

FICO (Finding Coach): Android-Based Application

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Abstract—This study aims to facilitate the public in finding a sports coach through the Android-based Finding Coach application. The DBR (Design Based Research) method was chosen in this study to find a solution to facilitate the search for a sports coach with an android application. A total of three swimming club in Bandung and 192 people consisting of lecturers, students, housewives and employees into the sample test application users. Trial applications by holding a Focus Group Discussion and data collection techniques using questionnaires so as to produce applications that are easy to use by swimming coaches and the community as users.

Keywords: *mobile apps, smartphones, sports trainers*

I. INTRODUCTION

A Non-Communicable Diseases (NCD) have killed 41 million people each year, it is equivalent to 71%. The total percentage of Non-Communicable Diseases in Indonesia is 73.3% of the total mortality rate and all mortalities in the world. Between Non-Communicable Diseases (NCD), obesity is one of the affected disease factor. It has reached 5% of deaths in the world [1]. Obesity significantly increases the type 2 of diabetes risk, hypertension, coronary heart disease, stroke, fatty liver disease, dementia, obstructive sleep apnoea and some cancers [2,3]. Obesity does not mean being overweight, it is related to lower levels of physical activity and physical function [4].

Physical activity is very important to control the obesity. It can improve health and prevent the diseases onset, such as cardiovascular disease, type 2 of diabetes and osteoporosis, types of cancer, obesity, bone and joint disorders, until depression [5,6]. There are sub-indicators of "social influence" and "lack of willpower" that obstruct one's physical activity [7]. In taking physical activity, there are obstacles that exist in society, from 4.4% of respondents reported, they explained that obesity was a barrier for someone to do physical activity, because they were too shy to exercise, too lazy or not motivated, injured or disabled (male only), and not interesting in exercising (women only) [8]. There is irrefutable evidence that regular physical activity contributes to primary and secondary prevention of several chronic diseases and it is related to a reduced risk of premature death. One of them is taking exercise, people who exercise will tend to get further health benefits [6]. The influence of lack of motor skills and physical fitness facilities to improve health in children to

adolescents also become one of the negative factors in the involvement of physical activity [9]. Physical activity has many types, most research is designed to increase motivation for physical activity focuses on sports behaviour and ignores sports participation [10]. Physical activity needs support and guidance from the parents, teachers / trainers, and peers, cited as an important influence on physical activity in children and adolescents [11].

Motivation becomes one of the active roles in adolescent life in home, environment, school, and sports. Motivation is defined as the behaviour choice, effort, perseverance, and performance, it can be treated into the level of physical activity [11]. Motivation is a concept that can build and energize when someone is focused on activities during sports to achieve the goals [12]. Good exercise can maintain weight loss [13,14]. Therefore, sport is a need for someone who does not do physical activity. Focusing on the needs of sportsmen / athletes, they have been recognized as an important feature of the training process [15]. But in sports, a training program is really needed. People usually follow programs to gain many sports benefits, such as weight control, risk reduction of cardiovascular disease, reduction of stress and depression, increased self-esteem, and increased enjoyment [16].

In strengthening moral value character in children from an early age, as a physical education teacher, sports club coach always pays attention to learning and training strategies that can transform moral values as a form of professional responsibility [17]. Coach can be an example and role model for their students, especially for junior athletes or beginners, so that everything they do is always being the spotlight of athletes and general society [18]. The role of a trainer is to help someone when they take a practice, so that they can focus on what they do besides the trainer's role can also develop the strength, skills and knowledge [19]. The trainer must have a target for the athlete or someone who is training so that the training process runs well Therefore, the coach has the relationship, autonomy and achievement of three important areas to do his work as a coach [11].

Along with the booming of smartphone ownership, there is an increase consumer interest in measuring physical activity (PA) which helps individuals in recording their daily activities through applications [20]. The benefits on Android smartphones in health aspect such as MyMedSchedule,

MyMed, and RxmindMe, because of the basic medication reminder feature with its functional level [21]. In addition, Android smartphones can improve work performance, help speed up the work, and are easy to use [22].

Reviewing from the previous applications making about the Reservation System Application for Sports Facilities Based on Android, this application was used to search online sports fields [23], about Colour Blind Test Simulation Applications Based on Android Platforms with offline servers [24], about Well-Being Apps for Behaviour Change: A Systematic Search and Rating of Apps [25] and HelpMe-App: Android-Based Health Management System application that can monitor and encourage changes in a person's behaviour. Reviewing from previous applications, the researchers have not found any android-based sports search application using an online server.

Therefore, the aim of this study was based on the needs of the society who need sports trainers with applications that are easy to use. Besides of giving benefits to the society, this application can make the trainers are easier to do their work and increase training experience.

II. METHODS

Based on 54 trainers that answered the questionnaire. It can be concluded that 54 trainers stated that a trainer was important for the society, 40 trainers did not know the trainer search application, 29 trainers said that it was not easy to find a sports coach, and 53 people agreed if there is a sports trainer search application for the society. Based on the results using the questionnaire, 192 people answered the questionnaire. It can be concluded that from 192 people, 165 of them stated that the importance of trainer, 183 people stated that they had never known a trainer search application, 124 people stated that it was not easy to find a sports coach, and 168 people agreed if there was a sports trainer search application for the community and each respondents can provide input about the features needed by the application.

Through the Design Based Research method, it is explained that researchers will produce useful products and effective theories in solving individual and collective problems [26,27].

With the DBR method, the researchers found a tool to make it easier for the public to find a sports coach. Finding Coach application is an android-based sports coach search application

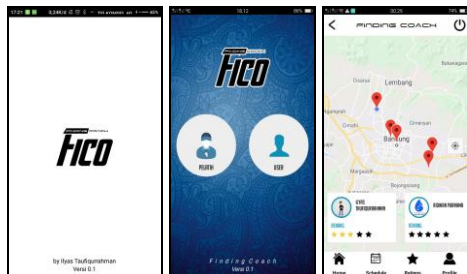


Fig. 1. Sport coach search application.

III. DISCUSSION

There are some findings of researchers about useful applications and easy to use for the society, in Mckay et al. research about Using Health and Well-Being Apps for Behavior Change: A Systematic Search and Rating of Apps, that applications can help the society to practice practically in daily activities [25]. It is similar to the FICO application that uses an android smartphone for public health practically, but the FICO application has an innovation by bringing competent sports trainers to help people exercise in accordance with their respective needs. In addition, the FICO application can make it easier for the people to find sports coaches and can serve the needs of the society, because in this modern era, smartphone usage has become a habit and an important part of life where almost all activities use a smartphone [28]. The innovations found in the Finding Coach application from various researchers' findings are that there is no android-based sports coach search application by having two programs or features in one application, namely for Sports Trainers and Users as application users.

In a study Kurniadi et al., an Android platform-based colour blind test simulation application with the design method used was the Rational Unified Process (RUP) [24]. The application method was created using Android Studio and this application was offline, it used no server or internet connection. The FICO application has similarities with using Android Studio, but the difference is the Android platform-based colour blind test application is an offline server while the FICO application is an online server because the online server can help connect the trainers with the users who have a certain distance.

In the study of Bughio et al., HelpMe-App: Android-Based Health Management System, this application was created using Android Studio with the help of a system tool that has three main components namely Arduino UNO microcontroller, heart rate sensor and HC0 Bluetooth shield, this application uses a server to detect the GPS [29]. However, the application is only used for individual while the FICO application can be used for everyone, they are the society and sports trainers. In addition to help people gain health while practicing sports, the sports coaches can also promote their services, and the FICO application is a place for trainers to increase training flight hours as well as livelihoods.

According to the research Oktafianus et al., about the Reservation System Application for Sports Facilities Based on Android, this application was created using Android Studio and Google Maps Android API on this application using a server for a database using PHP (Hypertext Preprocessor) [23]. In creating the FICO application, it has the similarities with the application of the Reservation System for Android-Based Sports Facilities, namely using Android Studio, Google Maps Android API and using PHP as a database, but the FICO application has more complex innovations than the Android-Based Sports Facility Reservation System Application which only helps the society to order facilities only, where the FICO application can help the society to choose a training ground, the FICO application also provides sports coach services in accordance with the needs of the society in sport.

IV. CONCLUSION

The researchers found an application design that is useful and easy to use and beneficial for sports coaches and the society. Many people do not know the application for a sports coach. Therefore, it is very necessary for the society to easily find a coach through the Finding Coach application. Not only in society aspect who get convenience, but in sports coaches' side also get the benefits. The trainer can promote his services, increase training hours and the trainer can evaluate directly from the user so that the achievement of the trainer is not random. In addition, the FICO application is also useful as a livelihood trainer.

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