

Finding wellbeing and lifestyle information: information
seeking in an Urban-rural setting.

by

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Abstract:

Research problem: Access to information is crucial to increase and support the wellbeing and lifestyle choices of the population living in this region. The objective of this research is to discover the methods used by, and information seeking barriers for, people living in the Central Otago/Queenstown Lakes area when accessing information.

Methodology: A survey of the population was undertaken which asked nine questions regarding socio-economic and information retrieval behaviour undertaken in the six months prior to the start of research.

Results: Responses were received from .22% of the population in the area of study. Results indicate that respondents could access information online or from non-expert sources face to face. The information available from the internet was found to be accessible for groups with an under-graduate education or higher and a barrier a group with a lower level of education group. Social media was a frequently accessed source however information retrieved there was not satisfactorily useful.

Implications: Information providers should be aware that it is necessary to continue to provide information in print and face to face until semi-interpersonal channels are seen as providing information that is satisfactorily useful across all groups.

Keywords: information seeking behaviour, information access, urban-rural population.

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1. Problem Statement

1.1 Rationale for the research

In 2018 King, Huseynli, and MacGibbon, reported to the New Zealand Treasury on a range of different wellbeing frameworks to use in its advice on government policy and spending (the frameworks are a development of the living standards framework published by the Treasury in 2011). They comment that “Wellbeing is a multi-faceted concept. Any single value claiming to describe wellbeing involves significant value judgements, as well as indexing problems, and makes underlying causes less transparent.” In the context of this research wellbeing is defined as a long-lasting emotional condition which reflects the level of satisfaction of an individual with their life. There is general agreement that wellbeing needs to be understood and measured by way of its cognitive, emotional, social and cultural components (Solcova, and Kebza, 2013, p.161). Cummins (2018) defines the concept of wellbeing as consisting of three special resources that facilitate a happy life: money, an intimate relationship, and having a purposeful activity. These three resources are particularly powerful because they have a dual role in facilitating control. While their primary function is to defend against failure and assist recovery, they also generate a feel-good factor when they are engaged.

Lifestyle is a large part of wellness, Farhud, (2017, p.2) uses Edward Fern’s three categories, developed in 2001, to define life style: Actions (jobs, hobbies and fun), Communications (families and friends) and Belief (political, religious, social). Farhud condenses Fern’s categories into the following definition which will be used for this project. Life style includes distinct but clear ways of living that is determined by actions, communications and

beliefs. Individuals and groups search regularly for information on aspects of wellbeing and lifestyle that affect them. Internationally there is an increased interest in lifestyle and wellbeing led on a global scale by the Organisation for Economic Cooperation and Development (OECD) and by a wide range of independent analysts. Thereby creating an exponential increase in the amount of information available on these topics at our finger tips - online. While it is generally accepted that access to information is crucial to increase and support people's wellbeing and lifestyle choices, the ease of access, quality, and satisfaction with the usefulness of information is subjective. For the purposes of this project usefulness is defined as the state or condition of being useful or serviceable (Oxford English Dictionary, 2019), as defined by the user in their search for a solution to their problem. This definition is supported by Savolainen's assertion that peoples experience of the usefulness of different information sources and channels affect their information seeking habits. (1995, p.264).

As this research focuses on the population of a particular geographic region it is worthwhile delimitating it here. The Central Otago/Queenstown Lakes area is predominantly an agricultural region of New Zealand. The topography and water resources are favourable for dairy and sheep farms, wineries, and it is a recognised international tourism area. There is a local population of approximately 46,119 people in the Central Otago and Queenstown Lakes area, which is spread over an area of over 18,675 km². Local communities include relatively large numbers of retired people and so the population contains a relatively high proportion ($\approx 16\%$) of people aged ≥ 65 years (Stats NZ, 2013). 75% of the population has a formal qualification with 37.8% holding a bachelor's degree or higher. The StatsNZ Urban Rural 2018 to

Urban Rural Indicator 2018V1.0.0, classifies the population in the area of study in the following ways; Medium urban (10,000–29,999 residents), Queenstown; Small urban (1,000–9,999 residents), for example, Alexandra, Wanaka, and Arrowtown; and Rural Settlement. Rural Settlements are statistically defined areas with no administrative or legal basis, they are a group of residential dwellings in a place usually contains at least one community or public building. For example, Millers Flat, Kingston and Middlemarch; Rural Other are the mainland areas located outside urban areas or rural settlements.

In predominantly urban-rural areas there appear to be a variety of information dissemination methods including: newsletters, seminars and meetings, lectures, television, radio, leaflets, social media. It is assumed that access points to information across the district are variable due to distance, reliability of telecommunication networks, age and educational levels of communities. It is left up to the individual to define for themselves how useful the information they have discovered is regardless of the delivery mechanism. Communities can be defined by geography, age and other socio-economic factors that the individual information seeker identifies with. Access to information is important to increase and support the wellbeing and lifestyle choices of the population living in the Central Otago/Queenstown Lakes region. Apart from yearly surveys of residents and ratepayers by local councils, as far as can be ascertained no formal studies have been made of the information seeking behaviour of residents in this area. Which may make the methods and resources used when resident seek information unproductive and unsatisfactory.

1.2 Research Objectives

The objective of this research is to discover the methods used by, and information seeking barriers for, people living in Central Otago/Queenstown Lakes area when accessing information. Although information is available on access to resources on a national and regional level, previous research has not examined sub-regional access to information and obstacles to that access. This research fills that gap by asking the following questions:

- What are the sources of well-being and lifestyle information for the Central Otago/Queenstown Lakes population?
- What are the respondents' perceptions of the overall usefulness of the information found?
- What is the relationship between Information resources used and obstacles encountered when seeking well-being and lifestyle information?

1.3 Theoretical Framework

As this project focuses on information seeking behaviour used to solve problems in respondents' nonworking life, the model employed in the survey is informed by the Savolainen model for "The Basic components for the Study of ELIS¹ in the Context of Way of Life" (1995, p.268). "Selection of Information sources and channels" is a variable of "mastery of life" which has changed markedly in the last ten years because of the increase in delivery of communications and processes online. Whereas individual problems, the ability to evaluate problems and make decisions to solve problems are controlled by the individual. For the purposes of this project the focus is on the intersection of the following concepts; "Selection of information sources and channels" which is an element of problem-solving behaviour, "social

¹ Everyday Life Information Seeking (ELIS).

capital”, “cultural and cognitive capital”, and “current situation of life”, which are elements of the context of everyday life, and inform the selection of information source. Thereby exposing the situational factors or barriers that hinder access. Please see figure one below for a visual representation of the model.

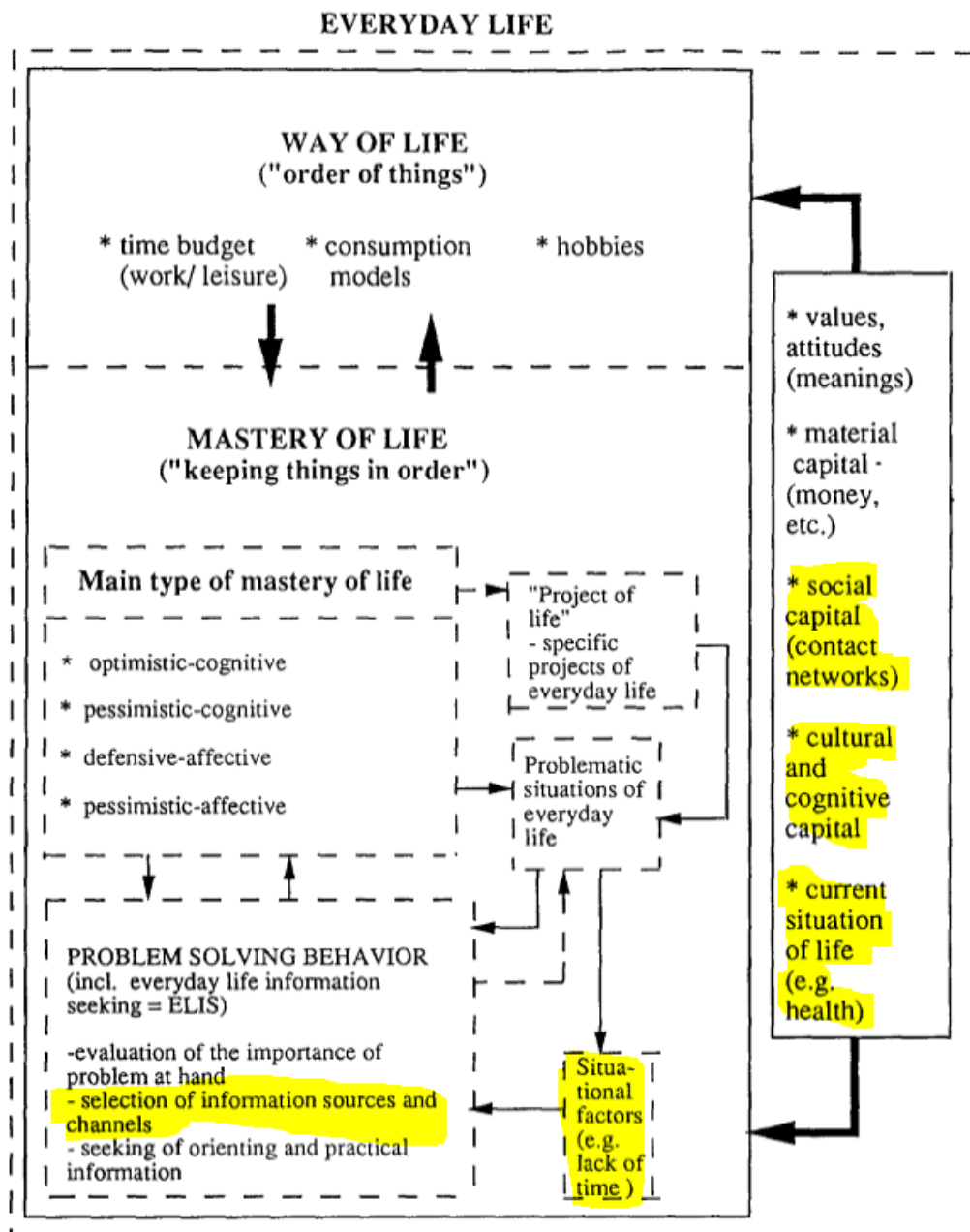


Figure 1. The basic components of the study of ELIS in the context of way of life.

(Savolainen, 1995, p. 268.)

Use of this model helps us understand the information needs of the target population, preferences for using specific resources, and the obstacles they encountered when seeking information.

1.4 Delimitations

- This project is limited to people currently living permanently in the Central Otago/Lakes area and excludes those visiting or residing temporarily.
- Responses to the survey are on a voluntary basis which may limit responses by cultural and ethnic groups, including Māori residing in the area. The survey was distributed to groups in business and the community which are known to have a high proportion of Māori actively involved
- The research will provide a quantitative overview of the connection between information seeking and information sources. More detailed information can be obtained using qualitative methods.
- This research focuses on the availability of information resources that are normally present to the population and does not attempt to be exhaustive. Nor does it include items that are included elsewhere (such as the census) which are no longer in regular use. For example, fax machines.

2. Review of Literature

While the Central Otago/Queenstown Lakes areas are generally not regarded as having high levels of social deprivation, this does not mean that social deprivation does not exist in the region; disposable income can be an issue for residents especially in Queenstown Lakes where property ownership and rental costs are at levels akin to Auckland or Wellington, without the same income levels. Therefore, satisfaction regarding wellbeing and lifestyle cannot be assumed to be high and access to information resources maybe limited.

Information access in an urban-rural setting

In order to get a general overview of the attitudes and abilities of communities living in an urban-rural setting, research into information behaviour and information communications methods in urban-rural populations overseas, was reviewed. Finding research on this topic was challenging and persistence was required to locate literature to review, which indicates a gap in research. Demiryürek (2010), Rehman, Muhammad, Mahood, Ruby and Bibi (2013); Kostagiolas, Souliotis and Boskou (2014); Mtega, Dulle, Malekani and Chailla (2014); Sousa, Nicolay and Home (2016), Aonngerthayakorn and Pongquan (2017); reveal common threads which indicate that access to information online has changed how rapidly information can be disseminated, and the impact of the change on information seeking behaviour on people living in predominantly rural areas.

Information access challenges are common when encountering and accessing information across rural communities, regardless of income levels. Nguyen, Mosadeghi, and Almario, (2017, p.53), found “evidence of a persistent digital divide; individuals who are elderly, less educated...and [live

in] rural areas are less likely to access and use the internet...information-seeking.” Schrader, Bidargaddi, Harris, Newman, Lynn, Peterson, and Battersby, (2014, p.7) found two issues prevented effective use of the technology and software, one “infrastructure/hardware problems, including drop-out of rural Internet connections (which are still not highly reliable in all areas of rural Australia)” two “general information technology (IT) skills and confidence.” DeMonte, DeMonte and Thorn discuss that for rural populations of concern is “the lack of technological resources and the lack of appropriate materials... [for people] who may have low levels of reading, ...or digital literacy.” (2015, p.207). DeMonte et al. identify the following requirement of organisations, “focus should be on community outreach in helping individuals overcome some of the perceptions about technology that may be deterring them from accessing technologies that are available to them.” or in fact other information resources that are only available at a distance and require transportation to acquire. Fearnley, Kerse and Nixon (2016) in their article on costs incurred by rural residents in attending publicly funded clinics discuss this issue for the population of the present research.

Within in New Zealand there are broad indications of levels of access to information available from national agencies. In the 2013 Census Statistics New Zealand asked questions regarding access to phones, fax machines, and the internet. QuickStats about Central Otago and Queenstown-Lakes report the following from people resident in the area of the study on the night²; 82.5% of households are able to access the internet compared to 76.8% of households in New Zealand and 86.5% have access to cell phones compared with 83.7% of households for New Zealand. InternetNZ Public opinion survey

² Totals have been combined to represent the area under study.

2018 (slide 14) indicates that use of social media by consumers and businesses is increasing over time. However, “Social media pages are predominantly convenient for consumers, but this is still at half the incidence as for websites.” (slide 18). Their research also indicated that websites are a more trusted dissemination method.

While the following organisations do not report on access to information, they do indicate an expectation that online access is the optimal delivery channel. Rural Health Alliance Aotearoa New Zealand (RHĀNZ). RHĀNZ mention rural mobile connectivity as a factor in addressing the rural workforce crisis (2018, p.2). The Minister of Health 2016, document New Zealand Health Strategy: Future direction, points to the use of telemedicine as meaning that “people living in rural or remote areas in Central Otago have access to the same specialist care as those living in the city.” (p.35). However, Fearnley et al. when discussing the price of “free’ to rural residents attending outpatient clinics in rural base hospitals, highlight a potential challenge for patients in the area of this study, if their location in the district is both rural other and inconsistently connected to the online environment.

Central Otago and Queenstown Lakes District Council jointly cover the area of research for this study. Both councils survey their residents on an annual basis to measure their performance in the last year. Part of the questionnaire for the respective surveys asks residents to share where they obtain or prefer to obtain council information. Of the channels which overlap printed media is the most common source or preferred form for residents to receive council information (67%), followed by website at 43.5% in 2018 and reception of council information via social media has grown to 42.5%.

Channels, modes and information delivery

Because dissemination of information is more cost-effective online, increasingly less information is delivered in other formats which may be appropriate to and supported by recipients. Sources of information can be divided into two main categories interpersonal and impersonal. Face-to-face exchange of information between individuals is usually regarded as interpersonal, whereas distribution of information by mass media is often regarded as impersonal, and enables dissemination of information from one, or few people, to many.

Information can be communicated through “various interpersonal channels (e.g. face-to-face contact, extension agents, friends, and relatives) and mass media platforms (e.g., newspapers, magazines, and posters;” (Bello & Obinne, 2012 quoted in Aonngerthayakorn and Pongquan, 2017, p.25).

Ramsey, Corsini, Peters, and Eckert, conducted a rapid review of consumer health information needs and preferences (2017). Although the rapid review was focused on the Australian context, it does reveal the best available evidence on consumers’ needs and preferences for information about healthcare, for the wider region. It is also an indicator of preference for other wellbeing and lifestyle information seeking, such as property and major life decisions. This comprehensive review revealed that consumers seek health information at varying times along the decision-making journey and through various modes of delivery. Historic information modes, such as delivery at a set point (for example a physical library) is no longer appropriate and flexibility is essential to suit growing consumer demands. Using this knowledge, this research can be enriched by including a wider cross section of modes than might otherwise have been the case. After all, even in 2010 Murray, Cabrer, Hansen, Paton, Elkin and Erdley, pointed out that Web “2.0 may go far

beyond just the pervasive social networking technology of Web 2.0 to support a complete reinvention” (2008, p. 47), in the way that information is delivered. Klecun, writing in 2012, outlines the challenges to consumer competencies, commonly known as information literacy, as they decide which tools work best, and endeavour to keep up with the technology. For example, do all sections of the general population have the skills to evaluate which information providers to trust? Information Literacy is about being able to address personal information needs that relate to everyday issues and problems, so that informed decisions are made to address the issue that needs to be resolved (Martzoukou and Abdi, 2017 p.634) The example Klecun uses of questionable research showing the side effects of MMR, is still relevant today. Savolainen (2017) points out that publications on Information Literacy are found in the field of public health as well as in those for library and information science (p.637). Savolainen goes further and suggests that “when encountering health-related issues, is essential for ... addressing health problems as active and confident information seekers encounter fewer barriers to obtaining good health outcomes. (p.656).

Small worlds on land and online

As DeMonte et al confirm “Both urban and rural underserved communities [are] facing financial, literacy and resource issues that challenge...delivery,” (2015, p.208). Smith and Duman (2009, p.210-271) summarises the way the people find information has changed over the last decades and suggests that there is a shift in initial information seeking from face to face to online and that this is changing how people act when more formal information channels are used.

When researching the methods used to access information, by people living in the Central Otago/Queenstown Lakes area, it is important to understand the effect of social factors that can influence people living in urban-rural communities when seeking information. “Small worlds stand for local and often small-scale communities in which... everyday information seeking and sharing is oriented by generally recognised norms based on belief shared by the members of the community.” (Savolainen, 2009, p.40), whether that community is physical or online. Given the observed recent growth of social media-based community groups in the area under study, it will be useful to understand usage of these by survey respondents.

Whatever the results of the survey are, the mix of modes and methods the respondents use to access wellbeing and lifestyle information will be informative and useful to decision makers.

3. Methods, Data and Results

3.1 Research design

This research project is a quantitative analysis of data gathered by anonymous survey. The method provided a descriptive structure for measurement of variables based on concepts used in socio-economic and information seeking behaviour research. The design is ex post facto, because the collection of data will be selected on the non-variable of participants having searched for information. The purpose of this project is to discover where sources of well-being and lifestyle information for the Central Otago/Queenstown Lakes population are found, what are the obstacles to access, and the overall degree of usefulness of that information as perceived

by respondents. This section sets out the research method, types of data and the results gain from the research.

3.2 Research Sample

Research focuses on a sub group of the Otago/Southland Region population, Central Otago/Queenstown Lakes, because of the geographical catchment and size this is an example of a predominantly urban-rural area of New Zealand. Community Coordinators in the Central Otago/Lakes area were consulted because they have an active interest in this research, and access to a wide range of community and socio-economic groups, that this research is focused on. As a result, the channels of communication noted in the Literature review of this paper were confirmed and it was agreed that distribution via inter-personal and impersonal channels was essential, to ensure there was no selection bias in accessibility to the survey.

3.3 Data collection.

To reach a population of 46,119 dispersed in an area of 18,675 km² a spoke and hub model of distribution was adopted. Printed copies of the surveys, and the accompanying information sheet, were distributed evenly across Central Otago/Queenstown Lakes via Community Centres, Hubs, Citizens Advice Bureau, and iSites, situated in Alexandra, Cromwell, Ranfurly, Roxburgh, Clyde, Queenstown, Wanaka, Arrowtown, Kingston and Glenorchy, along with the approved postcards inviting people to complete the online survey. Information sheets and the access link to the survey were emailed to all Arts, Sports, Community Networks and groups in the wider community across both districts. Access to the same was also provided via Community Pages on Facebook. The survey period of two months (March and April 2019), allowed

for responses in print from the extreme edges (Glenorchy, Kingston, Ranfurly and Roxburgh) of the survey area to the researcher. Two follow up communications were sent out after the survey was distributed to encourage further responses.

3.3.1 Survey.

The structure of the survey questionnaire used by Kostagiolas et al. (p.147) was identified as meeting the requirements of this research project, with the modifications detailed in the discussion below. The Kostagiolas et al survey was developed within the last ten years.

The survey questionnaire for this project was compiled as follows. The actual questionnaire is presented in Appendix A, Section 6.1.4.

Section A is made up of six multi-choice questions on the demographic variables of the population; age, education (cultural and cognitive capital), telecommunications access (Change in how information is accessed) as identified by Demiryürek (2010), Rehman, Muhammad, Mahood, Ruby and Bibi (2013); Kostagiolas, Souliotis and Boskou (2014); Mtega, Dulle, Malekani and Chaila (2014); Sousa, Nicolay and Home (2016), Aonngerthayakorn and Pongquan (2017); and questions on connectivity reliability based on both Schrader, Bidargaddi, Harris, Newman, Lynn, Peterson, and Battersby), including research and questions from the NZ Census 2013 on internet usage and residence.

Section A was followed by four sections (B - E) which used a 4-point Likert scale to assess information seeking behaviours used for problematic situations of everyday life. The values assigned to the four item Likert scale range from 1 = "not at all" indicating the lowest score to 4 = "a lot" which was assigned to

the highest score. The survey software enabled a slider to be used with a scale of 0-100 which was utilised to assist with survey completion.

Section B: Measures the level of importance of six everyday subjects which support the Savolainen (1995) current situation for life model. This is defined as:

The acquisition of various informational (both cognitive and expressive) elements which people employ to orient themselves in daily life or to solve problems... Such problems may be associated with various areas of everyday life, for example, consumption and health care. (p.266).

Respondents to the survey were asked to ranked six wellbeing and lifestyle indicators (health, job/employment, hobbies, politics, social, and education) by level of importance. Options were drawn from Cummins concept of wellbeing, and Fern's three categories, of defined life style: Actions (jobs, hobbies, fun), Belief (political, social). Health was included as an option because "use of the internet to deliver health related services and information is increasing" (p.1641). Health is also discussed as a consumer item by Ramsey et al. and Savolainen (1995, p.267), as a problem people regularly search for information on.

Section C: Measures the selection of information sources and channels used in solving everyday life problems as part of everyday life in the ELIS model (Figure 1,). This question targeted the frequency of use of specific information resources that might be conventional (e.g., printed material), interpersonal (e.g., consulting a colleague), and/or digital (e.g., internet usage), as outlined by Bello & Obinne, 2012 quoted in Aonngerthayakorn and Pongquan, 2017, p.25). Because the following channels are not reported as being used across the sub-region they were excluded from this section:

- The Central App which disseminates information to residents of Central Otago District Council (Central Otago District Council, 2018, p.15).
- Email as a mode of communication predominately used by Queenstown Lakes District Council (Queenstown Lakes District Council, 2018, p.82).

Section D: Assesses the importance of intervening variables indicated in the ELIS Model (situational factors, barriers, obstacles) in the respondents' environment. Barriers could be; personal, interpersonal, lack of infrastructure, lack of library service. The eight obstacles to information seeking behaviour including elements of information literacy which might have an impact on a respondent's ability to access information sources.

Section E: Assesses the overall degree of satisfaction with information usefulness It allows analysis of the respondents perceived satisfaction with the usefulness of information found for each of the resources used in Section C. While degree of satisfaction is subjective the literature on information seeking behaviour helps us to understand what satisfaction might mean for respondents. For example, Savolainen (2017, p.654) discusses the mix of a variety of sources and methods people use to address barriers to information access. The discussion highlights that if information is provided online which cannot be accessed, or level of personal skill is not there, then the assumption could be made that the resource will not be useful. Or in fact satisfying the information need or helping to solve the problem – are not satisfactory.

3.4 Data Analysis.

One hundred and five surveys were returned from .22% of the population over the two-month period the survey was made available. Of the responses that were received, 15 (13.33%) respondents completed printed copies of the

survey that were available from CAB's and Community Hubs. The assumption made for this study is that they were completed in print because of convenience to the respondent, as all selected internet as frequently used.

The analysis of demographic data consists of descriptive statistics in order to summarize the data on reported information behaviours. The data is grouped by educational level, access to online resources, and frequency of use.

Response to the questions on Age was predominately from the 30-60 age group, and is too homogenous to provide adequate variation and so has been discarded. Because Fern's wellbeing category for communication could be confused with use of the same terms in the context of information access it was absorbed into the social category, where any responses for fun were also placed.

Shortly after the survey was distributed the attack on two mosques in Christchurch took place. Given New Zealanders overall response to this shocking event, it has been assumed that responses to section B (the type of information which was seen as important) and section C (type of resource used to find information), were affected. Also, the largest local medical centre implemented and promoted online, and via social media, access to booking, repeat script and other services. Which may have affected the response to information needs, resources and frequency for health.

3.4.1 Non-respondents

As data gathered from self-selected respondents may not represent the opinions of the population, research was done to ascertain the reliability of the data in the general population. Miller and Smith (1983) suggest that comparing early and late respondents is a strategy to support reliability for the

sample. This strategy was employed and the comparison was made to see if there was a statistically significant difference in responses. As there were no difference late responders have been assumed to be reliable and typical of non-respondents and generalised to the sample.

3.4.1 Limitations

The main limitation to this research is the necessary limitation of geography. Because the research was intended to fill a gap in research on information seeking behaviours and barriers to that behaviour in an urban-rural population of New Zealand. This meant that the responses were limited to people currently living permanently in the Central Otago/Lakes area and excludes those visiting or residing temporarily. This was done in two ways; one every effort was made to contact local organisations and groups where normally resident people are active. Two a screening question was added to the questionnaire to screen out those who answered the survey but were not part of the target group. Although every effort was made to reach a broad cross section of people most responses are from the 30-64 age group. Which meant inferences could not be made across age groups. There was also a small number of respondents across most categories which meant there was limited ability to use inferential statistical methods.

3.4.2 Statistical Tests

The Mann-Whitney Wilcoxon was attempted to assess if two groups are the same against the alternative that one of them tends to have larger values. Spearman correlation which is employed for studying the direction of association between two variables, was also explored. However, the sample

size and response proved to be too small to provide reliable results.

Statistical data analysis was performed using JMP Statistical Discovery tool from SAS.

The results of this survey are analysed using mean percentage of scores.

Boone, Boone (2012), advise that if Likert questions stand-alone, analyse them as Likert-type items which indicates that modes, medians, and frequencies are the appropriate statistical tools to use. As the questions in the survey questionnaire stand-alone, they are reported singularly. Results have been analysed by the relative importance of items, rather than the absolute importance. The responses were analysed by comparing data between all items, using only ordinal information on the relative importance from the original response data. Thereby enabling broad analysis of the results on how preferences' change with the application of covariates.

Results from this analysis are discussed at the end of the results section.

For the purposes of this report only statistically significant results are reported.

3.5 Results

3.5.1 Survey Demographics³

The survey demographics are summarized in Table 1. As discussed in section 3.4.1 above, residence and length of residence have been excluded

³ Data in all tables in this section is from responses to the Finding wellbeing and lifestyle information survey.

from the table. Among the survey respondents 66 (73.3%) are aged between 30 – 64, 49 (55%) of respondents hold a bachelor’s degree or higher, 84(94.3%) hold a formal qualification. Access to the internet was reported as 81.9% of respondents with 39% of respondents also having a cell phone with internet capability. 72.4% of respondents use the internet every day.

Table 1 Survey Demographics.

Variables	Frequency	%
Age*		
18 or older	8	8.9
30 or older -64	66	73.3
65 or older	16	17.8
Education		
High school up to Year 13	11	12.4
Certificate	10	11.2
Diploma	25	28.1
Undergraduate Degree	23	25.8
Postgraduate Degree	26	29.2
Internet Access		
Consistent at home	86	81.9
Intermittent access at home	4	3.8
Internet capable cell phone	41	39.0
Internet usage		
Everyday	76	72.4
A few times a week	11	10.5
Rarely	1	1.0
Never	0	0.0

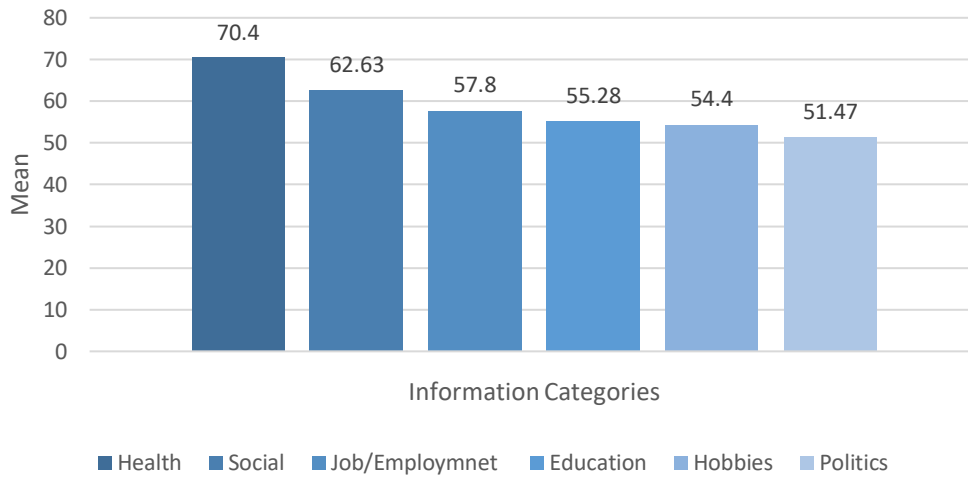
*Of the 105 who completed the survey 15 did not supply their age.

3.5.2 Information needs of respondents

Table 2 shows the mean% of the responses given by respondents in regard to their information needs which they self-identified as important over the last six months. As can be seen Health, Social, Jobs/Employment were respondents’ top three areas of interest followed by Education, Hobbies, and

Politics.

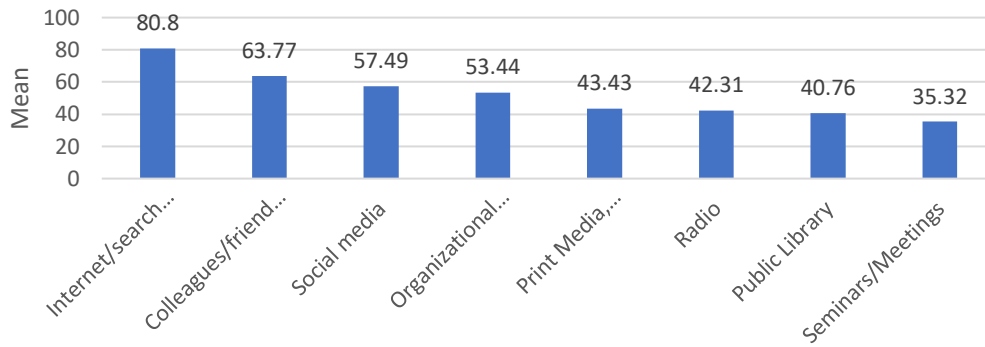
Table 2.
Survey results of residents perceived level of
Information importance



3.5.3 Level of resource usage.

Table 3 shows survey results for the information resources utilised by the respondents. Unsurprisingly the internet is the most utilised resource which two thirds of respondents used every day. Interpersonal information exchange is frequently utilised by respondents, Colleagues and friends and the semi-interpersonal category social media were more popular information resources than the Public library and Seminars/Meetings.

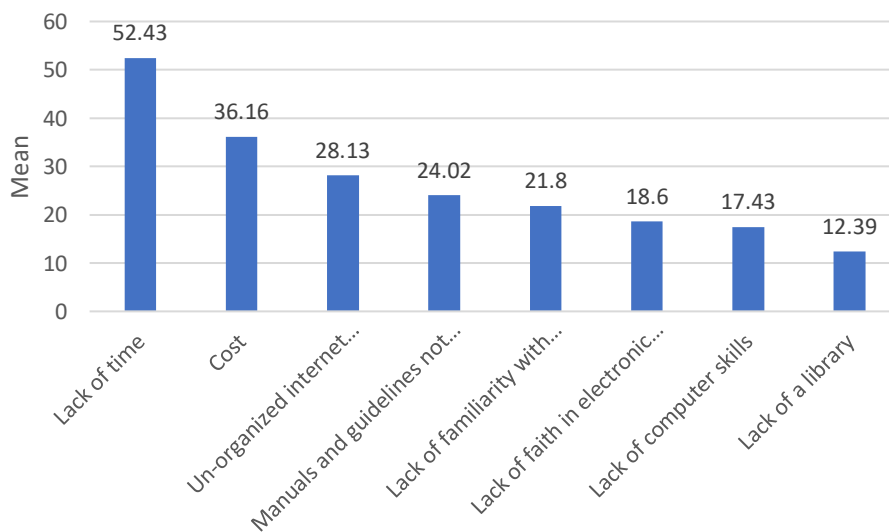
Table 3
Resource Utilistion



3.5.4 Obstacles when seeking information

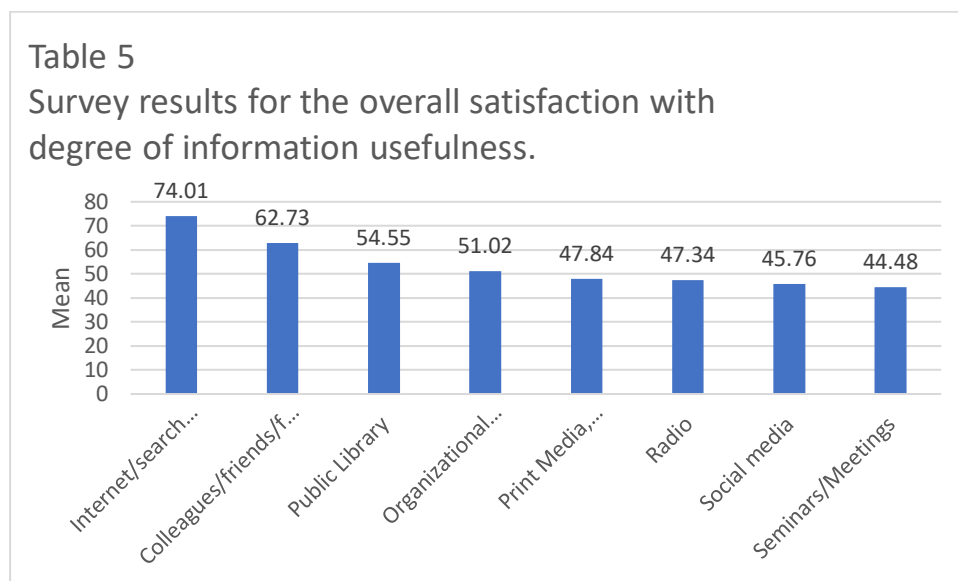
Table 4 presents the survey results in terms of the barriers respondents encounter when seeking information. The most important obstacles are; time, then cost, and the respondents' perception that the internet is un-organised. These barriers are followed in importance by information literacy issues such as lack of familiarity with information searching, lack of faith in information obtained electronically and respondents computer skills.

Table 4
Survey results for the importance of obstacles to information seeking.



3.5.5 Satisfaction with degree of information usefulness.

Respondents to this survey indicated that they were satisfied with the degree of usefulness of the information they found online (74%) and were less likely to be satisfied with Print Media, Radio, Social Media and Seminars Meeting, 3.38% difference between the lowest four.



The results of the survey suggest that even though respondents are more likely than the general population of New Zealand to have access to a cell phone just under half of respondents have access to a cell phone with internet capability. Seventy-two-point four percent of respondents use the internet everyday with 10.5% using the internet a few times a week, 81.9% that have consistent access. There is a possible residual 1% for whom an internet capable phone may be their only way of accessing the internet. RHĀNZ's concern regarding rural mobile connectivity as a factor in addressing the rural workforce crisis (2018, p.2), indicates we can assume this factor affects some of the everyday life of people living in locations classed as rural other, but not appear in the responses to the survey.

There is a negative association between respondent's utilisation of social media (57.4%) and perceived usefulness of the information found (45.76%). Respondents utilised Internet/search the most (80.8%), followed by Colleagues/friends (63.7%) with similar proportions finding the information there useful (62.7% to 63.7% respectively). When respondents used Public Libraries (40.7%) the information accessed was useful, indicated by a 13.5% increase in perceived usefulness to 54.5%.

The lowest level of education available in the survey were; completed high school to year 13, and certificate, which accounted for 21.8% of respondents. Of this group 99% responded that they lacked familiarity with information searching, 64% lacked computer skills, 80.3% lacked faith in electronic information, and 100% thought information on the internet was un-organised. In comparison the group holding under and post graduate qualifications (51%) the results are 39.6%, 30.9, 19.7, and 43% respectively.

Access to information is generally accepted as being affected by lack of time and money and the respondents showed very little variation in response on those two aspects. Perhaps unsurprisingly those who have an internet capable phone and consistent access indicated the highest score for lack of time (48.3%). Respondents who had intermittent access from home were more likely to think that the internet was un-organised (46.5%) and were also more likely to lack familiarity with information searching. Of those who used the internet infrequently 67% indicated that manuals and guidelines not being available was an obstacle. However, those who use the internet frequently (a few times a week) also indicated levels of unfamiliarity, with 38% seeing the internet as un-organised, 30.5% lacking familiarity, 27.3% lacking

computer skills and 23% looking for manuals or lacking faith in electronic information.

4 Discussion

Sources of wellbeing and lifestyle information are available to people living in the urban-rural area where this research took place. Although Internet, Colleagues/friends and family and social media were the most used sources of information, all categories of resources are used, radio being the lowest at 35.32%. The mix of interpersonal and impersonal sources of information reflect those typical for rural areas as reported by local councils and discussed by (Bello & Obinne, 2012).

Usefulness is subjective and respondents' preferences are shaped by experience in information seeking across interpersonal and impersonal sources, the respondents' preference for impersonal internet/searching is clear. Whether this is for initial background information or another reason is unclear and could form the basis for further research. That the second (Colleagues/friends/family) and third (public library) preferences are interpersonal are understandable if the information sort is in regard to, for example, health. Channels modes and information delivery favoured by the respondents showed a preference for online access to information rather than at a set point such as, a seminar or meeting, or library. This maybe because of the increasing availability, and perceived usefulness, of information found online (InternetNZ). The gradual transition of access to information and services, such as health, to be delivered online. For example, in the form of telemedicine. The limited availability of interpersonal channels in urban-rural

areas, as reported by Fearnley et al., indicate that there may be some challenges ahead for the population and health providers.

The increasing role of online access to information is changing the way people interact with information. As Kostagiolas et al. (p143) discuss the internet is available anytime, anywhere and increasingly anyplace. However, the internet can also be a barrier. Initially it was thought that access to technological resources, and therefore online resources, for the population of the research area were barriers due to distance, reliability of telecommunication networks, age and educational levels of communities. The results indicate that while distance and reliability of telecommunication networks are factors of access, they are not obstacles to the respondents' access to information.

This discovery supports Smith and Duman's assertion that the way people find information has changed and is evident in the respondents preference for information seeking to be online rather than face to face. However, evidence provided by Nguyen et al. was consistent in the respondents' preferences in regard to level of education, and amongst those who use the internet less frequently than every day. Respondents' preferences also confirms Schrader et al's contention regarding general information technology skills and confidence, in the context of the area of this research, and Demonte et al. research regarding low levels of digital literacy in the urban-rural populations. Eriksson-Backa's study of elderly people (2014, as cited in Savolainen, 2017, p.650), "found that education plays a significant role in understanding health-related information, seeking and using" and went on to say that "patient-related information is already aimed at people with a fairly high level of education who also appear to be more confident in their IL(Information

Literacy)”. Which suggests that those who were not active and confident information seekers encountered barriers to obtaining information. Some sectors of the community may need to be supported to ensure what appears to be a persistent digital divide does not have a negative impact.

The ELIS model indicates that the selection of channels and sources are affected by obstacles. Because the model is grounded in problem solving for everyday life situational factors such as proximity of information resources, and accessibility is important. The processes of searching and evaluating information takes time and so selection of source could be seen as affected by convenience. That is until satisfaction with the usefulness of resources falls off. The affect is illustrated where social media was highly utilised in table three but drops in percentage of perceived usefulness. The reverse is true of public libraries where utilization is less than half of respondents and satisfaction with information is ranked third preferred source after internet and colleagues’ friends and family.

5. Conclusion

This research fills a gap in the literature on information seeking behaviour, source preference usefulness of information found and obstacles in that search. It makes available information on this behaviour in an urban-rural sub-region of Otago/Southland. The Central Otago/Queenstown Lakes area is well known in New Zealand for its tourism options wine and scenery, little is known about how normally resident population seek information and what barriers they experience when they seek information in everyday life situations. Health was shown to be the main information category searched for by respondents. Also, that the group with the lowest level of education and

those using the internet less than very frequently, are likely to have had difficulty accessing that information online. It appears that this due to information skills that are under developed. Although there are agencies which can support development of these skills this group may prefer to learn in a self-directed way using manuals and guidelines, or receive their information face to face.

This research was intended as a quantitative overview of the connection between information seeking barriers and information sources. More detailed information can be obtained using qualitative methods, and is an area of possible further research. The sub-region used for the population sample could be seen as representative of other similar sub-regions in New Zealand however this was not part of the research. The research could be replicated and improved on if research into ELIS is required with a focus on wellbeing and lifestyle.

There appears to be a shift in preference from Social Media to Public Libraries when respondents were asked about the usefulness of information found. The finding is limited in that we can only make assumptions about the reason for the shift in preference because of the small number of responses to the survey. However, this could be an area for further research. Information providers need to be aware that it is necessary to continue to provide information in print and face to face until semi-interpersonal channels are seen as providing information that is satisfactorily useful across all groups.

6. Appendices

6.1 Appendix A: Information Sheet, Postcard and Survey

6.1.1 Online Communication and Promotion

We are keen to hear from a diverse range of people living in Central Otago and Queenstown Lakes about where you find information on Wellbeing and Lifestyle, and how useful that information is to you when you find it. This research aims to understand the mix of information sources available to residents, how easy the sources are to access and whether it was worth the effort.

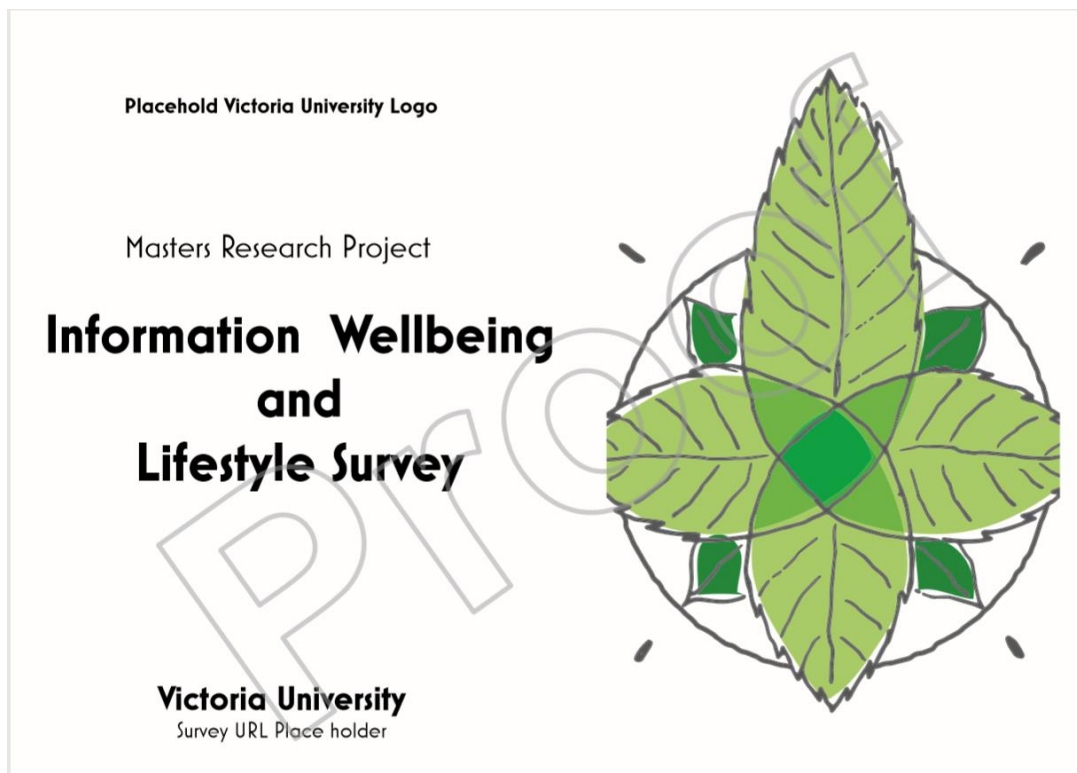
You have been invited to participate because you live in the Central Otago/Queenstown Lakes Area. If you agree to take part you will complete an anonymous survey. The survey will ask you questions about how and where you find information to support your wellbeing and lifestyle. The survey will take you about ten minutes to complete.

Results will provide an indication of the barriers to finding useful information for residents and provide data from the community, creating a base from which further work on information access can be done. We anticipate that your responses will inform development of resources which better meet your information seeking needs.

Link to survey: <https://tinyurl.com/WellnessLifestyleInfoSurvey>

The survey will run from 4 March to 25 April 2019. Please contact Jo McElroy at mcelrojose@myvuw.ac.nz

6.1.2 Postcard Proof A6.



Victoria University

SCHOOL OF INFORMATION MANAGEMENT
TE KURA TIAKI, WHAKAWHITI KÖRERO
LEVEL 4, RUTHERFORD HOUSE, PIPITEA CAMPUS, 23 LAMBTON
QUAY, WELLINGTON
PO Box 600, Wellington 6140, New Zealand

Phone 64-4-463 5103 **Email** sim@vuw.ac.nz

Survey URL Place holder

How do you find information about wellbeing and lifestyle?

We are keen to hear from a diverse range of people living in Central Otago and Queenstown Lakes about where you find information on Wellbeing and Lifestyle, and how useful that information is to you when you find it. This research aims to understand the mix of information sources available to residents, how easy the sources are to access and whether it was worth the effort.

Results will provide an indication of the barriers to finding useful information for residents and provide data from the community, creating a base from which further work on information access can be done. We anticipate that your responses will inform development of resources which better meet your information seeking needs.

mcelrojose@vuw.ac.nz

6.1.3 Information for participants

Finding wellbeing and lifestyle information

INFORMATION FOR PARTICIPANTS

You are invited to take part in this research. Please read this information before deciding whether or not to take part. If you decide to participate, thank you. If you decide not to participate, thank you for considering this request.

Who am I?

My name is Jo McElroy and I am a Masters student in Information Studies at Victoria University of Wellington. This research project is work towards my project.

What is the aim of the project?

This project is being undertaken to discover the sources and methods used by people living in Central Otago/Queenstown Lakes area when accessing information, they require to resolve wellbeing and lifestyle issues.

This research has been approved by the Victoria University of Wellington Human Ethics Committee 27025.

What will happen to the information you give?

This research is anonymous. This means that nobody, including the researchers will be aware of your identity. By answering it, you are giving consent for us to use your responses in this research. Your answers will remain completely anonymous and unidentifiable. Once you submit the survey, it will be impossible to retract your answer. Please do not include any personal identifiable information in your responses.

What will the project produce?

The information from my research will be used in the master's project, a report to Central Otago/Queenstown Lakes Community Coordinators and academic publications and conferences.

If you have any questions or problems, who can you contact?

If you have any questions, either now or in the future, please feel free to contact me or my supervisor:

Student:

Supervisor:

Name: Jo McElroy
RLIANZA,

University email address:
mcelrojose@vuw.ac.nz

Name: Dr Philip Calvert

Role: Senior Lecturer

School: Information Studies

Phone: +64 4 463-**6629**

Philip.Calvert@vuw.ac.nz

Human Ethics Committee information

If you have any concerns about the ethical conduct of the research you may contact the Victoria University HEC Convenor: Dr Judith Loveridge. Email hec@vuw.ac.nz or telephone +64-4-463 6028.

6.1.4 Survey questionnaire: Finding wellbeing and lifestyle information survey

Thank you for agreeing to take part in this anonymous survey on information-seeking behaviour of residents living in the Central Otago/Queenstown Lakes area, in relation to wellbeing and lifestyle.

A. General details.

A1. Age

- 18 or older - 29
- 30 or older – 64
- 65 or older

A4. The highest level of education achieved.

- Completed High School to Year 13
- Certificate
- Diploma
- Undergraduate Degree
- Post graduate

A5. Access to online resources, please select each answer that applies:

- I have consistent access to the internet at home
- I have intermittent access at home
- I have a cell phone with internet capability

A 6. How often do you look for information online?

- Very Frequently (everyday)
- Frequently (few times a week)
- Occasionally (a few times every month)
- Rarely
- Never

A.7 Do you usually reside in the Central Otago/Queenstown Lakes Area?

- Yes, all year round
- Yes, one to six Months a year
- Yes, six to nine Months a year
- Yes, nine to twelve months a year.

A.8 How long have you resided in the Central Otago/Queenstown Lakes Area?

- <One year
- One to two years
- Two to five years
- Five to Ten years
- >Ten years.

B. What was the level of importance of the following information needs in the last six months?

	Not at all	A little	Moderately	A lot
Health				
Job/employment				
Hobbies				
Politics				
Social				
Fun				
Communication				
Education				

C. What is your level of usage of the following information resources?

	Not at all	A little	Moderately	A lot
Public library				
Colleagues/friends/Family				
Scholarly databases				
Internet/search engines (i.e., Google)				
organization portals (national & international)				
Social media				
Print Media, Newspapers, Magazines etc.				
Seminars/Meetings				
Radio				

D. What was the level of importance of the following obstacles when seeking information?

	Not at all	A little	Moderately	A lot
Lack of time				
Cost				
Lack of a library				
Lack of familiarity with information searching				
Lack of computer skills				
Lack of faith in electronic information				
Un-organized internet information				
Manuals and guidelines				
Seminars				

E. What was your overall satisfaction with the degree of information usefulness?

	Not at all	A little	Moderately	A lot
Public library				

Colleagues/friends/Family				
Scholarly databases				
Internet/search engines (i.e., Google)				
organization portals (national & international)				
Social media				
Print Media, Newspapers, Magazines etc.				
Radio				
Seminars/Meetings				

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