



Parental Involvement in children's education: A Proof of Concept Study at Elementary Schools

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The research paper mainly focuses on the development of parental application for all elementary schools in Oman. This paper aims to promote and motivate the students in their study, as it also aims to make the relationship between teachers, parents, and their children intimate. Currently, all Omani elementary schools, especially the public schools are not having a mobile app where the parents can enter the system and start interacting and discussing with the faculties through several things such as behavior, grades, posts, and among others. The main goal of this papers is to strengthen the parent-child relationship so as to is to enhance the association amongst schools and parents to enable the kids to rise scholastically. The research analysis provides an effective technique for identifying all the problems that have been targeted. It also emphasizes the importance of a user-friendly system that can be easily operated by people. In this paper, an incremental model has been used since it focuses primarily on making the life cycle a "multi-unit" cycle. Such a model usually aims to divide the courses into smaller, more viable modules. After looking at all sources of literature, it turns out that developing this app is an essential and important step towards improving teachers, parents and even students. It not only seeks to improve the performance of all public schools, especially the first cycle, but also enhances the study and work experience. Under this proposed system, parents can access to view everting related to their children such as attendance, grades, behavior, and others.

1. Introduction

PARENTAL INVOLVEMENT is a best way which allows parents and their children to communicate with each other at an academic level school as a way to improve their children level. The parental application aims to involve parents with the help of children by improving their capabilities. All schools in the Sultanate should have such an application that allows the management of student data collection, including grades, attendance, compliance, records, and so on. Communication between parents and teachers plays a vital role in achieving educational goals. All the faculties need to inform parents about the daily activities of their children, such as homework, school activities, attendance, and even school events. Usually the means of communication between teachers and parents here in schools of the Sultanate of Oman through the granting of the guardian of the application paper containing some comments on all information and various aspects of the student. Or sometimes it may be by visiting the guardian of the school and communicating with the class teacher. The presence of parental involvement seems to be very useful for each elementary school because as it doesn't yet have any such way of understanding parents about their children.

To date the parental application is an important tool in establishing relationships between teachers and parents while saving time and school at the same time. This app will provide parents peace of mind, as they are sidelined from going to school and discussing with the teachers. The government aims at developing a parental application to all Omani schools, especially elementary schools, in



order to make the school community more distinctive and developed. Using this app is going to be important for parents as it will help them to know more about their children's activities, grades, attendance, etc. it also will guide the children's to grow both self and academically. The main aim of this project is to improve and enhance the communication between the school and parents in order to improve the educational level of children. Since his majesty came to power in 1970, education has become one of the leaders of government policy. In 1970, the illiteracy rate was 80%. In 2009, the literacy rate for adults was 84%. For people between the ages of 15 and 24, the literacy rate was 98%.

The country has many government schools. An education in these schools is a free of charge. Normally, the first cycle (1-4) both of genders are taught in the same classes and all teachers are females. In cycle two and three (5-12), both of male and female students are taught in separate schools. Where the faculties can be either males or females.

In Omani government elementary schools, five subjects are taught in Arabic and one subject taught in English. In Oman, usually the schools follow the Islamic curriculum. Therefore, most non-Muslim expatriates might have some constraints and challenges registering their kids in such these local schools in Oman. In recent years, the country has seen a significant improvement in the educational level due to increased sending by the government. Currently, most of public elementary schools in Oman seek to provide quality education. In addition, providing high quality staff, exciting academic records, immense technologies and many more. At elementary level, the children are usually taught all the basic skills. Once the child successfully completes this stage, he/she is promoted to the preparatory stage and then to the secondary stage. In Oman, there is a very small percentage of the student's failure in the primary stage, especially the first cycle, due to ease of the curriculum.

The government aspires to develop parental application to all Omani schools, especially elementary schools, in order to make the school community more distinctive and developed. The idea of applying this application is very important as it will help the child to grow both self and academically. Once the parents begin to use this system, the child will become self-conscious and be warier of doing something wrong. Through the parental system, both parents will be able to learn about their children's activities, grades, attendance, and more. This app will be an important factor in establishing strong relationship between school and parents and between parents and their children as well.

This platform is designed for all government elementary schools in Oman in order to help parents to follow up their children and inform them in all matters concerning their children in terms of their academic performance. As well as through duties, attendance, activities, grades, etc. The program also adds an effective communication between parents, teachers, and all administrators. Hence, to create a comfortable learning environment for all sides.

One of the challenges and obstacles that Omani government faces through all elementary schools is that lack of communication between parents and school. Which leads to ignorance of parents regarding their children from all sides. Thus, this leads to low educational level. Therefore, the government aspires to develop parental application to all Omani schools, especially elementary schools, in order to make the school community more distinctive and developed. As well as, to enhance the communication between parents and schools and motivate the children to grow self and academically.

2. Scope

The government aims at developing a parental application to all Omani schools, especially elementary schools, in order to make the school community more distinctive and developed. Using this app is going to be important for parents as it will help them to know more about their children's activities, grades, attendance, etc. it also will guide the children's to grow both self and



academically. The main aim of this project is to improve and enhance the communication between the school and parents in order to improve the educational level of children.

1.2. Objectives

It is very essential to achieve some certain objectives and this to make a successful application.

The objectives of parental application are:

- To enhance the communication between teachers and parents and between parents and children.
- To develop an application where both of teachers and parents can be able to use from different locations (home, school, etc.)
- To motivate the children and guide them to grow self and academically.

2.2 Functions

Parental application will be consisting some of different functions:

- Attendance: This will appear to parents on a daily basis, so that parents can check the attendance of their children and the percentage of their absence.
- School events: This also will be displayed and shown to the parents where the parents can be able to see all the activities and events which are held at the school.
- The demographic update: This will allow parents to view the latest information in the system.
- Notification: some important details that teachers will notify the parents to take care of.
- Other details: calendar, Results, SMS, news, etc.

3. Literature review

In this field, some detailed studies on research papers and articles have conducted related the area of this project. This is in order to gain a deeper understanding of the chosen topic.

1. Graham in (2005), stated that communication with parents is an important and integral part of engaging families in the learning environment and process as well. Using digital communication tools, teachers must be careful to think carefully about all means of respect and open communication between parent and the teacher. When teachers start communicating with parents about their children, they should discuss all positive and negative behaviors as well.
2. (Kilgore, 2010; McNeal, 2015; Ogletree) stated that parental involvement in education promotes learning at all ages, and technology contributes to make that participation easy and effectively at the same time. Teachers also play a prominent and effective role in creating an attractive environment in which parents feel welcome to interact and participate in their children's education, as well as creating a partnership for parents and teachers.
3. Parental involvement plays an important role in child's learning. However, it also motivates learning, attention, job continuity, future vocabulary skills and problem management within the classroom. Along with parental involvement at home and school, another factor must be



considered that is “parent’s beliefs and high expectations for their children’s success in school (Todd & Higgins, 1998).

4. Adams & Christenson in (2000), found that the relationship between the parents and the school was at higher level in elementary school as compared to other levels in schools. When the child grows the trust between the parents and the school well declined from both parties. One aspect that has been identified to increase the relationship and trust between parents and school is home-school communication.
5. 2016 Akshay Singh & Sakshi Sharma performed a work “Android Application Development Using Android Studio and PHP framework”. In this reserach paper “Android Application Development Using Android Studio and PHP framework” the authors described that android is a good era ending for mobile developers. Android often provides a smooth application architecture that allows all programmers to create innovative and distinctive applications for android phones.
6. 2015 Deepa V.Jose, Lakshmi Priya C & Monisha Singh performed a research paper “challenges and issues in android app development”. In this research paper “challenges and issues in android app development”, the authors stated the how the advanced cells are important as they changed the meaning of mobile phones by being an important and inevitable device in our daily lives. There are many android tools that work in different formats, making it very difficult for programmers and designers to stay informed and aware of all the distinctive options.
7. Lollipop in (2015), stated that android is become one of the most important operating systems for mobile devices and tablets. It is considered as an open source which is created by google, and available for all the developers and programmers from the oldest version to the latest one.
8. 2013 Yevheniy Dzezhyts performed a work “Android Application Development”. In this paper “Android Application Development”, the researchers stated that application development often takes a lot of time and also requires professional knowledge of the program. Since people don’t find the application, they prefer to wait until someone creates and develops an application. Sometimes they tend to web and ask people so that to implement their ideas. Developers often seek new and unique ideas to implement.
9. Jerome in (2006) found that family involvement in schools plays an effective role in the achievement of child family members that can affect child development and learning. Documenting school and home partnership is successful in improving child behavior and improving the student achievement.
10. Parent’s participation in all of their children’s is a good task to achieve and motivate them in school. Parental involvement has become an important component in both school and government policy regarding family awareness programs. Parental involvement is characterized by affection, love and aspirations for their children.

4. Methodology

Model incremental is one of the task procedures to develop and improve the programming through the separation of requirements to many of the units of independent for the development of the software. This model is suitable for developing parental app step by step. This is what contributes to absorb all changes, if needed a cost minor. With the fact that each piece is made up independently, it would be easy to tested and search for error in the earliest possible instead of waiting for the completion of the entire project. After all the prerequisites with clear definition, will reach the project to the final stage at a time much less. Considering parental involvement is being built as a mobile application, it requires to be constructed page by page, and thus in the end is linked together. Incremental model supports this condition, allowing to complete the parts of the separate and repetition, which will pass later stages like examination, necessities, planning, design, and stages of coding and experience. Normally, incremental model proves to be cooperative by helping to create and execute the framework in given period time. Due to being a model for very helpful met to adapt. It allows the construction of each part clearly adds all access to the to the

framework of the ability to release the past to the point that have been the achievements of all interest planned.

5. Results

In the online survey, some questions were distributed online to some public schools in Oman for teachers and administrators as well. Through these questions, I analyzed the information and opinions that led me to know the views of teachers on the application of parental involvement. The following are some of survey questions which I have analyzed:

1. Which kind of operating system you favorite?

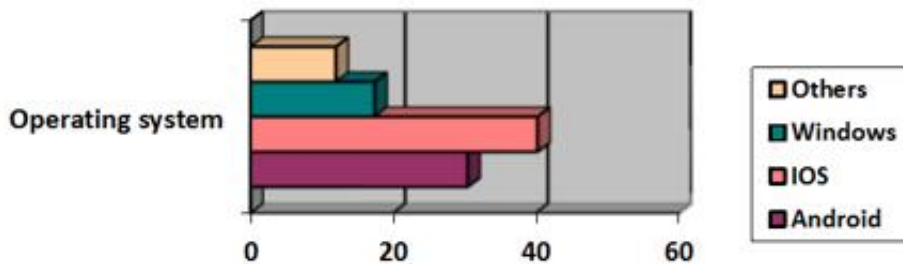


Figure 1.

The chart above shows that about 38 out of 92 individuals are learning towards IOS on another framework. With 40.24% still the best decision. At the second position is Android OS, with 30.40. the versatile application may be supported by Android tools. However, there will be on major drawback as this discuss the framework students tend to.

2. Which of the following would you prefer for parental involvement app?

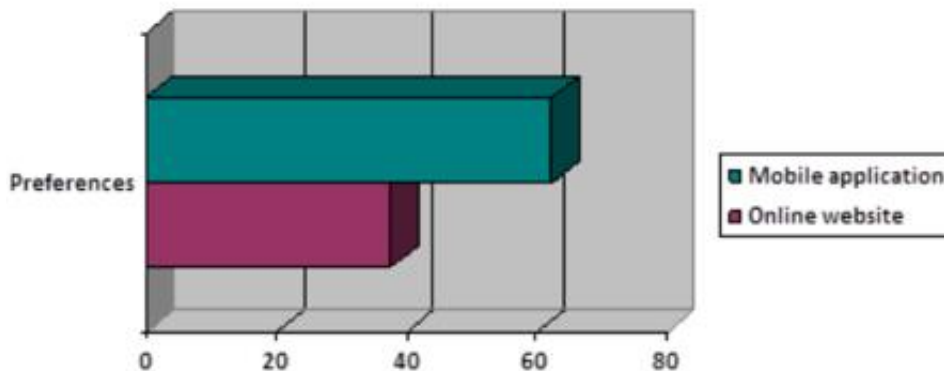


Figure 2.

The chart above indicates that more than 50 people out of 88 chose to use a mobile application instead of website. Given that I 'm developing a cell app, this can be useful for the future maneuvering programs.

3. Do you think that parental application is a good suggestion?

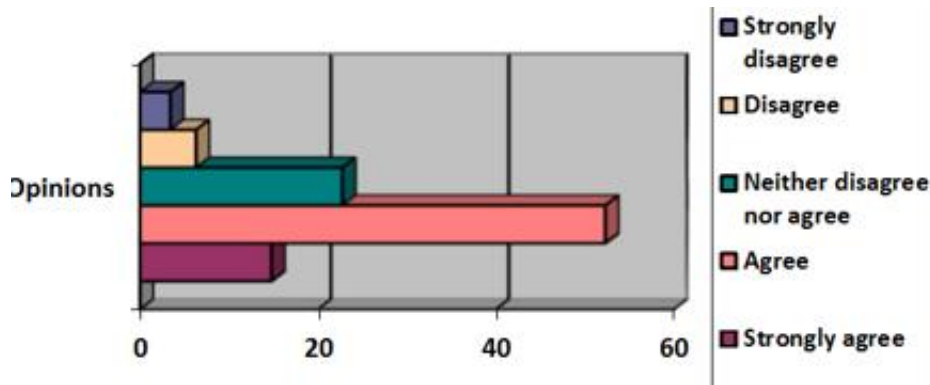


Figure 3.

According to studies that emerged, 52.27% of the individuals approved to own the parental application, while the individuals who encouraged the ownership of this application reached about 14.77%. A total of 20 out of 88 individuals did not know this. Then again, 9 out of 88 individuals did the possibility of creating this application.

4. Do you think that parental application will help the children to grow both academically and successfully?

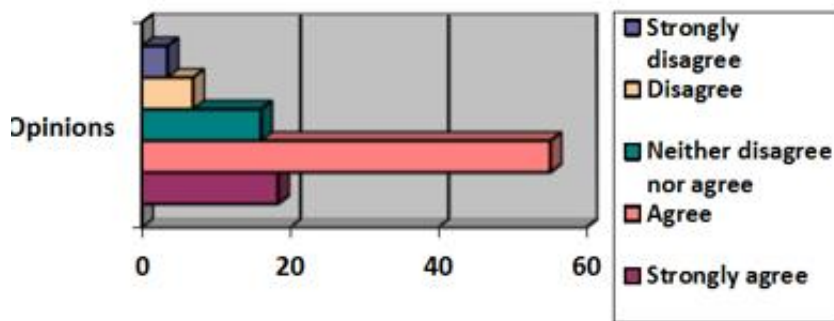


Figure 4.

The chart above shows that 55% of individuals who fully support the idea which will be useful in the child’s academic life, while the number of individuals who did not welcome this idea remains constant at 9.

5. Would you suggest the elementary schools to have a parental application?

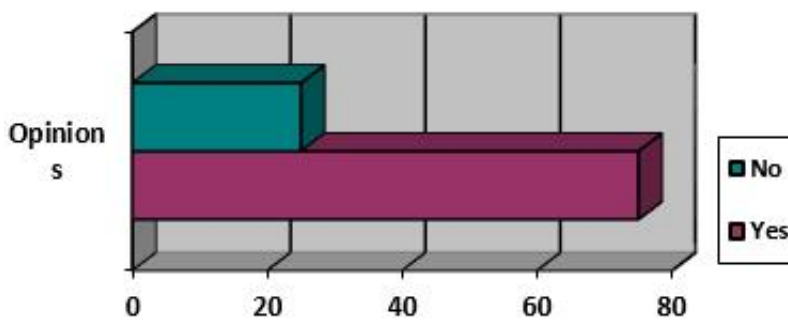


Figure 5.



The chart above shows that 75% of teachers and administrators suggested that government elementary schools should have parental application. The rest preferred not to have one.

6. Discussion

The project being created is parental application. This app will be an important factor in establishing strong relationship between school and parents and between parents and their children as well.

This platform is designed for all government elementary schools in Oman in order to help parents to follow up their children and inform them in all matters concerning their children in terms of their academic performance. As well as through duties, attendance, activities, grades, etc. The program also adds an effective communication between parents, teachers, and all administrators. Hence, to create a comfortable learning environment for all sides.

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The following shows a use case diagram which defines the role of each use

Figure 6. use case diagram

7. Conclusion and future work

Based on the results of the study, the researcher concluded that all the functions of the system are done in the treatment and the system will be very useful for all elementary schools. Furthermore, this will help and guide the parents to monitor their children anytime and anywhere.

Research strongly recommends that students be allowed to enter the system and interact with teachers and their parents on their own. In addition, reporting production in window based application. After all the tests conducted, I concluded that parental application would be very useful enough for all parents. What distinguishes the application from other is easy to use, where anyone can use it.

Parental application of the same kind should be implemented in all public schools in the Sultanate, especially students of the first cycle, in order to improve the academic records and statistics of students. In the future, the system is going to be as a cross-platform application and is not intended for only one operating system and will be extended to all schools in the Sultanate to publish research. Moreover, there will be a positive impact in all means of communication between parents and teachers.

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9. References

Dries, S. D. (2014). The influence of Parent Portal Access on Student Efficacy and Parental Involvement. *Seton Hall University Dissertations and Theses*, 1-178.

Manasi Kawathekar, K. K. (2015). An Android Application for Student Information. *International Journal of Advanced Research in Computer Engineering & Technology (IJARCET)*, 2212-2126.

R.Thamizharasi. (2016). Android Mobile Application Build on Android studio. *International Journal of Modern Computer Science (IJMCS)* .

Pallavi Mohadikar, N. M. (2015). College Parent Interaction using Android. *IJCSN International Journal of Computer Science and Network.*, 57-62.

Tejaswini Chavan, D. D. (2015). Online College Portal. *International Journal of Current Engineering and Technology*

Vasile Golids, D. (2016) mobile computing using android with an emphasizes on economic application. *Network intelligence studies*,67(2), 125-153.

Rajkumar Shah, A. T. (2017). Online College Portal. *International Research Journal of Engineering and Technology*, 22-30.

Shahad Rashid Almaawali, et al.(2018). Parental involvement: A proof of concept study at MEC. *IJCSN International Journal of Computer Science and Network.*,199-207.

Adri Menheere , H. (2016). Parental involvement in children's education: A review study about the effect of parental involvement on children's school education with a focus on the position of illiterate pare. *Journal of European teacher education network JETEN*, 144-157.

Siddhant Singh, S.(2017). Android application development for social network. *International research Journal of Engineering and Technology (IRJET)*, 1429-1434.

Ofoebu, E. O, et al. (2014). A web portal architecture design and implementation for private universities in Nigeria. *International Journal of scientific and research publications*, 2-8.

Cooper, H., Jackson, K., Nye, B., & Lindsay, J.J. (2001). A model of homework on the performance evaluation of elementary school students. *The Journal of Experimental Education*. 69. 181-199.

Catsambis, S. & Beveridge, A.A. (2001). Does neighborhood matter? Family, neighborhood, and school influences on eighth grade mathematics achievement. *Sociological focus*. 34, 435- 457.

Comer, J.P. & Haynes, N. M. (1991). Parent involvement in schools: An ecological approach. *The Elementary School Journal*, 91 (3), 271-277.

Clevenson, R. (1999). Picture-perfect communication. *Educational Leadership*, 56(5), 66-68.

Ames, C. (1993). How school-to-home communications influence parent beliefs and perceptions.



Equity and choice. 9 (3). 44-49.

Anderson, A. (1997). Families and mathematics: A study of parent-child interactions. *Journal for Research in Mathematics Education*, 28, 484-511.