

Projct proposal

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Martial Arts Fitness App

Research Proposal

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1. Introduction

The Author has looked around and found that there very few Martial art fitness apps for phone or computers, and the Author will embark on a journey to find one, if not try and make one.

The investigation will examination a range of technologies for both mobile and web in order to find a suitable medium in which to create a prototype version of the app, for demonstration and testing purpose.

The literature review will investigate various technologies, with similar applications and the importance of applications such as the one proposed. Once the investigation is complete, it will be possible to establish what content and functionality will be best suited for the intended prototype.

2. Background to the Proposed Research

The Author aims to ask many different martial art practitioners what they would like to see and use in a fitness app.

(create a questionnaire *Microsoft forms)

What is out there?

There are now a small number of martial art fitness apps out for the general public and are slowly becoming popular amongst practitioners of different martial arts. But they still haven't hit the popularity of normal fitness or lose weight apps, as they have become more advanced over the last 5 years going into more detail such as the fighting trainers below teaches you over 90 moves and techniques from mma but there is nothing on stretching, fluid intake, what foods a user should eat to help lose weight and be healthy, there is nothing to help with mental health.

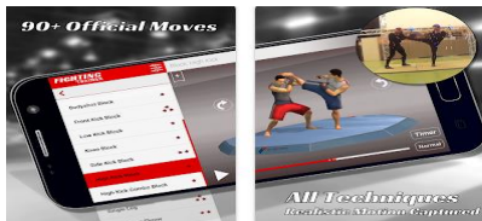


Figure 1 Fighting Trainer on Google play [1]

Wii-fit mma

The Wii Fit attempted to corner the market in 2011 with ufc and boxing games that encouraged you to train like a professional fighter, but it was short lived as many boxers and martial artists did not like this as they could only use this app to train in the living room, where it is difficult to do as most people the living room is the focal point of the house and many people occupy that area making it difficult to train in peace.



Figure 2 Wi-fit MMA Trainer

Prodomitor

In the early 2000s, Prodomitor were quite popular among fitness enthusiasts, but as technology advanced and smart phones replaced them, Prodomitor became outdated.



Figure 3 Prodomitor [2]

Mobile Technology

Any current phone may be used to access this software, allowing you to practise and train your workout when ever and when ever you like, at work, at home, or even while taking a walk outside.

The app itself will have a few different modes for a full all round workout reaching form all types of physical to meatal health.

- Everything from how to breath correctly for faster recovery times.
- Better types of fluid intake for different health benefits, depending on the user's health.
- Working out what type of body type you are and what problems you have and actions on how to help get your body to the designated body the user is after; Meditation is a big part of any martial arts and help to centre the user after each workout.

The app would have several types of physical workouts for everyone including but not limited to:

- Striking from them most basic punches to more advanced combination's to kicks.



Figure 4 Kyoshi Sensei Paul Newman demo jap [2]



Figure 5 Kyoshi Sensei Paul Newman demo Maeger [2]

- Floor work from basic stretching to basic floor movements to advanced movements, this works the entire body.



Figure 6 Kyoshi Sensei step one floor [3]



Figure 7 Kyoshi Sensei step two floor [3]



Figure 8 Kyoshi Sensei step 3 floor [3]

- Weapons drills are a very good way to help with fitness as the user will concentrate on the weapon itself and less on the aches and pains of the drills and can help to distract the user into doing more work.



Figure 9 Kyoshi Sensei Paul Newman Demo Bokken [2]



Figure 10 Kyoshi Sensei Paul Newman Demo Bokken side view [2]



Figure 11 Kyoshi Sensei Paul Newman Numcuku [2]

All workouts can have different levels as in duration, timed and achievement, with more user's using the app there can be an interactive mode where you can challenge family and friends or strangers from around the world. As the user gets fitter and stronger there would be a points system to help with gamification and to help advance to a harder level of fitness.

Google Play seems to have a lot (about 40 +) different types of fitness apps to choose from many of them help with just basic workouts and other to help with injuries, but most are for gym fanatics to help get bigger or more ripped.

Thenics

Is a fitness app for advanced gymnast not very helpful for the average joe or injured user's

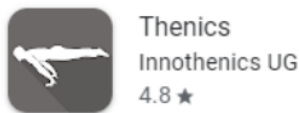


Figure 12 Thenics fitness App

Fitify

This Fitness App is used for mainly in the house or Gym all though it does go into a lot of detail for workouts it still doesn't help with injuries for the type of food, fluids that would be needed to help, It also don't have a section on how to breath or stretch to avoid injuries.

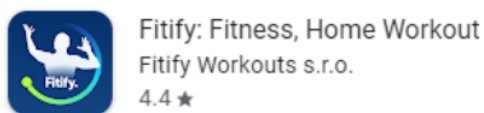


Figure 13 Fitify Fitness App [1]

FitStar Apps

Unlike the above Apps this one does help with bad backs for men who over use them in the work place and help recover faster, it does not go into as much detail as some other apps but its more about helping user's recover from a bad back injuries.



Back Workout & Exercises
FitStar Apps s.r.o.
4.7 ★

Figure 14 FitStar Back Workout [1]

Alpha Progression Gym Logger

This App is more for the Gym animal where they spend a lot of time working out to master and optimise a mash amount of muscle gain to get perfect body type.



Alpha Progression Gym Logger
Alpha Progression
4.8 ★

Figure 15 Alpha Progression [1]

Muscle Man

This app although is almost like Alpha Progression but with this one it goes into a lot of detail on the increases of the internal parts of the body to help visualise what is happening to the body as you progress in the app.



Muscle Man: Personal Trainer
Fitonomy, INC
4.7 ★

Figure 16 Muscle Man App [1]

3. Aims & Objectives

The Author will be using the S.M.A.R.T. criteria to create appropriate aims and objectives for the proposed project (it should be observed that some of the time frames may be altered when this project progresses to the next stage as no formal requirements have been gathered and this document should only be viewed as a provisional plan).

- Gather information from as many different arts as possible over a series of 6 months each art would have to have a lengthy time period to get the best recorded data for the app as each art form can be as wide range of skill sets needed for any one of the art forms.
Boxing, Karate, Judo, Akido, Jujitsu, BJJ, Kendo, Kickboxing.
- Find out what they would like to see in the application as each art form can be very different such as Boxing uses only upper body striking but use a lot of leg work for stamina, whereas BJJ is all floor work and uses grappling on the floor and uses the whole body for the sport, this make a huge difference in not only stamina, flexibility but also in knowledge base, as there is a lot more strategy in BJJ then Boxing, Boxing comes down to more reaction that thought, so there would be a need to take time what each art form wants or needs for the app this of course could mean changing the time lines as each art form has a lot of techniques to observe, track, test and try out to get the data needed.
- Gather and utilise the data found and make a workout plan into several different types of workout plans each would have different physical, mental affects on the user to different degrees, this will have a change on the timeline as each workout plan will have to planed in advance and changed accordingly to each regiment.
- Make a workout plan with a vigorous and non- vigorous type of effectiveness for the different types of users ranging from the users with physical difficulties such as physical disabled users to the most hardened marital art expert, this will take time to study and build to make sure the users of all types don't hurt them self's or others.
- After the workout plan's have been make the next step is to test them on a mix of different types of users, of a set on at least 3 months each to get a base line on each person, again the timetable can be changed as it is seen fit to get the final data results.
- Find out what the drop off rate of people who stop using fitness apps as there has been a big drop off with most people who go to the gym after just a few months, there is strong evidence that while apps can be a good thing, people drop out of the training after a short time and how to keep users interested in the product and keep using it for a few year if not in diffident.
- Specific,
- Measurable,
- Achievable,
- Relevant,
- Time bound
- Find out why people stop using apps.

4. Project Design

4.1 Outline of Project Process

Starting with a theory, developing hypotheses, testing the hypotheses, and interpreting your results are all part of the traditional research process paradigm. The research process is not linear; it is circular. One study's findings are reflected in the system, and guide further study. Researchers will inform you that the method isn't really that crystal clear. Often, researchers will have an original thought for a study and not be highly knowledgeable about the theories that could explain it; nonetheless, after some preliminary tons, they might review earlier study on the subject to see what it has to offer. [4]

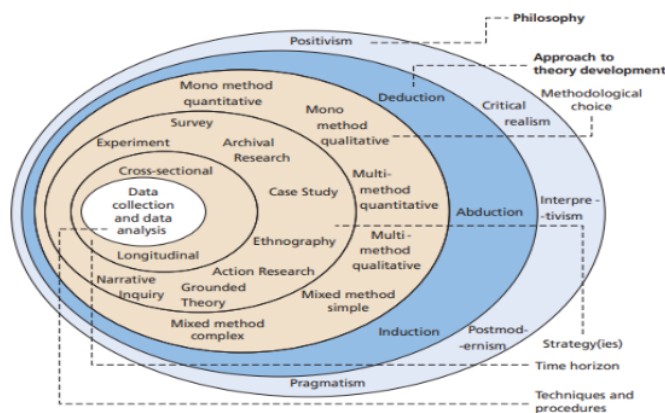


Figure 17 Research Methods for business [5]

However, the most secure way to begin a research endeavour for individuals who are just starting out is definitely to start with theory and hypothesis production. A good idea is critical, but it's as crucial to understand how your idea fits with other similar ideas and existing research in the field. The greater research community frequently finds a concept that is not supported by an existing theory to be of little value. Consider a real-world illustration of the theory-first approach. a single dissertation. The following suggestion was always given by advisors to students who had an intriguing research idea: Go find out as much as you can about what others have accomplished. Getting beginning to be familiar with prior research. [4]

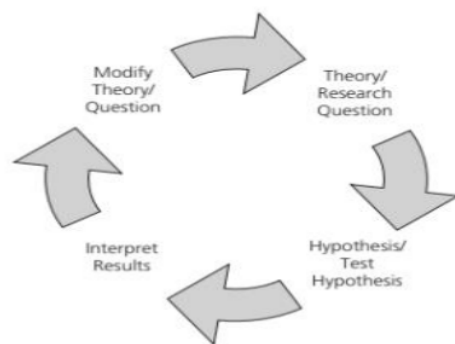


Figure 18 Classic research model [4]

A researcher must select an approach to explore the subject of interest once they have a basic understanding of the research model (as explained in the section above). Although. This is a general distinction, and it is better to think of most research as either quantitative or qualitative. or of a high quality. In general, numerical assignment is exclusive to quantitative research. when compared to qualitative research, which results in narrative or textual outlines of the phenomena being studied. each strategy has benefits and drawbacks that are as follows: [4]

Characteristic	Quantitative Research	Qualitative Research
Type of data	Phenomena are described numerically	Phenomena are described in a narrative fashion
Analysis	Descriptive and inferential statistics	Identification of major themes
Scope of inquiry	Specific questions or hypotheses	Broad, thematic concerns
Primary advantage	Large sample, statistical validity, accurately reflects the population	Rich, in-depth, narrative description of sample
Primary disadvantage	Superficial understanding of participants' thoughts and feelings	Small sample, not generalizable to the population at large

Figure 19 Research Table [4]

Additionally, to information and techniques based on an examination of each of the six stages of the Systems Development Lifecycle 1) Gathering and analysing requirements, 2) developing systems, 3) implementing and coding systems, 4) testing, 5) deploying, and 6) maintaining and operating systems For all Stakeholders, developing, deploying, or upgrading a system can be stressful. These jobs can frequently be quite challenging; however, the procedure can be made simpler.

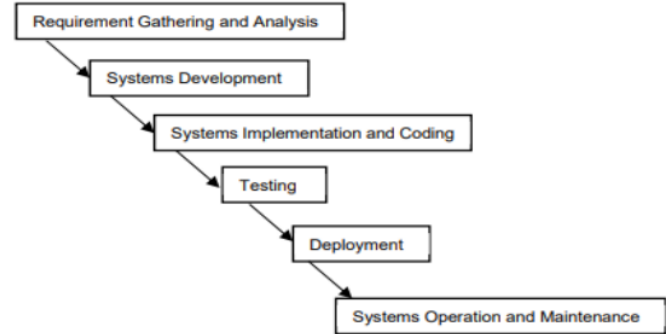


Figure 20 Waterfall Model [6]

4.2 Data Collection

(response from questionnaire) system testing, loading times.

Go to 5-10 different martial Arts and talk with Sensei's and students about what they would like to see in an app directed at them.

Intending to do and secondary research out there.

Collect data from the martial artists and analyse what they want with what other fitness app have.

4.3 Data Evaluation

Response with primary research and secondary research results!

Cross check what other fitness apps have with what is wanted.

4.4 Risks & Limitations

Risk register Skill sets, available technology's, time frames. Excel sheet to add in

Find out what risks are involved in making a fitness app, and legal stance. What limits are there on apps if any?

4.5 Ethical Issues

(use ethical form)

See appendix A

- * Not to rip people off

- * give them a good product that works.

- * data collection

Data protection

- * different levels of difficulty (in case of sickness or injury) health and safety

5. Resources & Planning

5.1 Resources Required

Information and data on current and obsolete fitness apps for phones and pc use, people and rooms needed to make /test

5.1.1 Hardware Resources

Pc or phone to run the app

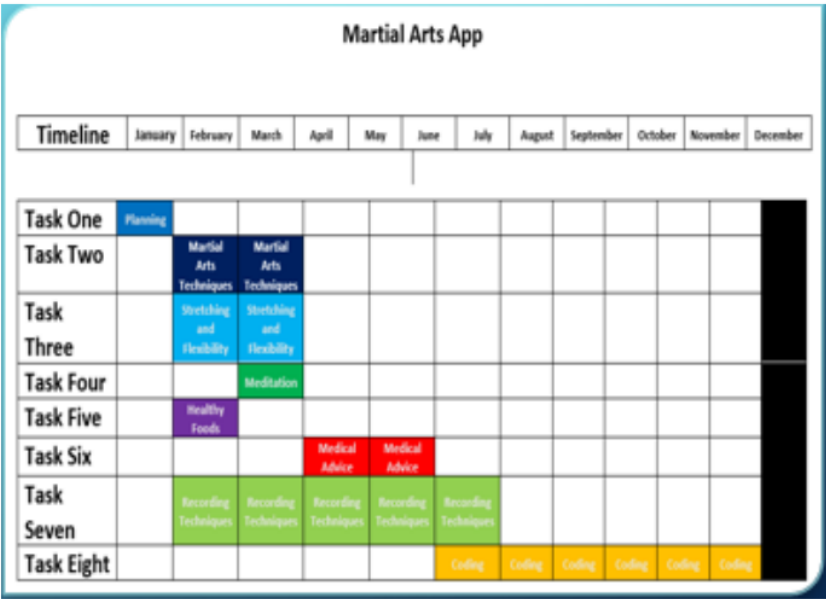
5.1.2 Software Resources

To use the most common software for apps today

5.1.3 Other Resources

Media, web sites, statistics. Library resources and labs resources.

5.2 Planning Chart



Gantt chart/time frame table

Make a chart with times and dates for completion

Bibliography

- [1] play.google.com, "play.google.com," [Online]. Available: <https://play.google.com/>. [Accessed 22 10 12].
- [2] K. S. P. Newman, Writer, *Hei Jo Shin Jujitsu*. [Performance].

Project proposal

GRADEMARK REPORT

FINAL GRADE

68 / 100

GENERAL COMMENTS

Instructor

Project Proposal – ACCA6020 Independent Project

Student Paul Newman

Mark 68

Intro / A&O (400 words)		
Project title; Identification of a specific problem to be investigated; Well-defined aims and SMART objectives; Explaining why this project is worth doing; Discussion of what the project needs to do in order to be a success; Description any deliverables that will be produced at the end of the project	20	13
Introduction is a bit on the short side. Aims and objectives are OK – be careful that you allow the app to be created in stages – ie you should know which objectives are core and which are less important.		
Background to the Project / Literature Review (400 words)		
Description of how the work to be done by in the project relates to the work identified in the literature review; Discussion of any ethical issues raised by the project Identifying what has already been done within the field; Topic familiarity; Brief literature review using appropriate sources – 6-8 journal papers and book ch	20	12

apters rather than just websites; Se lection of relevant models & concep ts Would have liked a bit more backgr ound on gamification of exercise ge nerally – you have concentrated on martial arts, but gamification also h appens in other sports – there coul d be useful information that you co uld use to inform progress in the m artial arts area.		
Project Design (500 words)		
Clear statement of which developm ent methods are to be used and wh y they are appropriate; Clear state ment of which tools are to be used and why they are appropriate; Clea r description of how data collected will be analysed At this stage, I am happy with the di rection of the project. Methods cho sen seem reasonable.	30	26
Resources / Planning (200 words)		
List of any deliverables; Clear diagr am showing both timing and resour	15	7

ce use; Completed ethics form; Limited and relevant appendices A bit light on specific resources, you could have listed possible hardware/software/servers/database? etc Unclear on why the timeline for the project goes from January to November?!		
Document Presentation		
Correct spelling, grammar and punctuation; Flow of narrative/fluency; Coherence; Word processed ; Correct use of referencing with bibliography; Strict word limit You need to iron out your writing style for Level 6. Try to write less colloquially – “looked around” - > “investigate”. Also, avoid using “The author” – this is an active tense. You need to use the passive voice. So your opening sentence could be something like: “The area has been investigated, and it was discovered that there were very few martial arts fitness apps. This project will investigate the requirements for such an app and create one”	15	10

It won't take a lot to sort your writing style out – other than that, well-structured.		
TOTAL	100	68

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