INNOVATIVE LEARNING TOOLKIT

PROJECT TITLE: Games

Tags; education, online, traditional

Games are at the forefront of innovative learning and educational practice, as a fun form of experiential learning. There are many different forms of games some designed more for adults than children. We set out a sample in this section.

EXAMPLES AND CASE STUDIES

Project Twin Streams

Other regional, national and international examples

Traditional games

Treasure hunts and board and card games are the traditional games from our childhood. Here are a couple of adapted examples with an environmental focus:

The ARC has developed a treasure hunt through the Botanic Gardens as part of its EcoKids programme. The 'Agent Ani Botanic Gardens Adventure' gets kids following clues around the gardens, giving them facts, information and jokes as they go. The treasure hunt provides tips on how participants can protect the planet and become "eco super-spies like Agent Ani". When they finish the treasure hunt they can pick up a free bag of seeds to take home to grow a botanic garden of their own.

The Nature Chain Challenge is a card game some local lads designed to encourage players to think about their environment and the native birds, plants and animals aroud the Twin Streams area.

Some traditoinal games could be developed to have an ecological focus. Here is just one site to inspire new ideas: http://www.funandgames.org/

Online games

There are a number of exclusively online games with environmental issues as content, we have assembled a few that are specifically designed to educate as well as entertain.

Adventure Ecology is an online ecology game for kids. It involves going on ecological adventures. You can join and play the games, and use the resources…or at least get inspired by them.

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Honoloko offers an online game for older children where your character wanders around a city and makes decisions around which activities to do, how to generate power etc. The game also provides environmental information as you go.

For older children and adults the Twente Water Centre has developed a number of educational online game-like tools:

The River Basin Game is a role-playing board game for initiating discussions on visions and strategies of water allocation

The World Water Game aims to helps people better understand the world's water issues. Players have to manage the world's precious water resources and public funds sensibly and ensure that the 19 World Water Regions remain reasonably self-sufficient in food production

The ABC in Australia has set up an online Catchment Detox game where players manage a river catchment area to try to create a sustainable and healthy environment and economy.Players choose what type of activities to undertake, including planting crops, logging, building dams, developing agriculture and tourism. The game gives some insight into how difficult it is to manage a river catchment and maintain a thriving ecosystem and economy.

games using GPS and mobile technologies

Some of the most innovative new games use the latest in mobile phone/gps technologies. Groups are now using these technologies for learning about content, and to assist people to engage differently with physical spaces.

Geo-caching is a new version of the old fashioned treasure hunt, that uses GPS technology as its base. Using clues posted on websites, participants are sent on hunts to find small caches of treasure that are hidden in all sorts of interesting places in the landscape. Educational uses are only now beginning to be devised but the potential for this kind of treasure hunt to help people learn about local history, the environment, culture etc is enormous.

The following example is a treasure hunt based around teaching people about the Waikato Wars: http://www.geocaching.com/seek/cache_details.aspx?guid=4478ef82-222e-48a1-b8cb-77f7610405d8

Another one teaches maths and trigonometry using the ballastic sites of a gun to 'point' to the cache across the harbour: http://www.geocaching.com/seek/cache_details.aspx?guid=140c070f-d8c7-46cf-9cab-ab9b1ecb1126

The Department of Conservation ran a geo-cache treasure hunt as part of its celebrations to mark ‘a century of time keeping’ at Wellington’s Dominion Observatory. Participants used GPS to navigate to sites that relate to the history of time and then had the chance to see

and use equipment that was used 100 years ago. See http://www.doc.govt.nz/about-doc/news/media-releases/celebration-planned-for-the-dominion-observatory/

High School students in Canada helped create GPS and mobile phone based learning for use in Banff National Park. They developed a walking tour for hikers to use to navigate a mountainous landscape seeded with stories. As you reach certain places along a route, the GPS locator in your phone 'knows' where you are, and relates a certain story or snippet of information about that particular area. For more details see: walkumentaries and locative learning

street games

Street games are a new and unique type of experience. These games are often played within urban and sub-urban environments, and often, but not always, use mobile technology to combine online activity with activity in the physical world. These games are a great way to create new relationships both between the players and the spaces they play in.

Among world leaders in this work are a art collective known as Blast Theory. They use a combination of interactive technologies, street game ideas and art installation practices to create innovative experiences for groups and communities. Take a look through their chronology of projects to get a sense of their work.

A-LURE is a game located on the streets of Melbourne. There are six artworks located down alleyways, up high in the sky, in dark places, and quietly hiding on shelves within the city. The artworks are digital projections, interactive video and sound works and a huge photographic light box. Players can interact with the artworks, contribute ideas to some of them and even have their moving image embedded within one of them. To find them you need to register and become a game-player: http://www.a-lure.org/alure

http://igfest.org/content/about">Igfest and the hideandseek festival are examples of the street game festivals that are springing up around the world and could be easily created around environmental themes in NZ.

alternate reality games

Alternate Reality Games (ARGs) are at the leading edge of the game genre and often involve aspects of a number of other games we have mentioned already. The origins of ARG's are found in several different formats: role playing games, viral marketing and story telling.

In essence they involve several elements: a website, other print media (e.g. magazines and newspapers, brochures, posters), telephone numbers via internet or landline, and of course, people. Players find clues and carry out tasksboth online, and in physical space in order to solve a mystery, or uncover a storyline.

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ARGs are being used as part of sophisticated environmental awareness campaigns and are a fantastic way to empower people to find information, and encounter physical spaces and engage in activities that they wouldn't normally try out.

Examples of ARG's related to the environment are include World Without Oil, a game inviting people to share their experiences (through video and blogging) of living post peak oil

Superstruct, which sets out alternative scenarios for people to see the implications of some of the major challenges we are facing as a planet (see article). Both examples were educational and fostered massive scale collaboration in order to solve climate related issues.

ARGs have been used in schools around the world as part of leading edge experiments in learning. Awhiworld is one of the first examples of ARG being used in schools in NZ, and this game had an environmental focus.

A recent interview with Jane McGonigal, (ARG expert) with Kim Hill, Radio NZ 31 January, 08 is a useful overview of ARGs, and a powerful argument for using games for learning and community development:
http://www.radionz.co.nz/__data/assets/audio_item/0007/1851613/sat-20090131-0905-Jane_McGonigal_serious_play-m048.asx

The sub-genre of Educational ARGs is now worthy of entire conferences and is well worth further research:
http://conference.operationsleepercell.com/2008/12/conference-slides-and-report-new/

IDEA INCUBATOR

With a little more research and development, and some creative cross disciplinary collaborations:

traditional games created specifically about PTS streams could be included as part of a resource kit for particular audiences. Creating these games could be a wonderful project for primary schools if integrated within their maths, science, social studies curriculum.
a geo-cache / treasure hunt trail could be developed within the walkway/cycleway project
ideas from Street Gaming could be used as part of planting day or as part of a larger community activity

an ARG could be used as part of a larger community monitoring project to add mystery and excitement. Monitoring stories and activities around the streams could be woven into a story created in partnership with local iwi. This story could inspire groups to monitor different aspects of stream life, as well as other data as part of a very creative and imaginative alternate reality game scenario. By placing clues and story aspects in a variety of different media people would be encouraged to move through many different publications and be exposed to different environmental messages. This could also be mixed with physical meetings, experiences and activities located in and around Waitakere.