

# EXERGAMING EVALUATION & RATING SYSTEM

REVISIONS BASED ON TEN SKYPE CALL DISCUSSIONS

Document produced 21 Feb 2010 by Brett Young.

In version 2 of the EERS, we determined that the first three components of the rating table (Gameplay, Game Interface and Exertion) were the criteria with which to allow the further evaluation of the game. If the game passed these 'mandatory' strictures then it would continue to be evaluated. However, considering the two games:

1. RockBand: Scored extremely high in 2 of the 3 categories but offers next to zero physical benefit. The game scored 14 out of 21 which then qualifies it for further evaluation?
2. EA Sports Active: Scores extremely well in 2 of 3 categories yet has close to zero gameplay and yet still qualifies for further review?

In both the above cases, the conditions of determining if the game is an 'exergame', in our 3 category qualification approach, is proven to be flawed. Rock band is NOT an exergame whereas EA Sports Active was designed from the ground up to be an Exergame yet fails miserably in one key category (Gameplay).

Testing to this stage has shown the EERS to be an ineffective measure of determining an Exergame, which is one of the two main requirements of the EERS (the other is to 'rate' the game). Therefore a different mechanism is required to first determine if the game presented qualifies as an Exergame regardless of its purported intent.

## How to decide if the 'game' is suitable for evaluation.

A series of questions will determine if the game should be rated and further evaluated. The questions should be structured to ascertain if the game has 'exergaming' potential or is indeed an Exergame from the get go:

1. Is this an 'exertion' promoted game?
2. Are sections of the game exertion based?
3. Does the game fit the definition of an 'Exergame'?
4. Does the game or sections of the game, fit with the definition of 'Exergaming'?

My thought is, that if the answer to any of the above questions is **yes**, then the game can be further evaluated using the EERS.

In essence, Questions 3 and 4 could be used and questions 1 and 2 disregarded, however, if the product is completely unknown to the reviewing panel without any prior knowledge of its alleged fitness and health benefits, then we would have to go by the games purported intent, at least initially.

What becomes crucial, once again, is the 'useful' definition of an **Exergame** and **Exergaming**. Why the two definitions? A game can certainly have 'exergaming' benefits without being originally designed as an 'Exergame'. For example: *Rayman Raving Rabbids*. This game contains a Dance sequence that must be mirrored by the player, it is extremely effective for physical activation and produces a 'measurable' increase in exertion that would certainly benefit the player. However, the game is certainly NOT considered an exergame but nevertheless has exergaming components. There are a vast number of games that have such merit (Wii Sports, Wario Ware Smooth Moves, Skate it, Punch Out, Facebreaker, Red Steel etc)

Many games contain 'beneficial' physical components that don't go far enough to classify the game as an Exergame but certainly classify it as 'useful for Exergaming' or have 'Exergaming components'. We are not talking about the cost effectiveness of this

'fractional content' or making a judgement on 'value for money' but simply judging if the game deserves further consideration and evaluation.

So what is an Exergame and what is Exergaming? The two crucial definitions:

1. **Exergaming:** The most current definition is -

*Exergaming is the positive exertion 'experience' gained by combining **exercise** and **multimedia gaming** (software and hardware).*

This definition causes some confusion and still needs refinement to be acceptable to a wider audience. A suitable revision may be -

*Exergaming is a 'beneficial' exertion experience (methodology) gained through the interfacing of physical activity and multimedia gaming*

2. **Exergame:** There is no 'widely' accepted definition for this word, so I'll take the liberty of creating one -

*A digital health &/or fitness multimedia game that uses an interface which requires physical exertion to the benefit of the user*

In both cases 'Exer' & 'Game/ing' are not strictly representative of 'Exercise' and 'Gaming'. **Exercise** in the sense of 'Structure and planned physical activity' as Exergaming or Exergames can be structured (workout style) or simply **Active/unstructured** (The Gamercize equipment interface, Party games or mini-games which require movement simply to produce a game consequence, 'Wii Wagging'). Gaming means computer, digital or videogaming and not 'gambling' in any sense of the word. A more accurate description for Exergames would be 'Exertion Games'.

Ultimately, whether the exertion experience is derived from an **exergame** or **exergaming component** is irrelevant, what the EERS should do is to rate the 'quality' of this exertion experience (exergaming experience).

Summary:

The questionnaire will establish whether the game can be evaluated by the EERS. Should the game be suitable for evaluation then it will be rated in each of the 10 categories with a cumulative score out of 70. To keep the initial part of the evaluation simple and easily accessible, the higher the game's score the better the game. Should the game score poorly in one or more categories, that would impact on the final score which would duly indicate a 'poor' exergame.

The overall rating or evaluation will be in stages:

1. Stage one: rating out of 70
2. Stage two: Individual Category ratings with comment
3. Stage three: Descriptive summary of the game.

The evaluation system is an attempt to morph the completely subjective journalistic review with considered and exhaustive research project. Expect the EERS to be a more extensive version of: <http://exergamesunlocked.com/articles/category/games>

**SUBSEQUENT EMAIL CORRESPONDENCE BETWEEN EMILY, BAS, RICHARD AND**

## BRETT

from Emily Rosenberry <emily@positivegaming.com>  
to brett@exergamingaustralia.com  
cc Richard Coshott <gamercize@googlemail.com>,  
Basilius van Houte <Basilius@positivegaming.com>  
date 23 February 2010 17:33  
subjectFW: EERS:

Hi Brett-

Thanks for compiling and sharing this document J. I have some comments (which I will make within this email instead of modifying your document):

From Google Docs:

### **How to decide if the 'game' is suitable for evaluation.**

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ER: I don't agree that if the answer is yes to any of the questions, then it qualifies for evaluation. For example, standard dodgeball (meaning simply a bunch of players and a ball) would qualify to be evaluated and rated (as the #1 & #2 would be yes, #3 & #4 would be no).

I would recommend that both of the following questions need to result in the answer "yes" for the game to be evaluated and rated:

1. Does the game have a multimedia component?
2. Does the game require some level of exertion from the player?

If both are yes, then the game can be evaluated under the rating system.

Once it passes this initial bar, it must have a minimum of 3 (or whatever level is defined) for the exertion component of the EERS and a minimum cumulative score of 14 (or whatever level is defined) for the top three categories to be classified as an 'exergame' by the TEN group.

In the instance that the game qualifies to be rated (meaning it has a multimedia component & requires at least some physical exertion) and achieves a minimum level of 3 for exertion and cumulative score of 14 for the top three categories it is an Exergame according to TEN. From this point, the quality of it as an Exergame is rated by the cumulative score of all categories of questions (main 3, plus all

others). This cumulative score is the group's overall rating of the game as an Exergame. In addition to this overarching score, the group would deliver a categorical score for each category (giving substance to the total score) and the group would also give a descriptive explanation of the total score.

A few examples for how this would work:

Dodgeball – Questions #1 & #2 cannot be answered "yes" so the game does not qualify to be rated under the EERS. TEN network would say "this game does not qualify to be rated under the EERS as it fails to have critical components required for even the most basic of exergames."

EAS – Questions #1 & #2 can be answered "yes" so it can be rated under the EERS. If the game receives a minimum of 3 in exertion and a minimum of 14 for the main components (which it likely would), it would then be given a cumulative score under all categories. In this example, the game is likely to receive a lower overall score than iDANCE (excuse my biases J) as iDANCE would likely score higher in other categories such as social, gameplay, etc. TEN network would say "this game is an Exergame and it received a total cumulative score of 58/70 (actual numbers are for example purposes only). This cumulative score is based on 9/10 for biometrics, 2/10 for social, etc, etc. and a description explanation such as "EAS is a decent exergame that is well suited for anyone looking for a training aid, etc. It scored the lowest in the categories of social and XX and highest in the categories of biometrics and XX"

Rockband – Questions #1 & #2 can be answered "yes" (you move your body to drum so there is at least some exertion, etc) and there is certainly a multimedia component to it. Once under the EERS, it is likely that it would not qualify as an Exergame because the exertion level would not be higher than 3. So, the TEN network would say "this is a great game with great features but it is not considered an Exergame because the level of exertion is not sufficient"

I will give more thought to the definition over the coming days and send my thoughts when I have had time to properly consider it.

Please let me know if I need to clarify anything that I've written (its late here so its likely that I may have overlooked something or failed to make complete sense...oh, and I'm blonde which occasionally shows itself quite openly J).

Take care! Talk to you all on Friday.

Emily

from Brett W M Young <brett@exergamingaustralia.com>  
Emily Rosenberry <emily@positivegaming.com>,  
to Richard Coshott <gamercize@googlemail.com>,  
Basilius van Houte <basilius@positivegaming.com>  
date 24 February 2010 09:58  
subject Re: FW: EERS:  
mailed-by gmail.com

Images from this sender are always displayed. Don't display from now on.

Wonderful feedback Emily and 'we' blondes do have our moments but underneath every blonde lays a constructively clever brunette :)

Your quite right regarding points 1 and 2, I should have qualified the word 'game', I meant videogame or multimedia game, in which case questions 1 and 2 could be combined:

**Question 1:** Is the game a 'digital multimedia game' and does all or parts of the game require 'beneficial levels' of exertion?

For simplicity sake it may be wise to split the question into two and require an answer of 'yes' for both as you commented.

In many ways this is the same as question 3, however, games such as Raving Rabbids are not promoted as exergames so we have to rely on previous or current reviews of comments of the game/equipment, general knowledge or experiences of the games functionality, further questions (such as the above) communicated to the manufacturer etc etc.

Questions 2 and 3 could be rephrased to:

**Question 2:** Is the product/game designed, promoted and sold as an Exergame?

**Question 3:** Does the product/game have sections or components which could be classed as 'Exergaming'?

This would preclude games such as rockband being assessed in the first place for the obvious low activity 'requirement' of the game. However, should we still be unsure as to the games 'beneficial level of exertion', then we would need to rely on the first stage of testing with the EERS, in which having a minimum score of 3, as you suggest, is probably fair!

Regarding the first three 'mandatory' categories of the EERS; Gameplay, Interface and Exertion and creating a minimum pass rating for all three, I'm not convinced this is necessary. Certainly, it has be physically beneficial, so a minimum rating of 3 is crucial for exertion is key. If the game scores very badly in Game Play and Interface then it will most likely score badly overall, and certainly it will be commented on in stages 2 and 3.

Having said that, and just thinking of it now, it would be very useful to have the M21 Rating (the first 3 mandatory categories is called the M21) highlighted along with the overall score out of 70. This would show everyone a quick reference the 'pure' exergaming credibility and quality of the game. A good example again would be EAS: Gamplay =1, Game Interface = 5, Exertion = 6, this is a score of 12 in the M21 rating, not great but it is above a 'pass mark' as such (11 is a mathematical pass, rounding the number up). The overall score may be 55/70, just as an example, so the combined ratings would read:

**M21 = 12, EERS = 55**

This shows the viewer that as an exergame its score of 12 is 'okay' but its overall score is 'very good'. We can also represent ranges of results in the M21 and EERS to descriptors such as poor, okay, good, very good, excellent etc, again for simplicity and understanding.

So the 'exertion' component will be the only component that requires a 'minimum' rating to allow further evaluation with the EERS. Questions 1, 2 and 3 will judge the merit of the game/product to be evaluated in the first place.

Thoughts, comments, criticisms, deletions, executions, ramblings, discombobulations (I just like the word, sounds funny in your mouth) etc ????

from Richard Coshott <gamercize@googlemail.com>  
to Brett Young <able.tasmann@gmail.com>  
date 24 February 2010 17:32  
subject Fwd: FW: EERS:  
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----- Forwarded message -----

From: **Richard Coshott** <[gamercize@googlemail.com](mailto:gamercize@googlemail.com)>  
Date: Wed, Feb 24, 2010 at 7:31 AM  
Subject: Re: FW: EERS:  
To: Brett W M Young <[brett@exergamingaustralia.com](mailto:brett@exergamingaustralia.com)>  
>  
Cc: Emily Rosenberry <[emily@positivegaming.com](mailto:emily@positivegaming.com)>, Basilius van Houte  
<[basilius@positivegaming.com](mailto:basilius@positivegaming.com)>

There's a couple of observations here from the non-blondes (well without wishing to speak for Bas too... "complete absence of hair" camp)....

A) One of the biggest errors in exergaming is uninformed opinion... why would we seek to rate exergames we've never experienced? I think this is dangerous. Let's not get carried away with hype ourselves and certainly not try to provide an "experience" rating without the experience to debate..

B) Why shy away from rating what we consider to be "non-exergames"? I know we threw RockBand 360 into the mix for the first 3 or 10 indicators, but didn't that ultimately help make the system better? If we put RockBand under test now, it'll fail on the Of course there must be a "gaming" and "exercise" element to make a published list!

:)

Great discussion....