A Wii Fit Experiment

An Honors Thesis (HONRS 499)

by

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Abstract

Just within my five years at Ball State, technology has become more and more interactive as people become gripped to their computers, cell phones, and televisions. I’ve always had an interested in the overall effects on a person’s well-being as a result of interactive technology. The Wii Fit is a unique piece of interactive technology because it pledges to provide positive health benefits to its users. I conducted a three month experiment on whether or not the Wii Fit actually promoted good physical health with regular use. I blogged regularly about my experience and made a video-review of the device which is enclosed in DVD format in this portfolio. I have also included the script for my DVD as well as transcripts of my blog entries, which can also be read online at http://wiifitnesschallenge.blogspot.com/

Acknowledgements

I would like to thank John Dailey for advising me for this project as well as providing great insight into the ever-changing world of interactive technology.

I would also like to thank the Digital Media and Telecommunications department for years of instruction in the field of interactive technology and constantly being at the forefront of new and upcoming technical advancements.
Hi, my name is Kirk Barrios, and this is my Senior Honors Thesis project, which is a critical review of the Wii Fit. Essentially I've been using the Wii Fit for the past three months and tracking my results. One of the main goals of my experiment was to see if there were any positive health benefits in correlation to regular use of the Wii Fit. I've been involved with the telecommunications department at Ball State for the past five years, so I've always been interested in the positive and negative affects of interactive technology as our culture becomes more and more immersed with computers and video games.

I've been pleasantly surprised with the results of the Wii fit, overall. I have some minor complaints, but in 3 months, I lost 14 pounds and feel like a healthier person in my day-to-day activities. I did not alter my diet significantly, so I have to attribute the results almost entirely to the Wii Fit.

The Wii Fit is basically an interactive board that retails for about $90 and is used in conjunction with the Wii hardware and software. The Wii Fit tracks your progress using the “Mii” which is your personalized avatar that is used across a variety of Wii software, like the Wii Sports and Wii play games. The avatar can be password protected if you are concerned about your privacy if you’re using the Wii fit in a household of people. During your first Wii fit session, you are asked to perform a body test which is the baseline for your weight loss progress. The body test measures your balance, BMI, weight, and “wii fit” age which is a barometer for how old actually are versus how old you are according
to your actual physical fitness. My Wii fit age ranged from 22 to 49 throughout various stages of my experiment, so I found this feature to be moderately worthless. You then set a weight loss goal which the Wii fit will track automatically for you on its calendar. So, the Wii fit is a very useful tool for long-term progress. All of the body measurements are done on the balance board, which I found to be extremely intuitive.

The Wii fit enables the user to go through four types of exercises on the path to getting in shape. There are yoga exercises, strength training, aerobics, and balance games. I’ve always considered yoga to be kind of a feminine type of exercise, but this is where I was most impressed with the Wii fit. I am so much more flexible today than I was a few months ago. I used to not even be able to touch my toes, and now I can reach four inches past the tips of my toes. Yoga also relaxes me and puts me in a better mood, along providing an increase in energy. I recommend yoga to anyone, as it truly has positive health benefits. I never would have discovered the merits of yoga without the Wii fit.

The strength training and aerobics are where the user will really break a sweat and get their workout using the Wii fit. Starting out, I couldn’t get through 6 repetitions of the pushups and side planks without breaking a sweat. Now I’m at 20 repetitions and it’s still extremely strenuous. I’m not sure if you actually build muscle mass while doing the strength exercises, because that seems more like what free weights are used for, but I’ve certainly built some endurance and flexibility in my few months using the device.
The aerobics portion is fairly useful, after you unlock longer durations, which I will get into later. The Hula hoop is a great way to feel the burn in your calves and hips. I was not a big fan of the step routine, but I have never liked rhythm games, like Guitar Hero or Rockband. It didn't seem to be much a "work out" but I imagine the older people that use this device will find the ease of the exercise to be a positive. I really enjoyed the running part of the game. Basically you run in place with the Wii remote in one hand or your pocket, and your pace is measured by the how quickly the Wii remote is bouncing up and down. After you spend enough time running around and following a fellow Mii, you are able to unlock the "free run" portion of the game where you set the timer in 10 minute durations and receive instruction from the speaker in the Wii fit remote. You then can change the channel and watch whatever on TV while still earning your Wii Fit credits.

The balance games are basically a fun series of mini-games meant to improve your overall balance. Frankly, they aren't much a workout, but they are useful in the beginning stages of using the Wii fit to provide a change of pace from the grind of actual "exercise." After a while though, I stopped using them altogether as I focused more and more on getting in shape. I admit they were useful in keeping me motivated and not loathing the device as I was starting out, because they are fun. The kids will really enjoy them.

So you may be wondering what keeps the Wii fit "fresh" and what it does to keep you from throwing the thing in the back of the closet like so many other workout devices. Well, to start out with, not all the exercises are accessible from the first workout. As you earn more and more Wii fit credits, which you get as your spend more time on the device,
the software unlocks more exercises, games, and repetitions. This creates a nice little reward system for working out. I felt a sense of accomplishment as I got deeper into my training and earned unlocked all of the exercises.

However, the Wii fit is not without its flaws. One of the main problems with the Wii fit is the exorbitant amount of menus the user has to scroll through while performing the exercises. There are countless reminders to keep your balance and clear the area around you before working out, and after three months, I am extremely sick of reading these menus. There is no way to turn them off, either. Also, there is no way to chain together exercises to perform one right after another. So while you may spend two minutes doing push-ups, you will probably spend 3 to 4 minutes total going through the menus, selecting your exercise, finishing it, and then beginning a new one. I found that 30 minutes total of exercise time on the Wii fit equated to about 50 or 60 minutes in real life. This is why I enjoyed the free run feature so much, because I was able to work out for 30 minutes straight with no interruptions. I am hoping that in future incarnations of the Wii fit software, the user is able to input an exercise routine.

So in conclusion, I am able to say that yes, the Wii fit is an example of interactive technology that has positive real life benefits. I lost weight, gained flexibility, and overall I feel healthier and have more energy. I do not think the Wii fit is a replacement for a gym membership, however, but it is a useful tool to keep at home to use in conjunction with a more vigorous workout routine. I don’t think it’s possible to get ripped using the Wii fit, but for someone trying to get out of a sedentary lifestyle, like I was, it’s a viable
means to become more active. So when you factor in the variety of exercises, the ability
to track your progress, and the intuitive features of the Wii fit, I’d say it’s worth the 90
dollars. I was able to use the device for three months without losing too much of my
initial motivation, so I consider the Wii fit to be a good investment for people trying to
get in better shape.
Thursday, April 16, 2009

Workin on my critical review

I will have it online, once I can get approved to either vimeo or youtube. Probably vimeo, since their quality is nicer.

Posted by Kirk at 2:30 AM 0 comments

Monday, April 13, 2009

Well, it's been a while

But I've been so busy with school. I apologize. I did manage to get a few running sessions in, but other than that, nothing exciting. I put back on a few pounds, mainly because I haven't eating right and I haven't really been able to find the time to exercise. It's too bad 40 minutes on the Wii Fit takes out an hour and ten minutes of my daily life or I'd be able to get on it more. I really hope they fix this issue in future games.

Posted by Kirk at 5:28 PM 0 comments

Sunday, April 5, 2009

So, today

My fitness walking class had to get shown around the gym, where one of the workers would take us around individually and show us how each piece of machinery work. One of the ladies complimented me on my flexibility, which I attribute entirely to the yoga on the Wii fit.

I will say that Yoga is 100% the best quality of the Wii Fit. I never would have even known about the benefits of yoga nor would I have ever tried it without this thing. I always thought of yoga as "girly," but it really does work. Flexibility, energy, contentness, it's so helpful to my daily life that I'll definitely continue it for as long as I can.

I'm down to 166, which is good.

Posted by Kirk at 2:25 PM 0 comments

Wednesday, April 1, 2009

Running out of my mind.

Well it's been six days since I updated, and I ran for four out of those six, half an hour each day. My body is certainly adjusting as its getting easier and easier to complete these
half hour long runs.

14 hours of Wii Fit credits, so I'm movin' on up. Everything has been unlocked for a while.. so maybe the newness is wearing off.

Posted by Kirk at 12:24 AM 0 comments

Tuesday, March 24, 2009

New stuff

Well I finally gave the push up challenge a try.. I did 24 push ups and side planks, and my arms hurt like crazy. I probably won't be doing that again for a while, considering I can barely do 20 of the regular push-up/sideplanks on the strength training part of the game. In other news, I just hit 12 hours total of Wii Fit credits, which is pretty astonishing to me, considering I haven't worked out hardly at all the past year before I took on this challenge.

I'll get back to my routine of running for the rest of the week, it looks like.

Posted by Kirk at 2:21 AM 0 comments

Friday, March 20, 2009

More running..

Well, I think I'm pretty addicted to the free run, seeing how it's all I've done on the Wii fit the past 3 days. It's just so easy to get a lot of time in without having to screw around with the menus.

Anyway, I'm up to 4.8 miles per 30 minutes, which is way up from my 4.1 I started out with.

Unfortunately, I'm at a plateau as far as weight loss is concerned. I've only lost .2 pounds in the past couple weeks. I guess I should start watching what I eat more, since my metabolism is dreadfully slow.

Posted by Kirk at 2:15 PM 0 comments

Monday, March 16, 2009

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Free Run + NCAA tournament games = for the win.

I put in my 3rd session of free run, and I finished up at 4.565 miles for 30 minutes, so I think I’m building up some endurance. It’s still not terribly vigorating, but it kind of hurts my shins to run in place for so run. I don’t have any idea whether or not I would experience the same soreness running outside or on a track, but either way it’s somewhat painful to walk the next day.

Until next time..

Posted by Kirk at 6:52 PM 0 comments

Sunday, March 15, 2009

More running...

So today I decided to run for a full 60 minutes. 30 minutes just wasn’t vigorous enough. I had to put in two 30 minute sessions through the Wii fit menu, since I can’t simply enter how long I’d like to run. I think future versions of the program should be more flexible in regard to how long you’d like to exercise. Anyway, I run about 4.2 miles in 30 minutes, and I don’t know if it’s accurate considering I’m running in place, but that’s much, much faster than I used to run the mile in high school (the last time I was actually timed).

I unlocked a bunch of challenges, like the push up and curl challenge which apparently measures how many of those you can do in a certain period of time. I unlocked them after I put in 60 more Wii Fit credits, so I was too worn out to check them out after I finished running. I’m curious to see how much I can improve in the next month or so. Until next time..

Posted by Kirk at 4:55 PM 0 comments

Friday, March 13, 2009

New Features

Since I’ve pretty much unlocked everything in the Wii Fit, I’m starting to explore the other games/exercise routines. Well, today I used the "Free Run" feature for the first time. It’s an easy way to log in Wii Fit credits without having to actively use the machine. The Wii Remote is still held in your hand while you run, but you can turn the TV and the Wii remote reminds you how much time you have left to run. I went for the 30 minute session, since running in place just isn’t as vigorous as going outside and running. I was given the option of choosing between 10-20-30 minute runs.

Overall, I like the Free Run feature. One of the problems I have with the Wii Fit is having too much interactivity, meaning I don’t like to have to actively select each exercise I want to do. The Free Run is a kind of mindless way to work out, get Wii Fit credits, and still feel good about exercising.
Wednesday, March 11, 2009

Weight Check in

Well I'm down to 173 on my real scale, and the Wii Fit says I'm 169. I use the Wii Fit on carpet though, so I tend to trust my bathroom scale more. I'm about to put in a session, so I'll update when I'm done.

Posted by Kirk at 1:45 PM 0 comments

Sunday, March 8, 2009

Whoaa

Well, that was quite a break I took. Between finishing video projects and midterm exams, I've barely had a chance to use the Wii Fit. But, I think I am getting stronger. I expected to be worn out after a 35 minute workout today, but I wasn't. I was able to do the 20 push ups + side planks relatively easy, so I think my muscles are retaining some strength.

As I unlock more reps, it's becoming easier and easier to get in a 30-45 minute workout. Instead of doing 10 two-minute exercises, I'm able to focus on a few exercises - lately I've been doing 20 reps of the push-ups, 40 reps of the lunges, and 30 reps of the curls/jackknifes. This altogether takes about 13 minutes, and before I know it, I'm almost halfway done with getting in a good workout. I follow the strength training with some yoga and about 11 minutes of jogging, so after about 35 minutes, I've gotten in a well-rounded workout. I'm really focusing on a few muscle groups that I'd like to tone with the strength training, mainly the thighs, abs, and triceps.

Body test tomorrow?

Posted by Kirk at 6:05 PM 0 comments

Monday, February 23, 2009

30 more minutes

Well I put in another 30 minutes today. 20 minutes of pushups/curls/leg exercises then 11 minutes of running. I've incorporated my Ipod into my workouts because frankly the Wii
Fitness instructor has a monotonous voice and I don't need to hear "Running endurance and flexibility tends to deteriorate with age" 8 times a day for the rest of my life. I'm starting to work out at reasonable times, like around 5 PM, rather than 1 AM, and it's much easier to get through a workout.

I'll do a body test tomorrow and let ya'll know how I'm progressing BMI-wise.

Posted by Kirk at 3:13 PM 0 comments
Labels: Nintendo Wii, weight loss, Wii Fit

Saturday, February 21, 2009

29 minutes.. so tired!

Man, today was hard. I don't know if I got on the Wii Fit too late in the evening, but I'm freakin' tired. I tried to rejuvenate my body by starting off with Yoga, but I was exhausted for the entire duration of this workout session. I don't think I'm going to use the Wii Fit after a nap anymore. I'm just zapped.

I am however setting record scores in all the Yoga exercises. I'm just shocked how flexible I've become. I also plan to do another body test tomorrow to see how I'm progressing. Hopefully I'll get some more pics up too.

Posted by Kirk at 11:12 PM 0 comments

Friday, February 20, 2009

Short update

I've lost another 2 pounds!

Posted by Kirk at 12:54 PM 0 comments

Tuesday, February 17, 2009

Finished up another session

Today's session was 33 minutes. I upped the push up + side plank exercise to 20 reps, and that was tough. I was getting accustomed to doing 10, so it was by far the most strenuous exercise I've done since I first started. I did a variety of strength training exercises, then finished up with the 11 minute run.

I figured out how to input other exercises I do outside of the Wii Fit into the exercise log, but I'm still not sure how to get it to count toward my "Wii Fit credits" which basically just unlocks exercises. I'll play around with it next time I do something on my elliptical and hopefully figure it out. As of now, I've gotten all but 3 of the yoga poses unlocked (out of 15) and all but 1 one of the strength training exercises unlocked.
Monday, February 16, 2009

Update after a long break

Hi all - sorry for the lack of updates lately. School was rough last week and I spent most of my time in Muncie working on papers and projects.

Since I was only able to get on the Wii Fit a couple times last week, I really buckled down tonight/this morning and put in my longest session yet - 1 hour and 2 minutes. I've got a routine down that I think I'll be able to stick with. I learned from my Fitness Walking class that it's best to stretch after working out, because it'll improve flexibility when you stretch muscles that are warm. So I'm going to start every session out with the strength training (which is working quite well, I'm able to do the 10 push up + Side planks routine without breaking a sweat. When I started I couldn't even do 5.), followed by going through the aerobics routines, then finishing up with yoga. I've unlocked some more Yoga exercises, and I'm stretching parts of my body that I didn't even know existed. I'm also able to touch my toes now, which I couldn't even come close to doing before I started on the Wii Fit.

I'm going to do a body test on Wednesday, because I wasn't on the Wii Fit too much last week and I don't want to be discouraged by any results. So I'm gonna do my best the next couple of days to watch my diet and be sure to get on the Wii Fit every day.

Tuesday, February 10, 2009

Weigh-In results

I'm pretty happy! I dropped 11.2 pounds my first week. I'm sure a lot of that was due to the shock I put my body through by exercising so often, after living months of a pretty sedentary lifestyle.

Anyway, here's some pics of how the graph system works on the Wii Fit.
So overall, I had a good week. I am eating better (I'm not on an all-out diet, I'm just trying to restrict carbs as much as I can. Certainly not all-out Atkins style.) and I have more energy than I used to. I don't expect to drop 11 pounds every week, but it's nice to get off to a good start.

Posted by Kirk at 1:36 AM 0 comments

Saturday, February 7, 2009

Days 3 and 4 - steady improvement

Well I put in about 30 and 40 minutes respectively the past two days on the Wii Fit, so I met my mini-goal of using the thing 4 times in my first week. I'm getting close to having all of the activities unlocked, and my scores keep on improving -- especially on the exercises that measure balance. I'm able to stand on one leg for the entire duration of the Yoga "Tree" pose, which is so much better than when I started, when I was falling off the balance board.

I'm excited for my second body test tomorrow. My close feel looser (not by a whole lot.. but still noticeable). I'm going to have a camera on Monday by next Wednesday I'll have a video blog up.

Overall, for my first week, I'm pretty satisfied. I'm definitely not bored with the Wii Fit, in fact, I feel quite the opposite. I look forward to starting my routine and seeing my scores gradually improve.

I really like the rhythm boxing that I unlocked last night. It's basically a Tae-Bo rip off, but it's fun.

Posted by Kirk at 3:09 PM 0 comments

Labels: exercise, weight loss, Wii Fit

Wednesday, February 4, 2009

Day 2 - Unlocking more reps

Well, I just finished my 2nd day on the program. I put in about 30 minutes of strength training and aerobics. I had to miss a day because I was busy with school, but my goal is to get myself on the Wii Fit 5 times a week. It was probably a good thing that I missed a day because my abs were so sore after the first day that it hurt to even stand up.

One thing I like about the Wii Fit is that it unlocks more reps and exercises the more you use it. I've already unlocked several more yoga poses, strength exercises, aerobics routines and balance games. After you do each exercise a couple times, the Wii Fit allows you to select more repititions. I like this feature because it eases the user into the exercises and ensures that you don't go overboard your first time, which is helpful for
people that are out of shape, like me.

One interesting thing I noticed is that the Wii Fit wanted me to do another body test (weight, BMI, balance, etc) on my second day of training. Don't most doctors recommend weighing yourself once a week? I'm only going to perform a body test once a week during this experiment. I don't want to get disheartened or too excited due to normal weight fluctuations.

I don't like the fact that I can't chain together exercises, because I waste a lot of time going through menus. 45 minutes of actual exercise time is probably more like an hour of real time just because I have to go through the software, select what exercise I want to do, press A on the Wii remote a few times to get past the "friendly" reminders to drink plenty of water or to be careful not to fall on my face, THEN when I've finished the exercise, I have to press quit to go select another one. It's only a mild inconvenience though. I enjoy watching the time spent exercising on the little on-screen "time bank" which appropriately enough resembles a pig.

Posted by Kirk at 9:04 PM 0 comments
Labels: exercise, weight loss, Wii Fit

Sunday, February 1, 2009

Wii Fit - Day One

Hello everyone. This is my first post to a blog that will be updated regularly, about 4-6 times a week for the next few months (at least). I'm a 22 year old senior at Ball State University, and part of my graduation requirements is to write a thesis. I've decided to do a case study on the Wii Fit, and whether or not its a viable means for weight loss and other health benefits. I'm one of the unlucky people with a slow metabolism, so I've always struggled with my weight. So what I'm going to be doing for the next several months (and hopefully longer) is to use the Wii Fit at least 4 times a week and see what kind of results I get.

For those that don't know, the Wii Fit is a board about 1.5 feet x 1 foot. It looks like a standard bathroom scale, except without the numbers or digital readout. The Wii Fit comes with software that has a variety of activities to be used in conjuction with the Wii Fit board that are meant to get you "in shape." The activities range from yoga, strength training, aerobics, to balance games. The Wii Fit board is capable of measuring BMI, weight, and balance. You work with an on-screen "trainer," which is a person with a disturbing ghostly complection.

Anyway, today I did my first body test on the Wii fit. My stats were:

BMI: 29.66
Wii Fit Age: 22 (This is measured by how long you can manage to keep your balance at a certain percentage, like 60% on your right foot and 40% on your left food, although from what I've read, the Wii Fit age can fluctuate wildly and is overall not very scientific)
So, I'm in pretty bad shape BMI-wise. I'd like to be in the 22 range. I'm only 5'6", 5'7" on a good day, and I'll be honest, fat doesn't look good on short people.

Today I logged in 44 minutes of activity, which consisted mostly of aerobic and strength training exercises. The strength training involved 6 reps of single arm extensions (standing on one leg and extending one arm and leg), push ups and side planks, basic lunges, and jackknives, which is another word for crunches, I suppose. Aerobic-wise, the Hula-Hoop simulator was by far the most exhausting. I don't think I've ever felt burning like that in my thighs. The other aerobic exercises I did were the "step" routine where you step on and off the board in rhythm with the other "Mii" avatars on screen, and the jog where you run in place with the Wii remote in one hand. I spent about 12 minutes doing the yoga exercises, which are no joke. I had an incredibly difficult time standing on one leg for the "tree pose." I'm sure I'll improve as time goes on, though. I spent a few minutes doing the balance games, which involved trying to hit dodge balls with my head and walking across a tight rope. The balance games aren't as physically demanding as the yoga, strength training, or aerobics, so I probably won't be spending too much time doing them.

See you all tomorrow.

Posted by Kirk at 9:57 PM 0 comments
Labels: exercise., weight loss, Wii Fit
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