

Notes from the study:

The chosen content carries enjoyment throughout

On row: The optimal screen would be phone placement with adaptive screen.

Treadmill, phone: Holds guard rails, screen a bit low, bad posture, small screen

Treadmill, static: High intensity is now worse than on phone condition, has a tendency to look down. Is not used to treadmill

Treadmill, adaptive: Felt it was easier to focus on the video as it got smaller. As it got harder it was nice that the video got smaller

Row, phone: Nice placement, small size

Row, static: Did not notice the size changes, felt natural. Would like the screen where the info display is

Elliptical, adaptive: As video was fixed it felt bouncy because participant moved up and down. Screen was too high at high intensity.

Elliptical, phone: Great for high intensity, too low for low intensity

Q: Now that you have experienced the three viewing modes on all machines, what is your overall ranking?

A: The one on the rowing machine that follows you is the best.

Q: What did you think of the content selection? Did the content you picked have a notable influence on your enjoyment?

A: [The content] definitely had an effect on my enjoyment. (This participant really likes Parks and Recreation)

Q: Please explain your viewing mode preferences on the different machines. What made a viewing mode work on one machine over another?

A: As I said regarding the rowing machine, the one that follows you, I liked the most. It did not have the best placement, but it had a size that allowed you to watch at all times and since it followed you, you did not think about the fact that you were moving at the same time. With [static mode], I felt that I had to constantly regain an overview because the perspective changed. And the one below the information screen was just too small. On the Elliptical I felt that the [phone] was best overall. It was not the best for low intensity, but at high intensity it was right where I wanted to look when exerting myself the most. [Adaptive] was best if you also factor in the lower intensities.

Q: Then when you do cardio on your own, would you then switch between intensities or just pick a constant intensity and keep that throughout?

A: In general, because I hate doing cardio, I would do high intensity until I am done because in that way it is finished the fastest. It is probably also the reason why my viewing experience on high intensity influences my decision on my preferred screen.

Q: Describe the effect that having the video had on your workout. How did it differ between viewing modes?

A: I normally listen to music while exercising, because it helps me zone out and makes time fly. I get the same effect when the viewing mode works well, and it fit and was not annoying to follow along. The exercise that felt fastest was when I was rowing with the [adaptive] screen because it was just easy to keep track of and I got engrossed in the content, whereas opposed to the other [viewing modes], when it becomes an added thing that you need to keep track of, it makes it harder. So, it is positive if it is the way you want it to be, but it is negative if it is not how you would like it to be.

Q: So, would you say that if you are made aware of the video instead of it feeling seamless and integrated, it becomes a nuisance?

A: Yes.

Q: How did the different levels of (workout) intensity affect your viewing experience?

A: At low intensity everything is viewable, with some working better than others. As intensity ramps up and you exert yourself more, it becomes harder to watch, and then for me it becomes more important how [the video] is presented.

Q: Did you experience any issues on any of the viewing modes?

A: Not really, I did not consider it. It was only near the end that I noticed some surroundings that looked odd (passthrough imperfections). But otherwise, I did not have any issues with the [screens].

Q: What makes a good viewing experience for you when doing cardio?

A: For me, it is whatever is easiest to follow, so something that does not feel like it is moving from my perspective. It should be as if I were sitting still looking at a TV screen. That is also what makes it frustrating on the elliptical when you are moving up and down and it feels like the screen is moving outside your perspective. Just as soon as it feels unnatural, then it is bad.

Q: Now that you have experienced everything today through Augmented Reality, does it not all feel a bit unnatural?

A: You could say that yes, but there were still some [viewing modes] where you somewhat forgot [that you were in Augmented Reality]. There was for example a point where I was watching on [phone mode] where I was afraid, I was going to throw it off of the machine.

Q: Anything that could improve the modes you experienced today?

A: Placement depends on the exercise you are doing. I imagine it is different from person to person, but in general you have a place where you would naturally look when doing an exercise on the three levels of intensity. So having the placement be based on intensity, and then the [follow effect] I found very nice, maybe also have something where it followed you when moving up and down.

Q: Can you expand on that, wanting it to follow you up and down?

A: Just like, so it is not locked in the world.

Q: So, would you have it follow your gaze when looking to the sides and up and down?

A: Then I actually think it would take away too much from reality and just become a distracting digital element.

Q: Another option to solve that up and down issue would be to have it tilt to try to always be pointed to your gaze.

A: That might give much of the same effect [that I was missing]. That might be cool too. But of course, I have not tried it.