# Using Satellite Technology to Play Hide and Seek

# The Authors

Anne Fenech (Lecturer and experienced geocacher), Rachel Harvey, Emily Watson, Nicola Sheard, Emily Stinchcombe, Ella Short, And Michelle Pagett (OT Students from the University of Southampton)

# Introduction

The first year OT students from the University of Southampton undertake a practical and experiential “Personal Professional Development” Module. This involves participating in unfamiliar occupations to highlight the impact of occupational engagement on identity and personal development. The aim of the module is to facilitate understanding about how insights into the self, influence their future occupational therapy practice. The module assignment requires students to exhibit their participation in two different occupations, an occupational analysis of each and their reflections about their personal and professional self, resulting from their occupational participation.

Homo Otiosus (leisure man) is becoming increasingly important in our society (Elkington & Stebbins; 2014). Serious leisure is the systematic pursuit of leisure which involves acquiring and expressing a combination of special skills, knowledge, and experience (Stebbins, 2009). Several students undertook to explore the high-tech serious leisure occupation of geocaching during their module (Stebbins, 2009).

Geocaching is a worldwide ‘treasure hunt’ that can be participated in at any time (Groundspeak, 2017). Over 3 million geocaches are hidden in various locations worldwide, allowing geocachers to explore new or familiar places (Groundspeak, 2017a; Marsh, 2014). Geocaches vary in terms of their shapes, sizes, and difficulty levels. Geocaching can be done either individually or as a group, and involves selecting a geocache from a geocaching website and using Global Positioning Satellite’s and map reading skills to navigate to the location (Groundspeak 2017). There are often photographic or cryptic clues as well which can be solved to help participants find the geocache. Once found, the geocacher signs the log sheet within the container and logs the find on the geocaching website, before replacing the geocache in its original condition to allow other geocachers to find it in the future (Marsh, 2014). Kirriemuir (2012) suggests that geocaching is both fun and beneficial.

# Key assignment learning points;

Geocaching was suggested by the student’s occupational analyses to involve skills such as:

* **Map reading skills:** to find the location where the geocache is hidden.
* **Technological knowledge:** to use a GPS device/phone to find the location where the geocache is hidden.
* **Fine motor skills:** to be able to open and replace geocaches, and to be able to add your name in the log book.
* **Gross motor skills:** to walk and potentially climb a variety of terrains; good body awareness, balance, proprioception, and coordination required.
* **Patience:** as geocaches can be hidden creatively, and therefore hard to find.
* **Physical capacity:** to traverse various landscapes for the duration of the occupation.
* **Vision and Sensory ability:** to remain aware of one’s surroundings, react to external stimuli (e.g. light (sight), pressure (touch/pain), sound, temperature) - especially if they are very small!
* **Practical/ organizational skills:** choosing a suitable time/day, and planning a safe and legal route to find geocaches.
* **Good memory:** for remembering the route/area and how to exit safely if required; also remembering previous Geocaching experiences and applying this knowledge to future experiences.
* **Emotional stability:** to minimise risk to all participants.
* **Interest in the outdoor environment:** to get the most out of the experience, to immerse oneself fully, and increase possibility of experiencing flow (Csikszentmihalyi, 2014).
* **Strong communication:** to optimise safety and effectiveness of the search.
* **Ability to risk assess:** to keep oneself and others safe.
* **Motivation/Determination/ Perseverance:** to prevent giving up and ensure successful geocache location.
* **Problem solving skills:** to solve clues and use information to find the geocache.
* **Not afraid of getting ‘stuck in’:** participants may have to have to get dirty, crawling through bushes or climbing trees!

The students also highlighted the influence of the occupationalcontext:

* **Cultural:** Respect for the natural, built and social environments was constantly maintained throughout occupation participation to preserve the area and enable other people to enjoy the environment. It was also important to respect the culture of the sport by ensuring that geocaches were relocated so that other geocachers can find the geocache in the future. Similarly, if trinkets within the geocaches were exchanged then it was important to replace them with something of equal or higher value for other geocachers to find. Both the natural and manmade environments provide interesting hiding places. However, engagement in the natural environment may be restricted by the physically demanding nature of the terrain, and the weather conditions.
* **Socio-economic:** shared or individual (premium or basic) Geocaching membership and GPS/Phone costs should be considered.
* **Political/Institutional:** laws regarding trespassing, littering, damaging property or wildlife in the country of participation must be respected.
* **Social:** support for/ from others offers a fun, social and productive experience.
* **Technological:** A GPS or phone containing a Geocaching app can help locate the cache and ensure safety should an emergency arise.

# The Student’s reflections

1. My friend’s description of geocaching as being a global treasure hunt, that I would enjoy whilst being challenged both physically and mentally, motivated my choice of occupation. It sounded different to anything I had ever done before, appealing to my competitive streak, as well as being fun.
2. Without patience and determination geocaching could be more frustrating than enjoyable. I needed confidence and high levels of self-consciousness when geocaching in more public spaces. I found it difficult to participate fully, because climbing into bushes and trees could look odd and suspicious which made me try to disassociate myself from my team-mates. With more confidence I would have been a much more reliable team player.
3. I thoroughly enjoyed geocaching, because it allowed me to explore the location around the university. It helped me to bond with the people who participated alongside me. It was more fun and exciting when with a larger group of people who were all working towards the same goal. Solo geocaching required more motivation and perseverance, and was more challenging.
4. The most important skills required to geocache were my problem-solving skills (to work out where the geocache was hidden), determination, and peer support. I really valued the social aspect of this occupation.
5. I experienced flow (Csikszentmihalyi, 2014), when we were on a roll with finding geocaches, as success motivated me to keep going. At times the challenge was too great for me, and at other times the challenge was not enough. Therefore, in future I will consider the difficulty levels listed for each geocache in order to grade myself and focus on appropriate levels of challenge, with a view to pushing myself further, with time and experience.

# Applicability to practice

Personal development through leisure is far too subtle and profound to make its way into the popular mind (Stebbins, 2017). Despite this geocaching is used with service users with a range of therapeutic needs (Lary ,2004; Flett et al., 2010; Lo, 2010; Battista et al.,2016). Geocaching has much to offer as a therapeutic medium, as the students occupational analyses show. This article was written because the students literature searches agreed with Battista et al., (2016) who suggest that there are limited studies into geocaching.

Geocaching can be graded in terms of physical, social, and cognitive skills and challenge. It can also be adapted in many ways to ensure success from assisting with the final geocache location to, researching the geocache, solving the clues and hunting the geocache independently.

# References

Battista, RA. West, ST. Mackenzie, SH. Son, J. (2016) Is This Exercise? No, It’s Geocaching! Exploring Factors Related to Aspects of Geocaching Participation Journal of Park and Recreation Administration 34 (2) 30 - 48

Csikszentmihalyi, M., 2014. Toward a psychology of optimal experience. In Flow and the foundations of positive psychology (pp. 209-226). Springer Netherlands.

Elkington, S. and Stebbins, R.A., (2014) The serious leisure perspective: An introduction. Routledge.

Flett, R. M., Moore, R.W., Pfeiffer, K.A., Belonga, J. & Navarre, J. (2010) Connecting children and family with nature-based physical activity. American Journal of Health Education, 41, 292–300.

Groundspeak, Inc. (2017) Geocaching At-a-Glance available from https://www.geocaching.com/press/faq.aspx accessed 12/07/2017

Groundspeak, Inc. (2017a) Celebrate 3 million geocaches with a new souvenir! Available from https://www.geocaching.com/blog/2017/04/celebrate-3-million-geocaches-with-new-souvenir/ accessed 30/10/2017

Kirriemuir, J. (2012) Geocaching – using multi-billion dollar satellites to find hidden items CilipUpdate MAY 17 available from https://www.silversprite.com/ss/wp-content/uploads/2012/08/Update\_05\_p17.pdf accessed 30/10/2017

Lary, L.M., (2004) Hide And Seek GPS And Geocaching In The Classroom. Learning & Leading with Technology, 31(6), pp.14-18.

Lo. B (2010) GPS and Geocaching in Education Eugene: International Society for Technology in Education

Marsh. T. (2014) Geocaching in the UK: A Step by Step Guide to High-Tech Treasure Hunting with a GPS: 2nd Revised edition edition Milnthorpe: Cicerone Press;

Stebbins R.A. (2017) Personal Development Through Leisure. In: Leisure’s Legacy. Leisure Studies in a Global Era. New York: Palgrave Macmillan,

Stebbins, R. (2009) New Leisure and Leisure Customization, World Leisure Journal, 51:2, 78-84,