

Introduction

Survived a traumatic brain injury? Or know of someone that has?

Interested in playing computer games again or playing computer games for the first time?

This resource has evaluated the top 20 games on the market (as at 13 January 2009) for the PC, X-Box 360, PS3 and Wii. It is envisaged that regular reviews of mainstream games will occur through out each year.

Click on the icons below to access the games page or select a console to see alternative access options available.

GAMES

X-Box 360

Playstation 3

Wii

PC

Background to
Games Project

This resource has been developed with the financial assistance of the Trust Company for use by individuals with cognitive difficulties.

Recreational Computer Activities for Young People with a Traumatic Brain Injury

Background to Project

Individuals with traumatic brain injury (TBI) often experience social isolation, reduced leisure options and diminished confidence. Recent research has verified the benefits of computers as a recreational option for people with TBI. They can build confidence and self esteem¹. Use of software can lead to the development or remediation of skills that will be beneficial to the individual in other areas of their life (eg. Vocational pursuits, rehabilitation).²

Gaming consoles have seen a surge in their popularity due to their increased interactive features and appeal across a wider population³. There is no clear professional guidance of suitable mainstream computer and gaming consoles (X-Box, Playstation and Wii games) for use by individuals with a TBI.

This project aims to review 20 popular games for computer and gaming consoles (X-Box 360, Playstation 3 and Wii) to determine the games suitability for people with TBI-based on commonly reported symptoms of TBI.

Commonly reported symptoms of TBI

	Common symptoms
Cognitive	<ul style="list-style-type: none">- Reduced memory- Impaired attention and concentration- Reduced capacity for new learning- Reduced insight into capabilities- Mental fatigue- Difficulties with reasoning- Decision making difficulties- Planning and organisation difficulties
Behavioural	<ul style="list-style-type: none">- Increased level of frustration- Impulsivity- Disinhibition- Adynamia
Physical	<ul style="list-style-type: none">- Weakness- Reduced movement- Fatigue- Loss or disturbance to sight and hearing- Reduced endurance- Reduced balance- Co-ordination difficulties

Adapted from Brain Injury Association, New South Wales, Fact sheet 2.

¹ Sietsema J. et al., "The use of a game to promote arm reach in persons with traumatic brain injury", American Journal of Occupational Therapy, 47/1, Jan 1993 pp. 19-24.

² Video games as a therapeutic tool. <http://www.naidex.co.uk/page.cfm/link=115>

³ The changing face of gaming By Jason Hill
<http://www.smh.com.au/articles/2009/01/27/1232818433805.html>

Scoring Sheet

Development of a scoring sheet was based on the occupational performance components from the Occupational Performance Model⁴ (By Chapparo & Ranka). These occupational performance components “are the component attributes of the performer as well as the components of occupational tasks”. These components include the following:

- Biomechanical: Range of motion, muscle strength, grasp, muscular and cardiovascular endurance.
- Sensory-motor: Registration of sensory stimuli, coordination and generation of motor response.
- Cognitive: Thinking, perceiving, recognising, remembering, judging, learning, knowing, attending and problem solving
- Intrapersonal: self esteem, emotions, and task attributes of satisfaction and motivation.
- Interpersonal: Interaction with others eg. sharing, cooperation, non-verbal communication.

The scoring sheet was also based upon the ‘main abilities’ for assistive technology use as detailed in Marcia Scherer’s Matching Person and Technology (MPT) Model⁵. These abilities are: seeing, hearing, speech, understanding/remembering, physical strength/stamina, lower body use, grasping / use of fingers, upper body use and mobility.

Each game is rated on 5 areas on a 3 point scale. These areas are:

1. Cognition: refers to the thinking skills required to participate
2. Physical & Sensory: considers the motor and sensory components required for game play
3. Psychosocial: considers the inter and intrapersonal factors of game participation
4. Adaption and Customisation
5. Set Up Assistance

The higher the total score (sum of points awarded for each area), the more accessible the game is evaluated as being for individuals with a TBI*.

*Note: Ability Technology welcomes any feedback regarding the games we have reviewed or any other comments as we are aware that the experience and functional outcome following a TBI is unique for each individual.

⁴ Chapparo, C., & Ranka, J. (1997). *Occupational Performance Model (Australia): Monograph 1*. OP Network: The University of Sydney.

⁵ Scherer, M.J. (2004). *Matching person & technology process and accompanying assessment instruments*, revised edition. Webster, NY: Institute for Matching Person & Technology [<http://members.aol.com/IMPT97/MPT.html>].

Details of 20 games reviewed

These 20 games were the top 20 games listed on the Harvey Norman Gaming website on 13 January 2009. See link to website below:

<http://www.harveynorman.com.au/gameshotspot/>

Gaming Console	Title of Game (click on game to see individual evaluation)	Score (link to scoring sheet)
X-Box 360	Gears of War 2	8/10
	Fable II	5/10
	Call of Duty : World at War	8/10
	Grand Theft Auto IV	Not evaluated
	RaceDriver: GRID	7 /10
PlayStation 3	Little Big Planet	8/10
	Motor Storm: Pacific Rift	8/10
	SingStar ABBA	9/10
	Grand Theft Auto IV	2/10
	Metal Gear Solid 4	4/10
Wii	Wii Music	10/10
	Wii Fit	6/10
	Star Wars: The Force Unleashed	7/10
	Super Smash Bros Brawl	9/10
	Wii Play	7/10

PC	World of Warcraft: Wrath of the Lich King	Not Evaluated
	Warhammer Online: Age of Reckoning	Not evaluated
	Age of Conan: The Hyborian Adventures	Not evaluated
	Call of Duty : World at War	5 /10
	World of Warcraft: Burning Crusade	Not evaluated

Scoring Chart for Games Evaluation

	Score = 2	Score = 1	Score = 0
Cognition	<p>Low demands on memory and concentration/attention. Easy to understand game. Can play for short periods or set time frames.</p> <p>Minimal problem solving required to progress in game.</p>	<p>Long participation (attention time) required but can easily pause game play.</p> <p>Basic storyline (visual or verbal prompts provided).</p> <p>Some demands on memory.</p>	<p>Cognitively exhausting due to demands of game.</p> <p>Complex story line. Need to participate for greater than 20 minutes.</p>
Physical and Sensory	<p>Simple button operation, small movement.</p> <p>Can operate with one hand.</p>	<p>Controlled by one or two hands or gross movement.</p> <p>Need to synchronise co-ordination of movement and timing</p> <p>OR multiple button usage (e.g. direction of character plus action buttons).</p>	<p>Complex movement, involving gross movement, co-ordination, use of at least 5 different buttons, plus control of movement, use of both hands.</p>
Psychosocial	<p>Changeable, can be played alone but can also have multiple players. Possibility of sharing control with another individual.</p>	<p>Solo play but positive onscreen reinforcement e.g. cheering.</p> <p>Can be played with others online, but can't split or share screen.</p> <p>Small adaption available.</p>	<p>Game for solo play (not including online play).</p> <p>Unable to share control.</p>
Adaption / Customisation	<p>Considerable customisation/adaptation available.</p>	<p>Automatically adjusts to your performance.</p>	<p>None – can use small cheats but no adaption available.</p>
Set up Assistance	<p>Helpful manual, minimum set up required.</p> <p>Tutorials introduce you to basic game play.</p>	<p>Onscreen prompts provided during game play.</p>	<p>Manual does not offer any assistance.</p>

*Note: The higher the total score, the more accessible the game is for individuals with a TBI.
For more information about development of the scoring sheet, please see background.*

Personal Computer (PC) as gaming platform

Description

The most accessible online gaming platform is the PC. PC Gaming Alliance¹ reports that around 250 million households around the world use PC's for gaming.

Gaming computers are similar to standard PCs, with the main difference being the addition of a performance-oriented video card.²

Controllers

Almost all games can be controlled by the keyboard, although there a lot of add-ons possible, including various joysticks and game pads (similar to gaming console controllers).

Alternative controllers

QuadJoy Joystick:

This is an accessory for high-speed interactive games. Windows detects the Quadjoy as a standard gaming joystick. There is a seamless transformation from mouse to joystick without the use of any external switches. It is 100% plug & play, with no drivers required. There are no external parts added, just an internal circuit board.



For further detail: <http://www.quadjoy.com/accessories.htm>

Smartnav Track IR:

This is a head tracking movement controller. A camera monitors your head movement (reacts to a small reflective dot worn on your forehead or cap) using advance motion tracking capabilities.

For further detail: <http://www.naturalpoint.com/trackir/>

¹ <http://gadgetwise.blogs.nytimes.com/2009/03/25/pcs-the-top-choice-for-gamers/> Article from New York Times dated 25 March 2009.

² http://en.wikipedia.org/wiki/Gaming_PC



Play Station 3 (PS3) Description

Described as a “multimedia powerhouse”, the PS3 has many features including a Blu-ray player, excellent graphics, surround sound, the ability to store downloaded music and video, and the ability to display digital photos. There are a few different versions with different amounts of hard drive storage, different wireless capabilities, ability to play games from PS1 and PS2 and media card slots. As models are frequently changing, it will be important to research which model is most appropriate for your needs.

PS3 offers a unified online gaming service, the Playstation Network. This is free to use.

Source:

http://reviews.cnet.com/consoles/sony-playstation-3-60gb/4505-10109_7-31355103.html

<http://www.harveynorman.com.au/gameshotspot/hardware/ps3.html>

PS3 Alternative Controllers

PS3 Switch Access Pod:

This pod enables the user to plug switches into it to enable control of movements on the standard controller. This may be useful for individuals who have reduced upper limb (arm / hand) movement as it provides an alternative method to operate controller buttons.

For further detail, please see the website listed below:

http://www.gedonline.co.uk/catalog/product_info.php?products_id=663&osCsid=887eb937b57517b353f15c857ce9bf8a



Other sites that may be of help:

<http://www.oneswitch.org.uk/1shop.htm>

<http://www.rjcooper.com/game-controller/index.html>

PS3 Controllers

SixAxis Controller:

The original controller for the PS3. Wireless controller (built-in Bluetooth) that claims to give you 30 hours play time before it requires recharging via USB port.

The SixAxis controller has larger L2 and R2 trigger buttons, increased angle of tilt and sensitivity in analog joysticks (which enables more movement). It also has a centrally located Home button which allows you to return to the main menu.

The controller can sense motion in up to six directions (up, down, left, right, forwards and backwards) which provides some additional control in the game.



Dual Shock 3 Controller

This controller released in 2008, makes up for the missing force feedback support (no vibration or rumble control) from the SixAxis controller. It has the same function and design as the SixAxis but with vibration capability. The Dual Shock 3 is now the official controller of PS3.

Source:

http://en.wikipedia.org/wiki/PlayStation_3_accessories

Hori Fighting Stick - combination of joystick and multi-button layout; simply the best for fighting games on PS3 and PC! Arcade style joystick.



SingStar ABBA



			Rating
Genre		Karaoke (G rated)	
General Description		Choose a song and sing Karaoke style. Performance is rated by game.	
Evaluation (for scoring guidelines – click here)	Cognition	Need to know tune of song, but text prompting of lyrics shown on screen. Prompting of the pitch is given (eg., high or low).	2
	Physical/Sensory	Need to be able to hold a microphone that is plugged into a USB port or use a microphone stand. Hearing and vision are beneficial to follow lyrics and keep in tune.	2
	Psychosocial	Fun game that can be played with others. Can sing songs as duets or have singing battles against opponents. Can plug in a Playstation Eye or EyeToy to take photos or record video of performance. There is the possibility of uploading performance to the Playstation website. Game provides feedback on performance and you are given a rating regarding your ability to sing the words and stay in tune.	2
	Adaption	Can choose which song to sing.	1
	Set Up / General Ease of Use	Straight forward. Similar to Karoke.	2
Total =			9 / 10



Motor Storm: Pacific Rift

			Rating
Genre		Vehicle racing (PG rated)	
General Description		Participate in a racing festival set on a pacific island with 16 different racetracks (including thick swamps, dense jungle, towering peaks and steaming volcanoes). Select an appropriate vehicle (bikes, ATVs, buggies, rally cars, racing trucks, mud pluggers, big rigs and monster trucks) for the race terrain to complete the race. Two main race options: story mode (can unlock additional vehicles) and recreational mode (play single races).	
Evaluation (for scoring guidelines – click here)	Cognition	No map or defined race track - need to recognise infrequent arrow signs that point out the direction of the race. Need to keep eye on boost meter to ensure your vehicle doesn't explode. Problem solving ability is useful to select the most appropriate vehicle for terrain. Games are short – involving a few laps of the track.	2
	Physical/Sensory	Vehicle control is achieved by operating 4 buttons involving both thumbs and index fingers. You can also steer the vehicle by tilting the controller using the sensitive Sixaxis mode. Controller vibrates if you crash your vehicle; need to register visual stimuli during game to avoid crashing.	1
	Psychosocial	4 player split screen capabilities. You can race online with up to 12 players. You can resume the race after you have crashed your vehicle; however, you would have lost your race position. Points are awarded (to unlock additional vehicles) by performing well in a race.	2
	Adaption	You can select the difficulty of races in the recreation mode (single races). In the story mode, difficulty of races increases as your abilities improve.	2
	Set Up / General Ease of Use	No tutorial provided. Controls and vehicle classes are detailed in manual.	1
Total =			8 / 10

For further detail:

http://au.gamespot.com/ps3/driving/motorstorm2/review.html?om_act=convert&om_clk=gssumm ary&tag=summary;read-review

http://en.wikipedia.org/wiki/MotorStorm_2



Metal Gear Solid (MGS) 4

			Rating
Genre		Stealth action game / strategy (MA rated)	
General Description		Navigate the character (Solid Snake/secret agent) through the game (tactical espionage) without being detected by enemies.	
Evaluation (for scoring guidelines – click here)	Cognition	Complex story line with lots to remember, long game play. Mission briefings are presented in movie format using complex ideas and language. These movies last for more than 15 minutes. Need to be able to recognise the enemy, and distinguish voices. Game play requires slow paced pursuit of enemy and avoiding detection.	0
	Physical/Sensory	Basic operation is completed by both thumbs and index fingers but can involve use of light touch for small movements. To complete all movements you need to be able to use 8+ buttons. Controller vibrates when shot or hurt. Need ongoing visual observation to monitor health and psyche levels.	0
	Psychosocial	1 player per PS3 but can play online between 2 -16 players.	0
	Adaption	Can select to play game from 5 levels of difficulty. You can radio "Otacon" to be provided with tips on gameplay.	2
	Set Up / General Ease of Use	Helpful manual. Can read written tutorials of movements required but these are not available during gameplay.	2
Total =			4 / 10

For further detail:

http://en.wikipedia.org/wiki/Metal_Gear_Solid

Little Big Planet



			Rating
Genre		Imaginative and creative game in side scroll mode (move from left to right across screen). (G rated)	
General Description		Explore the levels on each of the 8 planets on Little Big Planet using Sackboy (a rag doll character) that you can dress in various outfits. During the game, you unlock various items (such as clothing and stickers) that can be used to later create your own gaming level.	
Evaluation (for scoring guidelines – click here)	Cognition	Tutorials can be replayed to demonstrate how to complete tasks. Need to remember three basic movements. Written prompts are shown on screen but are not spoken in English. Basic exploration of a level is undertaken by following red arrows.	2
	Physical/Sensory	Use of two action buttons and joy stick to control movement. Need to be able to read text to follow prompts. Size of text depends on size of screen.	2
	Psychosocial	Positive game with plenty of positive reinforcement. One obtains feelings of satisfaction and enjoyment upon completing levels or creating one's own level. Game can be played between 1 and 4 players (although some puzzles need at least 2 players to solve them).	2
	Adaption	You are unable to set the level of difficulty but there are no challenging tasks to complete.	0
	Set Up / General Ease of Use	Very easy and user friendly. There is a beginning tutorial that introduces the Sackboy and how you can move him. Verbal description of the game is provided, together with diagram of controller highlighting what buttons to press. Basic game play is taught during 1st level, but written prompts are provided during gameplay or you can choose to repeat tutorials.	2
Total =			8 / 10

For additional tips and information, see the following website:

http://au.gamespot.com/features/6200897/index.html?om_act=convert&om_clk=gameguides&tag=gameguide;onlineguide;1

Grand Theft Auto IV – Liberty City



			Rating
Genre		Role Play / Real Life / Action (M rated)	
General Description		Complete missions (kill people, steal cars etc) to progress through the game. Decisions you make as Nico (your character) will have consequences later in the game.	
Evaluation (for scoring guidelines – click here)	Cognition	Complicated game with lots to remember and to observe in your environment. A long attention span and concentration is required to complete missions and progress through game. Game play changes frequently during game.	0
	Physical/Sensory	You can use the SixAxis sensors to ride a bike or steer a boat (but not drive a car). Shooting is performed by 2 buttons and 2 joysticks. Requires significant finger dexterity.	0
	Psychosocial	Solo game but can play against 15 others in online play. You have the opportunity during the game to meet up with friends at the pub, sporting activities, go on dates and call friends using your mobile phone.	1
	Adaption	Known cheats available (see website below) to restore health. Difficulty of game cannot be changed.	0
	Set Up / General Ease of Use	Manual provides map of area and quick reference guide to controls when in vehicle or on foot. Written prompts provided on screen for some tasks.	1
Total =			2 / 10

For further detail:

http://au.gamespot.com/xbox360/action/grandtheftauto4/review.html?om_act=convert&om_clk=gssummary&tag=summary;read-review

Wii



English pronunciation = 'we'.

Nintendo manufactured gaming console (<http://www.nintendo.com.au/wii/console>) that was first released in late 2006.

The Wii uses a wireless controller that recognises movement and acceleration in three dimensions. This means the player is able to swing, slash, point, throw, turn, twist and shake.

It can be used by multiple players promoting a fun, socially interactive, gaming console.

Besides being a gaming console, the Wii console displays a menu that can provide access to the internet, photo channel, news and weather channel, the Mii channel (create your own personal character to use in games), message board (to leave messages for other family members, shop channel (download favourite games available with earlier Nintendo products. You can also communicate with other gamers using your unique Wii code and play games with other people over the internet. The Nintendo channel lets you preview other available games, watch videos and demonstrations, and access further information about games.

Standard Controllers



This unique wireless motion sensitive controller is called the Wiimote. Used by itself it can control movement, but it can also be used as a pointing device allowing you to select items from the menu or navigate through the set up of a game. For example: Wiimote acts as your racquet when playing tennis, steering wheel when driving or as your weapon in a shooting

The Nunchuck is a low profile joystick that usually controls character movement. It also features the same motion sensing technology as the Wiimote. The Nunchuck and Wiimote are often attached together enabling the Nunchuck to control character movement and the Wiimote to perform a specific action.



These two controllers can be operated by one individual. As the Nunchuck and the Wiimote are attached by a cable, they can be swapped between hands making allowances for hand weakness, impaired function or hand dominance. The Nunchuck and the Wiimote can be shared between 2 individuals who together can control a game character. This can often provide positive reinforcement to an individual new to a game, if paired with a more experienced user.

Other Nintendo controllers:

There are a number of other control options available, including the following:



Wii Wheel



Wii Zapper



Wii Classic

Source: <http://www.harveynorman.com.au/gameshotspot/hardware/wii.html>

<http://www.nintendo.com.au/wii/console/accessories>

Alternative Controllers:

Various switch adapted controllers for the Nintendo Wii are available from Gimpgear.

See website: <http://www.gimpgear.us/wiimote.htm>

Accessible Nintendo Wii Controls available from Gimpgear:

- *Switch Adapted Wiimote for forearm or head control*
- *Switch Adapted Wireless Nunchuck*
- *Switch Adapted Arcade-Style, Big Button Classic Controller*
- *Ultimate Competition 2 player [Professional Therapy Clinic Kit](#)*



with Sip and Puff Gaming Headset
(for One-Arm Control)



with Dual Pushbutton Switches
(operated with opposite hand)

A, B, 1, and 2 buttons switch adapted compatible with any ability switch.

Original Buttons remain functional.



GimpGear Wiimote Hat

4 positions for Head control possible



Classic Controller Expansion

Switch Adapted Limited Dexterity supports Classic Controller compatible games. Operate joystick with ability switches (4 jacks on side)

Star Wars: The Force Unleashed



			Rating
Genre		Action Adventure (M rated)	
General Description		You are 'The Apprentice' being trained by Darth Vader. You use 'The Force' to fight enemies.	
Evaluation (for scoring guidelines – click here)	Cognition	Need to recall how to perform movements but you can refresh memory by watching tutorial of movements in main menu. Each level takes around 40 minutes to complete but you can pause the game at any time, if break is required. Map of where you are heading is in the top right corner of the screen.	1
	Physical/Sensory	Need to physically move and press buttons on both the Nunchuck and Wiimote to achieve full movement. Need co-ordination to initiate movement and press buttons at the correct time.	0
	Psychosocial	You are given choices in the game and you can choose if your character is good or evil. No co-op play available (working together as team mates) but can fight against other player.	2
	Adaption	Can adjust the level of difficulty (this alters the number of opponents you face, how easily you can get killed and how easy it is to kill opponents).	2
	Set Up / General Ease of Use	Helpful manual that explains various moves available.	2
Total =			7 / 10

Super Smash Bros Brawl



			Rating
Genre		Combat (PG rated)	
General Description		Fast paced fighting game with many modes and possible adaptations.	
Evaluation (for scoring guidelines – click here)	Cognition	You can set the maximum time of a battle to cater for individuals with reduced attention span. Your character is marked with a P1 so you know where you are playing. Need to know abilities of your character (most characters are popular characters from other games eg. Mario, Sonic). To limit the amount of new learning, you can play with the same character.	2
	Physical/Sensory	4 controllers can be used in this game: Wiimote, Wiimote and Nunchuck, Classic Controller and Game Cube Controller. Fighting requires the operation of two buttons (one for attacks and one for special character moves). Movement of your wireless controller can also modify your fighting ability. Requirements: Movement of thumb and index fingers, ability to grip and move the controller.	1
	Psychosocial	You can play solo but it is a fun game that can be played between up to four players	2
	Adaption	A number of adjustments can be made to this game including: level of difficulty, picking up assist trophies that restore health and setting time frames for fights.	2
	Set Up / General Ease of Use	Useful manual. Tutorial available at start of the game or accessed through options.	2
Score =			9 /10

Review:

http://au.gamespot.com/wii/action/supersmashbros/review.html?om_act=convert&om_clk=gssummary&tag=summary;read-review

Wii Fit



			Rating
Genre		Exercise/ Fitness game (G rated)	
General Description		48 training-related games and activities (some games need to be unlocked by building up credits in 'Fit Bank'). Uses Wii balance board. 4 main categories of exercise: yoga, strength training, aerobics and balance games.	
(for scoring guidelines – click here)	Cognition	Need to listen to instructions/ follow visual diagram about how to complete exercises / activities. Each activity lasts a few minutes.	2
	Physical/Sensory	Need to hold Wiimote whilst performing activities. You need to perform various gross movements for each of the 48 different activities.	1
	Psychosocial	Play alone but could share completion of activities with a friend. Although you would have to share the same Mii characteristics. There is a lot of on screen cheering and encouragement provided.	1
	Adaption	No adaption possible unless you cheat eg. shake Wiimote instead of jogging.	0
	Set Up / General Ease of Use	Good instruction provided. Activities are completed with a male or female virtual trainer who provides verbal explanation and demonstration.	2
Total =			6 / 10

Review of some games available through Wii Fit:

Category	Name of exercise	Evaluation
Yoga	½ Moon Pose	Required to maintain balance in pose whilst holding wiimote. You are awarded points on your performance of pose.
Strength Training	Single leg extension	Complete exercise after receiving instruction from personal trainer. Points awarded on performance.
Aerobic Workout	Step Basics	Step by Step diagram prompts provided re. Foot placement. Dangerous as could potentially trip over balance board whilst watching screen. Audience cheer for you and you are completing steps in group setting on stage.
	Jogging	Requires you to jog on spot on balance board as your on screen Mii runs around track. Awarded points on ability to run at steady pace. Characters on screen cheer your progress.
Balance	Soccer Game	Stand on balance board, rock from side to side, bending knees, point head to hit soccer ball. Watch out for flying soccer boots.
	Tightrope Walking	Maintain balance and take small steps on balance board as your on screen Mii attempts to walk a tightrope suspended between two buildings.

Source: <http://www.cnet.com.au/games/wii/0,239036428,339288847,00.htm>

Wii Music



			Rating
Genre		Music (G rated)	
General Description		Create your own music playing your choice of 60+ instruments using simple motions with Wiimote and Nunchuck (and balance board) to imitate playing instruments. Playing games (conducting orchestra, playing hand bells or matching pitch) or making music means you earn points which unlocks more songs you can play.	
Evaluation (for scoring guidelines – click here)	Cognition	Short attention required for selection of instrument and length of song. You do not need to know how to read music. Notes are played for you, you control rhythm and volume.	2
	Physical/Sensory	Different movements required to play various instruments: PIANO: elbow flexion (up and down movement). GUITAR: strumming (wrist – ulnar/radial deviation or elbow flexion/extension). BRASS: Press buttons 1 & 2, holding Wiimote higher increases volume. STRINGS: left hand holds nunchuck and presses buttons, right hand operates the bow. Strings require the most co-ordination. Could be performed with just (R) hand by pushing buttons on Wiimote whilst moving Wiimote with internal rotation of shoulder. PERCUSSION: Movement of Wiimote and Nunchuck (but can play one handed). Wrist or elbow flexion/extension or wrist ulnar/radial deviation. NOTE: More movement or force of movement increases volume. Does not detect small motions.	2
	Psychosocial	1 – 4 players (no online play available). You can rate your created music yourself. You can work as a team to complete some games, thus promoting turn taking.	2
	Adaption	Lessons provided.	2
	Set Up / General Ease of Use	Helpful manual. Program begins with a lesson that introduces you to Wii Music.	2
Total =			10 / 10

Source:

<http://www.cnet.com.au/games/wii/0,239036428,339290656,00.htm>

Wii Play



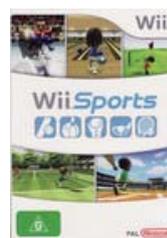
			Rating
Genre		9 Mini games (comes bundled with Wiimote) (G rated)	
General Description		9 basic games including Shooting Range, Find Mii, Table Tennis, Pose Mii, Laser Hockey, Billiards, Fishing, Charge! and Tanks. The decreased quality of games limits gamer's interest.	
Evaluation (For scoring guidelines – click here)	Cognition	Short length games, need to know basic rules of some games eg. Billiards. However, these rules are easy to pick up as a good explanation is provided before the game commences.	2
	Physical / Sensory	Need to react to visual stimuli, move wiimote to meet ball or copy shape of falling Miis. Some games require 'A' and 'B' buttons to be pressed or some gross movement (wrist pronation/supination or elbow flexion/extension). Billiards requires more coordination and force of movement.	1
	Psychosocial	Quick, fun games that can be played with others, positive onscreen feedback provided.	2
	Adaption	None. As abilities improve, you progress to the next level.	1
	Set Up / General Ease of Use	Instruction provided before commencement of game. There is the option to practice prior to playing the game.	1
Total:			7 / 10

Basic description of games

Name of game	Basic Description
Shooting Range	React to visual pictures on screen, quick point and shoot using Wiimote.
Find Mii	Attend to the task for 30 seconds. Follow written instructions to select appropriate Miis.
Table Tennis	Visually track ball and move Wiimote to hit and return ball on screen.
Pose Mii	Change position of Mii to match and select falling Mii shapes.
Laser Hockey	Visually track ball, adjust position of arm to get correct ball angle.
Billiards	Need to understand basics of game. Requires coordination and force of movement to hit ball.

Note: Need to earn points in the first 6 games before you can unlock last three games.

Wii Sports



			Rating
Genre		Sporting games (G rated)	
General Description		Wii Sports sometimes comes free with purchase of the Wii Console. There are five realistic sport games to play (tennis, golf, bowling, baseball and boxing). Each sport can have multiple players creating a fun and interactive gaming experience.	
Evaluation Tennis	Cognition	Short attention span required. No new learning required if understand game of tennis. Software recommends rest periods after approximately half an hour of playing	
	Physical/Sensory	Need wrist flexion/extension to operate racket. Strength required for force of swing. Visual tracking required to follow tennis ball and coordination of when to swing. Same movement required to serve ball. Do you need to press A?	
	Psychosocial	Can play against the computer or against other people if you all have your own wiimote. What about online?	
	Adaption	No adaption possible. You can improve your performance by practicing sport in training mode. Wii adapts to your performance of game eg. Game play is based on the score you receive for your previous game.	
	Set Up / General Ease of Use	Software visually demonstrates how to operate wiimote for use in game.	
Evaluation Bowling	Cognition	Visually prompted when it is your turn, need to perceptually line up bowling position	
	Physical/Sensory	Game performed in standing position, requires shoulder extension and flexion and co-ordinated release of ball (press button B) at correct moment during swing. Software provides visual feedback if button is being pressed at wrong time.	
	Psychosocial	Interaction with others, promotes turn taking. Maximum of 4 players.	
	Adaption	No adaption possible. You can improve your performance by practicing sport in training mode. Wii adapts to your performance???	
	Set Up / General Ease of Use	Software visually demonstrates how to operate wiimote for use in game.	
Evaluation Golf	Cognition	Need to plan direction of ball to get to green, need to take into account wind resistance.	
	Physical/Sensory	Similar to swinging a golf club – grip wiimote with both hands, stand side on and swing. Practice swings are available before shot so you can perfect the force required.	

	Psychosocial	Promotes turn taking, can have up to 4 players	
	Adaption	Independently adjusts to your performance	
	Set Up / General Ease of Use	Software demonstrates and provides practice of swing required.	
Evaluation	Cognition	Round last approx 3 minutes. Game is made up of three rounds.	
Boxing	Physical/Sensory	Similar to physical act of boxing (gross movements) holding wiimote in one hand and nunchuck in the other. Require good visual discrimination as your character is see through so you can see your opponent.	
	Psychosocial	2 players / split screen. You can play against the wii.	
	Adaption	Automatically adjusts to your ability	
	Set Up / General Ease of Use	Demonstration provided by software?	
Evaluation	Cognition	Need to visually track and swing at oncoming ball.	
Baseball	Physical/Sensory	Similar to a baseball swing but can use small wrist movement. Need some speed in movement to achieve a decent hit of ball. Need to Press 'A' button for curve ball and 'B' button for speed ball.	
	Psychosocial	Promotes turn taking, 2 players	
	Adaption	Automatically adjusts to your ability	
	Set Up / General Ease of Use	Demonstration provided by software of movements required.	



X-Box 360 description

The X-Box 360 is the second gaming console produced by Microsoft. It is described as having superior graphics than the original X-Box and has the X-Box Live feature (connection to the internet) which enables the gamer to play games online with other gamers, purchase additional arcade games, download additional features for games (including additional characters, levels, cars), trial new game demos as well as SMS chat or use of headpiece to chat to other gamers.

The Xbox website provides links and step by step guidance on the features of the Xbox 360.

Source:

<http://www.harveynorman.com.au/gameshotspot/hardware/xbox360.html>

<http://www.xbox.com/en-AU/hardware/>

Xbox 360 standard controller



This controller involves grasping by both hands to operate all the buttons, which include: left and right analogue sticks and triggers, control pad and face buttons (A, B, X and Y). The Start and Back buttons are in the middle, as well as the X-Box button, which gives you access to the game profile and options. The left and right bumper buttons are positioned near the triggers on the front of controller.

The controller provides vibrator feedback to the gamer but it is not motion sensitive. There is a wired controller that is connected by USB or wireless controllers. A maximum of 4 controllers can be attached to a console, however there are only three USB ports on the Xbox console meaning at least one controller needs to be wireless.

Source: http://reviews.cnet.com/game-accessories/microsoft-xbox-360-controller/4505-10110_7-31520707.html?tag=txt%3bpage

Alternative controller options



Sip + Puff controller for the X-Box 360

The sip/puff mouth controller for the XBox\360® is similar to the Playstation 2® Controller, except it has an extra switch for the 'system file' operation, and has the 2 'Analog' trigger switches on the mouthpiece.

Image source: [Quad Control](http://www.quadcontrol.com/360.htm) (US supplier)
<http://www.quadcontrol.com/360.htm>

See <http://www.rjcooper.com/game-controller/>



Xbox adapter: works with most playstation 2 controllers as well as standard mouse and keyboard options <http://switchgaming.blogspot.com/2006/12/xbox-360-controller-adapters-8999.html>



One handed controller designed by Ben Heckendorn
<http://www.benheck.com/Games/Xbox360/controls/1hand/singlehandcontroller.htm>



Call of Duty: World at War

			Rating
Genre		First person shooter (MA rated)	
General Description		Set in World War 2 with expeditions in the Pacific, Starlingrad and Berlin. The aim is to accomplish set missions with objectives to complete. Tactical play is required.	
Evaluation (for scoring guidelines – click here)	Cognition	The mission is verbally explained to you by the character in charge of the mission. You can press 'start' to see written details of mission. Each mission/objective lasts approximately 15 minutes. You need to identify who the enemy is in the game but are unable to shoot team mates. Need memory to recall how to stab the enemy (fast recall is required to save your character if an enemy is stabbing you with a bayonet). Need to be able to register when the screen is turning red, which means your character is near death and recall that you need to hide so your health can be restored.	1
	Physical/Sensory	Use of controller requires both thumbs and index fingers and palmer grasp to hold controller. Hand control vibrates when your character is being attacked. Need to be able to visually see the game on screen. You don't need to hear the game but helps you create the scene.	1
	Psychosocial	Verbal feedback is provided by sergeant. If your character is killed, you return to the last checkpoint you passed through. Plenty of interaction with team mates. You can play in a co-op (players working together as team mates to complete tasks) on X-Box or with 2 – 18 other players online.	2
	Adaption	You can select difficulty of game (recruit, regular, Hardened or Veteran). 1 st level of game provides basics of game (including both the story line and how to fight). You can turn on "aiming assist" in Options which enables accurate aim of enemy.	2
	Set Up / General Ease of Use	Helpful manual with details about controller. Easy X-box 360 menu to navigate through.	2
Total =			8 / 10



Fable II

			Rating
Genre		Role Playing	(G rated)
General Description		Complete various quests and challenges on your way to becoming Albion's greatest hero. The choices your character makes will determine how good or evil they are and will impact on how the game unfolds.	
Evaluation (for scoring guidelines – click here)	Cognition	Ongoing attention is required to the game but one can press the 'start' button at anytime to pause the game. There are many visual cues to guide you through the game. For example, follow golden trail to your next objective, bad people are shaded in red, provides written prompts of what buttons to press to perform actions (eg. attack people).	1
	Physical/Sensory	Sustained hold of buttons (X and Y) to fight characters. Game requires reading small onscreen text, listening to stories or interactions with other characters, verbal provision of next challenge by a character. The controller vibrates when your character is being attacked.	1
	Psychosocial	Visual and auditory feedback provided by other characters regarding their opinion of your character (eg. cheering, clapping, verbal teasing). One player but can have a dynamic co-op which allows friends and family to participate in the game (follow Player One's character around but can assist in battles).	2
	Adaption	Can choose your own character (male or female). Choices made along the journey shape your character but you are unable to modify the game and make it easier. When you choose to allow your character to eat or sleep it improves your character's health.	0
	Set Up / General Ease of Use	Helpful manual. No set up apart from selecting character.	1
Total =			5 / 10



Gears of War 2

			Rating
Genre		Tactical third person shooter (MA rated)	
General Description		Using tactical use of cover available, you fight the locust drones to prevent them from overtaking the city in the Campaign mode. In the multiplayer mode, you can select to be any human or locust character.	
Evaluation (for scoring guidelines – click here)	Cognition	Need to recall what buttons to press. Game continues but you can quit at any time as the game saves automatically. If you aim at a team mate, the game displays their name and a 'x' appears in front of them. When aiming at enemies, the target turns red. Need to pay attention to top right corner of screen to monitor ammunition levels and when you need to reload. To assist with gameplay, you are provided with verbal and written updates from home base. Need problem solving to help you survive. There are 8 different game types (detailed in manual).	1
	Physical/Sensory	Need to operate four main buttons (both sticks and triggers) using both index fingers and thumbs. Graphic game with plenty of blood. Red 'Omen of Death' represents character's health that gets bigger with greater injury – visual prompt to take cover and wait for health to be restored.	1
	Psychosocial	Awarded points for killing the enemy and for your character's survival through the game. You can assist team mates if they are injured. Promotes team play – can work as co-op with two players or can play 2-10 online in multiplayer mode (can be in same team or opposing teams) or 2-5 in co-op mode.	2
	Adaption	Can select level of difficulty in options and when creating a game file.	2
	Set Up / General Ease of Use	Helpful tutorials that teaches you the basics. Training can be repeated at any time. Weapons are detailed in manual.	2
Total =			8 / 10

For further detail, please see: http://en.wikipedia.org/wiki/Gears_of_war_2

Grand Theft Auto IV



Evaluation not completed on X-Box 360. This game evaluation is based on the game being played on PS3.ssssssssssssss.

		Rating
Genre		
General Description		
Evaluation (for scoring guidelines – click here)	Cognition	
	Physical/Sensory	
	Psychosocial	
	Adaption	
	Set Up / General Ease of Use	

RaceDriver: GRID



			Rating
Genre		Car Racing (G rated)	
General Description		Goal is to become the world's top driver and to own the world's most successful racing team. Begin as a rookie, earn fame, status, respect and money (to purchase more cars). Choice of 60+ drivers and 40+ cars. Types of racing include: Grip, Drift, Touge, Endurance and Demolition Derby.	
Evaluation (for scoring guidelines – click here)	Cognition	Need to pay attention and visually follow racing track and avoid other racing cars. You can opt to complete race days where you have more selection of cars and limited number of laps. Races can be short in duration for limited attention and concentration. Need to adapt to different race tracks and handling of cars.	1
	Physical/Sensory	Both thumbs and index fingers to operate the controller. The controller vibrates if you crash into another car. Require fast reaction times.	1
	Psychosocial	Depending on your performance, can earn money, get trophies if you win a race = positive reinforcement. However it is easy to crash and lose position in the race. The car is more difficult to drive once it has been involved in a crash. Encouraging verbal feedback provided. Can play online (up to 12 players) at X-Box live.	1
	Adaption	You can select difficulty level. You can customise a few buttons on the controller for personal preference. It would be beneficial if you could stay with the same car during races as each car's handling is different.	2
	Set Up / General Ease of Use	Helpful manual that details all aspects of the game.	2
Total =			7 / 10