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FINANCIAL EDUCATION AND RESEARCH CENTRE

HOW YOUNG NEW ZEALANDERS LEARN ABOUT PERSONAL FINANCE: A LONGITUDINAL STUDY

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FINANCIAL EDUCATION AND RESEARCH CENTRE

The Financial Education and Research Centre was founded by Westpac New Zealand and Massey University to improve New Zealanders' knowledge, attitudes and behaviour towards money matters. Westpac and Massey University are committed to improving financial literacy for the benefit of the country and this specialist centre aims to improve the quality and access of education on personal finance and identify knowledge gaps and how they can be addressed. Key projects include a 20-year longitudinal study that will follow up to 300 New Zealanders to understand their needs for financial knowledge at different life stages, a multi-level certification programme for personal financial educators and the New Zealand Retirement Expenditure Survey – a joint initiative between the centre and savings industry body Workplace Savings NZ to establish guidelines for 'modest' and 'comfortable' retirement.

ABOUT THE AUTHORS

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DISCLAIMER

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SURVEY AT A GLANCE

This report covers the first stage in a 20-year longitudinal study designed to contribute to better understanding of issues related to the level of financial literacy in New Zealand. In particular, the study explores New Zealanders' experience of financial education and its contribution to their financial literacy. While the study builds on previous studies, in New Zealand and around the world, its approach differs by taking a cohort of young New Zealanders, aged 18-22, and following them over a 20-year period at 5-yearly intervals.

The key focus for the study is the question of how personal experience of financial education is related to New Zealanders' financial literacy. This first stage provides a baseline of the participants' financial knowledge and their experience of financial education, both formally and informally.

The key features of the study are:

- The study comprises a cohort of 266 New Zealanders aged 18-22 years[1]
- A baseline survey of participants' financial literacy and experience of financial education has been undertaken
- This stage of the study collected data in two ways.
    - The initial data collection comprised an online questionnaire of 44 questions, including standard financial literacy questions
    - The secondary data collection comprised face-to-face interviews, which allowed more in-depth information to be collected from participants
    - Participants completed the online questionnaire immediately prior to the interview, but the responses were not available to the interviewer
- Participants were drawn from the New Zealand electoral rolls, on a national basis but with some regional clustering for practical reasons. The locations were: Auckland, New Plymouth, Palmerston North, Wellington, Nelson, and Christchurch.

RESULTS AT A GLANCE

The key findings discussed in this report are:

- There is a relatively low level of financial knowledge compared to studies in other countries.
- Young New Zealanders lack opportunities for formal financial education to assist their development of sound personal financial management skills.
- It is evident that young New Zealanders are exposed to informal financial education, such as the promotions undertaken by the Commission for Financial Literacy and Retirement Income, and that this is having an impact although individuals may not recognise the influence.
- Parents remain the key source of informal financial education for young New Zealanders, although in some cases the parents' own personal financial knowledge may be limited, restricting their ability to provide the knowledge required by their children.
- Young New Zealanders often know the key elements of good financial management, such as the need to save, but may not be putting it into practice.
- Young New Zealanders are scared of debt, particularly in the form of credit cards

1 The results for a distinct sub-cohort of 52 young New Zealanders who identify as being of Ngāi Tahu descent are reported separately – the report is available at http://www.massey.ac.nz/massey/fms/Colleges/College%20of%20Business/School%20of%20Economics%20&%20Finance/FinEd/Research/152306%20Personal%20Finance%20-%20FinED%20v3.pdf

INTRODUCTION

Financial literacy is a concept receiving increasing attention in New Zealand, and around the world, as concerns develop about the level of financial knowledge in the population and the impact this has for individuals as well as for society more generally. Despite the extensive quantities of literature now written on the subject, a comprehensive, agreed definition has yet to be found. O'Connell (2009) suggests financial literacy "can be pictured as a spectrum of skills and abilities that help individuals make well-informed decisions about managing their money throughout life" (p. 3). A more distinct definition of financial literacy as "a combination of awareness, knowledge, skill, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual financial wellbeing" was included in a recent pilot study for the OECD (Atkinson & Messy, 2012, p. 14). This definition represents a reasonable reflection of the key elements that are generally agreed should be included. It is important, in particular, to note that this definition goes beyond financial knowledge to include attitudes and behaviour; financial capability is often used in place of financial literacy because it more clearly includes these additional elements beyond knowledge.

The focus on financial literacy reflects the importance attached to it. According to ANZ (2011), "Financial literacy is an important requirement for functioning effectively in modern society with trends in retirement income policies, work patterns and demography suggesting its importance can only increase in the years ahead" (p. 1). In the Australian National Financial Literacy Strategy, ASIC (2011) expands on the importance of financial literacy suggesting it affects individuals' quality of life, the opportunities they can pursue and their sense of security, as well as society's overall economic health. This view is supported by O'Connell (2009), who argues an improvement in personal financial wellbeing should result from greater financial literacy which results in better-informed decisions. ANZ (2011) notes the G20 has also emphasised the importance of financial literacy in supporting financial inclusion, which enhances community wellbeing. Further acknowledgement comes from the inclusion of financial literacy in the OECD's Programme for International Student Assessment (PISA) which reflects PISA's "position that financial literacy is now recognized as an essential skill to be able to operate in today's economy" (p. 13).

NEW ZEALAND

Like Australia, New Zealand has a National Strategy for Financial Literacy, which provides a definition of financial literacy as "the ability to make informed judgements and make effective decisions regarding the use and management of money"[2]. It was launched in 2008, and has an overarching goal of achieving a financially literate population in New Zealand by setting out a high-level framework that outlines a clear direction for the country. Every six months, an Advisory Group reports progress in relation to the Strategy, to the Minister of Finance, stakeholders and the public.

New Zealand also has The Commission for Financial Literacy and Retirement Income[3], an autonomous crown entity that was established in 1993. The Commission "works to improve the financial wellbeing of all New Zealanders throughout their lives"[4], with one of its best known activities being the Sorted website, which is described as "the Kiwi Guide to Money"[5]. One of the goals of the Commission is improving the financial literacy of New Zealanders, and it has responsibility for promoting the National Strategy for Financial Literacy. Other Commission activities related to this goal include: a biennial financial literacy summit, with the most recent held in June 2013; Money Week, with the inaugural event held in September 2012; hosting and co-ordination of Financial Literacy Community of Practice meetings; and, international collaboration.

2 http://www.cflri.org.nz/financial-literacy/national-strategy/about-financial-literacy

3 The Commission for Financial Literacy and Retirement Income was known as the Retirement Commission until October 2011. For consistency, the new name will be used, even in reference to events where the old name was in use.

4 http://www.cflri.org.nz/about- http://www.cflri.org.nz/about-us

5 https://www.sorted.org.nz/

Three studies, discussed in the next section, have been commissioned by the Commission for Financial Literacy and Retirement Income to understand the level of financial literacy in New Zealand. The ANZ studies comprise a financial knowledge survey repeated in 2006, 2009, and 2013. The first study found that "Overall New Zealanders have a reasonable level of personal financial knowledge" (Colmar Brunton, 2006, p. 8). However, the report noted that while "most people have a good basic understanding of financial concepts, there are some topics, such as compound interest, mortgages and investment that are not understood very well." (p. 8). The survey also found a "strong correlation between financial knowledge and socio-economic status … [which has also] been observed in studies conducted in other OECD countries" (p. 8). The 2009 survey noted a significant improvement in financial knowledge, although this had not translated into a significant change in the number of New Zealanders saving. The 2013 survey found that the overall level of financial knowledge of New Zealanders has not changed since 2009.

More recently the Commission for Financial Literacy and Retirement Income has developed a financial literacy strategy for Māori, which was released in late 2010 and updated in 2012. Subsequently, the Commission has been working with the Ministry of Pacific Island Affairs to develop a Pacific Financial Literacy Framework aimed at addressing financial literacy issues in Pacific communities, which will be accompanied by a 5 Year Action Plan.

FINANCIAL EDUCATION

The National Strategy for Financial Literacy describes financial education as the "process which leads to financial literacy" (National Strategy for Financial Literacy Advisory Group, 2012, p.4). A more detailed definition of financial education is provided by the OECD as "the process by which financial consumers/investors improve their understanding of financial products and concepts and, through information, instruction and/or objective advice, develop the skills and confidence to become more aware of financial risks and opportunities, to make informed choices, to know where to go for help, and to take other effective actions to improve their financial wellbeing (cited in National Strategy for Financial Literacy Advisory Group, 2012).

Financial education is important for its contribution to improving financial literacy. In New Zealand, the National Strategy for Financial Literacy and the associated action plan are aimed at encouraging a collaborative approach, to realize the greatest value from the work being done within New Zealand so "all New Zealanders have the opportunity to benefit from financial education and information" (National Strategy for Financial Literacy Advisory Group, 2012, p. 3). However, "there is scope to improve the evaluation of the effectiveness of financial education" (O'Connell, 2009, p. 11).

The extent of financial education in New Zealand is limited. O'Connell (2009) explains estimates of the provision of financial education in New Zealand schools "suggests around 2% of New Zealand schoolchildren aged 11-12, 5% of those aged 13-15 and 8% of those aged 16-18 receive some financial education (around 25 hours a year for the younger age groups, 100 hours a year for the older age groups)" (p. 15). The other large financial education programme in New Zealand, identified by O'Connell (2009) is the activities of the Commission for Financial Literacy and Retirement Income, with a key measure of its coverage being that 24% of New Zealanders aged over 15 can recall visiting the *Sorted* website.

THIS STUDY

This study is intended to contribute to a better understanding of issues related to the level of financial literacy in New Zealand, and therefore to assist with improving financial literacy and levels of savings for New Zealanders. In particular, the study seeks to understand New Zealanders' experience of financial education and its contribution to financial literacy. This study builds on previous studies in New Zealand and around the world, as discussed in the next section. However, this study differs from other studies, due to its approach of taking a cohort of young New Zealanders and following them over a 20-year period. This longitudinal element is unique in the New Zealand context, and will enable tracking of pathways to improved financial literacy over time.

PRIOR RESEARCH

Financial institutions continue to expand and develop the range of products and services they offer in response to opportunities provided by new technology, demand from consumers, and competition. As a result, consumers face an increasingly complex choice of products and services to meet their financial needs (Cole, Paulson & Shastry, 2012). Consumers therefore need a level of financial literacy that enables them to make the sort of informed choice that Hilgert, Hogarth & Beverly (2003) argue is "essential to an effective and efficient marketplace" (p. 309). Hilgert et al also make the point that individuals are being required to take increasing responsibility for their own financial security, with the shift from defined benefit to defined contribution retirement schemes.

Financial literacy is a concern in New Zealand, as discussed in the previous section, but it is also a concern in other countries. International research has demonstrated that financial *illiteracy* is widespread, even in well-developed countries such as Germany, the Netherlands, Sweden, Japan, Italy and the United States, as well as New Zealand (Lusardi & Mitchell, 2011). Financial literacy is important because it affects financial decision-making, with ignorance of basic financial concepts linked to failing to plan for retirement, non-participation in the stock market, and poor borrowing behaviour, according to Lusardi (2009).

Financial education is seen as one solution to the problem of financial illiteracy. Financial education has grown in importance for educators, community groups, businesses, government agencies, and policymakers since the 1990s (Hilgert et al, 2003), because it is important for communities as well as for individuals and their families. The importance of financial education comes from the improved ability of well-informed, financially educated consumers to make good decisions for their families, thereby increasing their economic security and wellbeing. The financially secure families that result "are better able to contribute to vital thriving communities and thereby foster further community economic development" (p. 309).

Shim, Barber, Card, Xiao & Serido (2010) suggest that "financial literacy is an essential component of a successful adult life" (p. 1467), so it is important that young people are provided with opportunities to gain the financial literacy they need as they move into adulthood. Mitchell, Lusardi & Curto (2009) suggest young people can be burdened with high levels of student loans and/or credit card debt, which can hinder their ability to accumulate wealth.

WHAT HAVE OTHERS DONE TO UNDERSTAND FINANCIAL LITERACY IN THEIR COUNTRY?

Studies have been undertaken in New Zealand, and around the world, in an attempt to understand financial literacy.

In New Zealand, there have been two key studies of financial literacy. The first comprises three national surveys of financial knowledge commissioned by the Commission for Financial Literacy and Retirement Income with the support of ANZ and reported in 2006, 2009 and 2013. The 2006 survey was the benchmark, with the 2009 and 2013 surveys as follow-ups. The 2009 survey "tested the following areas of personal financial knowledge: money management, budgeting, goal setting, financial planning, debt management, home loans and mortgages, managing risk, savings, planning for retirement and investing" (Colmar Brunton, 2009, p. 7). The scope of the survey was broadened in 2013 "to look at financial behaviour as well as financial knowledge; to provide a more complete picture of New Zealanders' financial literacy" (Colmar Brunton, 2013, p. 1). The 2009 study found a significant improvement in New Zealanders' overall financial knowledge, although the Lowest knowledge group had not changed significantly. The disparities in financial literacy found in 2006 were much less significant in the later surveys. Disparities in financial attitude existed and were most evident between the Advanced and the Lowest knowledge groups, being the two most distinct groups in terms of financial knowledge. People were described as more financially uncertain and vulnerable in the 2009 report. The 2013 survey found no change in the overall level of financial knowledge since the 2009 survey, although the results indicated some significant shifts had occurred with respect to specific facets of financial knowledge (Colmar Brunton, 2013).

The other key New Zealand study is the ANZ Ngāi Tahu Survey from 2010, which was commissioned by Te Rūnanga o Ngāi Tahu, with support from the Commission for Financial Literacy and Retirement Income. The purpose of this survey was to provide a benchmark of financial knowledge for members of Ngāi Tahu, in comparison with all New Zealanders. Financial knowledge of Ngāi Tahu was found to be consistent with the national results, including the sizes of the Lowest and Advanced knowledge groups (Colmar Brunton, 2010).

ANZ has also been involved in studies of financial literacy in Australia. The most recent was completed in 2011, which was the fourth in the series that started in 2003. The results were "consistent with people learning and having more exposure to financial products and transactions as they move through their lives" (ANZ, 2011, p. 2). The study found education has an association with some behavioural indicators of financial literacy, which suggests it is important in some areas, such as choosing financial products and staying informed, but not others. The survey also identifies groups where lower levels of financial literacy are more likely to be found, with those groups being very similar to those found in earlier surveys. One of those groups was people under the age of 25 years. The 2011 survey found some changes compared to earlier surveys, including support for the view that "Australians have become more cautious in their financial attitudes and behaviour since the GFC" (p. 3).

Another financial literacy study in Australia was commissioned by the Financial Literacy Foundation in 2007. That survey found Australians felt comfortable about their basic money management, but were less confident about more complex issues such as investment and retirement planning, and they saw value in learning about these more complex issues. However, their general confidence around basic money management was not matched by the standard of their application of money management skills in practice (Financial Literacy Foundation, 2007).

Several studies have been undertaken in the United States. The National Survey is part of the National Financial Capability Study commissioned by the FINRA Investor Education Foundation, in consultation with the U.S. Department of the Treasury and the President's Advisory Council on Financial Literacy. The research objectives for the overall study "were to benchmark key indicators of financial capability and evaluate how these indicators vary with underlying demographic, behavioural, attitudinal and financial literacy characteristics" (FINRA Investor Education Foundation, 2009, p. 24). The National Survey findings painted "a troubling picture of the current state of financial capability in the U.S. adult population" (p. 23).

Another useful United States survey is the APLUS (Arizona Pathways to Life Success for University Students) project at the University of Arizona, undertaken with the support of the National Endowment for Financial Education. The APLUS Survey is a longitudinal study that explores "the connections between financial success and wellbeing in a diverse group of first year college students" by examining "the factors that help shape students' financial attitudes and behaviours and, in turn, how those attitudes and behaviours affect their current and future success in life" (Shim et al, 2009, p. 3). The first wave of data was collected in early 2008, with a second wave of data collected in late 2010. In between these two waves of data collection, an additional, originally unplanned, collection of data was undertaken in early 2009 to understand the effects of the global financial crisis. The majority of students in the study appeared to be fairly financially healthy but a small percentage were found to be at risk for financial difficulties.

Also in the US, financial literacy among high school students has been measured by the Jump$tart Coalition since 1997, providing a widely referenced resource on what young people do and don't know about personal finance (Taylor and Wagland, 2011). Despite increasing emphasis and coverage of personal finance at school, the coalition has reported declining competency in its recent reports (Taylor and Wagland, 2011).

An exploratory study to measure levels of financial capability in the UK was commissioned by the Financial Services Authority in 2005. The study "found clear indications that individuals may be particularly capable in one or more areas, but lack skills or experience in others" and were also "able to identify those characteristics most strongly associated with low levels of financial capability" (Atkinson, McKay, Kempson & Collard, 2006, p. 9).

The OECD International Network on Financial Education undertook a pilot study across 14 countries on four continents in 2010-2011. The study sought to help in the development of a survey instrument that could be used "to capture the financial literacy of people from very different backgrounds in a wide range of countries" (Atkinson & Messy, 2012, p. 6). In each of the countries involved, a sizable proportion of the population was found to lack financial knowledge, with wide variations in financial attitudes.

FINANCIAL EDUCATION

One way of dealing with inadequate levels of financial literacy is financial education, which can take many forms. O'Connell (2009) explains not all forms of financial education would be necessarily be described as 'education' as the term is usually used. To illustrate this point she gives examples of financial education, which include "a retirement seminar at work, a budgeting workshop in the community, or websites giving information" (p. 9).

Some financial education does take place in a formal education environment. In Australia, for example, "the government has emphasised the need for financial literacy education to begin in schools " and the Australian National Financial Literacy Strategy has a focus on "incorporating financial education through the existing school curriculum" (Taylor & Wagland, 2011, p.2). Inclusion of financial education in the school curriculum has been the subject of some debate, but O'Connell (2009) argues that other countries have gone further by making financial education mandatory in their schools, and providing the resources required to enable this outcome. Romagnoli and Trifilidis (2013) suggest "schools may be the ideal channel for delivering financial education" (p. 7), with their reasons being that it ensures equal access, addresses financial education at a life stage when the recipients are most receptive, and offers organizational and logistical advantages.

Lusardi (2003) showed that seminars foster savings, particularly for those with low education and those saving little. She also finds that financial and total net worth increase sharply for families at the bottom, in terms of wealth distribution, as well as those with low levels of education, when financial education is offered. However, there are other potential benefits from financial education programs, which are more difficult to measure, such as "avoiding being taken advantage of and confidence in making financial decisions" (Lusardi, 2008, p.30). Lusardi (2008) also suggests individuals may learn to appreciate the value of financial advice or gain skills that enable them to more effectively interact with advisers and financial intermediaries as a result of financial education.

Additional education on financial matters can come by learning from experience, and Hilgert et al (2003) suggest this can include learning from the experience of others. They argue that participation in classes and seminars, as well as conversations with family and friends is one way of learning about, and from, others' experiences.

Disappointingly, Chen and Volpe (1998) report that prior studies were consistent in finding that high school students are not receiving good fundamental personal financial education. Mandell (1997) concludes, "students are leaving schools without the ability to make critical decisions affecting their lives" (cited in Chen & Volpe, 1998, p. 108). This view is supported by Perry & Morris (2005) who report young people in the United States leave school without basic personal finance skills, which puts them at risk of becoming adults with excessive debt or inadequate savings or face bankruptcy.

An important finding reported in Wave 2 of the APLUS study, is the importance of ongoing financial education. The study finds those with cumulative education know more about personal finance as well as reporting more positive behaviour. In a related finding, the study also documents a snowball effect whereby earlier financial education increases the likelihood of later financial education exponentially, with the latter including informal education (Shim & Serido, 2011). Bernanke (2011) also comments on the need for ongoing financial education, arguing "financial education must be a life-long pursuit that enables consumers of all ages and economic positions to stay attuned to changes in their financial needs and circumstances and to take advantage of products and services that best meet their goals" (p. 2).

Work done by Van Rooij, Lusardi & Allessie (2011a) "strengthens the case for investing in economics education of the young, as this might be an important driver in increasing overall levels of financial knowledge" (p. 605). Shim et al (2010) suggest that including experiential components in financial education programs may make them more successful, because they find financial knowledge is increased through experience and education.

However, it is important to acknowledge that the evidence of the value of financial education is not overwhelming, with some studies questioning whether financial education is an effective mechanism to improve financial outcomes. For example, Hastings, Madrian, & Skimmyhorn (2012) question the direction of causality between financial literacy and economic outcomes, or even whether "some underlying third factor (e.g., numerical ability, general intelligence, interest in financial matters, patience) contribute[s] to both higher levels of financial literacy and better financial outcomes?" (p. 15). Similarly, while Willis (2013) acknowledges some studies find "a positive correlation between financial education and financial knowledge or between financial knowledge and financial outcomes" (p. 125), she argues there is no strong empirical evidence to validate the theory that financial education leads to financial literacy then to good financial behaviour and finally to household financial wellbeing.

INDIVIDUAL BENEFITS OF IMPROVED FINANCIAL LITERACY

The importance of financial literacy comes from the benefits that accrue to individuals from having increased financial knowledge. In their study, Shim et al (2010) find financial knowledge played an important role in predicting financial attitudes, and those attitudes in turn predicted healthy financial behaviours. This "supports the hierarchical relationship of knowledge-attitude-behaviour" (p. 1466).

More specifically, van Rooij et al (2011a) find retirement planning is more likely in more financially knowledgeable households. This is of increasing importance given growing concerns around the availability and adequacy of public pensions internationally. In related findings, Lusardi & Mitchell (2013) report studies show those with greater financial knowledge "are also better informed about pension system rules, pay lower investment fees in their retirement accounts, and diversify their pension assets better" (p. 33).

Financial literacy has also been found to be associated with debt use and management. For example, Disney and Gathergood (2013) show individuals participating in consumer credit markets generally have lower levels of financial literacy, while Dick & Jaroszek (2013) find "financial literacy is in fact a crucial determinant of the use of credit products" (p. 20). Lusardi & Mitchell (2013) suggest the greatest effects of financial literacy are found on the liability side of a household's balance sheet. Mitchell et al (2009) report implications of poor financial literacy found in other studies include less participation in the share market and lower likelihood of wealth accumulation and effective wealth management.

SOCIETAL BENEFITS OF IMPROVED FINANCIAL LITERACY

As noted above, it is recognised that the benefits of improved financial literacy accrue initially to the individual. However, there is also widespread acknowledgment of the benefits of greater financial literacy for society and the economy as a whole. Surowiecki (2010) notes that the point of financial education is to help people avoid the disasters and day-to-day choices that erode their bank accounts, rather than being intended to turn the average American into Warren Buffett. He suggests that the difference between knowing a little about one's finances and knowing nothing can represent hundreds of thousands of dollars over an individual's lifetime, and then argues that the cost to society can be far greater.

The troubling level of financial capability found in the National Survey report, in FINRA Investor Education Foundation (2009), was described as being important "for the United States as a whole, particularly in tough economic times", (p. 23), as well as being acknowledged as being important for the individuals themselves, i.e. those who demonstrate low levels of financial capability. The report noted that the cost of poor financial decisions is "often passed on to all Americans through higher prices for financial products, the diversion of economic resources and greater strains on existing social safety nets" (p. 23).

Concern has also been expressed about the issues of financial illiteracy in Australia. ASIC (2011) explains "Improved financial literacy can increase economic participation and social inclusion, drive competition and market efficiency in the financial services sector, and potentially reduce regulatory intervention." (p. 5). A report on financial literacy in Australia is one of the few documents that attempts to quantify the social benefits expected from increasing the level of financial literacy in the population (Commonwealth Bank Foundation, 2011). This report estimates that an improvement to the financial literacy of the lowest quartile of the population to the top of that quartile would lift the annual income of the least financially literate portion of Australia's population "by 10%, create 15,000 jobs and increase Australia's gross domestic product by $6.2 billion annually over the long term" (p. 5). This means "financial literacy is a matter of economic significance leading to improved decision-making, greater productivity and more efficient use of capital" (p. 5).

INFLUENCES ON INDIVIDUALS' FINANCIAL LITERACY

One of the interesting findings across prior research is that people's self-assessment of their financial knowledge tends to be higher than that found in objective assessments of their financial literacy. As an example, Financial Literacy Foundation (2007) notes a 2005 OECD report discussed research covering 12 countries and found respondents' financial knowledge was less than they believed. Similarly, in the National Financial Capability study in the US, the data shows a frequent gap between the respondents' self-reported knowledge and their behaviour in the real world (FINRA Investor Education Foundation, 2009). In this regard, it is interesting to note the first wave of the APLUS study found the participants knew slightly more than they thought they did (Shim et al, 2009). However, in the second wave, participants' self-assessment of their financial knowledge increased more than did the objective measure (Shim & Serido, 2011).

Chen & Volpe (1998) report "participants' educational background has a significant impact on their knowledge" (p. 114), with non-business majors being less knowledgeable than business majors, as might be expected. Other characteristics they find to be associated with lower levels of financial knowledge are women, students in lower class ranks, younger than 30 years and limited work experience. They attribute the lower level of knowledge for young people to most being "in a very early stage of their financial life cycle", where they will have had exposure to "a limited number of financial issues related to general knowledge, savings and borrowing, and insurance (p. 114).

There are also more direct influences on individuals' financial literacy. For example, the influence of parents on young people's financial knowledge is important. Mitchell et al (2009) find "financial knowledge can be passed on from parents to children" (p. 2), with family background being a strong influence on young people's financial knowledge. The first wave of the APLUS survey finds "parental direct teaching, high school work experience and high school financial education all related to students' having more financial knowledge by their first year of college" (Shim et al, 2009, p. 24), with parental teaching having a substantially stronger influence. Similarly, Shim et al (2010) report "clear evidence that individuals learn attitudes and behaviour through the observation and imitation of those role models who come into frequent contact with them – most notably parents (p. 1459). However, they note the parent influence declines over time as young people mature and their parent-child relationship changes. This was reinforced by the results in Wave 2 of the APLUS study, where the parental influence lessened although it remained important. In particular, parental financial role modeling had decreased. At the same time, the influence of friends had increased, with improvement in the financial behaviour of friends associated with improved financial behaviours for participants (Shim & Serido, 2011).

Nevertheless, peer influences should not be ignored. Van Rooij, Lusardi & Allessie (2011b) report several studies "have documented that peer effects can be powerful deterrents of portfolio choice … and those peer effects can start early in the life cycle" (p. 463). Hilgert et al (2003) find a significant correlation between sources of financial knowledge and financial practices, with households that report learning a lot from personal experience and from friends and family being more likely to have higher levels of knowledge. The view that personal experience can be an important source of information is supported by Perry & Morris (2003), but suggest this is often through negative experience.

THIS STUDY

Financial literacy is important, for the individual and for society. This study explores the level of financial literacy of young New Zealanders, and seeks to understand both the causes and the implications. In particular, this study examines the role of financial education, in order to contribute to the discussion regarding the most effective and efficient use of resources for personal financial education in New Zealand. No other New Zealand study has focused exclusively on young New Zealanders as this study does. The findings for this study will be compared to those of the other studies discussed in this section.

METHODOLOGY

The methodology used was in line with the OECD guidelines for financial literacy surveys. These guidelines recommend surveying individuals and using a personal interview. The personal interview is preferred for allowing unprompted questions and enabling the interviewer to probe to elicit a full response, although the cost and representativeness are recognised as disadvantages of this approach. The guidelines recommend the use of cross-tabulations for analysis (OECD, 2011).

Data was collected for this study in two ways. The first was an online questionnaire, while the second was an interview used to obtain more detailed responses that provide additional information to better understand and extend the responses given to the online questionnaire. The participants are 266 young New Zealanders aged 18 - 22[6]. Participants completed the online questionnaire prior to being interviewed, although the responses to that questionnaire were not available to the interviewer.

The participant group comprises individuals who responded to a written invitation to be part of the study. Their names were drawn randomly from the electoral roll, using six geographic locations. The locations selected were Auckland, New Plymouth, Palmerston North, Wellington, Nelson and Christchurch. These locations were chosen for their size, their accessibility for the interviews, and to provided a reasonable geographic dispersion across New Zealand. A total of 7500 invitations were mailed, so 266 participants gives a final response rate of 3.5%. The initial response rate was higher, with about 350 of those invited to participate expressing a willingness to be involved, but about 10% of those with whom interviews were arranged failed to arrive for the interview. While the final response rate is low, this is not surprising due to the age group of interest, and the longitudinal nature of the study. The number of returned invitations, due to an incorrect address, was 157 and we had 6 invitees decline to participate. Participants were thanked with a $20 petrol voucher.

The online survey instrument comprised a questionnaire with 44 questions; however, some of the questions comprised several statements each of which required a response. The questions included seven standard financial literacy questions to provide a measure of the participants' financial literacy. It also contained questions related to their experience of both formal and informal financial education, as well as their attitudes towards finance and their finance-related behaviours. The questionnaire concluded with demographic questions about both the participant and his/her parents. Many of the questions used a 5-point Likert scale of agreement or importance. The questions were drawn from other related studies, including some of those discussed in the previous section, although in some cases the questions had to be reworded for the New Zealand context.

The interviews were conducted by a person recruited specifically for the task. It was considered preferable for the same person to undertake all the interviews to ensure consistency of approach. The interviews were carried out in offices, either on one of Massey University's three campuses or supplied by Westpac in locations where Massey University is not represented. The interviews were all audio recorded and subsequently transcribed, with analysis undertaken using NVivo software. A total of 15 questions were used as the base for the interviews, with additional questions asked as necessary to explore or simply draw out participants' responses. Interview questions covered topics such as the role of family, friends and others in developing the participant's money management skills, the participant's financial behaviour and money management skills, and the participant's life goals.

The interviews lasted 25 minutes on average, with a range of 10 minutes to 35 minutes. The online questionnaire took 10-15 minutes to complete.

6 There is an additional cohort of 52 participants who identify as NgĐi Tahu, which are discussed in a separate report.

SUMMARY STATISTICS

GENDER	PRIMARY
Male	31.7%
Female	68.3%

ETHNICITY	
NZ European	73.4%
NZ Maori	5.3%
Pasifika	3.0%
Chinese	3.0%
Indian	2.3%
Other Asian	4.2%
Other European	3.0%
Other	5.7%

AGE	
18 years	18.5%
19 years	34.0%
20 years	32.5%
21 years	14.3%
22 years	0.8%

INCOME	PRIMARY
0-$14,999	68.6%
$15,000-$47,999	23.5%
$48,000-$69,999	1.1%
$70,000-$99,999	0.4%
Prefer not to answer	6.4%

RELATED EDUCATION				
Accounting	24.8%		0 subjects	6.4%
Economics	38.0%		1 subject	31.6%
Statistics	37.2%		2 subjects	32.3%
Business Studies	16.5%		3 subjects	16.5%
Mathematics	86.1%		4 subjects	9.0%
			5 subjects	4.1%

Table 1: Key demographic information about the study participants

There is a strong female dominance in the sample, which is common in similar studies, unless controlled for. The relatively low incomes reflect the age group involved, which includes students and those starting out in employment.

It is important to acknowledge some limitations with the methodology used. The locations used for the interviews mean that there is an urban bias to the sample. However, it is not exclusively urban, and it is worth noting that 57.7% of New Zealanders aged 15 – 24 live in the electorates used to draw the sample. No attempt has been made to ensure the sample is demographically representative in terms of gender, age or ethnicity. There is likely to also be a self-selection bias in the sample, because those more interested in the study subject and those with a higher level of self-motivation are more likely to have agreed to participate in the study. This bias is stronger due to the low response rate, but the effect of the bias is unknown.

RESULTS – FINANCIAL LITERACY, BEHAVIOUR AND ATTITUDES

FINANCIAL KNOWLEDGE

The online questionnaire used in the study included seven standard financial literacy questions, which were included to provide an assessment of participants' knowledge about personal finance. The following table provides the questions and the response options available to participants – the correct answer is highlighted.

The owner of a lost or stolen credit card is legally responsible for what? [Lost/stolen credit card]	All unauthorized charges
	All unauthorized charges until the loss or theft is reported
	Only the first $50 of any unauthorized charges
	Only the first $500 of any unauthorized charges
	No unauthorized charges
	Do not know
John inherits $10,000 today and Elizabeth inherits $10,000 6 months from now, whose inheritance is worth more? [Time value of money]	They are equally rich
	Elizabeth
	John
	Do not know
Suppose you have $100 in a savings account and the interest rate is 20% per year for the next five years. You never withdraw any money or interest. After 5 years, how much would you have in this account in total? [Compounding interest]	Exactly $200
	More than $200
	Less than $200
	Do not know
Imagine that the interest rate on your savings account is 2% per year and inflation is 3% per year. After 1 year, how much would you be able to buy with the money in this account? [Effect of inflation]	More than today
	Less than today
	The same amount
	Do not know
When a person invests money among different types of financial assets, such as stocks and bonds, compared to investing in only one type of financial asset, the risk of losing money [Diversification]	Increases
	Decreases
	Stays the same
	Do not know
If you have any negative information on your credit report, a credit repair agency can help you remove that information. [Negative credit report]	True
	False
If the interest rate on a home loan with a floating interest rate goes up, your minimum monthly mortgage payments will also go up? [Home loan]	**True**
	False

Table 2: Financial literacy questions

None of the participants got all the questions correct, primarily because only one person got the question about unauthorized charges on a credit card right. More than 45% of participants got each of the other questions right, but more than 20% got each question wrong, with the exception of the inflation question, which only 13.7% answered incorrectly. However, as can be seen in the following graph, for most questions there was a substantial portion of participants who simply didn't know the correct answer. Only four participants didn't get any of the questions right, and nearly half (49.2%) were able to answer more than half the questions correctly.

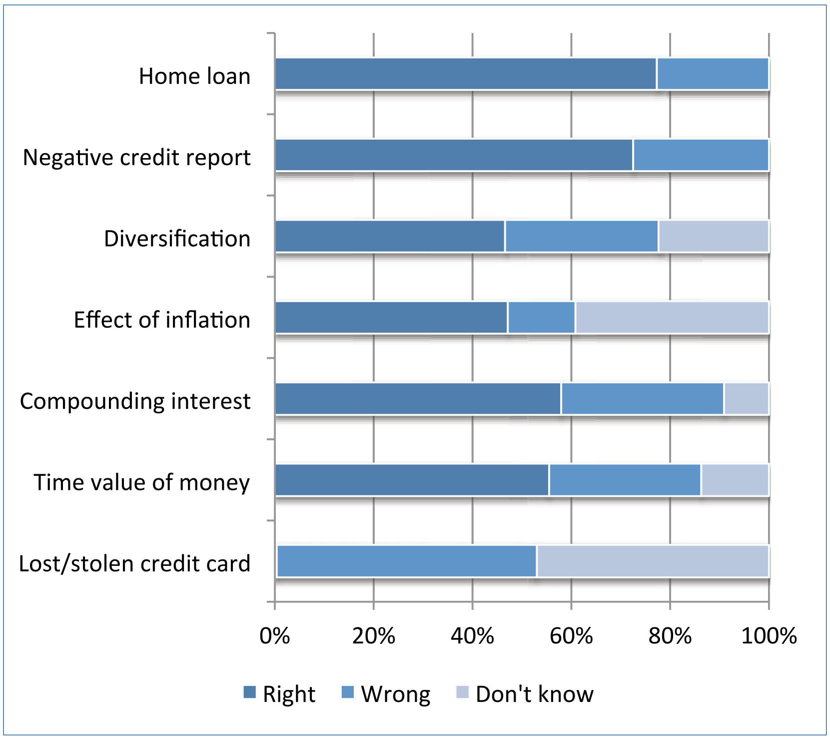

Figure 1: Proportion that answered each question correctly

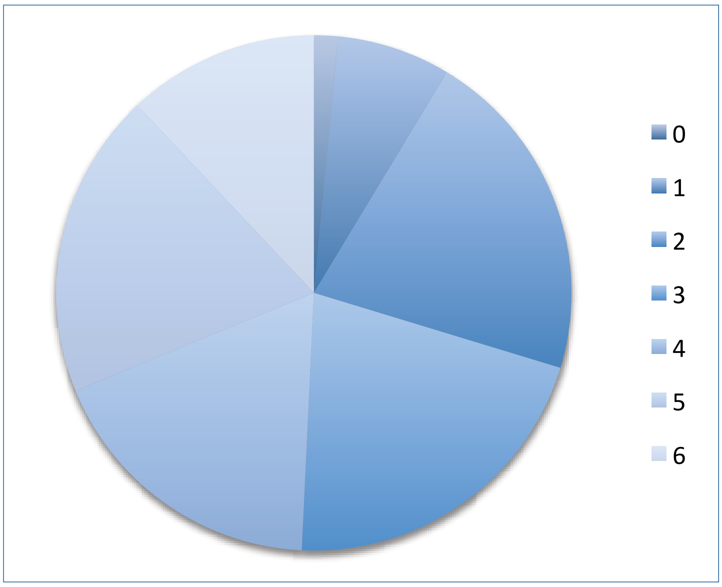

Figure 2: Total number of correct answers

Cross-tabulations were used to identify characteristics associated with a significant difference in financial literacy levels. Significant differences in the number of questions answered correctly were found on the basis of gender, and parents' income level. Males did significantly better (p=0.00), with 48.8% getting at least five questions correct compared to just 22.6% of females. The relation between parents' income and the number of financial literacy questions answered correctly is unclear, albeit significant (p=0.06). However, it appears those with parental incomes in the mid-range ($48,000-$70,000) did worst, but as incomes increased the level financial literacy levels rise as might be expected. Those who did not know their parents' income also did poorly, which it may be possible to attribute to a lack of discussion of financial matters within the family.

Participants were also asked to self-assess their level of financial literacy, and the results are shown in Figure 3. The largest proportion (41.1%) rated their knowledge as good, with a further 23.1% rating as Very Good or Excellent. The self-assessment was compared to their objective assessment of their financial literacy level, and a significant relation was found (p=0.02). Students with higher scores self-assessed their level of financial literacy as higher on average. However, self-assessment was not perfect and some (15.5%) of those who got only one or two questions correct self-assessed as Very Good or Excellent, while some (26.8%) who got five or six questions correct self-assessed as Poor or Fair.

There was a significant different in the self-assessment based on gender (p=0.01). Males were more likely to self-assess as Very Good or Excellent (34.2% compared to 17.0% for females). Females, on the other hand, were more likely to self-assess as Poor or Fair (41.2% compared to 24.4% for the males). However, given the difference in actual financial literacy by gender, this difference in self-assessment is probably justified.

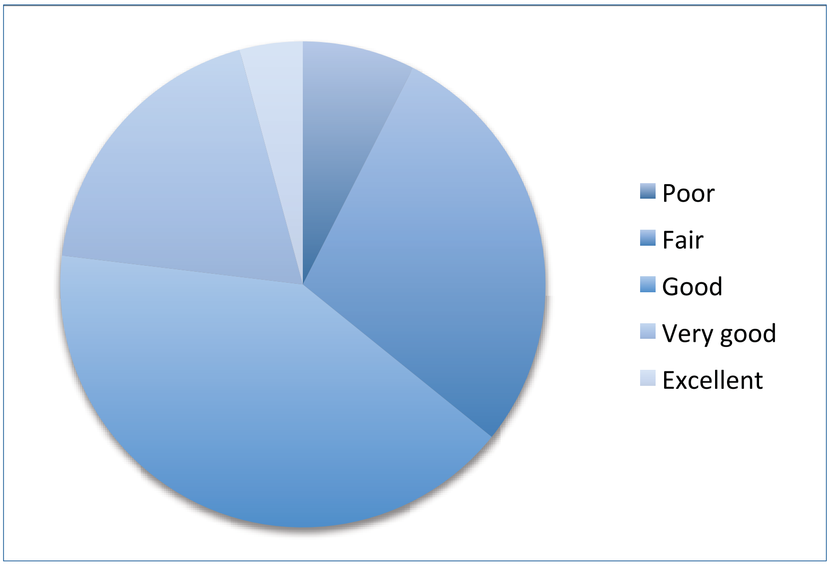

Figure 3: Self-assessment of financial literacy

FINANCIAL ATTITUDES

The online questionnaire included a series of questions to ascertain how confident young people feel about their ability to manage money. The results are shown in Figure 4; it is important to remember that the fourth item ("My finances are a significant source of worry or "hassle" for me") is negatively worded, so disagreement represents confidence. The responses indicate 70-80% are confident about money management. This can be contrasted with the substantial 33.6% who agree[7] that their finances are a source of worry or "hassle", which suggests that their financial situation may be stretched, despite their confidence in their money management. This is supported by the clear indication that young people do monitor their expenditure, although it may be informal as reflected in the strong disagreement that young people are uncertain about how their money is spent – fewer than 10% agreed with this statement.

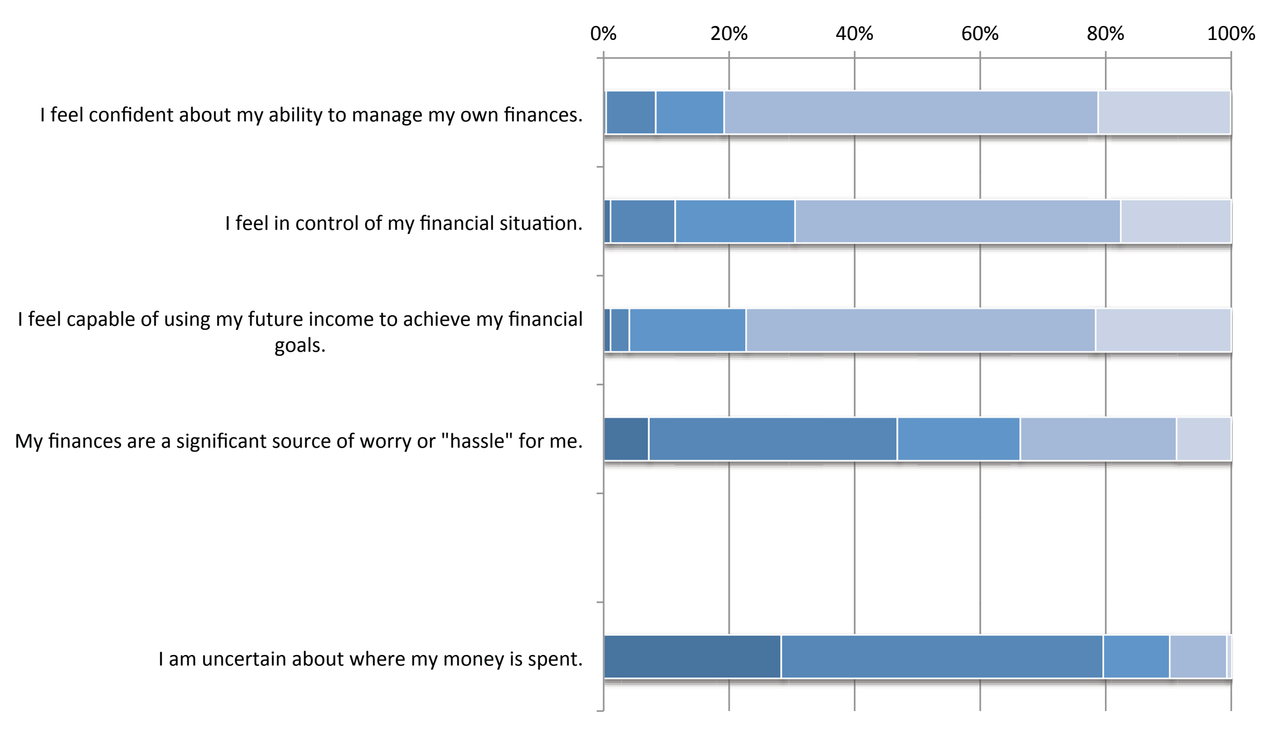

Figure 4: Confidence about money management

Participants' comments reinforced their responses to the online questionnaire, with comments covering the range from feeling good about their current situation, to feeling average and finally feeling bad. However, the negative comments outweighed the positive, which contrasts with the views expressed in the online questionnaire. Some participants feel positive about their current financial situation, with comments such as "I am pleased with my current financial situation at the moment", "I feel like it is going a lot better than it was", "overall I am feeling quite good and comfortable about it", and "I think it is quite stable at the moment". Others were struggling; for example, "It is pretty tragic at times – I run out of money by the end of the week", while a student was "finding it quite a struggle really" noting that prices were going up and everything is expensive. Other negative comments include "Not good. I don't really have control of them" and "it is a bit of a worry". And it is not always due to a lack of money, with one participant in a relatively comfortable employment situation saying, "I live from pay to pay … but I am really bad with shopping, so I usually spend my pay and then wait for my next pay".

7 Unless it is stated otherwise, 'agree' includes responses of both 'agree' and 'strongly agree', and disagree includes responses of both 'disagree' and 'strongly disagree'.

Some participants were confident about their ability to manage their money, although it was relative, with comments including "At this stage, for my current situation, I am very confident". While others were less confident, with comments such as "At this point, not that confident by myself, but with my parents' help, yes I could" and "I am not overly confident at the moment, but I believe I will get better over time ahead when I work fulltime and have money to work with". Many young people emphasised the support and assistance from their parents, either at the time or while they were growing up, in building their confidence. For example, "I am pretty confident, but with the help of Mum" and "whenever I do something big like taking out the loan I always make sure it is okay with my parents … it gives me confidence". One other participant also commented on the value of his/her mother in keeping on track, noting that in the event of making a poor decision "Mum will have my head on a platter. Mums are scary, so I don't want to do that".

Participants were also asked about their attitude towards particular aspects of money management, such as debt and savings, as shown in Figure 5. It is interesting to note the strongly negative attitudes towards credit cards, with most (75.9%) disagreeing with the statement that credit cards are safe and risk free, and nearly half (43.5%) are afraid of credit and credit cards. More positively, more than half (57.9%) were not comfortable with only making the minimum payment on their credit card each month.

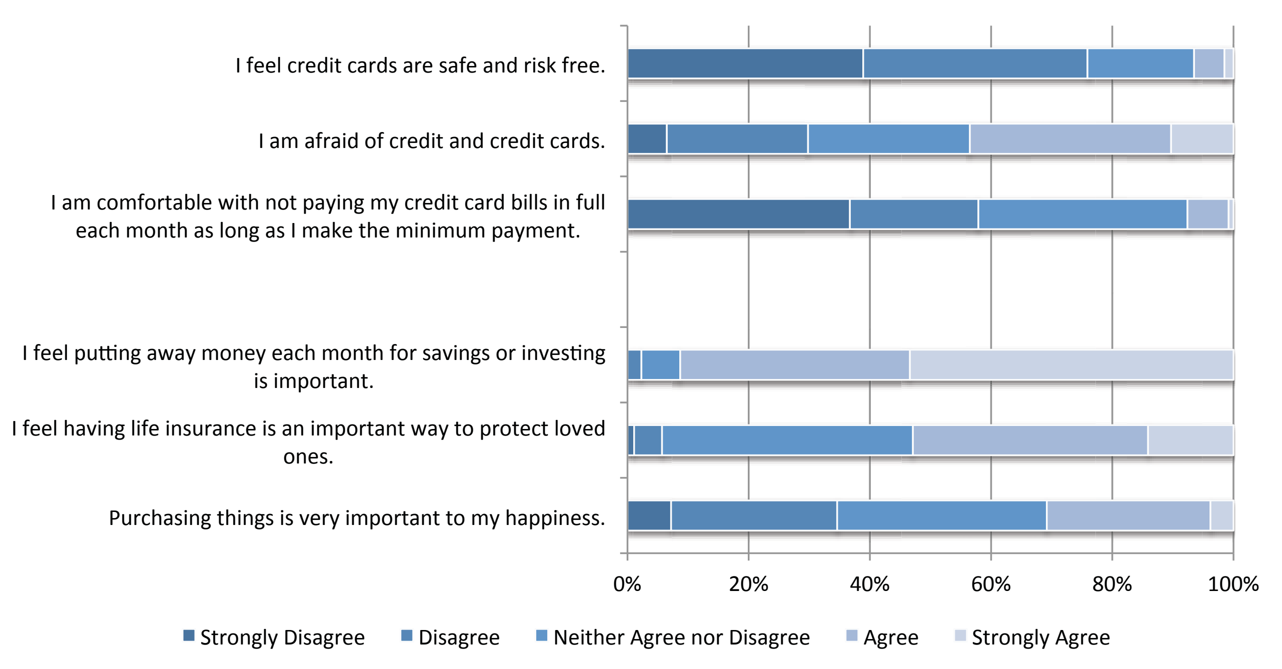

Figure 5: Attitudes towards elements of money management

Participants' comments during the interviews reinforced that the message about the dangers of credit card debt are getting through. Comments on credit cards included:

> "I try to keep away from credit cards as much as possible."
>
> "I hate credit cards'" (from someone who has one)
>
> "I don't think I would be that keen for a credit card, just because it seems like a bit of a trap if you are not very responsible."
>
> "I am not against it, but I don't personally think I will take out a credit card. I don't want someone to hold that kind of power over me that I am in debt to them."
>
> "I think credit cards are good things, but only if they are used properly, and I am afraid that if I had one, I wouldn't use it properly".
>
> "I think they just encourage you to spend money you don't have".

On debt more generally, one participant commented, “I don’t like the idea of being in debt”. The negative comments about debt and credit cards outweighed the positive but there were some positive, although they usually came with provisos. For example, “I think debt is OK if you can pay it off”, “Debt can be handy to have, especially in terms of a mortgage and that sort of thing”, and “I think it is okay if it is responsible and managed”.

Young people clearly recognise the importance of regular saving, with more than 91% agreeing with the statement. They don’t attach the same importance to life insurance, which is likely to reflect their life stage, although no significant relation was found for marital status. The importance attached to buying things is split, with approximately one-third (34.6%) disagreeing, another third (30.8%) agreeing and the remaining third (34.6%) being neutral.

Comments on savings included “My savings are kind of good. Whenever I get money from something I try and put a little away and keep the rest for spending”, while another participant described their spending and saving habits as good, but noted “I remember I used to be really bad. I used to like every time when I went out, I had this need to buy something. But not anymore.” Many young people recognised the advantage of putting aside money each pay; for example, “I have been putting aside I think it is 10% of my net income a week automatically … so I can’t touch it sort of thing”, and “Half [my base salary] I put in my savings as an automatic payment … I can’t access my savings from my EFTPOS so that is a good thing as well”. However, while participants recognised the importance of saving, this did not always translate into action. For example, one participant commented, “I spend more than I save … If I save, I tend to save for a short-term”, while another noted, “I could probably save more, but I just waste all my money on buying food and clothes”.

Views on the importance of purchasing things for happiness were relatively evenly split, with 32.0% agreeing, 33.5% disagreeing and the balance (34.5%) being neutral on the issue. However, a number of comments suggested that impulse purchasing was an issue, such as “I love shopping, especially if I see a sale, I can’t stop myself” and “… of course, I buy things I shouldn’t and things I could possibly do without and then I regret it later. I’m a bit impulsive”.

The positive attitudes towards money management were reinforced with questions related to the importance of budgeting and related issues. Participants were asked about the importance of spending within the budget, paying credit card balances in full each month, learning about money management regularly, and setting and achieving financial goals. The mean responses (4.1, 3.9, 3.7 and 4.0 respectively) indicated that these are all seen as important. Less importance was attached to learning about money, with little more than half (58.7%) agreeing with the statement.

Participants were asked what aspect of money management they would like to improve, and to explain why. Some wanted to improve their budgeting, with comments including “I would say budgeting. Not over-spending on food doing all that type of thing. Just planning ahead in time instead of just worrying about it when it comes” and “I suppose I would like to, if I set myself a budget as to how much I should spend each week, to actually be able to stick to that”. Related to that was simply a desire to control spending; for example, “My unnecessary spending is what I would want to improve” and “Frivolous spending on things I want but don’t need”.

Others wanted to deal with their credit card debt; for example, “Probably paying off my credit card would be right up there, because I tend to put a few things on it like I think that I can pay for something with EFTPOS … and I tend to forget it is there and it kind of adds up very quickly”, and “I think sometimes the temptation to use the credit card is still there and I will try to get out of the habit of using the credit card”. Some young people saw the value in developing a savings habit. For example, “Definitely having the motivation to save all the time, not just when it suits me”, and “I would really love to be able to put away more”.

In response to the question of what aspect of money management they would like to improve, some participants simply identified a need for basic personal financial education. One participant commented, “I like the idea of savings but the actual nitty-gritty stuff I would like to learn more about” with a focus on better understanding the options available. Another said, “Basically, I would like to know more about term deposits and stuff like that, and maybe investments. I should probably know a bit more, but I have never really taken the time to do it, because it seems just too boring and dull”.

Participants were also asked during their interviews about their attitudes towards financial matters. Responses that can be described as positive included:

> "I don't like asking for money. I have always felt that I should pay for things for myself – I should earn it".
>
> "I think my Dad is inside me sometimes. I am more cautious with my spending. I always worry about it".
>
> "I believe it is serious. You should be serious about your money".
>
> "I sort of treat it kind of like a pet. Like a plant. If you water it regularly it grows for you".

But other responses were more negative in their perspective.

> "Dealing with money makes me quite nervous".
>
> "Money is just a nuisance".
>
> "Usually – I kind of find (financial matters) a bit boring to be honest".
>
> "I just find it an everyday hassle".
>
> "The word 'finance' just scares me, just anything to do with money and saving. I guess that is what put me off from trying to figure out about it".
>
> "I do also have this sense of 'well you do only live once', so what is the point in placing much importance in money'.

FINANCIAL BEHAVIOUR

An important question, however, is how financial attitudes translate into financial behaviour. Table 3 highlights the responses in relation to elements of financial behaviour, with the 'preferred/desirable' response highlighted, where one exists. This generally shows that young people are behaving in a way that represents good financial management.

It is good to see a reasonable proportion of young people are budgeting and tracking their spending, with some making good use of services provided by their banks to help them in this regard. For example, "ASB has this feature called 'track my spending'; basically they have this little pie-chart. You group all your spending and then it comes with a Pie Chart saying what you spend most of your money on" and "Well everything is on AP's Automatic Payments, so everything is sorted out and I just check that it has gone out in the right places and that is about it really". Others have set up budgets and monitor their spending manually, some of which is quite extensive, such as "I go over my expenses. I budget how much – like this is how much my rent is, this is how much the flat food is, this is how much I am aiming to spend on my food! And so on and so forth", "I have a budget written down, how much, and I do write in a book how much I have spent and how much I still have to go and all that type of thing. It is not a big thing", and "I have always got a budget in place for every week. Every pay has a place to go, but over a month I will always take into account the next bill coming up and even things like my car registration is always budgeted into my weekly pay and that goes aside, so I am never caught short needing money for it". But some young people acknowledge that their budgeting leaves something to be desired, with comments such as "I don't really plan that far ahead. I just live pay day to pay day" and "I don't budget".

The small proportion that read to increase their financial knowledge is disappointing. It would be also desirable to see a higher proportion making contributions to an investment account, but this may reflect this age group's lack of sufficient disposable income. There is a strong use of parents as positive role models, although only a little more than half agrees parents know what is best for them, which is likely to reflect the growing independence of this age group. However, it is important to note that parents may not always be modeling good personal financial management.

It is not really surprising that this age group should still be trying to determine the best financial management style for them, and it is reassuring to see the high proportion who disagree that they haven't considered whether they are a spender or a saver. Nevertheless, most participants (68.3%) indicated they are able to stick to their plans if they want to, while a further 16.2% have resources to help them stick to their plans.

Financial behaviour	Agree	Disagree
I budget and track spending.	64.3%	16.7%
I get cash advances from my credit card.	1.6%	68.0%
I compare prices when shopping for purchases.	91.7%	3.1%
I read to increase my financial knowledge.	26.2%	42.2%
I make contributions to an investment account in my name	34.1%	35.6%
When it comes to managing money, I look to my parent(s) as positive role models.	71.7%	11.0%
My parents know what's best for me in terms of how I should take care of my finances.	58.7%	17.1%
I've spent time thinking about financial goals, credit cards, and spending habits, and I've decided on a money management method that will work best for me.	51.3%	17.9%
I really don't know what kind of financial management style is best for me. I'm still trying to figure out what sort of savings and spending patterns feel right to me.	48.3%	30.9%
I don't think about money much. I just kind of take it as it comes.	25.5%	59.3%
I haven't really considered whether I am more of a saver or a spender. Finances just don't interest me much.	14.0%	69.8%
I feel good about my money management abilities.	62.3%	19.3%
I wish I were better at saving money.	60.2%	18.9%
It is better to make purchases from savings rather than buy on credit.	79.6%	6.0%

Table 3: Financial behaviour

The online questionnaire also asked about the actual impact of young people's financial management in practice, by seeking to understand the extent to which money shortages created problems for them. Specifically, they were asked if, over the previous six months, they had been forced to change food shopping or eating habits to save money because they didn't have enough money, and it is somewhat concerning that nearly half (44.5%) indicated they had. Similarly, they were also asked whether, over the previous six months, they had cut back on social and entertainment expenses due to a lack of money, and a substantially higher proportion (59.8%) reported they had. In a final related question, the participants were asked how often they had exceeded their credit card limit over the previous six months. Most young people (61.5%) don't have a credit card, but of the balance 14.8% had exceeded their credit card limit at least once.

Young people tend to have a short horizon in managing their finances. Nearly one third (29.4%) reported the next twelve months was the most important to them, with a further 48.7% looking out 1-4 years and only 21.9% looking out five or more years. This focus on the short term makes it difficult for young people to think about retirement because it is so far in the future, and explains the need for something like auto-enrolment into KiwiSaver to get them started earlier than many would naturally do so.

During the interviews participants were asked about their plans for retirement, and KiwiSaver was seen as the answer by many. Typical comments included, "Well I have signed up for KiwiSaver", "I just know I have got KiwiSaver", "I am joined up with KiwiSaver, even though I don't believe in it", "I haven't thought much about it post signing up for KiwiSaver quite a while ago. That is the only thing I have thought about regarding my retirement", and "I don't really have any plans but I have got the KiwiSaver". But others haven't thought about retirement at all, and their youth is often cited as the reason. Comments included, "Retirement? This is a bit far", "I have not really thought about retirement because I am very young", "I am not even thinking about it. I would rather spend money now. No I'm not even thinking about it. I don't care", "Retirement! I am not even 20yrs yet, come on!", and "I haven't really thought about that at the moment because I am only 18yrs. It is something that isn't even in the back of my mind at the moment." However, some young people have thought about it but decided it is not a priority for them at present. Comments included, "I would rather have the money now. I think I am pretty young, there is no point in it. I guess I could, but no, it is more important that I have the money now", "There are heaps of people who say 'save for retirement', but I will worry about that later on", and "I am thinking more about my first house. Retirement; maybe when I am in a career and have a full-time job".

The questionnaire also asked about young people's current finances, particularly around the financial products they use, with the results shown in Figure 6. While it is good to note that almost all have a savings account, it is concerning that some are clearly using it as their primary bank account, evidenced by the proportion with an EFTPOS card exceeding the proportion with a transaction account. This suggests inappropriate use.

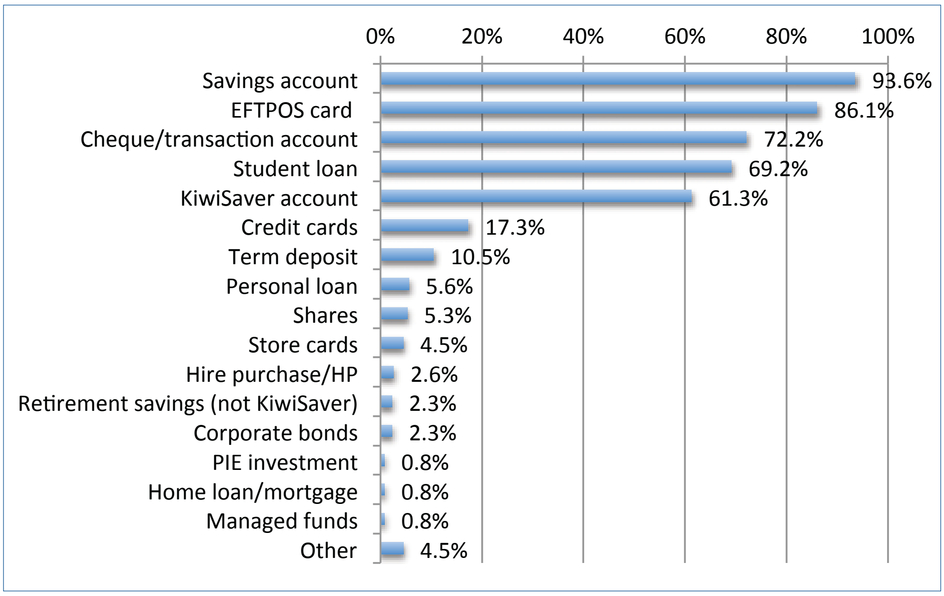

Figure 6: Financial products held

While a high proportion has a student loan, this is positive in reflecting a high rate of tertiary study of some kind. On average, the level of student loan debt was manageable with the average student loan being $13,778, but the largest student loan was reported as $110,000. Among the current students, approximately two-thirds (66.5%) were funding their study using student loans. Other methods of funding being used included family financial support (33.5%), employment (31.6%), savings (19.9%) and scholarships/grants (18.8%), often in combination.

The negative attitudes towards credit cards, discussed earlier, are reflected in the fact that less than one-fifth (17.3%) of participants had a credit card. It is interesting to compare this to the findings of the APLUS study, where 58% of students *had at least one* credit card (Shim, et al, 2009). The average credit card debt was less than $400, with the largest credit card debt reported as $2700.

Rates of insurance among young people is quite low, with 36.8% having no insurance of any kind, as shown in Figure 7. While young people may have less need of insurance than older people there can be advantages in obtaining life-related insurances at a younger age when a person is more likely to be fit and healthy.

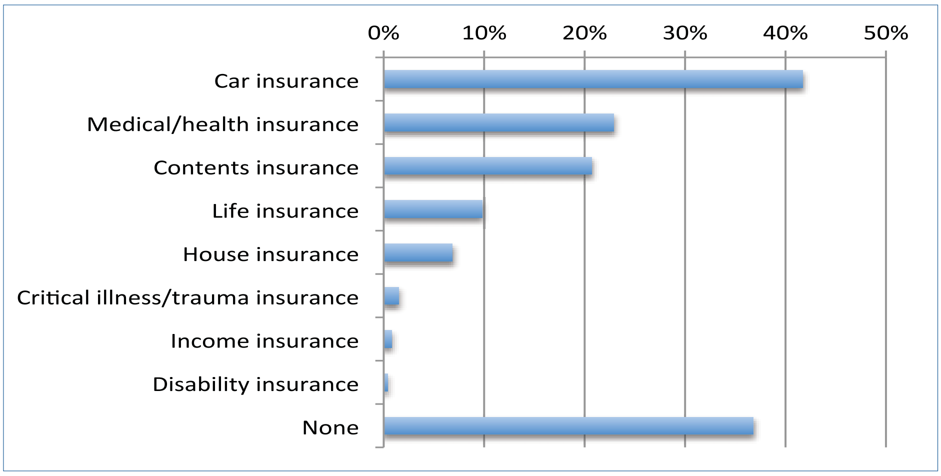

Figure 7: Insurance held

WELLBEING

Shim et al (2009) noted, "researchers have clearly shown that financial circumstances and attitudes have far-reaching impact on overall wellbeing and personal satisfaction" (p. 6), so questions on young people's current wellbeing were included in the questionnaire. As Figure 8 shows, overall wellbeing in each of the four areas was high, with strong relationships reported with both parents and friends. In a separate question, 67.2% reported that they often or always feel good about themselves.

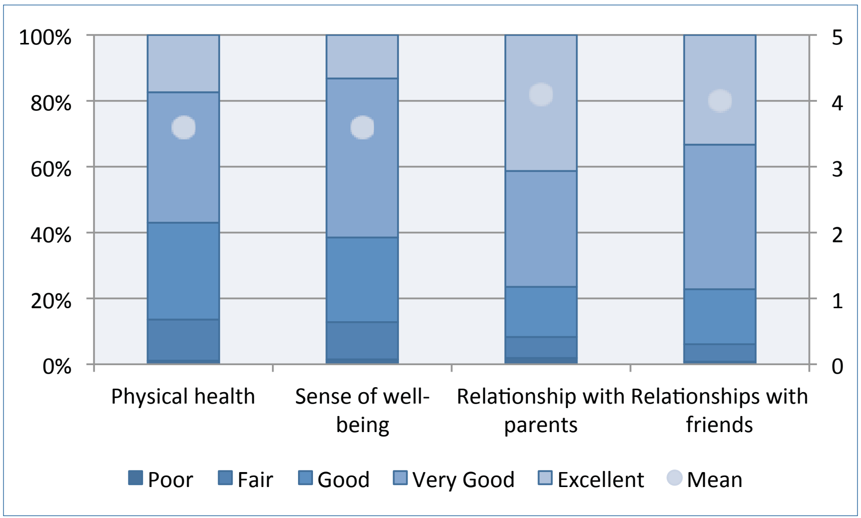

Figure 8: Overall wellbeing

Young people were more satisfied with their life generally than with their current financial status, with 78.9% agreeing they were satisfied with their life compared to just 44.9% agreeing they were satisfied with their financial status. This reinforces concerns expressed elsewhere in the questionnaire about the extent of savings and also concerns over the adequacy of their income. It is also be linked to the proportion (37.9%) that reported that they often or always worry that they may not have enough money to pay for things.

Only a small proportion (15.9%) reported that they often or always acted without stopping to think. Slightly more (23.8%) indicated that they often or always give in to their impulses.

RESULTS – EXPERIENCES OF FORMAL FINANCIAL EDUCATION

This age group has had limited opportunities for formal financial education. A large majority (76.5%) had not attended any form of formal financial education in the form of seminars, workshops or after school programs, while a similar proportion (81.1%) had not attended any school provided financial management classes. These high proportions mean that most (69.7%) had not attended any form of formal financial education during their high school years.

Comments during the interviews reinforced the lack of formal education, with many noting the limited opportunities available, for example "my school didn't offer it as far as I know, or it was never offered to me", "at school there was nothing on financial management", and "In High School there were no specific courses or papers in classes that I did about financial education, so pretty much my financial education was through family, internet….". It is clear that some young people regret the lack of financial education provided at school, with comments such as "It is sadly lacking in schools, they don't really help you out with the money thing", "There is a lot of stuff that I wish they had taught me", "I think there should have been more focus on that at school, because it really is important", "I think in your last year at High school it would be good to learn about finances", and "We did really wish that at school they had seminars where you could go and find out about money because … We just muddle through and rely on our parents who have our best interest at heart anyway". " However, it is important that what is offered is relevant. One participant commented, "I think I remember once, last year, they did a talk on managing money, but it was not really in the right language".

Some young people were able to recall some formal financial education they had received. For example:

> "We did have Financial Literacy at school, so we had, I think it was once a week for one term of the year we had it. That was pretty helpful"
>
> "I think the most beneficial was the year before last when we did the Young Enterprise Scheme in Year 12. We did a business and I was the Treasurer for that we did a few courses for that and that helped a lot in terms of just how to set up ways to show where you spending is going and how to decrease that category of expenses. I have sort of tried to put that into my personal life"
>
> "Through work they were doing a financial planning seminar that I went along to. It wasn't quite what I expected"
>
> "There might have been one workshop at school", "In High School we had people come in from Study-Link and that sort of thing"
>
> "In College we had people from different banks come and speak to our year 13 year group"

A number of participants referred to subjects they had taken at school such as accounting, economics and business studies. However, this was often followed by a comment that it didn't really provide anything in the way of personal financial management. Comments included, "I took Accounting and Economics at school at Level 1 but that was more kind of like shares in companies and stuff like that", "I used to do Accounting and a wee bit of Economics. It was interesting to learn, but not really useful", and "I did Economics and Accounting but they don't really teach us, they were mostly talking about something else".

However, as noted in Table 1, many of the participants, as part of their high school education, have taken subjects that are not personal finance specific but that may assist them in managing their finances. Only a small proportion (6.4%) had not taken any of the relevant subjects and nearly a third (29.6%) had taken at least three of the subjects. However, while these subjects may assist in money management, they do not necessarily explicitly provide practical money management skills. For example, one participant noted "of course, there has been the odd – in like the Economics class – it wasn't uncommon to offer advice, well it felt like that, but nothing planned – like we are going to sit down and actually talk about this".

The key issue is whether formal financial education has any impact on their financial knowledge or behaviour. Chi-square testing showed a significant difference in the financial literacy of young people who had studied some of those subjects, compared to those who hadn't. Specifically, those who had studied economics ($p=0.03$), statistics ($p=0.04$) and mathematics ($p=0.01$) had higher levels of financial literacy, as shown in Figure 9. The small proportion of participants who reported having studied none of these subjects did significantly worse ($p=0.03$), with none getting more than four of the questions correct.

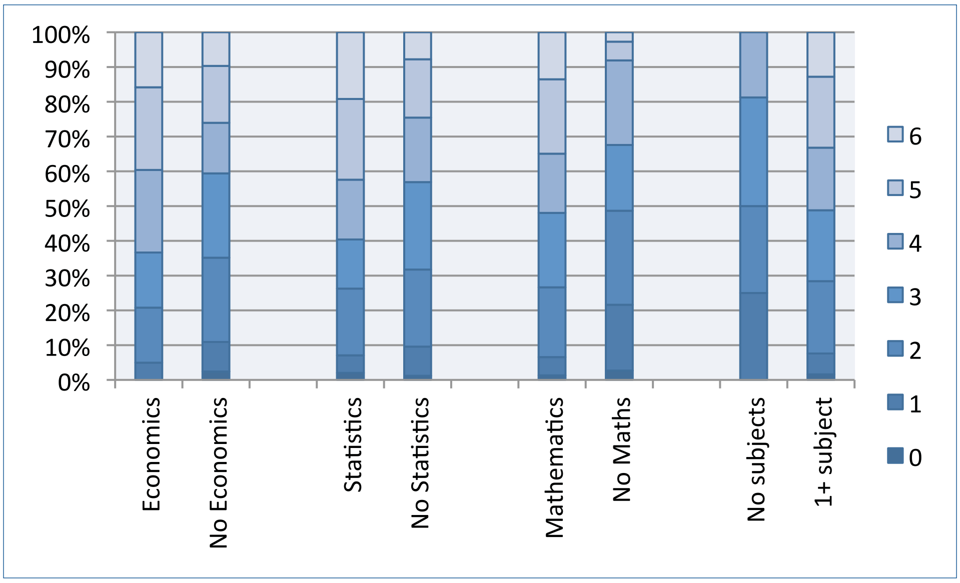

Figure 9: Financial literacy (number of correctly answered questions) compared to secondary school subjects

Analysis indicated there was no difference in financial knowledge (measured as being the total number of questions correct) related to respondents' experience of formal financial education, in the form of workshops etc. or their attendance at school-provided financial management classes.

Some participants noted the value of the financial education they had received, with comments including:

> "I now put a lot of thought in the decisions I make, rather than blindly making a purchase, I make more intelligent decisions"
>
> "I do think that having some kind of seminar or free kind of group lessons that you can go to – like how to save, or just things that you can do to save money better. That would be so much better if the world had – if they taught you how to save, if they taught you how to spend, then people would understand and people wouldn't be living in little Government houses all the time."
>
> "Well it was quite good, it pointed out to me that I should start saving for my retirement."

But others were less convinced of the value, with one participant commenting "I think it is all about your upbringing rather than what you get taught in school" and going on to suggest "it is pointless". Another participant considered their savings habits would have been the same whether they took finance-related subjects or Spanish, and commented; "I don't think my studies in financial areas have impacted much on me as a person". However, such comments were in the minority, with most expressing regret for the lack of personal financial education received.

RESULTS – EXPERIENCES OF INFORMAL FINANCIAL EDUCATION

There are many opportunities for informal education, with family and friends, the internet and life experiences among the possible sources of informal education. The online questionnaire listed ten possible sources of informal education, and asked how much participants had learned about managing their money from each of them. The results appear in Figure 10.

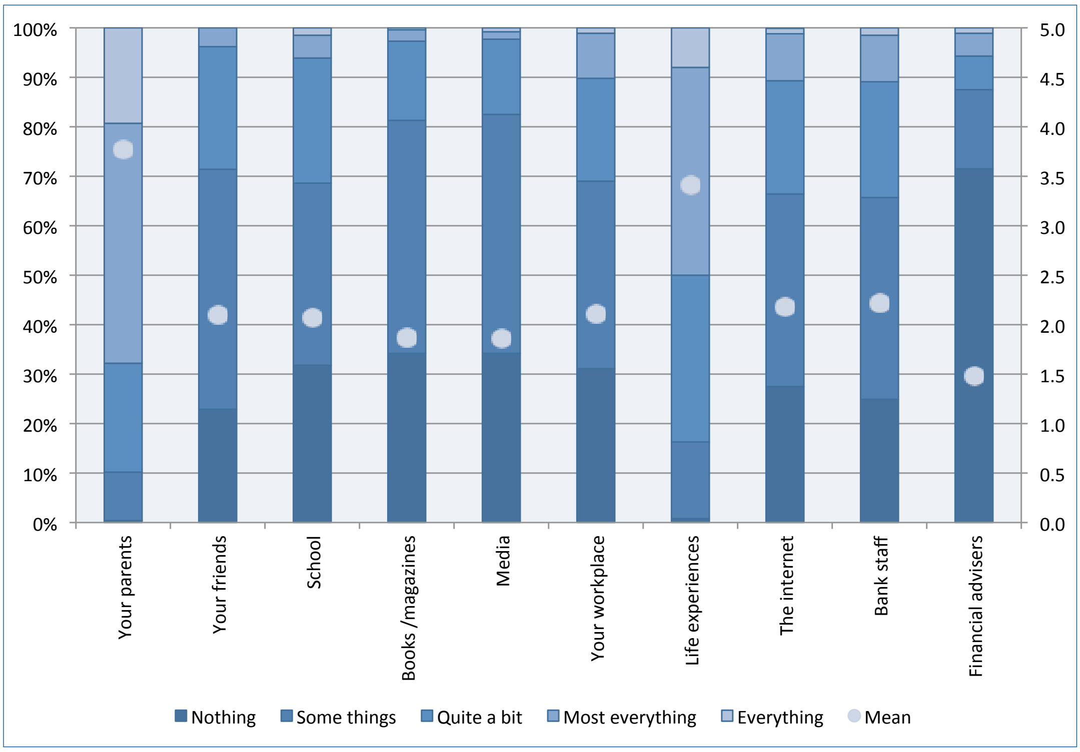

Figure 10: Sources of informal education

Clearly parents are the most important source of information, with most (68.8%) participants indicating they had learned everything or almost everything from their parents. The influence of parents found here reinforces responses given to other questions, such as the role of parents as positive role models, as discussed previously.

The importance of parents was supported by participants' comments, such as "Mum and Dad have basically shaped the way I use my money a lot", and "My mum has played a big part in that. We used to sit down and do little calculations of how much I could save per year and how much I would have by the time I was 40". Of course the parental influence can come in different ways, for example "I have learnt a lot from my mother, from what she has done wrong sort of thing", and "my dad helps me out a lot, whereas Mum, she likes to spend money … so I have two very conflicting parents". Some comments also added to the responses where parents were not a source of education; for example, " None really … my parents have always been 'do as you wish' ". However, there is always the question of how involved parents should be, with one participant explaining "Well, my parents took a very authoritative role in my bank account. They were always like 'do this, do this, do that' but they never really explained it, maybe because at that time they thought he is too young to understand it for whatever reason so I never really learned".

Of course it can be difficult for parents to balance the need to be supportive, while also encouraging their young adults to be independent. One respondent illustrated this well with the following comment:

> *"Yes, my sister has moved out, she is flatting, but then Mum and Dad still support her as well. I said that to Dad the other day; 'how are we supposed to learn if you keep handing things to us'. He said 'could I get that in writing!' "*

One of the key lessons from parents related to the importance of saving. For example, “It probably be my parents always encouraging me to save. They are pretty much always on about it” and “Mainly just both my parents have drilled in to keep saving”. The value of money is another important message provided by parents, such as “I don’t come from a wealthy family, but I sort of know the value of a dollar” and “think about what you want and what you need; which one is more important, and spend accordingly”. Parents can also get involved in very practical ways. Examples given by participants include “sometimes I will send her money, instead of saving it myself, I send her money, so that she has to ask me – ‘do you really need this money?’ before she gives it back”,” you want to do all sorts of things with your money, but Dad has been in control of it first and you have to go through him, it is a far better way of dealing with it, as you don’t get everything you want, but you get everything you need” and “my Mum raps me on my knuckles if I start spending too much”. However, parental involvement can also be more psychological, as explained by one participant: “When my friends have encouraged me to do something, just for the sake of ‘buy that Sam, you will really like it!’ I will have my parent’s voice in my head whispering ‘no, you shouldn’t do that; you don’t have the money to do that!’ ”.

The online questionnaire included a series of statements related to parental influence around financial management, and sought the extent of participants’ agreement or disagreement with them. Around two-thirds (68.7%) agreed that their parents regularly spoke to them about the importance of saving. A similar proportion (70.8%) agreed their parents had taught them how to be a smart shopper. While most (69.7%) respondents agreed their parents believed they should save money each month for the future, less than half (45.8%) agreed that their parents think they should invest for long-term financial goals regularly.

During the interview, participants were asked about the key lessons they have learned about money management. These lessons included: “definitely budgeting”, “watch your spending”, “pay the important bills first”, “to not impulse buy”, “money doesn’t grow on trees”, “not spending what I don’t have”, “it is good to save”, and “don’t take out loans unless they are completely necessary”. They were then asked where these lessons had come from, with typical responses including “Probably my parents. They have always been trying to give me advice on money” and “I suppose from watching the errors of others and watching the news, how they rely on the bad decisions they have made”, and neatly summed up as “A bit of life experience and a bit of my parents”.

As noted in the above comments, as well as in the above graph, the other key source of informal financial education, from Figure 10, is life experiences, with half (50.0%) indicating they had learned everything or almost everything from life. Perhaps unsurprisingly for this age group, bank staff and financial advisers were not identified as being a source of education for participants.

The influence of friends was less than might have been expected, with only 3.8% of participants indicating they had learned almost everything from friends, and no-one suggesting they had learned everything from their friends. Many of the comments suggested friends could, at the same time, be more of a negative influence; for example, “we don’t really discuss it, but I tend to spend more money when I am with them than when I am not”, and “Well, with friends, they just encourage me to spend it all”. However, friends are not all bad. One participant reported “I find my boyfriend keeps me quite a bit in check with money, because he is quite frugal, I am not”. Another participant had a friend who is working and has about $16,000 in savings and noted having “learnt a lot of tricks from him, how to save”. There may also be an opportunity to learn from the mistakes made by friends. For example, “Friends have really just shown me what I don’t want to do, because they have got credit cards and they have got debt and it is coming out of their ears and they have to go to Mummy and Daddy all the time”, “My friends are like a cautionary tale, they overspend and I have learnt from their mistakes a bit”, and “I just look at them and see their mistakes and go ‘hmmm, I won’t do that’ ”.

The questionnaire also asked young people how their financial knowledge compared to that of their close friends. Around half (47.5%) felt their level of knowledge was about the same as that of their friends. A slightly smaller proportion (44.9%) considered their own level of knowledge was better or much better than their friends. Only a small proportion (7.6%) considered their knowledge to be worse or much worse. This feeling of having superior knowledge may help explain the less than expected influence of friends – one is unlikely to learn much from someone who has a similar or lower level of knowledge to oneself. However, it is also likely to reflect over-confidence in their own abilities. There was a significant difference ($p=0.06$) in the comparison by gender, with males more likely to rate themselves as better or much better than their friends, while females were more likely to rate themselves as about the same.

However, young people do expect their source of informal education on money management to change, with the influence of parents lessened, albeit still strong. The influence of work is expected to grow, which is likely to reflect the greater extent of their employment. The influence of the internet is also expected to grow, as is the influence of financial advisers. The expected increased role for financial advisers is positive in providing evidence that young people recognise the need to talk to experts.

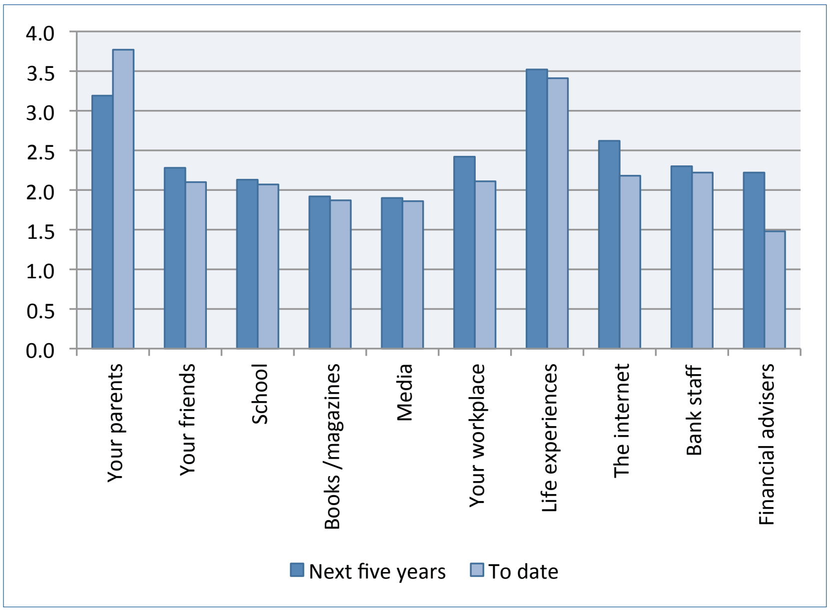

Figure 11: Influences on personal financial management to date compared to expectation for the next five years

No differences were found between participants' financial literacy based on the sources of their informal education.

One of the possible sources of education on money management during the secondary school years is the experience of working outside the home. Most young people do get some opportunity to work while at secondary school, with 66.2% working throughout year and a further 17.2% working only during the long summer holiday break. As Figure 12 shows, most of those involved felt the work experience provided a reasonable level of assistance with the development of their financial management skills.

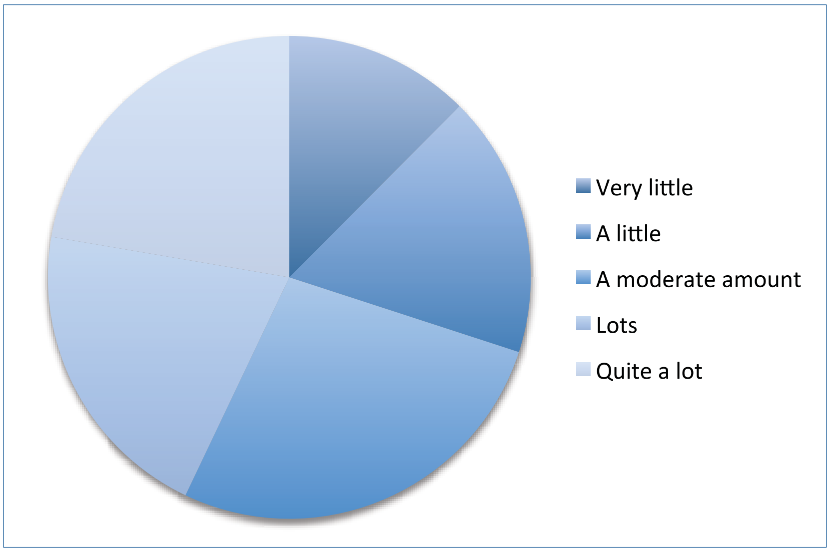

Figure 12: Extent of development of financial management skills from 'after school' work

Other influences on young people's money management can be their emotional responses to events and activities. The questionnaire listed seven emotions, and asked how important they are. All were found to be important, with 82.9% to 97.4% rating each as very or extremely important. The most important was fun and enjoyment, while the least important was excitement.

DISCUSSION OF RESULTS

It is clear that young people are getting little in the way of formal financial education and they generally recognise the disadvantages this generates. The most common response to the question about experience of financial education during the interviews was "Nothing". Some participants clearly wanted to know more, with comments such as "I want to know what else I can do"; and "I would like to know what I am talking about … I guess I just don't know how banks work and how everything comes together". This is in line with the findings of Perry and Morris (2005) that young people in the United States leave school without basic finance skills, and of Chen & Volpe (1998) that high school students don't receive good fundamental personal financial education. The APLUS study has demonstrated the importance of financial education at high school, with financial education at secondary school level leading to more financial knowledge at university, which then links to what are described as more healthy financial behaviours (Shim et al, 2009).

At the same time there is a lot of informal education going on, some of which young people may not even recognise. Parents clearly play a very important role in providing knowledge about financial matters, but this raises a concern about the extent of the parents' knowledge. If parents' own financial knowledge is limited, there will be limits on the extent of knowledge that they are able to pass on. Many parents play a very active role in getting their children's finances set up initially, assisting with bank accounts etc. For example, one participant explained "I guess [developing my money management skills] could be mostly through my family, mostly my dad and things just setting me up and giving me basic savings targets, encouraging savings, setting up bank accounts, things like that".

The important role of parents found in this study supports the findings from the APLUS study. In the first report they note, "children learn about the world and how to thrive in it by listening to and observing their parents, but that role doesn't end when those children turn 18" (Shim et al, 2009, p. 25). This study showed that in some cases participants had learned from watching their parents' poor financial management, which supports the surprise finding in an Australian study that "participants who rated their parents as having poor money management skills had significantly higher financial literacy scores than those who felt their parents were good at managing money" (Commonwealth Bank Foundation, 2011, p. 12).

The relatively limited peer influence is surprising, and it will be interesting to observe how this changes over the 20-year course of the study. The participants are at an age where peers are generally seen as the key source of influence of behaviour and attitudes, but the results suggest that finance may be an exception to that rule. Will peers become more important as the parental bonds weaken further? Or will there be a continuing reluctance to discuss financial issues with friends, with a preference to use sources, such as parents, that may be seen as more reliable for something as important as finances? The APLUS study suggests that the parental influence will weaken, as it found parental modeling declined between Wave 1 and Wave 2, although parents continued to be an influence (Shim & Serido, 2011).

The strongly negative views towards credit card debt suggest that there has been absorption of the messages from the Commission for Financial Literacy and Retirement Income and their Sorted website. In the period before the interviews were completed for this study the Commission had placed emphasis on avoiding 'dumb' debt such as credit cards, and this message was evident in participants' responses as reported earlier. The strong message from participants was that they are frightened of credit cards because of the perception of temptation associated with them. There was also some negativity towards other forms of debt, but this was tinged with a realisation that some debt may be appropriate. As one participant noted, "I don't like to think I owe so much for my student loan, but at the same time I realise that in that context, it is a good thing … so I think debt is good and bad at the same time".

Looking at the level of knowledge of participants, it is relatively low. The average score was 3.5 out of the possible 7, which is just 50%. This compares to an average of 59% in the APLUS study (Shim et al, 2009), which is described as a failing grade, and a range of 58-76% for the 14 countries in the OECD study (Atkinson & Messy, 2012).

The consensus view of participants about their financial situation can be described as 'they feel poor but they are coping', but the range of views covered the spectrum from struggling to comfortable. Most felt they had the ability to locate resources to assist them if necessary, although in many cases this would be their parents for both information and/or money. While young people recognise the importance of savings, this doesn't yet translate into a regular part of their financial management in many cases, sometimes because they don't have the surplus funds available.

SUMMARY CONCLUSION

The overwhelming conclusion from the study is that there is a lack of formal financial education, and a reliance, that may not be appropriate, on parental influence to develop financial management skills. This suggests there is a need to reconsider the place of personal financial education in the secondary school curriculum, if New Zealand is serious about raising the financial literacy of the population and realising the benefits that will bring. However, it is important that the content and delivery of any formal education be appropriately set, to ensure it meets the needs of the young people involved.

Informal education, such as that provided by the Commission for Financial Literacy and Retirement Income, is helping fill the gap left by formal financial education. This reinforces the importance of the work being done by the Commission and the value of the Sorted website. Therefore it is important that this work continues.

WHAT'S NEXT?

The next comprehensive study of this cohort will be undertaken in 2017. In the meantime, short focused surveys will be undertaken with this cohort looking at different issues related to personal finances, with the first due during 2014.

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