration systems, and also tracking technology used by companies like Agoda and Trivago. The author will also research on data analysis technology and report generating system and technology such as text editors in online systems. Next, author will summarise the best system to implement in the project system.

## 3 METHODOLOGY

This paper focuses on Rational Unified Process (RUP) as its research methodology. Data collection methods of this paper differ for each users of the system. For JAIS, the research team headed out to do a group interview on 28th December 2017 with JAIS. This was to discuss the early objectives of the paper, and the requirements of the registration process of the Tahfiz schools. This was also to obtain the registered schools database, and also know where to find the unregistered schools database. The research team also obtained the registered schools' database from JAIS and were told to cross reference this information with PINTA and PITAS records. Information was also gathered on the performance of all Tahfiz schools in Malaysia especially in Selangor.

For Selangor Tahfiz owners, the research team headed out to do a group interview on 30th January 2018 with PINTA first for cross referencing data. Next, a series of questionnaires were handed out during an event with PITAS in UNISEL Bestari Jaya Campus from 8th to 9th March 2018. The target were all Selangor Tahfiz owners present during the event, the students that came along, and some staff members. This was to understand how the current Tahfiz manual system works, and also to grasp a further understanding of how this paper can help them.

For parents, Tahfiz students, and the general public, a series of online survey were handed out throughout the whole March 2018. The target are parents and Selangor Tahfiz students, and also the general public. From the online survey, there were many extremely good recommendations given as the public users really wanted a comprehensive system that could help them understand the whereabouts of Selangor Tahfiz schools better.

## 4   RESULTS AND DISCUSSION

From the online survey and manual hand out of the questionnaires, 118 respondents gave feedback. The results in Table 1 show that most of the respondents are from the Tahfiz community, while others are keen general public. The data comprises of mostly adults that live in Selangor, while the minority are teenagers and respondents from outside of Selangor. This makes the data more reliable as the Tahfiz community from Selangor are the ones giving feedback and they are the main stakeholders of the system. The respondents mostly know how to use the internet and use smart phones and laptops to surf the internet and they use it almost every day. This indicates that they have at least basic knowledge of using the internet, hence they will know how to use a simple system. Therefore, the system developed cannot be too complex as only half of the number of respondents are tech savvy and surf the internet daily for online purposes such as online banking, e-learning, e-news, e-sport and many more.

However, not many respondents know how to look for the Tahfiz schools through the World Wide Web. Most of them search for the schools through Facebook and mouth to mouth conversation with friends and family. There are a small number that find out about it through television, newspaper, radio and other ways such as mosque committee. This shows how respondents have to manually look for the Tahfiz schools with whatever knowledge they have. Not many know what system can cater for their search, therefore they use Facebook and social media as another source. If they still do not find the result, then they look for family and friends who know about it, before mass media.

Other than that, respondents mostly take more than half an hour to look for the details. Only a quarter of them know where exactly to look for the right source. This indicates that respondents need a one stop center that can help them validate the schools that they have found. The results in Figure 1.1 and Figure 1.2 also show that most of the details found by respondents are school names, address, and telephone number. Most of them could not find the most important details like school fees, school registration status, curriculum, and location from their home. One respondent commented on how hard it was for her to look for the email and other details that she had to go to the school just to find out that it was not the school for her child. This is time consuming for the respondents. Furthermore, it is derived that most respondents want to know about the schools' performance and current news, followed by JAIS announcements, current school statistics, and lastly annual calendar.

That is why most of the respondents want a one stop center that can help them track down schools, while school owners can register their schools and higher ups can do any approval necessary to manage Selangor Tahfiz schools.

After a pilot test of the system, it can be derived that the system searches allow parents to view the schools' environment, curriculum quality, performance, number of students, and many more attributes and whereabouts before deciding on the best Tahfiz School to enrol their children in. They can rely on the information provided by the system, as all the schools listed are also registered under JAKIM, PINTA and PITAS. Since the database is the main key to the transparency of the system, this ensures that the report generated are precise and can be put to measure. However, there were some difficulties and constraints faced during the completion of the paper. The main limitation is that there are some unregistered schools that cannot be identified and that some of the data obtained also have redundant data entry. Therefore, it took time to clean the data before applying it to the system. This was important as the data cleaning will ensure the highest data integrity and reliability.

Table 1: Summary of Respondents Information

| Background | Percentage |
|---|---|
| Gender | |
| Male | 28% |
| Female | 72% |
| Age | |
| 13-20 years old | 28% |
| 21-30 years old | 30% |
| 31-50 years old | 32% |
| 51-60 years old | 8% |
| Above 61 years old | 2% |
| Area of Living | |
| Selangor | 77% |
| Outside of Selangor | 23% |
| Status | |
| Tahfiz owner | 23% |
| Tahfiz student | 23% |
| Tahfiz staff | 3% |
| Tahfiz parents | 24% |
| General public | 27% |

Important findings are featured in the above table. From the online survey, 118 respondents gave feedback. The results in Table 1 show that 73% of the respondents are from the Tahfiz community, while only 27% are keen general public.

Whereas, 72% of the respondents are female. Their age ranged from 13-20 (28%), and majority of the responses come from adult aged 21 to 50 or 62%,

and the rest are between age 51 and above, which encompass of 10%. The data comprises of 77% adults that live in Selangor, while the minority or 23% are respondents from outside of Selangor. Thus, it proves that the data is relevant to the study and reliable as the Tahfiz community from Selangor are the ones who give feedback and the main stakeholders of the system.
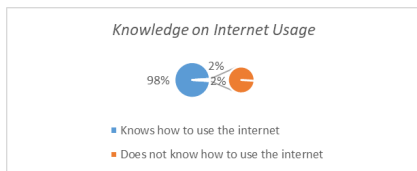


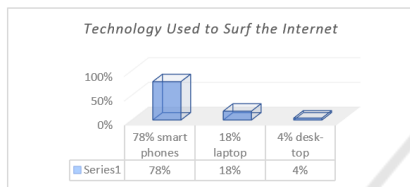Figure 1: Knowledge on Internet USage
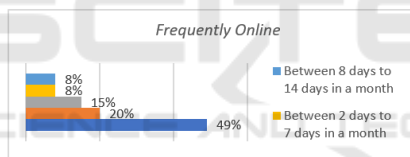


Figure 2: Technology Used to Surf Internet



Figure 3: Frequently Online

Figure 1 show only 2% of the respondents did not know how to use internet. Figure 2 show most of them (98%) know how to use the internet and smart phones (78%) and laptops (18%) to surf the internet and they use it almost every day. Findings show in Figure 3 indicate that 49% of the respondent use internet daily, in comparison with only 8% of them use internet between 8 to 14 days.

This indicates that they have at least basic knowledge of using the internet. Hence, the finding shows that the respondents understand how to use a simple system. Therefore, results from this survey would give researcher a better understanding on internet usage environment in Selangor. As a result, less complex system is developed thru the study, since only half of the number of respondents are tech savvy and surf the internet for daily purposes only, such as online banking and surfing e-learning, e-news, e-sport and many more.

Current tahfiz Search knowledge and management iS categorized into two Section, knowledge on tahfiz
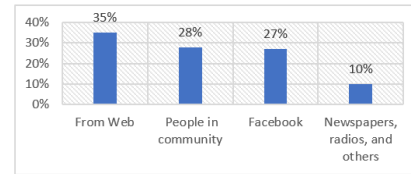


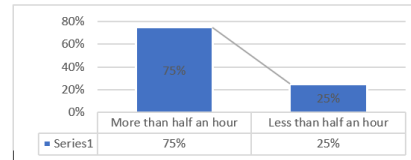Figure 4: Knowledge on Tahfiz School Search



Figure 5: Time Taken to Search for Information

School Search and time taken to Search for information. The finding indicate that 75% of the reSpondent take more than half an hour. The research proves that 35% of the respondents Searched for information of tahfiz from web inStead of facebook, radio, people from the community (Figure 4 & 5 ).
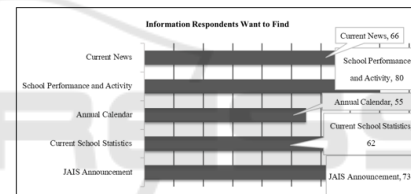


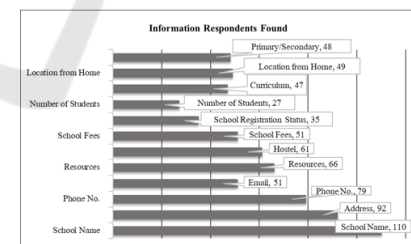Figure 6: Information Respondent Found when Searching for Tahfiz Schools' Details



Figure 7: Information Respondents Want to Find

However, not many respondents know how to search for the Tahfiz schools through the World Wide Web. Most of them search for the schools through Facebook and conversation with friends and family. There are a small number that find out about it through television, newspaper, radio and other ways such as mosque committee. This shows how respondents have to manually look for the Tahfiz schools with whatever knowledge they have. Not many know what system can cater for their search, therefore they use Facebook and social media as another source. If

they still do not find the result, then they look for family and friends who know about it, before mass media.

Other than that, respondents mostly take more than half an hour to look for the details. Only a quarter of them know where exactly to look for the right source. This indicates that respondents need a one stop center that can help them validate the schools that they have found. The results in Figure 6 and Figure 7 also show that most of the details found by respondents are school names, address, and telephone number. Most of them could not find the most important details like school fees, school registration status, curriculum, and location from their home. One respondent commented on how hard it was for her to look for the email and other details that she had to go to the school just to find out that it was not the school for her child. This is time consuming for the respondents. Furthermore, it is derived that most respondents want to know about the schools' performance and current news, followed by JAIS announcements, current school statistics, and lastly annual calendar. That is why most of the respondents want a one stop center that can help them track down schools, while school owners can register their schools and higher ups can do any approval necessary to manage Selangor Tahfiz schools.

After a pilot test of the system, it can be derived that the system searches allow parents to view the schools' environment, curriculum quality, performance, number of students, and many more attributes and whereabouts before deciding on the best Tahfiz School to enroll their children in. They can rely on the information provided by the system, as all the schools listed are also registered under JAKIM, PINTA and PITAS. Since the database is the main key to the transparency of the system, this ensures that the report generated are precise and can be put to measure. However, there were some difficulties and constraints faced during the completion of the paper. The main limitation is that there are some unregistered schools that cannot be identified and that some of the data obtained also are redundant. Therefore, it took time to sort the data before they can be applied in the system. This was important as the data cleaning will ensure the highest data integrity and reliability.

# 5 CONCLUSION

In conclusion, it is found that the Tahfiz Selangor School system can collect all the data and information filled by the users and analyze it. A complete series of all the Tahfiz Selangor schools can be collected and analyzed for further reporting by JAIS. The online system created also helps parents search and identify schools immediately rather than looking for unorganized information that have been segregated all across the internet. The system can help parents track down the schools and display the correct information of all the schools, while also allowing the Tahfiz owners to register their schools, and ease the whole registration process and approval.

Therefore, this paper is important in improving the growth of Tahfiz School management and improve both client's and customer's experiences. What parents fear are sending their children to a school that are not recognized by JAIS and the Selangor state. Therefore, by having a heuristic series of each Tahfiz school in the database, parents can be rest assured that the schools listed can receive help and aid when the need arises. Besides that, the results discuss will imperatively help society especially parents to find the best Tahfiz school for their children through the advancement of data tracking. Data tracking has helped the advancement of so many businesses and organizations in this global age. Therefore, if the Tahfiz schools can be easily located, they can grow dynamically with other SMART schools in the Selangor state and in Malaysia. Other than that, this paper is also crucial in the development of a SMART Selangor state and also proves that Tahfiz and Huffaz are dynamically following the flow of technological advancement, hence increasing growth of the country's social and economic sector.

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