Resurse de VR, headset? Viabilitate cumva, sa vad daca am la dispozitie?

Ce is pe piata in romania?

Tipul de fitness. ce se poate face in VR?

Buget, care e dispunerea financiara?

VR fitness, VR for fitness (H.I.T.), in sine sav ad ce si cum sta corelarea de vr cu fitness

Parametrii bio-fiziologici care se pot analiza

HIIT training

**(208 – (age \* 0.7)) x 70 percent = low zone (208 – (age \* 0.7)) x 85 percent = high zone**

For the hearth rate interval(best efficiency)

70-90% hearth rate for work intervals

50-65% hearth rate for rest intervals

Work Interval(Push)

* Number of(how many)
* Duration(in any measurement, distance, minutes etc.)

Rest Interval(Rest)

* Duration
* Type: passive or active

Session(Series of Push/Rest intervals)

Obs.

Inversely related to duration of HIIT bouts:

  • 4 Pushes if duration of HIIT bout is 4 minutes  
  • 8 Pushes if duration of HIIT bout is 2 minutes  
  • 10 Pushes if duration of HIIT bout is 60 seconds

The duration of the pushes reduces if the quantity increases, workload must stay the same to not lead to exhaustion

Rest duration >= Push duration

Try for active recovery when possible

The workload per session can stay the same as long as there is an improvement in the number of sessions per week

After training EPOC is increased compared to normal training, due to the high intensity aspect of it. Also due to that it is recommended a recovery time of about 48 hours.

Can be extended to post-workout recovery strategies(hot and cold treatments, post-workout nutrition)

EPOC

EPOC (t) = f(EPOC(t-1), exercise\_intensity(t), dt)

<https://assets.firstbeat.com/firstbeat/uploads/2015/10/white_paper_epoc.pdf>

Can be measured using the hearth rate

Parameters

* Cardiovascular(hearth rate)
* Oxygen Consumption(EPOC)

Available Products

The majority VR fitness apps restrain from the HIIT model, most going by the constant exercise model.

3 examples of HIIT vr fitness apps

<https://www.vrfitnessinsider.com/review/the-thrill-of-the-fight/>

<https://www.vrfitnessinsider.com/how-to-build-a-full-body-beginner-to-advanced-workout-routine-with-boxvr/>

<https://www.vrfitnessinsider.com/review/holopoint-vr-game-review/>

Those products are just the fitness app, none of the optimize workouts by workload and do not take any sensor data

Collecting Data

Samsung’s Gear S3 allows deployment of apps

Fitness app tutorial for Samsung wearable:

<https://medium.com/@nastya_731/how-to-make-a-tizen-net-fitness-app-for-samsung-galaxy-watch-deeab905ef3a>

Other possibilities:

Rasberry Pi with Pulse Sensor

<https://tutorials-raspberrypi.com/raspberry-pi-heartbeat-pulse-measuring/>

pulse sensor - 30 lei

Rasberry Pi – 250 lei

Buget

Not really an inconvience

TIMELINE

Ianuarie – aplicatie wearable de colectat date