

Australian Museum

Trailblazers: kids & apps evaluation report

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July 2015

nature culture **discover**



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Summary

107 surveys of children aged 8-12 were completed during the July 2015 school holidays as part of designing a mobile app for the upcoming *Trailblazers* exhibition about explorers from and of Australia. Some of the surveys were completed by more than one child, usually siblings, and a few were completed by children outside of the target age, either 7 or 13 years old. These were included in the below results.

The majority of children either owned or had access at home to a tablet - predominantly iPads (70% of those who stated their device brand/model) - followed by iPhones (47%), often both of these (34%). Over half of respondents had brought their device with them to the museum. Almost half were able to use their device at school, frequently mentioning a BYOD policy for tablets or laptops.

Nearly half of respondents (52) stated that Minecraft was among their favourite apps. Clash of Clans (16), Crossy Road (14), Instagram (10), “endless runners” Temple Run (7), Subway Surfer (6) and Minion Rush (6), Terraria (6) and Piano Tiles (6) were the next most popular apps/games. Duration of play peaked at around half an hour.

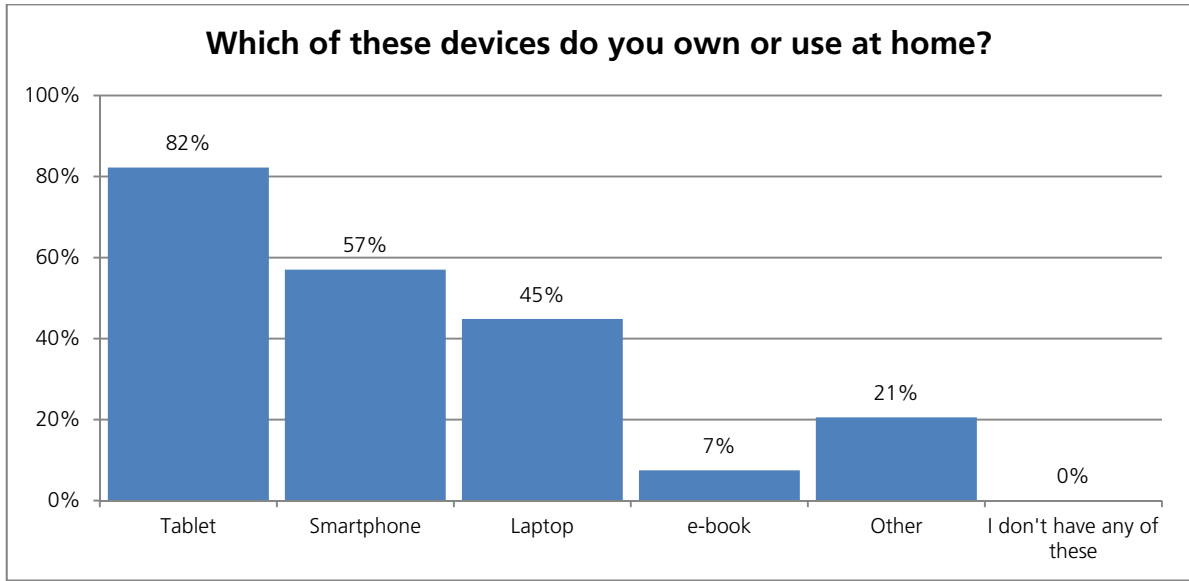
More than half of respondents used games, videos, music and the camera function either “all the time” or “a lot”. Over a quarter of respondents had used Instagram, and more than half had heard of it but had not used it. 83% had heard of Twitter, with around 7% having used it. 9% had used Pinterest, and nearly a third had heard of it. None had used iBeacons, and only 3 respondents had heard of it.

The most important factors looked for in apps were “fun”, price, the ability to share or play with friends, and aesthetics (looks / graphics / design / sound). “Building” was also important (no doubt a Minecraft factor), as were “levels”, “points”, “interactive”, “create”, “collecting”, “avatar”, “addictive”, all aspects common to the gamification design framework which encourage continued play through feedback and customisation.

When describing what they would like to see in an app from us it’s important to note that apart from specific topics (animals, dinosaurs, history), and “facts”, gamification aspects were the most commonly used terms used to, including points/rewards, levels, challenge (quizzes/puzzles), customisation (avatars/characters/building), sharing, and exploration. Aesthetics (graphics, sound etc) were less commonly mentioned.

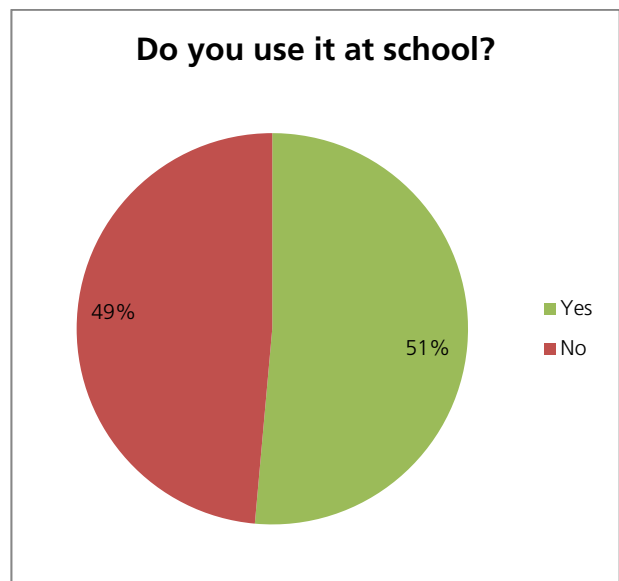
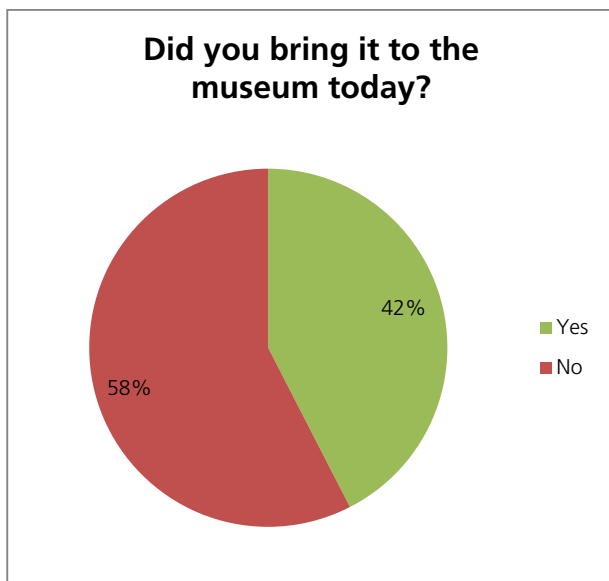
More information about gamification can be found on our website at <http://australianmuseum.net.au/blogpost/at-the-museum/gamification-audiences-and-social-good>. Results from a previous survey of teachers and the use of technology in classrooms can be found at <http://australianmuseum.net.au/document/teachers-and-technology-survey-2013>.

Survey results



Note: "Other" was usually an iPod touch

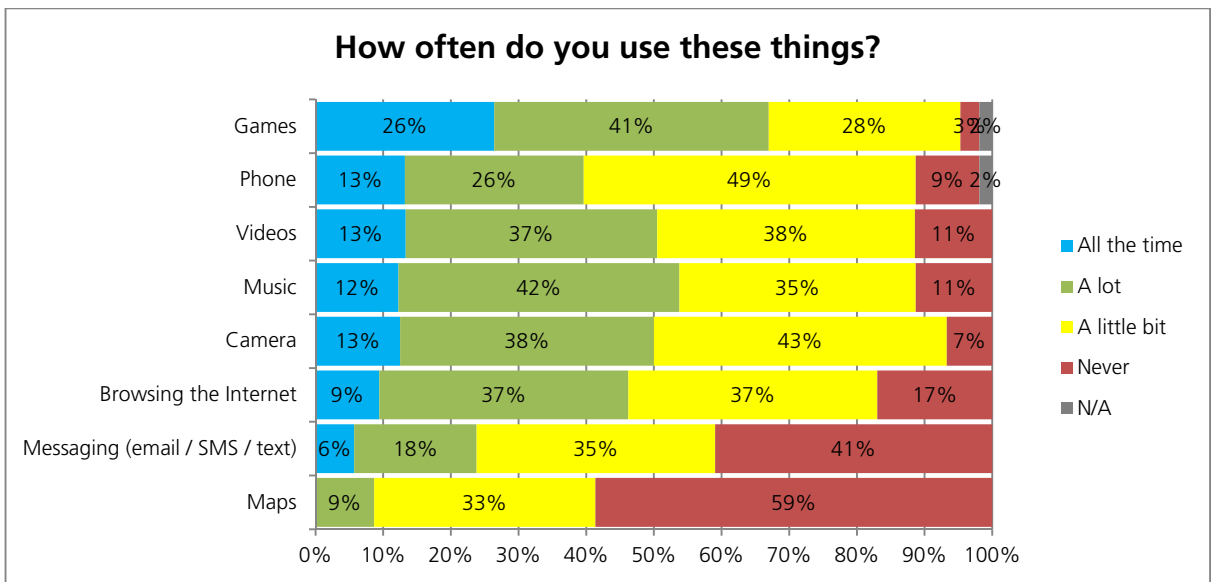
Which of these devices do you own or use at home? - What brand/model?



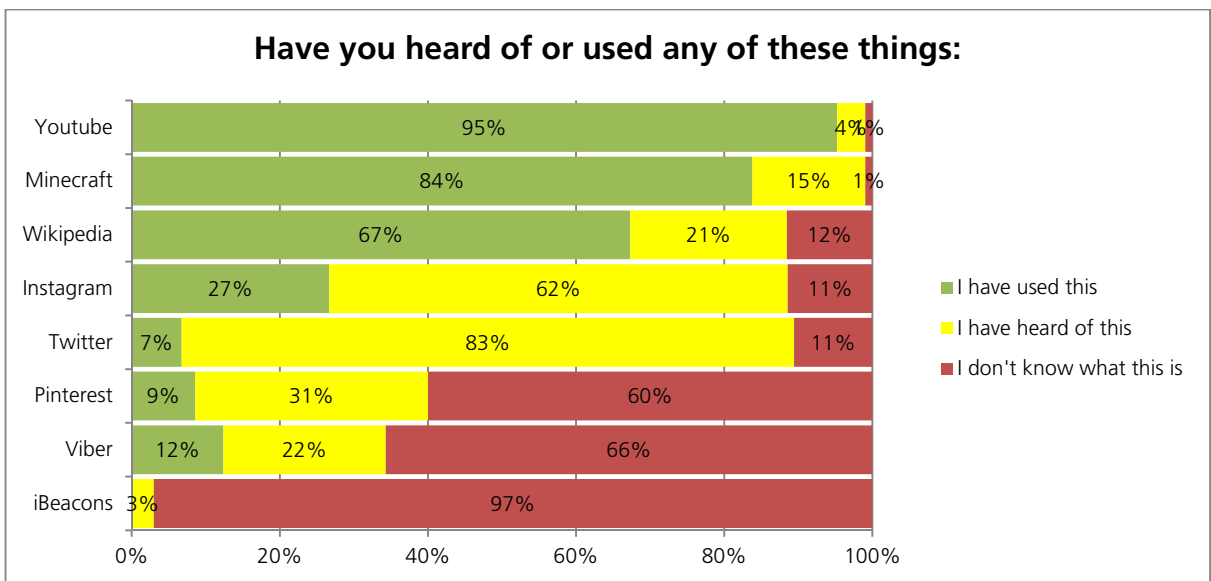
We're making a game for one of our exhibitions later this year. What sort of stuff would you like to see in it?



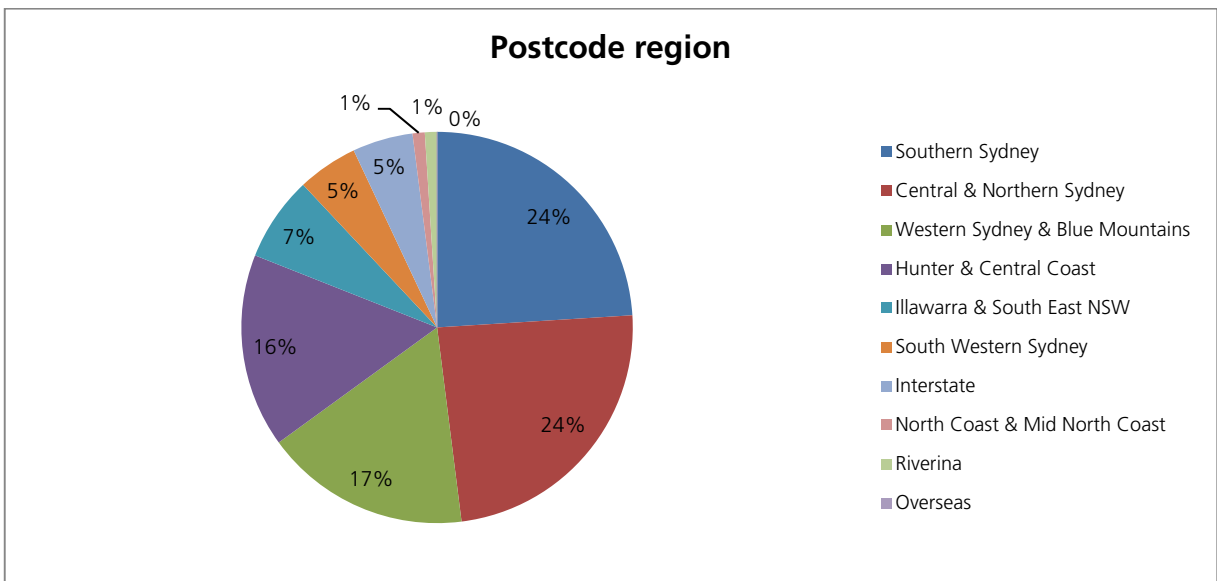
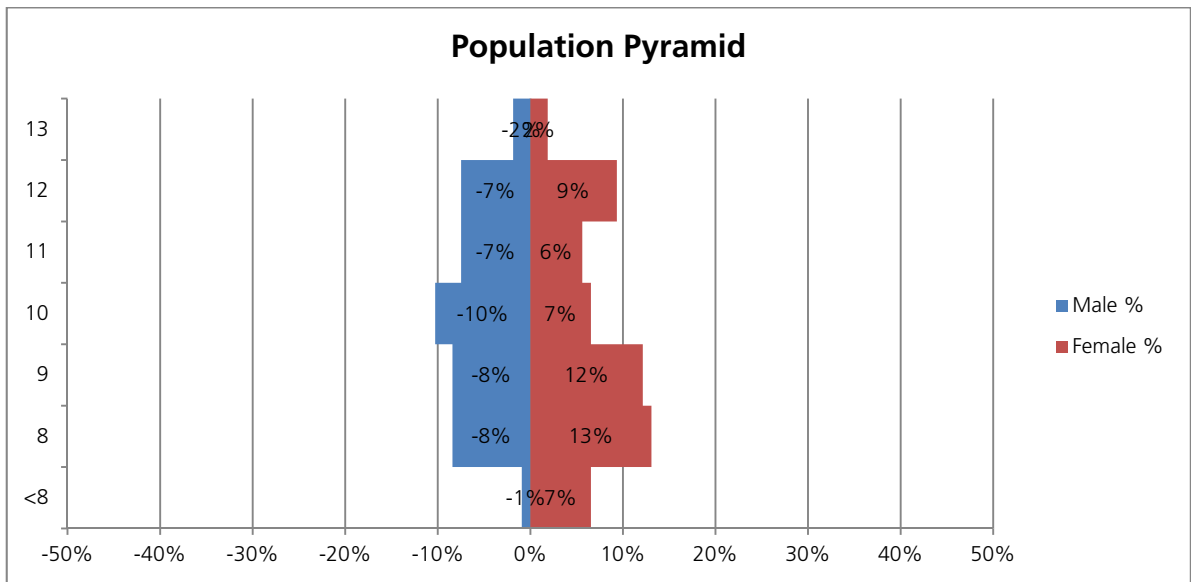
How often do you use these things?



Have you heard of or used any of these things:



What do you like about the Australian Museum?



<https://batchgeo.com/map/0ef71ab65adaa84027976e8324f71e73>

Open ended responses

Which of these devices do you own or use at home? - What brand/model? (e.g. iPhone 4S, Samsung Tab 3, etc)

- iPad air
- iPad 1
- Acer tablets, Samsung Galaxy
- iPad mini, iPad 2, iPhone 4
- iPad 2
- iPod touch, shared iPad 1
- iPhone 4
- Nokia, Surface, Windows
- iPhone 5, iPad Air, Macbook, Acer, iTouch
- iPhone, iPad
- iPad mini
- iPod touch, iPad air, iPhone 5S (mum's)
- iPads
- iPad 2, iPad mini, iPhone 5 (2)
- iPod touch, Vodafone
- iPad 3
- iPad
- iPhone 5, HTC One, iPhone 5C
- iPod touch
- iPad mini
- iPhone 5S
- iPhone 4, iPad
- iPad air, Android, iPhone 5S
- Apple
- iPad mini
- Samsung S5, Samsung tablet, iPod 4, iPod 3
- iPhone 4S, iPad 4, Samsung S5
- iPhone 4, iPad mini 2, Kindle, Macbook Pro
- iPhone, iPad
- Samsung 5, iPhone 4, Dell
- iPad (shared), iPhone 4
- iPad, iPhone 4S (old)
- ipod touch, iPhone 4S
- iPad, iPhone 6
- iPad 2
- iPhone 5, iPad (mum's)
- iPad mini, iPad, iPhone 6
- iPad mini, iPhone
- iPhone 5, iPad, Toshiba laptop
- iPhone 5, iPad
- iPad
- iPad
- Apple
- iPad
- iPad mini 2
- iPod touch, iPad
- iPad mini 2
- iPad, iPod touch
- iPod
- iPod
- iPad, Samsung Galaxy S5
- iPad, Dell
- iPod
- iPad Air 2, Laptop
- iPod
- iPhone 5, iPad Air
- iPad, iPhone 5
- iPhone 5, iPad
- Samsung 4 & iPad
- iPad air, iPhone 6
- iPad, Huawei
- iPhone 4S, PC
- iPhone 5C, Microsoft
- iPhone 4, Apple
- Apple
- iPad, Macbook
- iPad
- iPhone, iPad
- Android
- iPad
- iPod touch, mini iPad, iPhone
- iPhone
- iPhone, iPad

What are your FAVOURITE apps or games for phones or tablets? - Open-Ended Response

- Minecraft, Hungry Shark, Driver Heads, Goat Simulator
- Subway Surf, Videostar, Temple Run, imovie
- Flow Free, Minion Rush

- Minecraft, Subway Surfer, Survival Craft, Crossy Road, Word Mania, Instagram, imessage, itunes radio
- Clash of Clans, Minecraft, Bloons Monkey City, Tyrannosaurs app (Australian Museum)
- Minecraft, Terraria, Tenten!, Clash of Clans, Don't Touch the Spike, Flow Free
- camera & lights, Spotify, imotion, action effects
- FIFA, Pinterest, Piano Tiles, Crossy Roads
- Skype, Minecraft, Jurassic World
- Crossy Road, Hillclimb, Minecraft, Pacman, Tony Tower, Terraria
- Princess Palace Pets, Webfight, Pokemon
- Sim City, Jurassic World, Dot Eater, Minecraft, The Voice, Minion Rush, Fashionista
- Temple Run, Dragon Vale, Minecraft, cool maths game, Mathletics
- Minecraft, Barefoot Atlas, slow motion, timelaps, camera app
- Balloons, tower defense, Truskate, Minecraft, Clash of Clans
- sport apps - FIFA, agar.io, Flappy Bird, Triviacrack
- ABC iView, Minecraft, imovie, Subway Surface
- Candy Crush, Snapchat, Facebook app, Skype
- camera, Instagram
- Hayday, Minebuilder, Crossy Road, photo / camera
- Minecraft, Prehistoric, Pony, Dragon, Wonderzoo
- Fruit Ninja, Candy Crush, Fandom, Instagram
- Minecraft, Clash of Clans, Hayday, Boom Beach, FIFA 15
- Tenten!, Minecraft, Temple Run, Piano Tiles
- Skate 2, Youtube
- Crossy Road, Minecraft
- Clash of Clans, Minecraft, FIFA
- Minecraft, Skate 2, Pacman, Subway Surfer, Youtube, Highway Rider
- World of Tanks, Asphalt, Airborne 8, Traffic Racers, Minecraft, Crossy Road
- Makeup Genius, Crossy Road, Temple Run 2, Minecraft, Eden
- Roblox, Minecraft, Octogon, Sim City, Candy Crush
- don't have one
- Crossy Road, Minecraft
- Realm of the Mad God, Platypus Evolution
- Asphalt Eight (racing game)
- Highschool Story
- Dragon City, Minecraft, Monster Legends, Cooking Jam
- math games, Lego club (rush)
- Minecraft
- cat games
- games, racing games, sport
- iTube (music), Candy Crush, Backgammon
- Minecraft
- Jurassic World, Netflix, Minecraft, Youtube, Temple Run
- car games, plane games, animals, beauty salon, animal games
- Minecraft, sporty games (Head Soccer), construction
- Youtube, iView, Minecraft, Sims 3, Scrabble, My Singing Monster
- building things, convenient, layout, make things
- AA (putnumbers in lines), Minecraft, Instagram
- Minecraft, Hayday, Dragon City, Tiny Thief, Crossy Road
- Hayday, Minecraft, Fashion Story
- Minecraft
- puzzles, language Duolingo, strategy
- Pokemon, Farmville, building games, dinosaur games, Minecraft
- Clash of Clans, Goat Simulator, Minecraft
- Clash of Clans, Hill Climb Racing
- Instagram, Kiki, Smule Magic Piano
- Fruit Ninja, Subway Surface
- Minecraft, Mario
- Pandora
- Cat Simulator, Dog Simulator
- Temple Run, Minion Rush
- Minion Rush, iview
- Trigger Fist, imovie, Minecraft, Terraria, Respawnables
- Minecraft, Benjiman, Goat Simulator
- Bull Rush, Reading Eggs, Temple Run
- Terraria, Minecraft, imovie, Clash of Clans, Crossy Road
- Minecraft, Subway Surf, also any games creative and they don't rush you
- strategy games like Clash of Clans
- Crossy Road, Minecraft
- Clash of Clans, 8 ball ball, Injustice, stop motion, Instagram, music
- building & making cake app, imovie, pages, research apps
- Mineflix
- Head Soccer, Minion Rush, Soccer Stars, SSG2
- Minecraft
- Clash of Clans
- Geometry Dash, High School Story
- Facebook, Instragram, Bloons TD Battles
- Minecraft, Crossy Road, Temple Run

- Minecraft, Doodle God, Clash of Clans
- Minecraft, Mineflix, Crossy Road
- Clash of Clans, Doodle God
- Clash of Clans
- Piano Tiles, Geometry Dash, Flappy Bird
- Geometry Dash, Flappy Bird, Piano Tiles, Surfer
- Educational
- Minecraft, Cartoon Network Allstars
- Colouring and Busy Shapes
- Minecraft
- Snapchat, Instagram, Facebook, messages, aa, sn
- The ones that connect things
- Angry Birds
- Sims, Wilder Quest
- The Sims 3, Trivia Crack, 4 Pics 1 Word, Minecraft
- Crossy road, Piano tiles, Terraria, Instagram, Angry Birds, Weather app, Boss 2
- Instagram, Zedge, Freemusic, Kik, Snapchat
- Cow evolution, Minion rush, Minecraft
- Minecraft, NBA Jam, Dessert Maker, Terraria, Fair Food
- Minecraft
- Animal Jam, Plants vs Zombies, Star Wars Battle Orders
- minecraft, road blocks, safari, dinodigger
- pixels, wordsearch (crossword), my paper plane, plants vs zombies, ping pong, minecraft
- too many to think of
- Jurassic Park builder, Clash of Clans, Minecraft, Slug it Out
- Instagram, Snapchat
- Dragonvale, Clash of Clans, Angry Birds

What are the most important things you look for in an app? (e.g. ability to share stuff with friends, how it looks, price etc. Whatever you can think of) - Open-Ended Response

- building, destroying stuff (building), explore, get reward, animations of animals
- rewards / winning / new levels, selfies on character
- obstacles in the way, levels & rewards (costumes)
- fun, interesting (not too simple - challenge), levels & rewards, competitive (shared between people)
- build a town, defence & attack through tools, magic & spells
- make things, replay, raid other peoples villages, be part of a league, community
- graphically organised, functional
- choose players, realistic, winning, shared
- avatar, adventures, talk to people, no rules
- survival, creativity, mission, avatar, customised level, "choose your own adventure"
- respond to actions (realistic), play against people, unlock levels
- build your own world & addictive, make things, design, funny noises, singing
- points, build your own place, teaching language, make-believe
- create things involving imagination, search things (animals, food / origins)
- battling, interactive, plan ahead / tactics, upgrades, achieve things, mission
- favourite game, addictive, interactive
- swipe, avoid obstacles, killing mobs - building, taming pets
- simplicity, functional, display
- contact, talking to others, occupied
- build your own world / find villages, sounds - realistic, collecting
- doing it together, building things, dinosaurs, factual, topic that they love, create animals
- simplicity, fun
- sport - team, connect with others, build things, join alliances
- challenging, music / sound effects, colourful / bright, exploring, keep self alive
- challenges, play with friends
- fun
- things that people say are good
- building, exploring, racing, challenging
- multiplayer, different game modes, online
- play against friends (join in)
- graphics, interaction, various outcomes
- no ads, free
- building abilities and infinite resources, a way to win characters, multiplayer
- play with other people, price
- introduction of the game, graphics
- rating (age and opinion), how fun, free

- make stuff, use points to buy stuff, looks good, want it to be easy and get hard
- ninja fighting
- building stuff
- free
- price and maturity
- usefulness, layout
- animals, killing, building
- sound effects, levels, build & create
- how good, fun, avoid boring ones
- control players, win & lose game, no app purchase
- entertainment, virtual world, lord, creating villages
- easy to hard levels
- go up in levels, collecting things from farms, building things
- join as a member, unlock levels, upgrade
- no rules, freedom
- free
- adventures, missions, fun, new creatures, building stuff
- look of the game, sharing with friends
- graphics, it doesn't use internet (wifi, 3G etc), a points system, use your own avatar
- easy to use and fun
- building, collecting tokens
- quality and price
- looks, price
- look for apps that are free
- fun, price
- how it looks, price and to share
- How it looks and interesting
- How it looks, features, privacy, cost
- Price. If it costs something forget it. If it's actually fun to use for a long time
- I like to look for how fun the game is and how strategic the app is
- imaginative, unlimited animals, prize box
- cool graphics, sounds, different games, get to share with people
- easy to understand, simple but lots of info
- myself
- fun, spend time versing friends
- price, looks
- I want to play with my friends
- price
- fun
- need to be fun, interesting & play on. Play with friends
- talk to my friends
- play stuff
- how it looks
- fun
- engagement, games
- price, challenge, with friends, minigames
- Price, challenge, do it with friends, looks good, mini games
- Price, interesting, interactive
- Price, Able to share with friends
- price = free, how it looks
- Small price and has adventures
- Share things with my friend, latest fashion and like music tv shows
- fun
- Price (free), fun, easy to use
- fun / enjoyment
- Free (price), Modern clean colourful design
- The fun of getting past the next obstacle/level or either the addictive bit
- Social media, music
- Free apps only & how you can interact with it
- The ratings, How much fun it is, Interesting design, Price, Playing with friends
- Creativity, multimedia - sound & visuals
- How it looks. The type of game it is
- interesting, long, interactive
- interesting, makes you think, fun
- games, points, goals, pictures, moving things
- calm sounds, bright colours, levels, winning, battles, incentive
- sounds
- achievements, rewards, sounds

We're making a game for one of our exhibitions later this year. What sort of stuff would you like to see in it? - Open-Ended Response

- Minecraft - build, explore, adventure, discovering villages, rewards - diamonds & gems
- similar to Temple Run, ships to Australia - first fleet, pick character, explore animals, discover places & rewards, outback / beach, discover place - quiz
- characters are animals, go through obstacles, collecting food, facts about character, wildlife sounds

- make your own characters, back story to character (explorer history), quest - meet people & find things, mission, medal (made out of sticks), unlock levels, win resources (rope)
- camp - exploring, extend camp beyond places, explorers, rewards for discovery of places & animals
- quizzes - "was Captain Cook the first person to discover Australia?", fact sheets - read about explorers, map of the world - what towns looked like when they were found
- exploring (jungles), 2 adventurers collecting, lots of places and opportunities (left or right), facts, collectibles - different weather, trees & animals (landscapes)
- explore Australia like real explorers, native animals, pictures
- build your own museum, go around and find animals (tap and see facts), night at the museum, dinosaurs > wildlife > Aboriginal (levels), action, battles, unlock places to explore, click on things shows a video with facts, other players in the game, create your own museum, leaderboard, mini games, points / buy things / currency, when you find animals they go back to your museum (rare animals)
- open world - be a character on a ship to Australia with obstacles on the way, Q&A's along the way, collecting things, future & past, pieces in a puzzle, 3rd person, augmented reality, different parts of Australia
- adventures, swinging from vine to vine, go through jungle / forest without getting hurt, different obstacles, canopy, Q&A's, treasure + hunt = reward, trivia (eg which dinosaur / animal am I?)
- hidden treasure, clues along the way to answer questions, build your own character, different parts of Australia
- a rainbow lorikeet, characters, build forts & tents, finding fossils, buying things with points, trading, sounds / volume / music
- free app, read history about animals, select time eras (sneak peek into history), browse through animals
- explorer - find bones and make animals with bones, landscape, facts, avatar - choose from actual explorers, use your own photo
- pick an explorer, try to find things, levels, points
- animals, tours, explore desert, finding other people, missions, reward - money, tap pictures of animals in a museum
- rewards, trivia, leaderboards (shared)
- facts (quick), habitats, answer questions to get through levels
- interesting creatures, exploring land, points & trophies, levels, koala / wombats / cheetahs / parrots
- survival, dinosaurs, extinct animals, choose character (animal), monetary rewards, facts
- little dude that you move through a maze (landscapes), pick character
- train warriors / explorers, fighting, exploring diamonds / gold, kill animals - survival, points, resources to make things
- different animals / plants, hunting animals, points / coins, levels, tap on tree for facts
- challenge, dinosaurs
- being able to make different animals
- chat
- building, firing, racing, battles
- touching screen, multiplayer, sound, learning while having fun, interacting
- interactive, girl & boy stuff, cure animals, creative - design your own worlds etc
- interactive, good graphics, puzzles, facts
- all types of animals
- building abilities, include true animal facts, a way to have pet dinosaur skeletons
- animals, dinosaurs
- dinosaurs
- Pacific animals, dinosaurs
- how it shows you the T-rex and the size, special effects, video dino, suspense
- games with maths in them but so you can't tell
- dinosaurs, birds
- birds
- animals, history, gold rush, prehistoric, convicts
- first person, quest, go through levels, topic, dinosaur sounds matching displays, easy/hard section - age difference
- facts

- rainforest, exploring, points, levels, rewards - unlock new things. find fossils, mission, reptile mark
- birds, spiders, dinosaur skeleton, animations and moving pictures, info
- different characters, adventure (real life) that explorers went on (Captain Cook), building huts
- facts zone (Q & As), puzzles, educational memory game (reinforcement) games
- a person in exhibition (avatar) to explore things, like Night at the Museum!
- dinosaurs, crocodiles, snakes, avatar - exploring, finding animals
- explore a world, type in name and become explorer - avatar, running & jumping
- exploring for animals / worlds, dinosaur hunt, building in virtual worlds, creating animals, crocodile eating bird
- history
- activities about quizzes
- new creatures, building a dinosaur
- Quizzes, finding animals, cost, fun
- taking photos, little animals
- information about animals, ability to explore the habitats animals used to live in, interactivity with the animals
- building a dinosaur
- Steve Irwin
- music and animals
- dinosaurs, adventures
- interactive things
- multiple games, puzzles, quizzes and information about Aussie animals
- velociraptor, interactive activities and fossils
- dinosaurs, Minecraft
- interesting facts, points
- Greek, Roman and Egyptian cultures, interactive activities
- Dinosaurs, mini ipad or device microscopes etc, animation of animals going about their usual day
- I would like to see good graphics so you start of little with a kangaroo habitat and you collect more and more animals, fossils, insects etc
- find fossils, Aboriginal & Torres Strait Islander people
- dinosaurs, historical, aboriginal tribes, swimming with creatures, interact with animals
- facts through it, explorers saying stuff like "horrible histories", info & pictures, history
- games that you can play
- sport games
- a quiz and the power to free roam
- that you can chat to friends
- science games
- Not all baby stuff. Adult stuff too, make it fun
- Do a mission. Discover hidden treasures & exploring
- me
- shells, rocks and eggs
- craft making game
- dinosaurs
- educational, game based, colourful
- minigames, challenges, info, fun, music, mind tricks
- challenge, racing, mini games, info, fun, mind challenges, mind tricks, music, magic
- Snakes & dinosaurs
- colouring, puzzles
- To adventure about in a forest and swim in water on top of an animal
- I would like to see an app that is fun but tricky. So it plays with your mind
- Puzzles that make drawings of animals in the museum
- animals, plants, oceans

- Animals, trivia and fun hide & seek
- games, quizzes, missions
- Pictures of amazing animals and their importance to suburbs/states/nations and the accessibility of the information
- A part where you can text and meet new people. You can add romans and warriors
- One that you could build your own dinosaur & then name it
- Animal facts, make your own animals, catch your own animal, put animals in correct habitat, take a photo of an animal and it tells you info, grouping things into species, slide your finger over picture to show past and then present
- Videos, sounds, play - make, colours - movement, capture images to collect prizes
- Dinosaurs, minerals
- dinosaurs, history of explorers
- discovery, goal oriented, stories
- dinosaurs, animals, history
- dinosaurs, dragons, exploring
- Australian history, games
- images, sounds, animals

What do you like about the Australian Museum? - Open-Ended Response

- velociraptor, decorations & animals
- Kidspace, skeletons, dinosaurs
- learn new things about animals
- putting head in dinosaur jaws, models of animals
- exhibition - minerals, dinosaurs
- wombats
- dinosaur, birds, skeleton, wildlife photographer
- dinosaurs, sharks, crocodile
- interactive aspect, live animals, very realistic
- skeletons (interactive), indigenous Australia, dinosaurs (computer)
- gemstones & Wildlife Photographer, dinosaur (favourite: brachiosaurus & giganotosaurus)
- minerals, skeletons, Search & Discover, displays
- bones, stuffed animals, Search & Discover, dinosaurs
- birds - realistic, what they look like, study close up
- dinosaurs, computer, crystals
- exhibits - non specific favourite
- skeletons & skulls
- Wildlife photography
- animal - mammals, native Austraklia, interactive
- watching videos in Aboriginal section, dinosaurs
- dinosaur, T-rex
- Wildlife photography
- insects & birds
- just walked in
- the dinosaurs
- fun, you get to learn about animals
- i haven't explored much yet
- dinosaur bones, bugs
- You can interact with things
- cute animals - able to touch, lots of information
- photos, "did you know?"
- shells
- My favourite was the crystals. PARENT NOTE: My son is vision impaired. Large print & large images are excellent. Provision for vision impairment (not blindness) in young people is rare.
- Search & Discover
- dinosaurs
- Pacific oceans
- dinosaurs
- dinosaurs
- dinosaurs
- skeletons
- cultural aspects, taxidermy
- animals, exoskeletons, arachnids
- dinosaur bones, animals
- birds, minerals
- dinosaurs, crocodiles, yabbies
- live creature interactions
- animals (wildlife exhibition), indigenous Australians
- looking at animals, dinosaurs
- skeletons
- all the different species, loud noises
- fun way to learn things - love it all! (especially Aboriginal work)
- animals (better if they weren't stuffed), dinosaurs
- skeletons
- Surviving Australia
- the underwater exhibit (try to expand it if you can!)
- the dinosaur bones

- dinosaurs
- all the animals and the activities
- the dinosaurs and the insects
- the crystals
- all the amazing exhibits
- the dinosaurs
- the dinosaurs, the bird section
- really beautiful crystals & interesting facts, the aboriginal display
- The cafe and the dinosaur section
- The whole point you can touch stuff
- I like the interactive display and the insects
- dinosaurs, Aboriginal section
- crocodiles, animals in cages, dinosaur bones (skeletons)
- different displays, lots of animals, dinosaurs
- birds
- seeing animals and skeletons
- the hands on stuff
- variety of animals
- animals
- animals, dinosaurs, search & discover
- Dinosaurs
- rocks, eggs, birds, shells, animals
- everything
- everything
- kids interactive activities. Hand on learning

- everything - there is always something new
- everything (activity zone)
- Interaction
- Dinosaurs, crocodiles, snakes, spiders
- the dinosaurs
- It has reptiles and a lot of animals
- I like most things. I like how they have the little games and stuff around
- It has lots of interesting things in it
- It's really fun in Search & Discover
- crocodiles, dinosaurs and Surviving Australia
- The skeletons and the buildings history & architecture
- The accessibility of using tools or machines to see what the exhibits are or actually touching and using some of the exhibits
- Warriors
- All the exhibitions and displays
- It's fun for kids, very informative, interesting
- Dinosaur bones. Kids area - touch & do
- It has lots of dinosaurs and it has my great grandfather's mineral collection (Albert Chapman)
- interesting, dinosaurs, skeleton room, stuff to do
- science, discover new things each time
- dinosaurs, animals
- dinosaurs
- history, displays, crystals, photography
- animals in display, photography exhibition