

**An Investigation into the Financial Literacy and  
Debt Literacy and Over-indebtedness of Third Level  
Students in Ireland**

By

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This research project is submitted in partial fulfilment of the Degree of  
Master of Business at the Athlone Institute of Technology.

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## **DECLARATION**

I have read the Institute's code of practice on plagiarism. I hereby certify this material, which I now submit for assessment on the programme of study leading to the award of (Master of Business) is entirely my own work and has not been taken from the work of others, save and to the extent that such work has been cited within the text of my work.

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## ABSTRACT

The significance of financial literacy and debt literacy to success, both at the family and national levels, cannot be overstated. The core concern of financial literacy is the understanding of key financial concepts such as inflation, interest rates, purchase decisions, financial liability, personal financial planning, and investments. Today, knowledge of these concepts among students has remained quite low. Overwhelming evidences from credible studies have proven, beyond any reasonable doubt that students' financial knowledge is inadequate.

The principal aim of this study was to establish the financial literacy, debt literacy, and over-indebtedness of students in Ireland. An exhaustive literature review provided crucial data and information that laid a strong foundation for the study. Using online survey that collected data from 472 third level students in Ireland, the study revealed that indeed financial literacy and debt literacy are low amongst college students. The study further established that gender influences financial literacy and debt literacy with females lagging behind on these areas. It further established that there exist some weak relationship between age and financial literacy and debt literacy of students. Additionally, marital status was established to influence financial literacy and debt literacy among college students with the divorced and married participants found to be more financially literate as compared to engaged and single participants. Irish students were found to score slightly below the international average in terms of financial and debt literacy.

The study recommends the incorporation of financial studies in the school curriculum. Additionally, it recommends the change of media for communicating financial literacy information to students from traditional means such as newspapers and magazines to the internet and social media, which were preferred sources by most participants in the study. Since the study established that many students have false confidence in their financial literacy skills, it further recommends the introduction of weekly financial challenges in schools to awaken the "sleeping" students to finally solve the disheartening level of financial illiteracy of college students in Ireland.

Key Phrases: Financial literacy, Debt literacy, Over-indebtedness, College students, Ireland.

## **ACRONYMS**

**BMPs:** Best Management Practices

**GDP:** Gross Domestic Product

**IAPF:** Irish Association of Pensions Fund

**ICT:** Information and Communication Technologies

**LIRS:** Lutheran Immigration and Refugee Service

**SPSS:** Statistical Product and Service Solutions

**SWOT:** Strengths, Weaknesses, Opportunities, and Threats

**UNDP:** United Nations Development Programme

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## **CHAPTER I: INTRODUCTION**

### **1.1 Chapter Introduction**

This chapter lays a strong foundation for the entire study. It addresses the concept of financial literacy and debt levels, thereby providing brief background information on the topic of study. The chapter further addresses the research aims and rationale and provides the outline of the study to enhance flow.

### **1.2 Research Background**

The core concern of financial literacy is the understanding of key financial concepts such as inflation, interest rates, purchase decisions, financial liability, personal financial planning, and investments. Today, knowledge of these concepts among students has remained quite low. Overwhelming evidences from credible studies have proven, beyond any reasonable doubt that students' financial knowledge is wanting. According to Richardson (2010), students' debt levels have increased at an alarming rate over the last few years. He goes further to approximate that students in Ireland accumulate £3,769 (€4372) annually in debts (Richardson, 2010). This debt rate is concerning.

Given the complexities of international and national financial systems, the need for sound financial knowledge is critical. Early accumulation of debts makes students vulnerable to bankruptcy in the future (Roberts & Jones, 2001). In fact, according to a bankruptcy report released by the U.S Congress Committee in charge of Housing and Banking in 2002, most bankruptcy filers in the year were people aged 25 years

and below. This is a further indication that young people face many financial challenges as compared to older adults. Savings trend among students and young adults is also poor, a further indication of little financial awareness. Considering that, savings provide a solid foundation for economic prosperity, poor savings pattern is a threat to future household and national economic progress (Mandell, 2008).

The long-term stability of families and the nation at large is highly dependent on the financial knowledge and skills of its young. This necessitates research to establish the factors fuelling this negative trend, and to find lasting solutions if possible. Numerous negative effects of financial illiteracy among students and young adults also necessitate the research. For instance, studies carried out by reputable researchers in the U.S have linked increased debt to increased anxiety (Mandell, 2008). Eliminating anxieties caused by poor financial decisions is possible by instilling sound financial knowledge and skills in students.

The economic downturn, which rocked many economies in 2007/2008, left many nations devastated. The U.S for instance, suffered a significant job loss resulting in the highest rate of joblessness in 26 years of 8% (Toby, 2012). Despite this significant economic drop, Ireland remained one of the worst affected. Lane (2011) claims, “While the global financial crisis has affected all economies to varying degrees, it has been especially severe in Ireland with a cumulative nominal GDP decline of 21 percent.” Recovering from the devastating effects of such a crisis requires active participation of both the government and citizens. However, how can the public, especially young adults, participate in the economic recovery process

without any basic financial knowledge? This research presents the possibility of suggesting viable ways of increasing financial awareness in students, which will consequently minimise challenges such as bankruptcy, high debt levels, poverty, and divorce, which can be attributed to poor financial decisions.

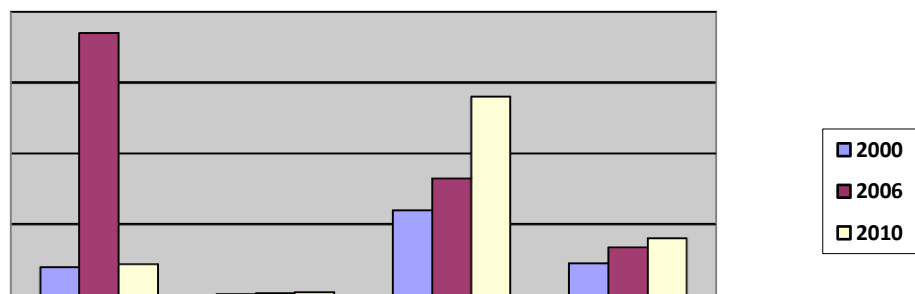
Students' debt levels have increased tremendously over the last few years. As a matter of fact, each individual born in a country grappling with economic instability accrues some level of debt. Studies indicate that the worst effects of household debt were between 2007 and 2011 owing to the recession in the US and other parts of Europe (Bertola, Disney and Grant, 2006).

According to a study by Sugden and Valania (2013), the level of debt among students in the United Kingdom and Ireland keeps rising by the day with the consequences that emanate from such situations worsening as time goes by. The authors reiterate that these consequences not only affect the students, but also the government and policy makers. Pedro (2006) stresses that indebtedness among students in Ireland is attributed to low income levels after school and withdrawal from courses before completion. Student debts emanate from the financial assistance they get from lending institutions. As Sugden and Valania (2013) illustrates, this form of lending is commonly called the students loan across different countries and learning institutions. Although it is mainly the students who bear the responsibility of the debt, in some instances, the learning institutions are caught in the middle of such inconveniences.



Collinge (2009) notes that diminishing employment for the youth has not made anything easier for them and their loan repayment plans. Currently, the outstanding loans among students are over 1 trillion dollars in the US alone (Sugden and Valania, 2013). The rate of default among the students is also becoming a source of extreme worry as it is making an already wanting situation even worse. According to Collinge (2009), over ten percent of college debts are, considered plainly delinquent, translating to a substantial increase of six percent in a span of ten years. The consequences of such loans are far reaching both in the short-term and long term basis.

Many Irish are unaware of their prospects in life because of the positioning of the country within the Eurozone. Out of the 27 countries in the EU, Ireland has the most unpredictable future (Richard, 2010). According to statistics, countries that fail to handle minute issues like personal and household debt might face a financial crisis in the end. The following graph indicates some of the most sensitive areas of fiscal review for Ireland.



Source: Richard (2010)

According to the graph, the value of the various types of personal debts increases except for purchase agreements, which might not really lead to purchase decisions. The public in Ireland are at risk of being unstable in the subsequent years while the government accrues more resources. Recession was one major reason for high loan take up in Ireland (Agarwal & Ambrose, 2009).

### **1.3 Research Rationale**

Many studies have attempted to establish the level of financial literacy and debt literacy among college students. However, only a few studies have been conducted focussing on students in Ireland. Today, financial knowledge has become so vital that survival without it is becoming harder by the day. The number of young people applying for bankruptcy is increasing daily, businesses are collapsing, and many families living from hand to mouth. If a permanent solution is not found to address these problems, they could worsen.

This study presents the opportunity to establish the level of financial literacy among students and the Irish society at large, and to suggest viable methods of addressing financial challenges among the young population.

This research can be of great assistance to governments, educational institutions, and policy makers in instituting sound economic policies and educative programs aimed at equipping students and young adults with basic financial knowledge. Its findings can help educational institutions in modelling their curriculum to meet students' expectations and to enrich it with finance subjects to foster financial knowledge.

Policy makers, on the other hand, can use its findings to put regulations on loan intake and acceptable credit levels to control students' debt intake, if other measures do not prove effective.

#### **1.4 Research Aim**

The principal aim of this study was to establish the financial literacy, debt literacy, and over-indebtedness of students in Ireland. Many research works have been carried out on these areas in other countries. However, literature on Ireland is scanty. This makes achieving the objectives of the study a huge task. To achieve the main objective, the study has been designed to address each variable separately by setting specific measurable objectives.

#### **1.5 Research Objectives**

The general objective of the research is to establish the level of financial literacy, debt literacy and over-indebtedness of students in Ireland. To achieve the set general objective, the research will explore and carefully analyse several specific objectives.

These objectives include:

1. Examine the literature on college students in relation to financial literacy, debt literacy, and over-indebtedness
2. Examine the differences, if any, in financial literacy levels, debt literacy levels and over-indebtedness in college students in Ireland based on:
  - a. Gender
  - b. Disciplines, e.g. business school vs. science school,
  - c. Years of study e.g. 1st year in college, 2nd...3rd...etc.

3. Determine how socio-demographic factors affect financial literacy levels, debt literacy levels and over-indebtedness in college students in Ireland
4. Compare Irish student's financial literacy levels and debt literacy levels to that of other nations.

## **CHAPTER II: LITERATURE REVIEW**

### **2.1 Chapter Introduction**

This section reviews the works done by other scholars and researchers in the area of students' financial literacy. It also identifies research gaps for the study. To analyse effectively the existing data and to establish the existing research gap, if any, the section is divided into sub-sections. Each subsection will analyse the pertinent issues influencing students' financial literacy and debt levels. These include; Financial knowledge of students in other countries, how educational curriculum aides or hinders financial literacy, how parents' financial literacy levels influence students' financial knowledge, how socio-demographic factors affect financial literacy, and students debt levels. A number of articles, books, and session papers have been written relatively recently on these subtopics.

## **2.2 Financial Knowledge of Students in Other Countries**

A study by Volpe, Chen, and Kotel (2002) extensively explored the financial knowledge of college students in the United States of America. The researchers surveyed 454 students, randomly selected from state Universities, to draw their conclusions on students' financial investment knowledge. Using a scale of 1-100%, where higher scores indicated high financial knowledge, the researchers' findings were in line with earlier studies showing low financial knowledge in students. Their findings showed a 44% average score for all students surveyed from both gender. This is a clear indication that University students had low financial knowledge. Their study further showed gender scores with male students found to score higher than their female counterparts did. Additionally, they were able to establish that business majors were more knowledgeable on financial matters as compared to other majors. Interestingly, the high knowledge showed by business majors was almost entirely attributed to curriculum, but not interest. This finding further reinforced studies showing students' low interest in financial matters.

Another study by Bianco & Bosco (2000), carried out in England revealed consistent results. The researchers surveyed 574 students. Unlike the research by Volpe, Chen, and Kotel (2002), which sampled students from different Universities, their study was limited to one University. This limited the chances of environmental factors, considered to vary from one place to another, influencing the research findings. The researchers established that students' financial literacy is poor. They went ahead to claim that the high level of debts accumulated by students is attributed to their

ignorance on the effects of accumulating high debts at young ages. They attributed growing trends of late marriages, job inflexibility, delayed home buying, and reduced property acquisition by young adults in England, to overburdening debts. According to the researchers, students' financial illiteracy is worrying, and has far-reaching effects, which should be countered "through education" (Bianco & Bosco, 2000).

AMF (2011) research on financial literacy of the French population showed poor results. The report claims that even though most people in France consider themselves financially informed the truth is otherwise with students being worse off. The research was question based and the scores attained were used to draw its conclusions. According to the findings, 87% of those surveyed had basic financial knowledge. However, concepts such as bond and interest rates proved less understood as only 47% and 52% respectively scored well in the areas. Interestingly, only 49% of the population exuded confidence in their knowledge to judge the viability of any investment opportunity. In all the categories, students scored lower marks.

### **2.3 How Educational Curriculum Aides or Hinders Financial Literacy**

Education curriculum plays a significant role in shaping students' thought patterns and decision-making. Many researchers have attempted to link education curriculum to students' financial literacy with much success. They claim states or regions that have firmly embedded financial education in their curriculum have seen a significant increase in students' level of financial literacy as compared to those that have not done so.

A 2005 research by Pinto, Mansfield & Parente clearly demonstrated the influence of educational curriculum on students' financial knowledge. The researchers interviewed college students to establish how "parents, peers, media, and schools" influence their financial knowledge especially on the use of credit cards. By employing paired t tests, the researchers established that parents and schools played significant roles in informing students' financial habits. They also observed that students spend a better part of their lives in schools, thereby relying heavily on what is learned in school to make their decisions. This places schools at the centre of financial literacy campaigns. Despite the growing number of college enrolments globally, financial literacy has continued to decline due to lack of incorporation of "finance into...curriculum" (Pinto, Mansfield & Parente, 2005). The researchers emphasise that financial literacy can be achieved by making financial studies compulsory in colleges. This recommendation was based on the findings showing higher financial knowledge in students pursuing business majors as compared to other disciplines.



A study conducted by the Securities and Exchange Commission in 1999, faulted poor curriculum for students' financial illiteracy. The study established that students were not receiving proper financial education. Worst still, educators did not emphasise to students the importance of personal financial literacy. The commission used standardised financial questions to draw its findings. To emphasise on the effectiveness of the curriculum, the commission selected its interviewees from business majors. Of those who participated in the process, 66% failed (Irish Association of Pensions Fund, 1999), (Hussey, 1997).

Enhanced curriculum has been proven to increase students' and young adults' financial literacy levels. A study by the United Nations Development Programme (UNDP) in 2011 on "*Increasing Financial Awareness Amongst Youth in Turkey*" revealed that modelling educational curriculum to incorporate personal financial skills enhances students' financial literacy. The study, which was co-financed by Vodafone and UNDP, established "non-formal training curriculum" majoring on basic financial knowledge such as budgeting and financial management (United Nations Development Programme, 2011). Research by McCormick (2008) on "*The Effectiveness of Youth Financial Education*" supports this position.

A 2011 study by the Ministry of Education of Toronto on "*Financial Literacy: Scope and Sequence of Expectations*" indicated the significance and importance of financial literacy among students. The study emphasises that financial education enables students to gather development skills in fields such as saving, borrowing, spending, investing, critical literacy, problem solving and even critical thinking

which are adversely related and connected to financial issues. The main aim of establishing education curriculums is to equip the students with adverse knowledge and skills which could be useful in enabling them comprehend and respond to any complex issues concerning their personal and family finances. The study's objective was to enlighten teachers on the importance of equipping students with financial literacy skills and knowledge.

A 2009 study by Lutheran Immigration and Refugee Service (LIRS) on "*Financial Literacy for Newcomers*" acknowledges the rapid increase in financial literacy programmes and initiatives which enable people gain financial skills and management concepts among citizens. The study further indicates that high schools are embracing as well as introducing fresh and new financial curriculums for students. Moreover, the research unveils how companies coordinate with other financial educators to provide sufficient education on financial literacy to their workers. These financial literacy knowledge and tools enable individuals to make informed decisions and choices about finance management.

Advanced Education curriculum equips students with useful skills and knowledge on financial literacy. According to a 2005 study conducted by Varcoe et al. "*Using a Financial Education Curriculum for Teens*" financial literacy among teenagers is very crucial. The introduction of "Money Talks: Should I be Listening?" curriculum enables teens to increase their personal financial literacy as well as appealing to them on the importance of considering such a curriculum. The study aimed at analysing the efficiency of the "Money Talks: Should I be Listening?" curriculum on the

financial behaviour as well as financial knowledge of teenagers. The results of the study indicate that the curriculum had a positive impact on high school students as it equipped them with vast knowledge on financial literacy and thus improved their attitude towards the subject. In addition, Varcoe et al (2005) confirm that the study reported a massive improvement on students' behaviour, something that would enable them make informed choices in regard to financial issues. Therefore, the study supports the incorporation of financial literacy curriculum into schools as it has a positive impact on the personal finance knowledge.

Concerns are raised on the basis that students especially in colleges receive inadequate financial education which may affect as well as hinder their future success. Financial knowledge is a crucial tool in today's changing economic environment. This is ascertained by the study carried out by Bryce L. Jorgensen on "*Financial Literacy of College Students: Parental and Peer Influences*" in 2007, which claims students need knowledge on both economic issues and personal finances. An extensive survey was carried out to collect the data aimed at picking some samples from undergraduates, graduates and even parents of these college students. Jorgensen (2007) confirms that financial education has a great influence on students' financial behaviour, attitude and even knowledge. The study also acknowledged the fact that financial literacy has huge impact on students' present and future relations in regards to family as well as physical safety and health. The study further revealed that most students graduate from school with inadequate knowledge and capability to make wise decisions in financial matters. This clearly portrays the notion that high school curriculum does not provide sufficient and

reliable financial knowledge to students. Furthermore, the research unveiled that approximately 80% of full-time college undergraduates own credit cards and at least have a balance of about \$2,226 (€1,664), however only 10% of the same students have a balance of over \$7,000 (€5,234). This states that only few students receive sufficient and detailed financial information and education.

A 2005 study conducted by Vitt et al. aimed at exposing the significance of financial education and its influence on savings, investing and learning has made significant impact on students' financial knowledge. The research was triggered by the high numbers of financially illiterate citizens in America. The study revealed that the incorporation of financial education in learning institutions and schools is a crucial step that equips both kids and young adults with financial knowledge. This means that school curriculums should endorse financial education and offer it alongside other subjects. The research unveiled that financial literacy as well as financial literacy education topic and subjects were not common in U.S in late 1990s thereby contributing to massive financial illiteracy being witnessed in the country at the time.

Financial illiteracy is seen as a common challenge which raises concern to governmental agencies, consumer advocates, policymakers and also consumer advocates throughout the world. Harnisch asserts this statement in his research titled *“Boosting Financial Literacy in America: A Role for State Colleges and Universities”* conducted in the year 2010. The study acknowledges that both colleges and universities should be in the frontline in endorsing financial education. However, this is not the case as institutions play undefined responsibility towards financial

education. Due to the increasing level of financial literacy, policymakers have come up with strategies to incorporate and mandate financial education in primary and high schools. The move is considered to improve the financial literacy amongst students. However, it has been discovered that some students do not pay much attention since they regard it as unnecessary. The study put it forth that college leaders have a crucial role to play in incorporating financial literacy in education curriculum. The study further stresses the importance of financial literacy in modern economy.

A 2012 study by Samkin, Low & Taylor on “*Incorporating Financial Literacy into the Secondary School Accounting Curriculum: A New Zealand Perspective*” examines and evaluates the probability that accounting can be taught as an elective in secondary and high schools as it is observed to have a positive impact on financial literacy. The Ministry of Education of New Zealand acknowledges the fact that accounting subject is of great relevance to students for as long as the education curriculum is concerned. The study also claims that accounting for secondary schools plays a vital role in promoting financial literacy among students. As a result, the Ministry of Education of New Zealand insisted on having accounting incorporated in the education curriculum, which seems to have worked as few students are financially illiterate in the country currently. The study established that deprived financial choices as a result of inadequate financial education may have a negative impact on students. Additionally, the research indicated that the financial behaviour of an individual is always affected by the financial literacy of that individual.

Advancement in education curriculum in regards to financial literacy depends on the knowledge of the respective individual who supervises guides and even teaches students or young adults. Therefore, people performing such duties must have adequate knowledge in the subject and be able to teach their students effectively. The study “*Dollar & Sense: Building Financial Dreams*” conducted by FINRA Investor Education Foundation in the year 2006 affirms that there is need for financial educators to have an overwhelmingly knowledge on the financial literacy. The study claims that young people between the ages of 18 to 24 years do not receive adequate education on financial subjects, something which leaves them unprepared for the future responsibilities. This is backed up by the Jump\$tart Coalition which unveils that only 10% of graduates from high schools and secondary schools have financial knowledge whereas the other 90% have inadequate and insufficient knowledge on the subject. The main purpose of this study was designed to enable all the educators become aware of the importance of incorporating financial literacy alongside the normal curriculum. The study reveals all the fields covered which include saving, budgeting and investing.

A study by Cude et al. (2006) “*College Students and Financial Literacy: What They Know and What We Need to Learn*” affirms the significance of education curriculum on financial literacy. The study examined how students in colleges acquire financial behaviour and knowledge. Moreover, the study examined factors and aspects that place numerous students at a bigger financial risk than others. The research revealed that parents usually play a key and vital role in most of their children’s financial

behaviour and socialization. The research puts forth that there are several states which admits the significance of financial education in schools and thus move ahead to incorporate financial literacy in classrooms. According to Cude et al. (2006), several companies have realised the importance of advancement in education curriculum in colleges by incorporating financial literacy in nearly all the disciplines. Financial education prepares students in college for the future responsibilities that awaits them.

The research by Furtuna (2008) "*College Students' Personal Financial Literacy: Economic Impact and Public Policy Implication*" evaluated and analysed the significance of financial literacy among students in college in Lynchburg, VA. The study examined how financial education influences students' suggestions, opinion and even decisions on all personal finance issues. During the study by Furtuna (2008), it was discovered that many Americans lack financial knowledge as a result of poor education curriculum which does not consider the significance of financial literacy. The study further claims the education curriculum lacks basic and vital financial information which largely affects students in regards to financial skills and knowledge. According to the research, approximately 96% of U.S. citizens may be financially dependent on the America government in the near future. For the government to avoid such problems in the future, the researcher suggested that financial education should be introduced in colleges to equip students with financial literacy knowledge. By introducing financial education in the curriculum, the government will equip the students with adequate financial knowledge, hence increasing their financial literacy level and potential rate of success in life.

According to Suiter & McCorkle (2008), the role education curriculum plays towards the development of financial literacy cannot be overstated. Therefore, with the introduction and application of maths in money issues, students are heavily equipped with adequate financial knowledge and skills which will enable them solve numerous financial matters they may encounter. The report further acknowledges the fact that financial literacy is always a critical and essential life skill for any person, especially in the current economic downturns. The involvement of certain organisations in supporting financial education amongst young people, especially students in colleges and high schools, allows them discover the importance of acquiring financial knowledge. The report further clarifies the significance of young students attaining financial awareness as it will enable them become financially independent. Suiter & McCorkle (2008) argue that by combining mathematics and financial education, students are being taught on how to develop responsible financial habits and practices.

The ability and aptitude to manage personal finances among students and graduates is massively becoming vital in the current world. Therefore, with an enhanced level of education curriculum, students will enjoy the benefits of financial literacy. A study by Chen & Volpe (2010) on “*An Analysis of Personal Financial Literacy among College Students*” examined the impact financial literacy would have on students’ decisions, opinions and thoughts. The study established the importance of financial education in a learning institution aiming to equip students with financial literacy. The study reveals how students in high schools are being denied the



opportunity to prepare themselves in terms of financial knowledge. The study demands the establishment of financial literacy among students in colleges, universities and even high schools. In conclusion, the introduction of “financial literacy” programs in the education curriculum will always influence financial knowledge of students at a tender age positively.

***H1: Type of education and discipline of study influence students’ financial literacy and debt literacy.***

## **2.4 How Parents' Financial Literacy and Debt Literacy Influence Students' Financial Knowledge**

Lamanna, Riedmann & Strahm assert, "Parents influence their children's health, weight, eating habits, math and language abilities, behaviours, and self- esteem" (2012). Many studies support this assertion. Students, like many other children, may choose to pattern themselves to their parents' opinions, values, and beliefs. Students who are exposed to basic concepts in finance at an early age have a higher tendency of digging deeper to know more in financial issues as compared to those who lack such basic knowledge. Many studies have attempted to establish the link between students' financial knowledge and their parents' financial knowledge for consistencies with much success.

Research by Williams (2010) showed that parents with little financial knowledge influenced their children's financial knowledge negatively. Using open-ended interview questions emailed to 10 interviewees, the researcher was able to determine the role of parents in their children's financial knowledge. Parents and their children were asked the same questions to provide a solid foundation for comparing their responses. Her findings revealed a positive relationship between parents' and their children's responses. She claims in her conclusion, "A child's most significant source of financial knowledge comes from their family" (Williams, 2010). She further claims that little attention is paid to passing of information from parents to children especially concerning financial matters by researchers, yet this forms an integral part of financial knowledge. Another independent research study carried out

by three highly recognised researchers Pinto, Mansfield & Parente, in 2005, gave similar findings. According to the researchers, students' financial attitude and spending patterns are, "transmitted by parents and other influential individuals" (Pinto, Mansfield & Parente, 2005). Clarke, et al. (2005) further strengthened this stand by explaining that the current generation's financial illiteracy is the manifestation of their parents' financial illiteracy.

Danes (1994) carried out another invaluable study on this area. According to his study, parents' role in their children's life, especially concerning financial knowledge, is transferring "*realistic and sensitive aspects*" of money to their children. In this regard, parents who fail to realise this crucial role end up failing in instilling sound financial knowledge in their children at tender ages. Danes (1994) concludes his findings by suggesting that the best financial lessons should begin at home. This is because at young ages, children have not developed "lasting poor financial habits," which may prove hard to eradicate (Danes, 1994). Since young adults tend to exhibit knowledge and skills acquired in their childhood, parents must know that, their failure to instil sound economic knowledge in their children due to either ignorance or lack of skills has led to the emergence of such a huge population with little or no financial knowledge.

A study by Weiss et al. (2011) affirms the massive impact of parents' teachings to their children on financial matters. Weiss et al.'s study was aimed at identifying the degree to which parents' financial knowledge influences the financial knowledge as well as financial behaviour of their children. The findings discovered that parents'

teachings usually equip children with massive financial knowledge. This information is supported by Jorgensen (2007) who claims that parents' financial knowledge influences their children's financial literacy. Nidar & Bestari (2012) support this idea and cites several reasons for the influence including education, personal income, faculty and insurance ownership.

Shim et al. (2009) assert that parents act as their children's "role models" since students emulate and learn from them. Shim et al. (2009) go further to claims that both parents and relatives are vital socialisation components in the process through which children are introduced to money. Children learn, develop, as well as expand their financial management knowledge and behaviour by simply observing and participating.

Research carried out in 2012 by Rodrigues et al. that surveyed approximately 612 students from various universities, analysed parents' role in their children's financial literacy in three dimensions, savings, budgeting and payment of bills, and found out that in almost all financial decisions made by students, there is the secret hand of their parents. The study revealed that approximately 75% of children in America learn nearly everything concerning management of money from their parents, while 87% of students in colleges, and 90% of those in high schools rely on their parents and family for financial guidance and advice. In addition, the study found that all students whose parents possessed a credit card developed a positive view of credit cards, whereas those students whose parents had no credit cards showed no interest in them.

*H2: Parents' financial literacy and level of education influence students' financial literacy and debt literacy.*

## **2.5 How Socio-Demographic Factors Affect Financial Literacy**

Socio-demographic factors such ethnicity, gender, family income, occupation, health, education, religion, origin (rural/urban), and age, have been scientifically proven to influence financial knowledge of students.

Research by Lusardi, Mitchell & Curto (2010) successfully linked socio-demographic factors to students' financial literacy. Using results from the *National Longitudinal Survey of Youth of 1997*, the researchers were not only able to determine that students' financial literacy is low, but also that financial illiteracy "was strongly related to socio-demographic characteristics and family financial sophistication" (Lusardi, Mitchell & Curto, 2010). For instance, they found out that college graduates with parents, who have retirement savings and stock, were 45% more likely to understand basic financial concepts as compared to those whose parents had no savings (Lusardi, Mitchell & Curto, 2010). Their study also established that males were more financially literate as compared to females. Even among same gender, there still existed varied financial literacy scores attributed to other socio-demographic factors. For instance, they found out that females from wealthy families were more likely to understand risk diversification than those from poor families. The role of education in financial literacy also emerged in this study. The researchers found out that people with higher education and high scores, were more likely to understand financial concepts as compared to the less educated.

Chen & Volpe (1998), when analysing the financial literacy of college students established that work experience influenced financial literacy. After surveying 924 college students, the researchers found out that only 53% of them were financial informed. Additionally, 70% of those who were financially informed had job experiences. On the other hand, students who had no vocational job experiences, no part time jobs, or internship experience, “had lower levels of knowledge” on financial matters (Chen & Volpe, 1998).

Financial literacy is usually influenced by gender differences. A study by OECD & INFE (2013) aimed at examining all possible factors that affects women in regards to financial literacy, established that women nearly always perform poorer than men in any financial knowledge tests. Moreover, the study displayed that women had less or little confidence in their own financial knowledge and skills. The study saw the importance of empowering women to participate fully in financial education programmes. The research agreed with the fact that many women with elite financial knowledge would do extremely better in saving money, controlling spending habits and even budgeting.

A study by Fornero & Monticone (2010) examined the relationship between financial knowledge and retirement plan. The study embarked on the data from “*Bank of Italy’s Survey*” which aimed at examining both household wealth and income. The researcher discovered the importance of having financial knowledge on inflation and even interest rates. In the study, males were discovered to be more aware of financial literacy than women. The study concentrated on the distribution of

financial skills and knowledge amid Italian residents to determine the relationship between financial literacy and retirement planning habits. It was unveiled that financial education plays a great role when it comes to financial decisions which include retirement planning. It is very unfortunate that many participants in the survey knew little or nothing about financial concepts such as inflation and interest rates.

*H3: Socio-demographic factors such as gender, age, and marital status affect financial literacy, debt literacy, and over-indebtedness.*



## **2.6 Existing Research Gap**

Many research studies reviewed above were conducted in other countries. Their findings are of great importance to not only governments, financial institutions, and policy makers in those countries, but also other nations like Ireland. According to Hoyer & MacInnis (2001), research carried out in one region can provide a solid foundation for understanding other regions' concepts despite those regions being out of the scope of the research. They argue, "The basic logic is that people of the same age are going through similar life experiences and therefore share many common needs, experiences, symbols, and memories, which, in turn, may lead to similar patterns" (Hoyer & MacInnis, 2001). According to Chen & Volpe (1998), students with little financial knowledge "tend to hold wrong opinions and make incorrect decisions." This creates a nation of financially illiterate population that can hardly make it through financial turbulences. With such scanty literature on Ireland, estimating the extent of such risks becomes impossible, thereby necessitating research specific to Ireland.

## CHAPTER III: METHODOLOGY

### 3.1 Chapter Introduction

In this section, the methodology adopted for the study is clearly outlined and their adoption justified. The section classifies the study using the onion model put forward by Saunders et al. (2003). In line with the model, the research strategy, philosophy, and procedures have been comprehensively discussed in this section. (Hussey, 1997).

### 3.2 Classifying the study

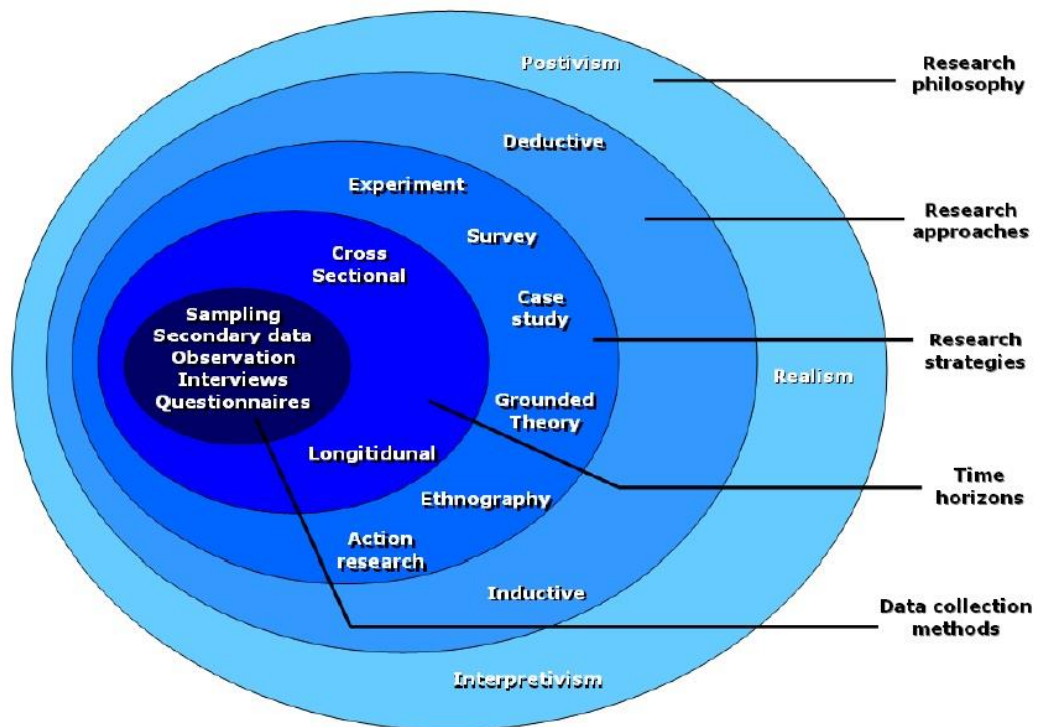


Figure 1: Research Classification (Saunders et al., 2003).

### **3.2.1 Research Philosophy**

The study follows a typical positivistic research philosophy. This is evident from its roadmap. It reviews literature relating to students' financial literacy, debt level, and over-indebtedness of students in Ireland, and generates hypothesis based on the literature reviewed and concludes using evidence from primary data to meet the research objectives. A study that begins by exploring existing literature then develops hypothesis before collecting primary data to assist in making conclusions is considered a positivist research (Collis & Hussey, 2009).

### **3.2.2 Research Approach**

Considering the existence of only a few researches carried out to establish the level of financial literacy, debt, and over-indebtedness of students in Ireland, a deductive approach was employed to help achieve the objectives of the study. The research explored existing literature from other regions, before establishing specific factors affecting students in Ireland. According to Crossman (2009),

Deductive reasoning happens when a researcher works from the more general information to the more specific. Sometimes this is called the "top-down" approach because the researcher starts at the top with a very broad spectrum of information and they work their way down to a specific conclusion. For instance, a researcher might begin with a theory about his or her topic of interest. From there, he or she would narrow that down into more specific hypotheses that can be tested. The hypotheses are then narrowed down even further when observations are collected to test the hypotheses. This

ultimately leads the researcher to be able to test the hypotheses with specific data, leading to a confirmation (or not) of the original theory and arriving at a conclusion.

This study has evidently adopted this approach by exploring literature on its study areas, gaining insights from the literature, using the insights to generate hypothesis, and going further to collect data to confirm or dispute the hypothesis generated.

### **3.2.3 Research Strategies**

The study adopted the survey strategy to help meet its objectives. Using survey presents an invaluable opportunity for collecting rich and accurate data. According to Saunders et al. (2003), survey is the most appropriate method for studies that require vast data from several respondents. NSSM supports this claim by saying, “it is an efficient method for systematically collecting data from a broad spectrum of individuals and educational settings.” The research has not adopted surveys simply for its advantages, but also because the researcher is familiar with its application and demands.

### **3.2.4 Time horizons**

The main aim of this study was to find out the level of financial literacy, level of debt, and over-indebtedness of students in Ireland. Achieving this objective is tasking and requires collecting data from several students. One of the specific objectives of the study was to compare these variables to other countries. This means the study explored past studies from other countries to establish the differences, if any, between the countries and Ireland. Even though the study relied on these past

data, its objectives was to establish the level of financial literacy, level of debt, and over-indebtedness of students in Ireland currently. This qualified the study to be under a cross-sectional time horizon.

### **3.2.5 Data collection methods**

#### **Secondary Research**

Secondary research was used as the first data collection method to provide a solid foundation upon which the study is rooted. The contribution of secondary research to any study cannot be overstated. The major merit of secondary research is that they are very cost effective; time saving; and also safeguards against the biasness that a researcher may have since the content in the secondary sources are always valid and fixed. The data from secondary sources used in the study originated from quality sources such as academic journals, websites, as well as the text books. Electronic sources were also brought on board to help address the topic of students' financial knowledge and debt level in Ireland better.

Due to budgetary concerns and time constraint, it was important that the study used secondary research to collect additional data. Further, the cost and time involved in carrying out a primary data collection exercise is extremely high especially when data required to complete a research involves many participants. As such, the research will rely on other concluded works to provide additional information for comparing the financial literacy of students in Ireland to those of students in other

nations. The success and accuracy of data comparison will be enhanced by using similar questions to those used in the concluded studies.

### **Primary Research**

According to Creswell (2003) primary research is “information collected for the first time specifically for a research study.” The research employed online survey in the data collection process.

### **3.3 Online Survey**

#### **3.3.1 Justification**

Online survey was adopted for the study because of its unbeatable advantages. First, when designed with a wonderful interface, and made appealing to the eye, many people can be willing to fill it. Secondly, the method is easy to administer especially if a good platform is chosen to host it. Social media, Facebook to be specific, was chosen to host the questionnaire.

#### **3.3.2 Online Survey Design**

An online survey was created using Google Drive. The survey consisted of thirty two questions which were distributed to the targeted sample. The questions were chosen to gain detailed data which would be used to analyse the research objectives. The researcher attempted replicate previously used questionnaires. The rationale for this was to make this research as directly comparatively as possible with the existing research. Due to this a number of questions have been modified and used from Lusardi's extensive research specifically when seeking to measure the aspects of financial and debt literacy. These questions are identically apart from using terminology which is familiar to an Irish population and also changing the currency to allow for cultural differences between the two populations. Numerous demographic and socio-economic questions were included in the questionnaire to allow the researcher to meet the specific objectives of the study. Each questions inclusion was carefully and meticulously considered. The researcher wanted to limit to questions asked in the survey to the minimum required to achieve each of the objectives due to the large response rate necessary. Appendix 13 shows the

questionnaire used in this study. Also at the end of the questionnaire the participants could submit their email address to participate in a free draw for an iPod Nano, they could also chose to submit their email address to get a copy of the results of the study.

The study adopted “a self-completing” questionnaire to collect data. Several processes were involved in creating the questionnaire and hosting it for participants to fill.

### **3.3.3 Hosting:**

The online questionnaire was hosted on the Facebook platform. The Facebook platform was chosen as the researcher could directly access seventy eight thousand people who fell into the population category of college students currently attending third level institutions in Ireland. This ease of access was the deciding factor when deciding where the online questionnaire should be hosted and advertised.

### **3.3.4 Incentive:**

After much consideration, the researcher decided to provide an incentive for willing participants of the study. An iPod Nano was purchased and potential participants were told this would be given away to a random participant upon completion of the study. This free iPod was used an incentive for potential participants to complete the questionnaire. The rationale for this incentive was to maximise the potential of gaining an adequate response rate from the sample size.



### **3.3.5 Advertising**

The Facebook page which was created to host the online questionnaire was then advertised using Facebook's advertising platform. The researcher advertised both the page and the actual link to the online survey. The total advertising cost came to \$241 or €180. The advertising campaigns enabled 55,398 unique users who fell within the target sample to be exposed to the advertisement an average of two times. The criteria used to select the target audience for the advertising campaign was anyone seventeen years old or older, who lives in Ireland, currently attending university with a projected year of graduation of 2013 – 2016 inclusive. Both, cost per click and cost per one thousand impressions strategies were used in the advertising campaign. Appendix 15 shows snapshots of the advertising campaign.

### **3.4 Sampling technique and Target Group**

According to the Union of Students Ireland (2013), the total size of the population of the study is 354,000. This research decided to take a representative sample group from that population. The sample technique used was non probability convenience sampling. The rationale for selecting this method of sampling was in order to maximise the potential of respondents. The total sample pool size selected was seventy eight thousand (Facebook, 2013). From this sample, the researcher did not expect a large response rate; therefore the incentive was introduced along with the advertising campaign. The researcher aimed to get more than three hundred and eighty four respondents from this sample as that was the recommended sample size as suggested by the research advisors (2006). In total 55,398 of the targeted 78,000 sample were exposed to the online survey. Of that 472, participants responded from different third level institutions in the country. This figure was well above the suggested figure of 384 (Research Advisors, 2006), see Appendix 14.

#### **3.4.1 Limitations**

Using Facebook as the host for the online questionnaire is a limitation to the study as potentially some of the target sample may not be targeted if they do not regularly interact with the Facebook platform. Therefore, using Facebook as a means of targeting the selected sample is a limitation.

### **3.5 Data analysis**

After the data collection exercise, the collected data was refined and thoroughly analysed for any deviant or misleading information. Statistical Package for the Social Sciences (SPSS) was used for data analysis. Various variables such as age, gender,

marital status, level of parents' education, discipline/area of speciality, and year of study in college were used to determine the level of financial literacy, debt literacy, and over-indebtedness of students in Ireland. Each of the variables was used to split the data to enable thorough and independent analysis.

### **3.6 Ethical Considerations**

According to Hall, "Ethical considerations are an integral part of the planning stage of all social research projects" (2008, p. 66). Without strict adherence to the ethical considerations, getting accurate results is highly improbable. In this regard, full cooperation of respondents will be required if the study is to achieve its set objectives. Therefore, several ethical considerations will be made to win the trust and support of respondents. The considerations include:

1. Confidentiality: all responses received from respondents will be treated with confidentiality, and will not be divulged to any third parties.
2. Transparency: respondents will not be kept in the dark regarding the use of data collected from them. As such, they will be informed adequately on the objectives of the study. Most importantly, data collected for the purposes of the research will not be used for any other reason other than meeting the research objectives.
3. Since the research findings may be of great interest to policy makers, educational institutions, and financial institutions, they may be availed to any of these interest groups, but the identity of correspondents shall remain confidential.

### **3.7 Limitations**

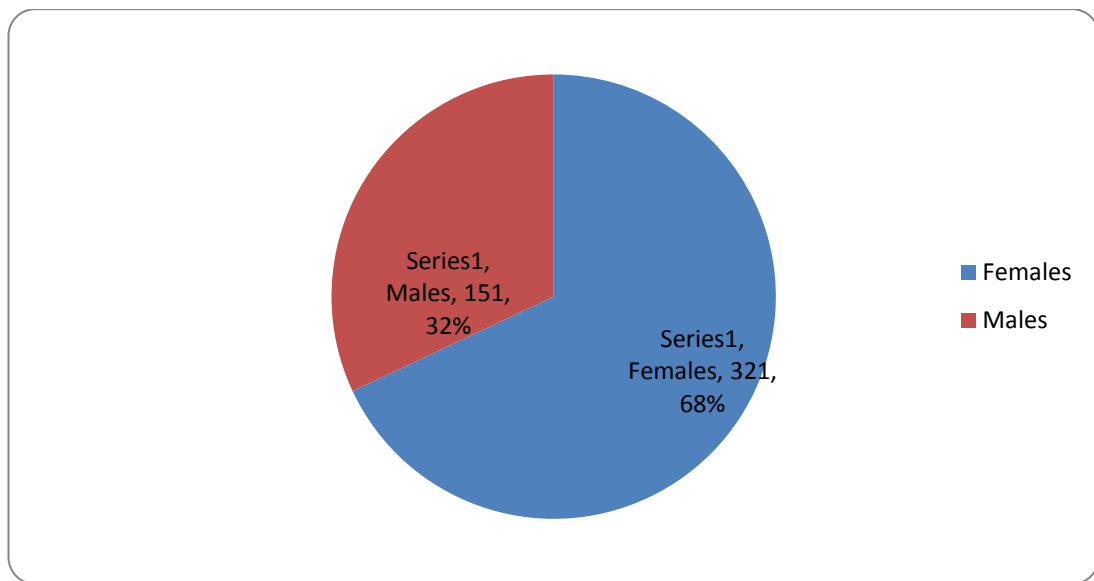
There are some limitations to the methodology employed during this investigation. Although the sample size is representative of the population, compared to the potential sample there was a poor response rate. Ideally the researcher would have like to have conducted research on the entire population, but due to cost constraints and timeframe issues the target sample of Facebook users was selected for ease of access.

## CHAPTER IV: FINDINGS ANALYSIS AND DISCUSSION

### 4.1 Chapter Introduction

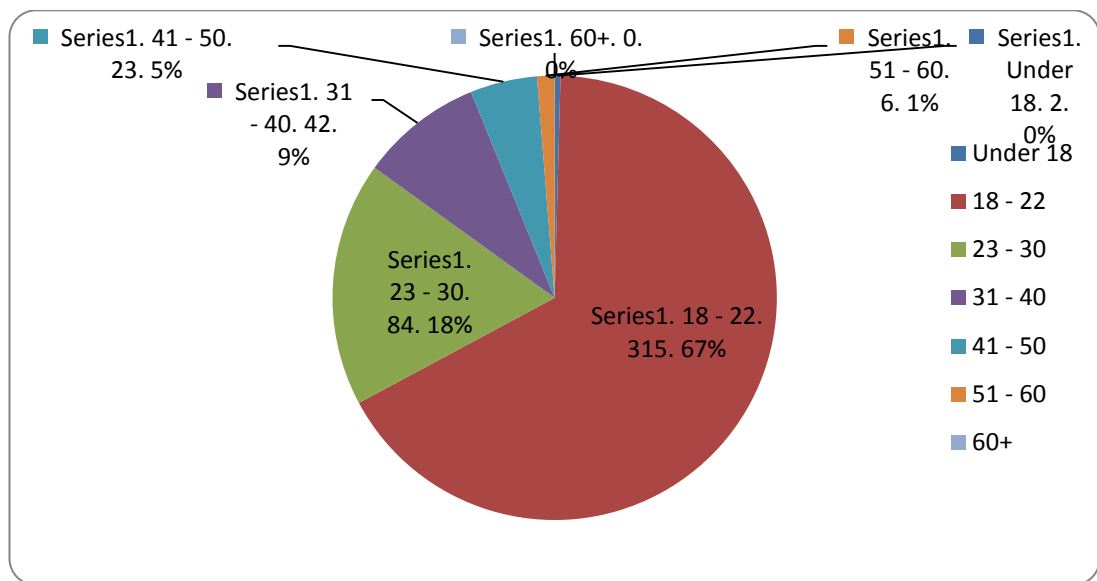
In this chapter, the study critically analyses all the findings made and links them to the research objectives. Using the primary data collected, the study establishes the validity of the hypotheses generated in the literature review. The findings and critical analyses are presented in tabulated formats, graphs, and narratives for ease of understanding.

### 4.2 Demographic Data Analysis



**Figure 2: What is your gender?**

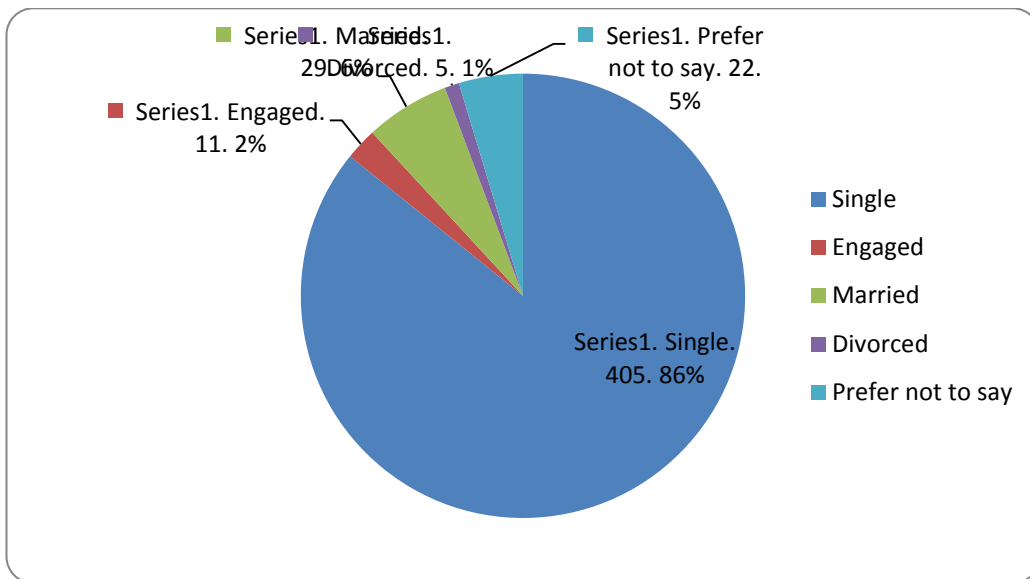
Figure 2 provides the details of participants by gender. According to the results portrayed, 68% of all participants were females, while only 32% were males. Given that one of the main objectives of the study was to examine the differences, if any, in financial literacy levels, debt literacy levels and over-indebtedness in college students in Ireland based on gender, it was paramount to capture the gender of each participant if this objective was to be achieved. In fact, according to Fonseca et al. (2012), “Understanding how and why men and women have different levels of financial literacy is crucial to developing policies aimed at reducing the gender gap and improving the saving and investing decisions of women.”



**Figure 3: What is your age?**

The study targeted college students in Ireland. Commonly, people believe college students are people aged 18 and above. However, a growing number of students join college at a much tender age. For this reason, the study did not limit participants’ age

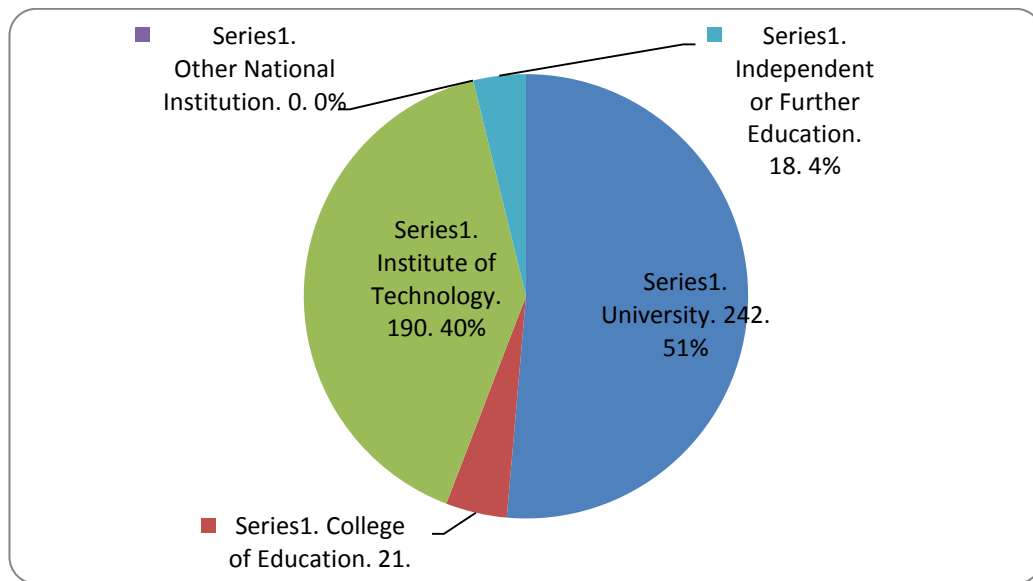
to be above 18 years. In fact, the findings seem to support the decision as 2 participants were below 18 years. As expected, a majority of college students were 18-22 years of age accounting for 67% of the participants. The age group 23-30 was the second most popular with a significant 18% of the participants falling in this category. Age segmentation was considered to give room for analysis of financial literacy deviations between various ages. Hoyer & MacInnis (2010) claim that using age segmentation is attributed to “The basic logic [...] that people of the same age are going through similar life experiences and therefore share many common needs, experiences, symbols, and memories, which, in turn, may lead to similar consumption patterns.”



**Figure 4: What is your current marital status?**

In the literature review section, several studies linked financial literacy and debt levels to marital status. A research by Williams (2010) showed that parents and those who are married tend to have high financial knowledge as compared to those who

are single. The difference in financial knowledge between these two groups can be attributed to responsibilities. Those who are married tend to be more responsible. The majority of those who took part in the study are single which represented 86% of participants, while those engaged only accounted for 2%. Married participants comprised 6%; divorced 1% while 5% chose not to say their marital status.



**Figure 5: What is the type of third level institution you attend?**

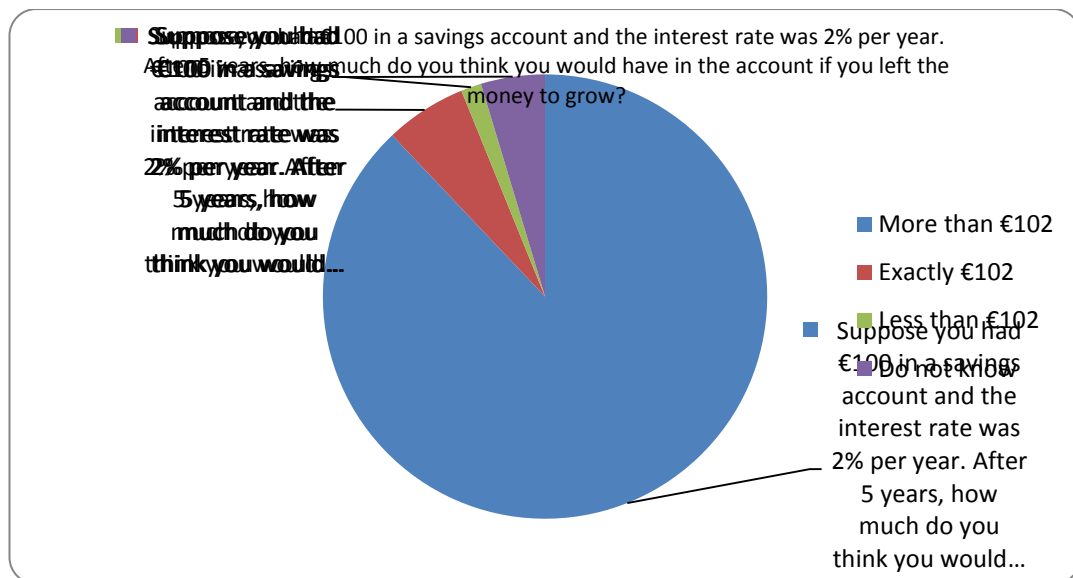
As shown in figure 4, 51% of participants were students in universities, 40% studied in various technological institutes, 5% were education students attending college of education, while 4% were students in independent colleges and institutions of higher learning. This shows us more detail of the demographics of the study. Previous studies have been conducted isolating one type of third level institution, or even one particular institution like that of Jorgensen (2007). Other studies have not limited the study to type of institution such as Lusardi (1999, 2008); this study therefore is



replicating this model where the study is conducted over a sample which is a representation of the entire population of students in one country.

### 4.3 Financial literacy, debt literacy, and over-indebtedness of students in Ireland

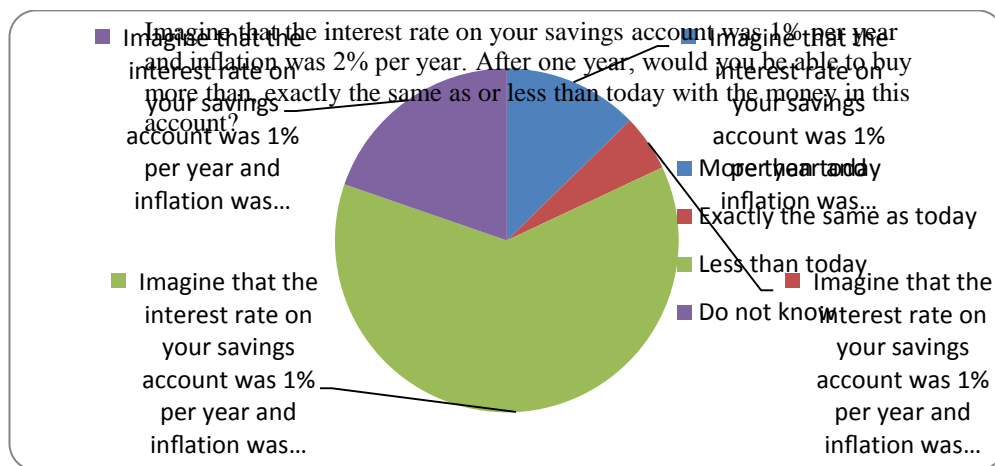
Several questions were designed to help achieve objective one. The first question was designed to test numeracy skills and understanding of interest rates. For the purposes of comparison with other countries, the question adopted was the same as that used by Lusardi (2008).



**Figure 6: Numeracy test**

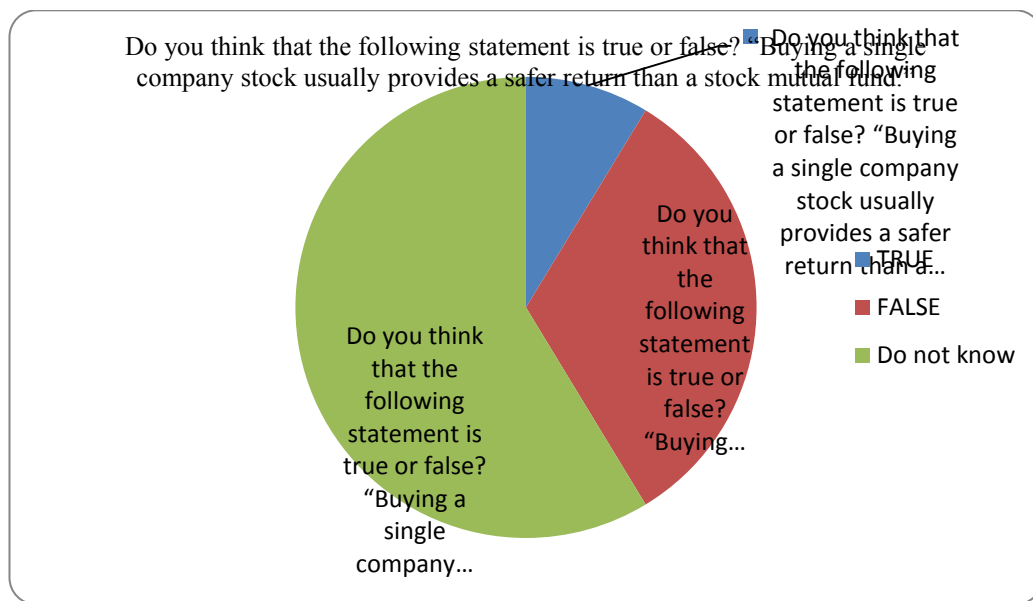
The basic interest rate question drew varied results. It was surprising that 88% of respondents got the answer correct. Using the same question, only 26% of respondents in the research by the Irish Association of Pensions Fund (IAPF) study got it right (Hussey, 1997). Only 7% of respondents got the question wrong, while 5% did not know what to say. In total, therefore, 12% of respondents did not answer

the question correctly. This was still a significant difference from the other studies conducted in Ireland before. It is interesting to see such a huge difference in these two studies on the Irish population. It can only be speculated the reason for the difference may be that the students in Ireland have a far better understanding than the general population. In fact Lusardi has found similar trends when comparing the results of the youth who answered this question which the results found over the general population in the USA, she states; “Numeracy is relatively high among the young; 79% of 23- to 28-year-olds in the NLSY can do the 2% interest calculation correctly. The percentage is much lower, however, when looking at the entire U.S. population, as seen in the most recent data from the 2009 Financial Capability Study. Only 65% were able to choose the right answer, and as many as 13.5% indicated that they did not know the answer to this simple question.” This bears a striking similarity to the results of this study when compared against the general Irish population, although there is a much larger gap observed between the students of Ireland and the general population of Ireland than Lusardi reported in the USA.



**Figure 7: Testing Inflation**

Understanding inflation is very important in the present world. Inflation affects saving and buying decisions and should be considered before making any financial commitments. As shown in figure 7, 62% of respondents got the question on inflation right. Strangely, IAPF's research scored higher, 76% in this question. 18% of the study's respondents got the question wrong, while a whopping 20% indicated that they didn't know the answer. In total, therefore, over 38% of respondents did not get the answer right. Lusardi and Mitchell reported that 54% answered the inflation question correct in a study conducted among the youth in 1997. It therefore appears that the students in this study did comparatively well in this aspect.

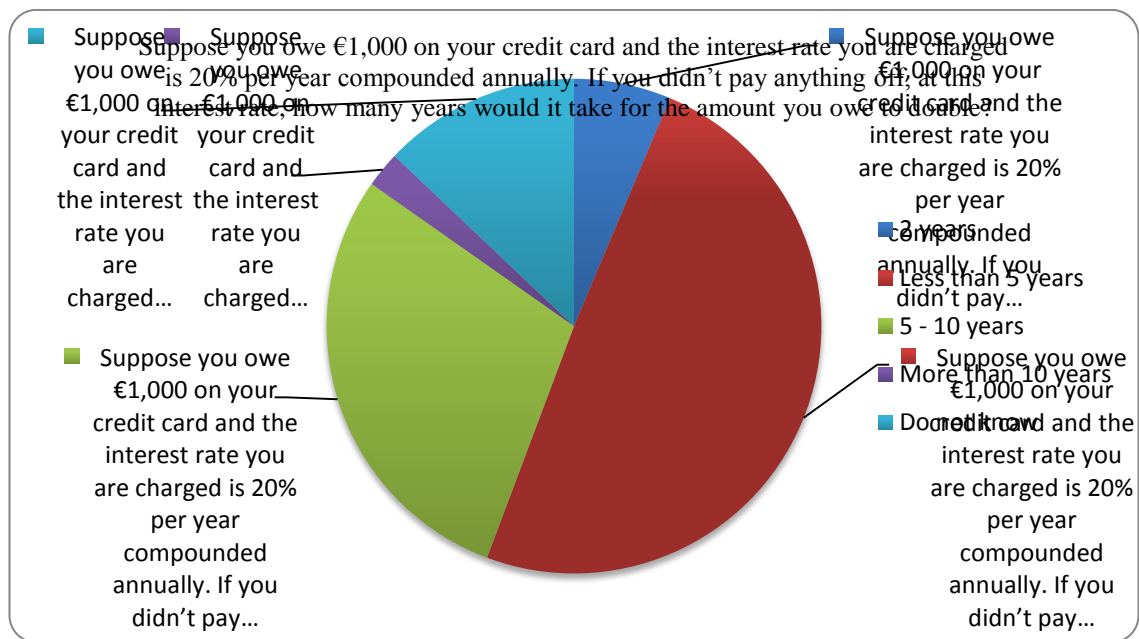


**Figure 8: Testing Risk Diversification**

Risk diversification proved to be an area most students are illiterate about if the findings of this study are anything to go by. Only 32% got the answer right. Though only 9% of those polled gave an incorrect answer, 59% did not know the right answer. This

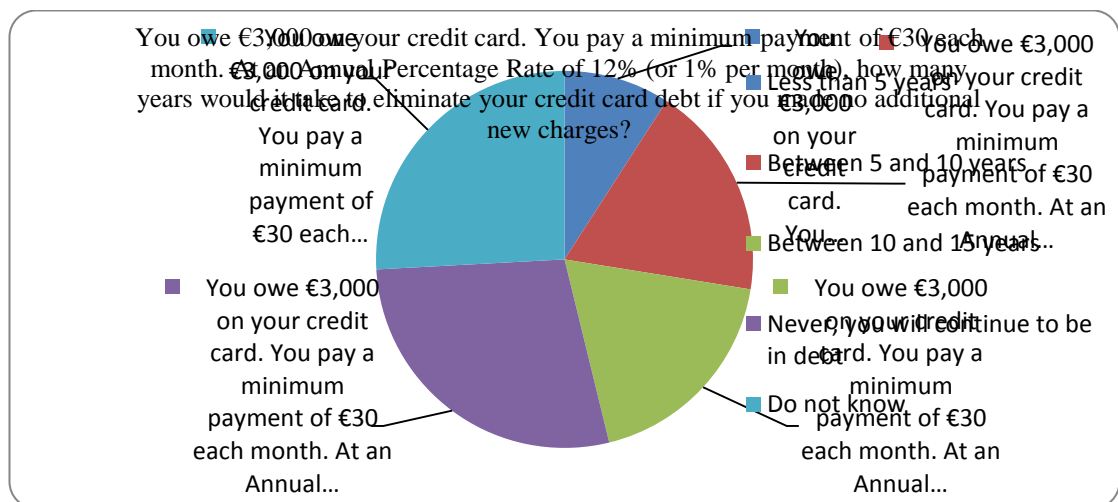
means that a total of 68% did not know the correct answer. This question was answered correctly by 56% of respondents in the research by IAPF. Lusardi in her 1997 research found a similar trend of a high percentage of “Do not know” responses. She states “. Only 47% answered the risk diversification question correctly and 37% responded that they did not know the answer.” This high percentage of participants who selected, do not know, was described as “worrying” by Lusardi (1997). This research has an even higher percentage of participants who selected do not know.

### Credit Card Interest Rate Tests



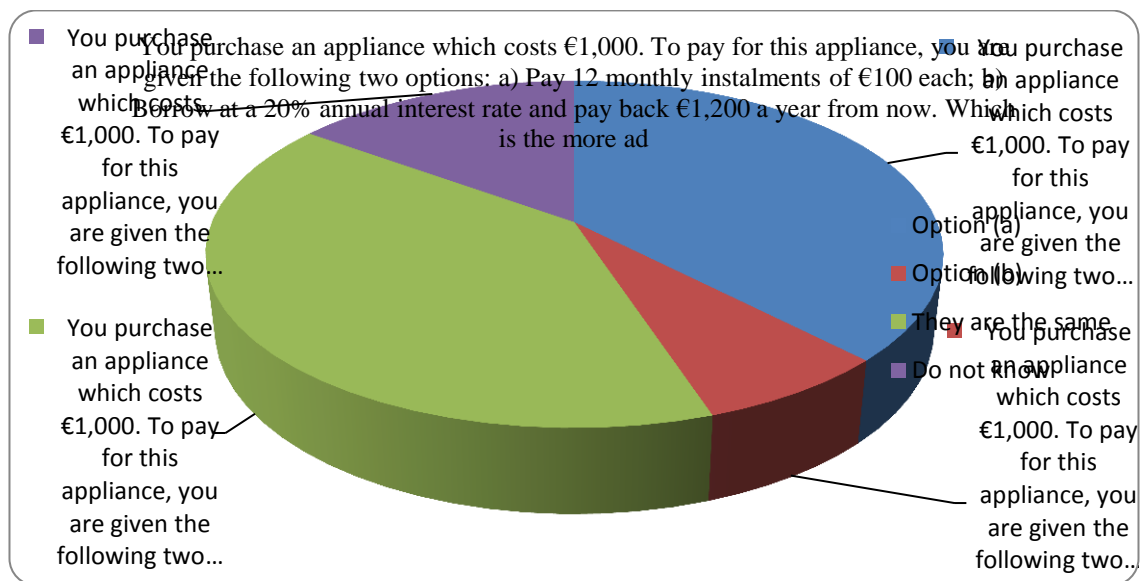
**Figure 9: Compound Interest Rate Test**

Given that many students use credit cards, three questions were designed to find out their knowledge on interest rate. The findings of the first question, shows that 50% of participants could answer simple compounded interest rate problems correctly, while 37% were not familiar with compounded calculations. 13% had no idea on compound interest rates. The results observed in this study are similar to those observed by other studies, including the 45.9% of correct responses observed by Loke, V., & Hageman, S. (2013). When this question was asked of U.S. respondents in 2008, fewer than 36% answered correctly (Lusardi and Tufano 2009). Additionally, 20% of the U.S. respondents in 2008 did not know the answer and 40% underestimated how long it would take for the debt to double when borrowing at an interest rate of 20%. This tendency to underestimate the power of interest compounding has been shown in other work, as well (Stango and Zinman 2009, Almenberg and Gerdes 2011).



**Figure 10: Simple Interest Rate Test**

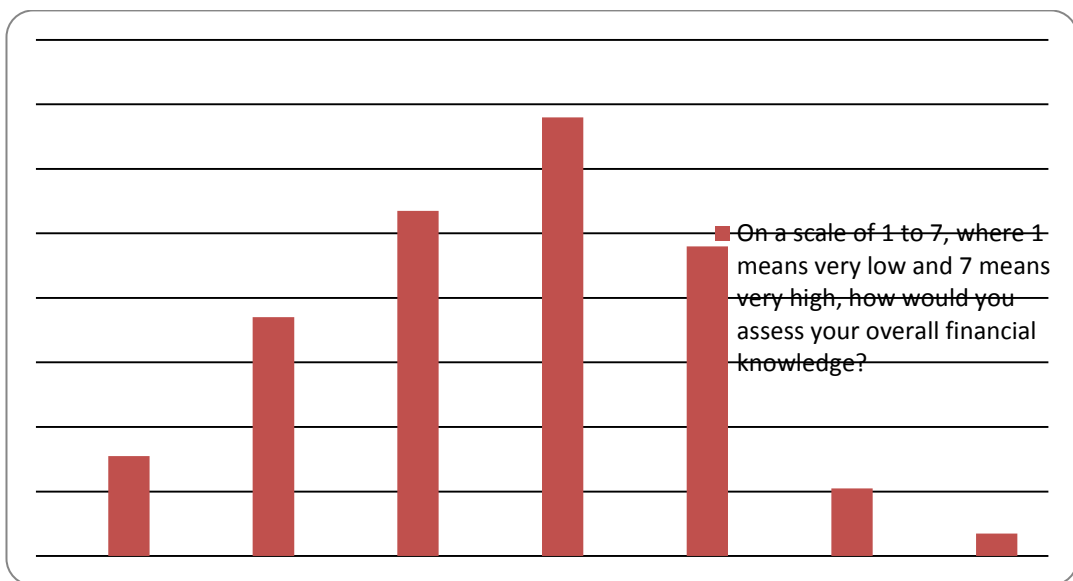
The results for this question are the most overwhelming. Only 28% of participants new that one cannot eliminate a credit card debt by repaying a minimum amount that is less than what is charged as interest for the debt. The remaining 72% gave either wrong answers or said they did not know. Lusardi (2008) found similar, however slightly higher, results with an American sample. Less than half the participants in that study answered the question correctly.



**Figure 11: Time Value of Money**

We are confronted with purchase decisions everyday of our lives. As such, understanding the time value of money is vital. However, the findings of this study show that most college students are worryingly illiterate about time value of money. Only 7% of those who took part in the study realised that it was vital to buy and pay later if price is the same. Perhaps the worst finding was that a resounding 40% felt that paying now or later was just the same. This is a clear indication that

most participants have no idea on the time value of money. Interestingly the results observed in this study are strikingly similar to the original research by Lusardi. She reported that 7% of American students got the question correct in 2009. This is consistent with what was reported by Stango and Zinman in 2007, that “individuals are systematically biased toward underestimating the interest rate out of a stream of payments.”

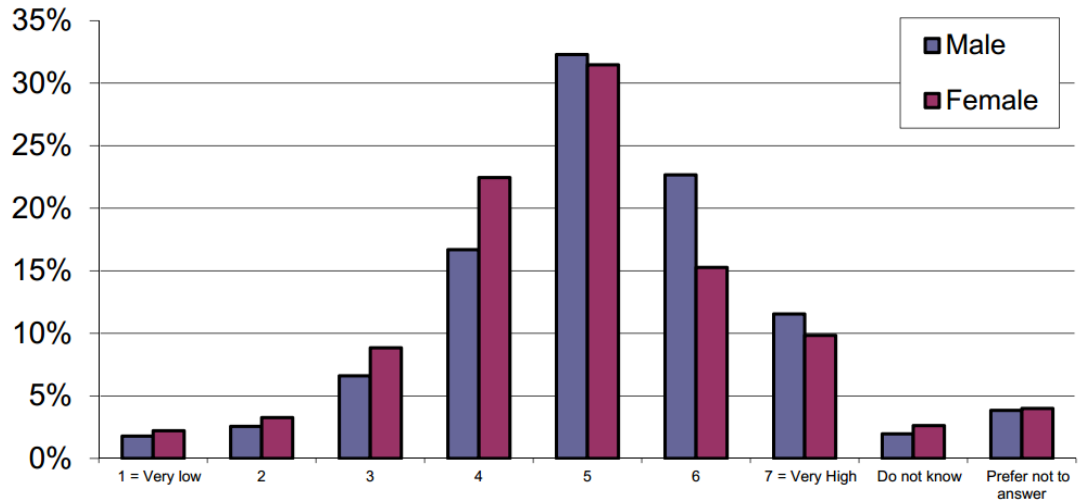


**Figure 12: Personal Financial Knowledge Rating**

Despite lower than anticipated scores on some questions, most participants of this study felt they were financially aware. This false confidence has persisted in many studies carried out in Ireland and other parts of the world. In the USA the following figure presents a very similar distribution of data.



On a scale of 1 (very low) to 7 (very high), how would you assess your overall financial knowledge?



This suggests that students worldwide, not just in Ireland, over-estimate their overall financial knowledge.

**4.4 Financial literacy levels, debt literacy levels and over-indebtedness in college students in Ireland based on gender.**

Examining the financial literacy levels, debt literacy levels and over-indebtedness in college students in Ireland based on Gender was central to this study. In the overall findings, shown in figure 6, 88% of respondents got the answer to the basic numeracy test right. Only 12% of respondents did not answer the question correctly. However, these results did not reflect gender performance on this specific question. Gender based results are shown on the figures below.

**Table 1: Suppose you had €100 in a savings account and the interest rate was 2% per year. After five years, how much do you think you would have in the account if you left the money to grow?**

| What is your gender? |       |                 | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------------------|-------|-----------------|-----------|---------|---------------|--------------------|
| Female               | Valid | Do not know     | 21        | 6.5     | 6.5           | 6.5                |
|                      |       | Exactly € 102   | 25        | 7.8     | 7.8           | 14.3               |
|                      |       | Less than € 102 | 4         | 1.2     | 1.2           | 15.6               |
|                      |       | More than € 102 | 271       | 84.4    | 84.4          | 100.0              |
|                      |       | Total           | 321       | 100.0   | 100.0         |                    |
| Male                 | Valid | Do not know     | 1         | .7      | .7            | .7                 |
|                      |       | Exactly €102    | 3         | 2.0     | 2.0           | 2.6                |
|                      |       | Less than € 102 | 3         | 2.0     | 2.0           | 4.6                |
|                      |       | More than € 102 | 144       | 95.4    | 95.4          | 100.0              |
|                      |       | Total           | 151       | 100.0   | 100.0         |                    |

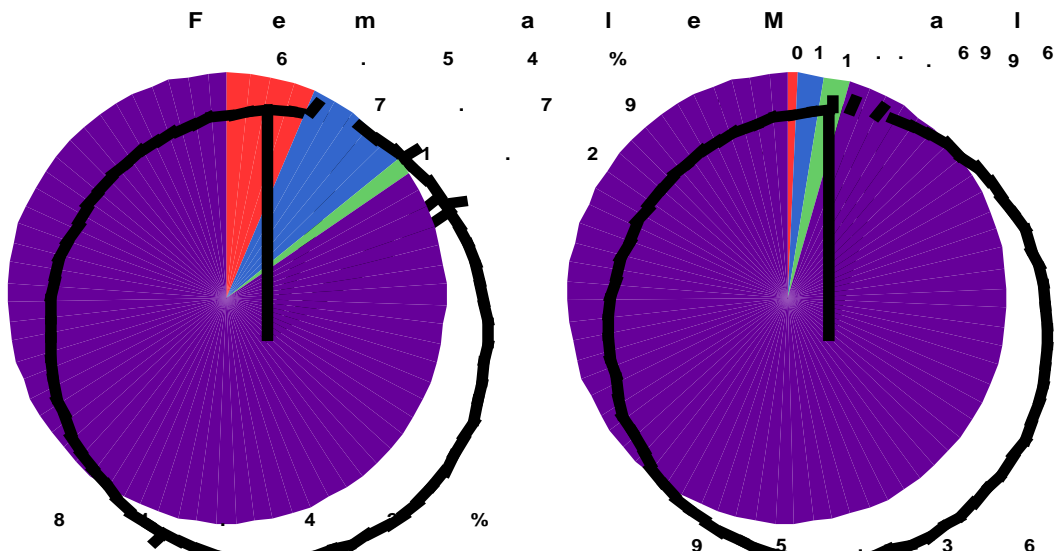


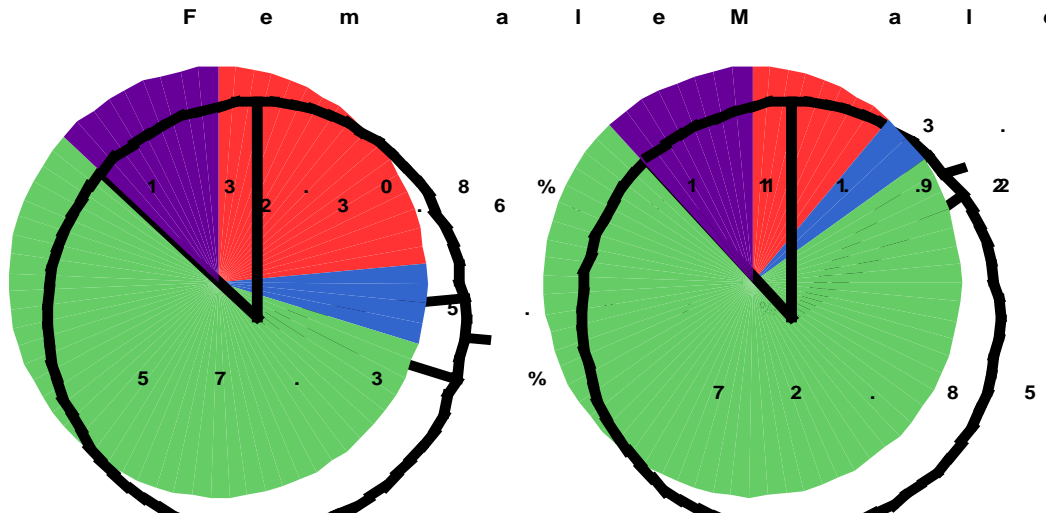
Figure 13: Gender based results for numeracy test

Even though the overall performance on the numeracy test was good, male participants did better than females. As shown in figure 13, 95.36% of males got the answer right, while only 84.42% of females got it right. We therefore see approximately an 11% difference between the male and female scores. This is a much larger difference than had been observed by previous researchers who found that when examining the same question amongst the youth in USA the males outperformed the females by 4.9% on this question (Lusardi, Mitchell, and Curto 2010). There was also a significant difference on the number of participants who had no idea, that is, those who indicated that they did not know the answer to the basic numeracy test. Females recorded a higher frequency in this category, recording 6.54%, while men recorded a mere 0.66%.

The interest rate question had a much lower performance. As shown in figure 7, 62% of respondents got the question on inflation right, while a whopping 20% indicated that they didn't know the answer. In total, therefore, over 38% of respondents did not get the answer right. But how did each gender perform in this question? The results are shown in table 2.

**Table 2: Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After one year, would you be able to buy more than, exactly the same as or less than today with the money in this account?**

| What is your gender? |       |                           | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------------------|-------|---------------------------|-----------|---------|---------------|--------------------|
| Female               | Valid | Do not know               | 76        | 23.7    | 23.7          | 23.7               |
|                      |       | Exactly the same as today | 19        | 5.9     | 5.9           | 29.6               |
|                      |       | Less than today           | 184       | 57.3    | 57.3          | 86.9               |
|                      |       | More than today           | 42        | 13.1    | 13.1          | 100.0              |
|                      |       | Total                     | 321       | 100.0   | 100.0         |                    |
| Male                 | Valid | Do not know               | 17        | 11.3    | 11.3          | 11.3               |
|                      |       | Exactly the same as today | 6         | 4.0     | 4.0           | 15.2               |
|                      |       | Less than today           | 110       | 72.8    | 72.8          | 88.1               |
|                      |       | More than today           | 18        | 11.9    | 11.9          | 100.0              |
|                      |       | Total                     | 151       | 100.0   | 100.0         |                    |



**Figure 14: Gender based results for inflation rate test**

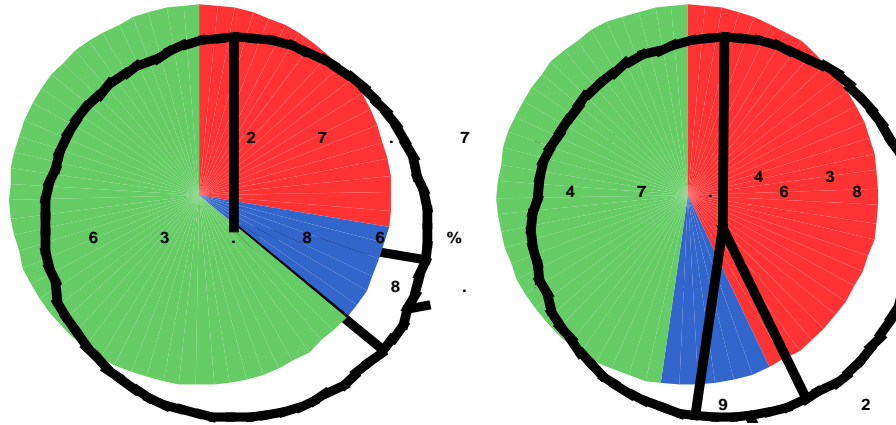
From the above gender based findings, it is clear that females performed poorly when compared to males. In fact, it is clear that they weighed down the males. Whereas 72.85% males got the question right, only 57.32% of female participants got it right. Females who were unsure of the question and did not attempt were equally high, 23.68% as compared to only 11.26% of males.

Again similar results for this question are observed worldwide with males consistently and significantly outperforming their female counterparts. The average difference between males and females from observing other study results is 10.9% (Lusardi, Mitchell, and Curto 2010).

The question on risk diversification revealed that both gender are ill-equipped on issues of risk diversification. Findings shown in figure 8 shows that only 32% of participants are knowledgeable on risk diversification. Though only 9% of those polled gave an incorrect answer, 59% did not know the right answer. When these findings were further broken down based on gender, females still performed dismally (Figure 15 & Table 3).

**Table 3: Do you think that the following statement is true or false? Buying a single company stock usually provides a safer return than a stock mutual fund.**

| What is your gender? |       |             | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------------------|-------|-------------|-----------|---------|---------------|--------------------|
| Female               | Valid | 0-FALSE     | 89        | 27.7    | 27.7          | 27.7               |
|                      |       | 1-TRUE      | 27        | 8.4     | 8.4           | 36.1               |
|                      |       | Do not know | 205       | 63.9    | 63.9          | 100.0              |
|                      |       | Total       | 321       | 100.0   | 100.0         |                    |
| Male                 | Valid | 0           | 65        | 43.0    | 43.0          | 43.0               |
|                      |       | 1           | 14        | 9.3     | 9.3           | 52.3               |
|                      |       | Do not know | 72        | 47.7    | 47.7          | 100.0              |
|                      |       | Total       | 151       | 100.0   | 100.0         |                    |



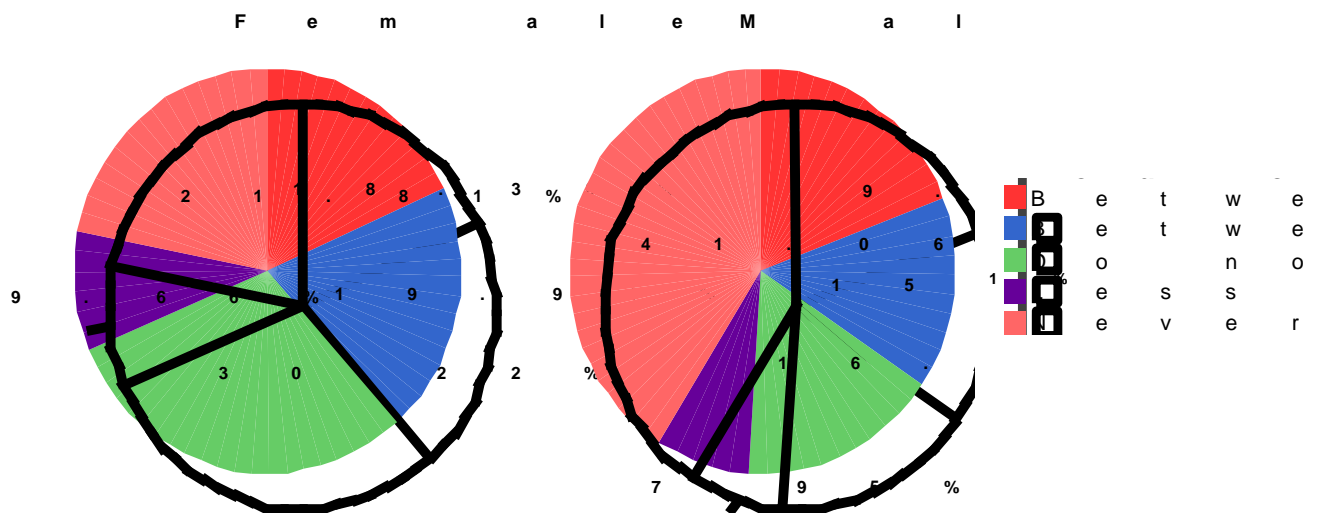
**Figure 15: Risk diversification based on gender**

In the above risk diversification question, females contributed largely towards the poor results attained. Whereas 43.05% of male participants got the question right, only 27.7% of females got it right. Again these findings are consistent with all other research on the area of risk diversification where gender is investigated. This study see's males outperform females by over 15%; the average difference is 11.9% according to Lusardi, Mitchell and Curto (2010). This question had the highest number of-I do not know responses. Even in this category, female participants still lead the way by recording 63.86% against 47.68% by male participants, again a phenomenon we see in numerous other studies (Lusardi, 2008). This question gets the highest number of do not know responses in most of the studies conducted worldwide on student populations.

This interest rate question had the most disheartening finding. Only 28% of participants new that one cannot eliminate a credit card debt by repaying a minimum amount that is less than what is charged as interest for the debt. Despite the poor results, male participants seemed more informed than their female counterparts on issues of credit card interest rates (Table 4).

**Table 4: You owe € 3,000 on your credit card. You pay a minimum payment of € 30 each month. At an Annual Percentage Rate of 12% (or 1% per month), how many years would it take to eliminate your credit card debt if you made no additional new charges?**

| What is your gender? |       |  | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------------------|-------|--|-----------|---------|---------------|--------------------|
| Female               | Valid | Between 10 and 15 years                | 59        | 18.4    | 18.4          | 18.4               |
|                      |       | Between 5 and 10 years                 | 64        | 19.9    | 19.9          | 38.3               |
|                      |       | Do not know                            | 97        | 30.2    | 30.2          | 68.5               |
|                      |       | Less than 5 years                      | 31        | 9.7     | 9.7           | 78.2               |
|                      |       | Never, you will continue to be in debt | 70        | 21.8    | 21.8          | 100.0              |
|                      |       | Total                                  | 321       | 100.0   | 100.0         |                    |
| Male                 | Valid | Between 10 and 15 years                | 29        | 19.2    | 19.2          | 19.2               |
|                      |       | Between 5 and 10 years                 | 23        | 15.2    | 15.2          | 34.4               |
|                      |       | Do not know                            | 25        | 16.6    | 16.6          | 51.0               |
|                      |       | Less than 5 years                      | 12        | 7.9     | 7.9           | 58.9               |
|                      |       | Never, you will continue to be in debt | 62        | 41.1    | 41.1          | 100.0              |
|                      |       | Total                                  | 151       | 100.0   | 100.0         |                    |



**Figure 16: Simple Interest Rate Test Based on Gender**

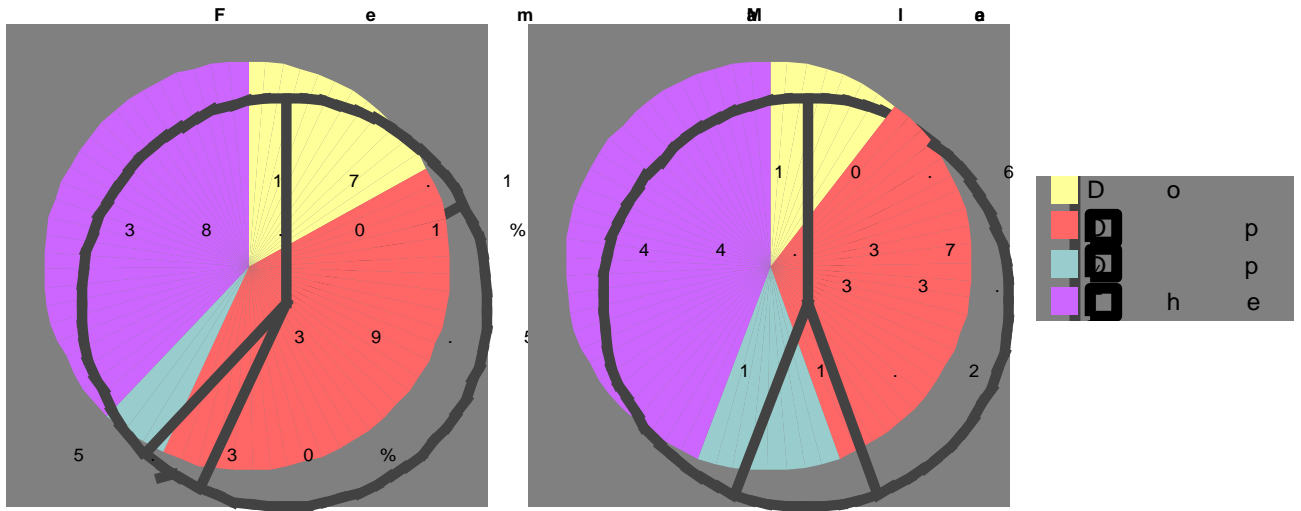
Apart from the responses to this question being the most disheartening, they also had the widest gap between the two genders. As shown in figure 16, 41.06% of males got the answer right, while only 21.81% of females got it right. This is almost half of the percentage of males who got the question right. Another wide difference can be seen in the number of respondents who had completely no idea on the subject thereby choosing to say-do not know. Only 16.56% of males fell in this category, while 30.22% of females comfortably found themselves in the category. This is almost twice the percentage of male participants in the same category.

Females still lagged behind on the knowledge about time value of money. Even though the overall study showed that only 7% of participants realised that it was vital to buy and pay later if price is the same, females contributed significantly to this poor results.

| What is your gender? |       |                   | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------------------|-------|-------------------|-----------|---------|---------------|--------------------|
| Female               | Valid | Do not know       | 55        | 17.1    | 17.1          | 17.1               |
|                      |       | Option (a)        | 127       | 39.6    | 39.6          | 56.7               |
|                      |       | Option (b)        | 17        | 5.3     | 5.3           | 62.0               |
|                      |       | They are the same | 122       | 38.0    | 38.0          | 100.0              |
|                      |       | Total             | 321       | 100.0   | 100.0         |                    |
| Male                 | Valid | Do not know       | 16        | 10.6    | 10.6          | 10.6               |
|                      |       | Option (a)        | 51        | 33.8    | 33.8          | 44.4               |
|                      |       | Option (b)        | 17        | 11.3    | 11.3          | 55.6               |
|                      |       | They are the same | 67        | 44.4    | 44.4          | 100.0              |
|                      |       | Total             | 151       | 100.0   | 100.0         |                    |

**Table 5: You purchase an appliance which costs € 1,000. To pay for this appliance, you are given the following two options: a) Pay 12 monthly instalments of € 100 each; b) Borrow at a 20% annual interest rate and pay back € 1,200 a year from now. Which is the more advantageous offer?**

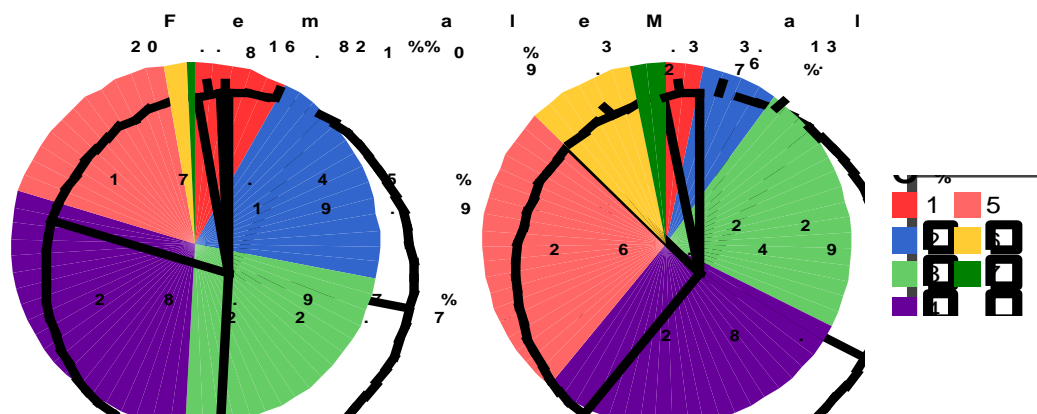




Generally, the performance in this question was very poor. However, even with the poor performance, males still outwitted females by a huge margin. 11.26% of males got the question right, while a meagre 5.30% of females got it correct. The percentage of students who thought the answers were the same was astonishing. 33.7% of males did not see any difference in the two choices, as well as 39.56% of female participants.

| What is your gender? |       |       | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------------------|-------|-------|-----------|---------|---------------|--------------------|
| Female               | Valid | 1     | 26        | 8.1     | 8.1           | 8.1                |
|                      |       | 2     | 64        | 19.9    | 19.9          | 28.0               |
|                      |       | 3     | 73        | 22.7    | 22.7          | 50.8               |
|                      |       | 4     | 93        | 29.0    | 29.0          | 79.8               |
|                      |       | 5     | 56        | 17.4    | 17.4          | 97.2               |
|                      |       | 6     | 7         | 2.2     | 2.2           | 99.4               |
|                      |       | 7     | 2         | .6      | .6            | 100.0              |
|                      |       | Total | 321       | 100.0   | 100.0         |                    |
| Male                 | Valid | 1     | 5         | 3.3     | 3.3           | 3.3                |
|                      |       | 2     | 10        | 6.6     | 6.6           | 9.9                |
|                      |       | 3     | 34        | 22.5    | 22.5          | 32.5               |
|                      |       | 4     | 43        | 28.5    | 28.5          | 60.9               |
|                      |       | 5     | 40        | 26.5    | 26.5          | 87.4               |
|                      |       | 6     | 14        | 9.3     | 9.3           | 96.7               |
|                      |       | 7     | 5         | 3.3     | 3.3           | 100.0              |
|                      |       | Total | 151       | 100.0   | 100.0         |                    |

**Table 6: On a scale from 1 to 7, where 1 means very low and 7 means very high, how would you assess your overall financial knowledge?**



**Figure 18: Perceived Financial Awareness Based on Gender**

From the findings of the study, it is evident that females are less financially informed as compared to males. However, they tend to think they are almost as informed as their male counterparts on financial matters. From the results of the study, 28.57% of

female participants rated their financial knowledge at 4, close to the 28.48% of males.

The results found in this study are consistent with other research conducted on college students in relation to financial literacy, debt literacy and over-indebtedness and analysed based on gender. Chen and Volpe in 2002 stated that “women generally have less knowledge about personal finance topics. Gender differences remain statistically significant after controlling for other factors such as participants' majors, class rank, work experience, and age”. Many other studies have obtained similar results and concluded that males were more financially literate compared to females Lusardi, Mitchell & Curto (2010), Fornero & Monticone (2010) and OECD & INFE (2013). In fact there is little or no evidence that female college students ever outperform male college students in terms of financial and debt literacy; although a minority of studies have concluded there was no statistically significant difference between the genders. This study does further to fuel the argument that males college students are more financially and debt literate than their female counterparts. Interestingly there is no compelling evidence available as to why this is the case. Some researchers speculate that it may have something to do with the chemical make-up of the brain; the researcher of this study is sceptical of such claims with no clear evidence. Perhaps research should be carried out in this area to investigate why males consistently outperform females in the area of financial and debt literacy.

#### **4.5 Financial literacy levels, debt literacy levels and over-indebtedness in college students in Ireland based on discipline of study.**

Other studies have shown a significant difference in financial knowledge in terms of areas of speciality/disciplines. This study affirmed these earlier findings and further asserts that there is not just a difference in financial literacy based on specialities, but a significant difference.

From question one, interdisciplinary differences in performance started to emerge. When asked, “Suppose you had €100 in a savings account and the interest rate was 2% per year. After five years, how much do you think you would have in the account if you left the money to grow?” the responses received showed that students studying business, accounting, and economics fared well in financial literacy (Appendix 6).

Out of all the business, accounting, and economics students who took part in the study, 90.00% got the question right. Three other disciplines, engineering, IT/Computing, and social sciences, performed well in this question, but this could be attributed, in part, to the small number of participants in those disciplines. Engineering recorded 94.44% correct responses, IT/Computing 97.22%, while social sciences 97.06%. It also emerged that the students in the business disciplines had the lowest “do not know” rate of 1.25% as compared to 5.5% in engineering, 6.02% in arts, 11.27% in humanities, 2.75% in IT/Computing, 7.69% in medicine, 1.29% in science, and 2.94% in social sciences.

In the second question, “Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After one year, would you be able to buy more than, exactly the same as or less than today with the money in this account?” the students in the three disciplines, business, accounting, and economics, performed way ahead of the others as shown in figure 19 and detailed in appendix 7.

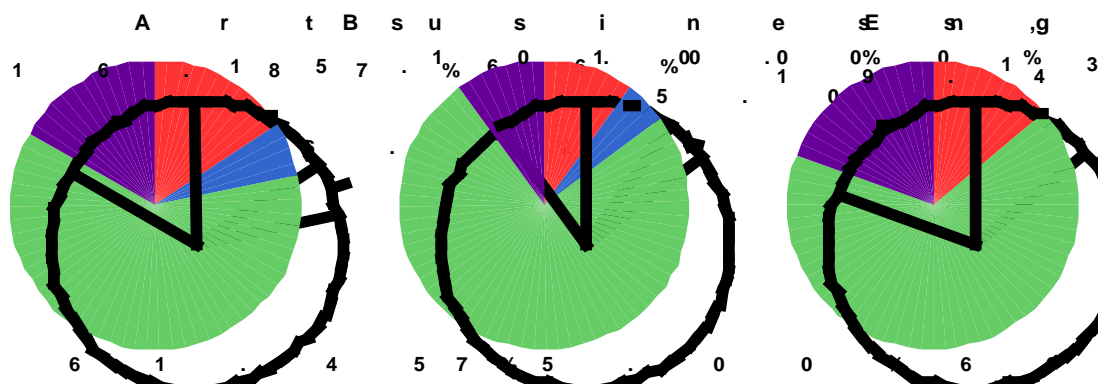


Figure 19: Arts, Business, Accounting, Economics, and Engineering Students’ performance

In this question, 75% of business, accounting, and economics students excelled, while only 72.22% of students in IT/Computing who had performed better in previous questions got the question right. Students in other disciplines such as social sciences, science, and nursing performed dismally in this question as shown in figure 20. This basic question on inflation showed skewed differences in financial literacy of students in different disciplines.

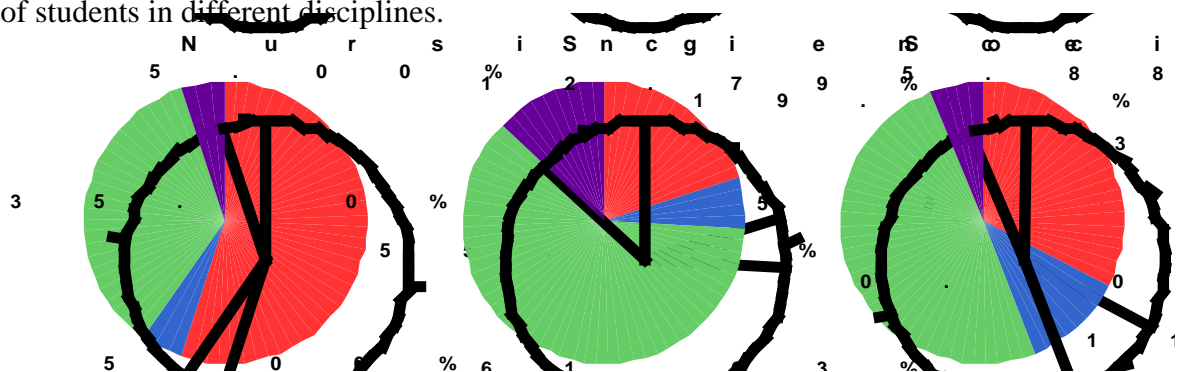


Figure 20: Nursing, Science, and Social Sciences Students’ Performance

Earlier, we had established that the knowledge of risk diversification was very low amongst students. If analysed in terms of disciplines, it emerges that students in business, accounting, and economics and those in engineering performed better than the other students in the other disciplines. 48.75% of business, economics, and accounting students got the question right, while 55.56% of those in engineering got it right as well. Students in nursing, arts, medicine, science, and humanities continued to lag behind with science attaining 26.74%, arts 22.85%, medicine 23.08%, humanities 29.58%, and nursing 15.00% (Table 7). This third question's findings seem to conform to a pattern indicating that students in engineering have a high financial knowledge that rivals those of students in business, economics, and accounting.

| Which of the following best describes your major or area of study in college? |       |             | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|-------|-------------|-----------|---------|---------------|--------------------|
| Arts  | Valid | 0           | 19        | 22.9    | 22.9          | 22.9               |
|   |       | 1           | 12        | 14.5    | 14.5          | 37.3               |
|   |       | Do not know | 52        | 62.7    | 62.7          | 100.0              |
|   |       | Total       | 83        | 100.0   | 100.0         |                    |
| Business, Accounting or Economics   | Valid | 0           | 39        | 48.8    | 48.8          | 48.8               |
|   |       | 1           | 6         | 7.5     | 7.5           | 56.3               |
|   |       | Do not know | 35        | 43.8    | 43.8          | 100.0              |
|   |       | Total       | 80        | 100.0   | 100.0         |                    |
| Engineering   | Valid | 0           | 20        | 55.6    | 55.6          | 55.6               |
|   |       | 1           | 3         | 8.3     | 8.3           | 63.9               |
|   |       | Do not know | 13        | 36.1    | 36.1          | 100.0              |
|   |       | Total       | 36        | 100.0   | 100.0         |                    |
| Humanities  | Valid | 0           | 21        | 29.6    | 29.6          | 29.6               |
|   |       | 1           | 6         | 8.5     | 8.5           | 38.0               |
|   |       | Do not know | 44        | 62.0    | 62.0          | 100.0              |
|   |       | Total       | 71        | 100.0   | 100.0         |                    |
| I.T. / Computing  | Valid | 0           | 12        | 33.3    | 33.3          | 33.3               |
|   |       | 1           | 5         | 13.9    | 13.9          | 47.2               |
|   |       | Do not know | 19        | 52.8    | 52.8          | 100.0              |
|   |       | Total       | 36        | 100.0   | 100.0         |                    |
| Medicine  | Valid | 0           | 6         | 23.1    | 23.1          | 23.1               |
|   |       | Do not know | 20        | 76.9    | 76.9          | 100.0              |
|   |       | Total       | 26        | 100.0   | 100.0         |                    |
| Nursing   | Valid | 0           | 3         | 15.0    | 15.0          | 15.0               |
|   |       | 1           | 2         | 10.0    | 10.0          | 25.0               |
|   |       | Do not know | 15        | 75.0    | 75.0          | 100.0              |
|   |       | Total       | 20        | 100.0   | 100.0         |                    |
| Science   | Valid | 0           | 23        | 26.7    | 26.7          | 26.7               |
|   |       | 1           | 4         | 4.7     | 4.7           | 31.4               |
|   |       | Do not know | 59        | 68.6    | 68.6          | 100.0              |
|   |       | Total       | 86        | 100.0   | 100.0         |                    |
| Social Science  | Valid | 0           | 11        | 32.4    | 32.4          | 32.4               |
|   |       | 1           | 3         | 8.8     | 8.8           | 41.2               |
|   |       | Do not know | 20        | 58.8    | 58.8          | 100.0              |
|   |       | Total       | 34        | 100.0   | 100.0         |                    |

**Table 7: Do you think that the following statement is true or false? Buying a single company stock usually provides a safer return than a stock mutual fund.**

The performance on the question that tested the time value of money was extremely discouraging. An overwhelming number of students, across all disciplines, did not have any idea on time value of money. Despite the poor performance, business, economics, and accounting students, as well as engineering students, still had a better performance. 12.5% of business, accounting, and economics students got the question right. Only 8.33% of engineering students got the question right. The other students had worse performances with arts scoring 3.61%, medicine 3.85%, social sciences 2.94%, science 8.14%, nursing 5% and humanities 8.45% (Table 8).

| Which of the following best describes your major or area of study in college? |       |                   | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|-------|-------------------|-----------|---------|---------------|--------------------|
| Arts  | Valid | Do not know       | 8         | 9.6     | 9.6           | 9.6                |
|   |       | Option (a)        | 31        | 37.3    | 37.3          | 47.0               |
|   |       | Option (b)        | 3         | 3.6     | 3.6           | 50.6               |
|   |       | They are the same | 41        | 49.4    | 49.4          | 100.0              |
|   |       | Total             | 83        | 100.0   | 100.0         |                    |
| Business,<br>Accounting<br>or<br>Economics                                    | Valid | Do not know       | 7         | 8.8     | 8.8           | 8.8                |
|   |       | Option (a)        | 28        | 35.0    | 35.0          | 43.8               |
|   |       | Option (b)        | 10        | 12.5    | 12.5          | 56.3               |
|   |       | They are the same | 35        | 43.8    | 43.8          | 100.0              |
|   |       | Total             | 80        | 100.0   | 100.0         |                    |
| Engineering   | Valid | Do not know       | 4         | 11.1    | 11.1          | 11.1               |
|   |       | Option (a)        | 13        | 36.1    | 36.1          | 47.2               |
|   |       | Option (b)        | 3         | 8.3     | 8.3           | 55.6               |
|   |       | They are the same | 16        | 44.4    | 44.4          | 100.0              |
|   |       | Total             | 36        | 100.0   | 100.0         |                    |
| Humanities  | Valid | Do not know       | 15        | 21.1    | 21.1          | 21.1               |
|   |       | Option (a)        | 27        | 38.0    | 38.0          | 59.2               |
|   |       | Option (b)        | 6         | 8.5     | 8.5           | 67.6               |
|   |       | They are the same | 23        | 32.4    | 32.4          | 100.0              |
|   |       | Total             | 71        | 100.0   | 100.0         |                    |
| I.T.<br>/ Computing   | Valid | Do not know       | 1         | 2.8     | 2.8           | 2.8                |
|   |       | Option (a)        | 18        | 50.0    | 50.0          | 52.8               |
|   |       | Option (b)        | 2         | 5.6     | 5.6           | 58.3               |
|   |       | They are the same | 15        | 41.7    | 41.7          | 100.0              |



|                   |       |                   |    |       |       |       |
|-------------------|-------|-------------------|----|-------|-------|-------|
| Medicine          | Valid | Total             | 36 | 100.0 | 100.0 |       |
|                   |       | Do not know       | 6  | 23.1  | 23.1  | 23.1  |
|                   |       | Option (a)        | 11 | 42.3  | 42.3  | 65.4  |
|                   |       | Option (b)        | 1  | 3.8   | 3.8   | 69.2  |
|                   |       | They are the same | 8  | 30.8  | 30.8  | 100.0 |
| Nursing           | Valid | Total             | 26 | 100.0 | 100.0 |       |
|                   |       | Do not know       | 6  | 30.0  | 30.0  | 30.0  |
|                   |       | Option (a)        | 6  | 30.0  | 30.0  | 60.0  |
|                   |       | Option (b)        | 1  | 5.0   | 5.0   | 65.0  |
|                   |       | They are the same | 7  | 35.0  | 35.0  | 100.0 |
| Science           | Valid | Total             | 20 | 100.0 | 100.0 |       |
|                   |       | Do not know       | 18 | 20.9  | 20.9  | 20.9  |
|                   |       | Option (a)        | 30 | 34.9  | 34.9  | 55.8  |
|                   |       | Option (b)        | 7  | 8.1   | 8.1   | 64.0  |
|                   |       | They are the same | 31 | 36.0  | 36.0  | 100.0 |
| Social<br>Science | Valid | Total             | 86 | 100.0 | 100.0 |       |
|                   |       | Do not know       | 6  | 17.6  | 17.6  | 17.6  |
|                   |       | Option (a)        | 14 | 41.2  | 41.2  | 58.8  |
|                   |       | Option (b)        | 1  | 2.9   | 2.9   | 61.8  |
|                   |       | They are the same | 13 | 38.2  | 38.2  | 100.0 |
|                   |       | Total             | 34 | 100.0 | 100.0 |       |

**Table 8: You purchase an appliance which costs € 1,000. To pay for this appliance, you are given the following two options: a) Pay 12 monthly instalments of € 100 each; b) Borrow at a 20% annual interest rate and pay back € 1,200 a year from now. Which is the more advantageous offer?**

When it was time to know how students perceive their financial knowledge, the results were not surprising. Business, economics, and accounting students indicated the highest confidence levels followed by engineering and IT/Computing students. Interestingly, despite the numerous findings indicating very low financial knowledge among many participants, only a few indicated lack of financial knowledge. In business, accounting and economics, 1.25% indicated low financial knowledge, in engineering 5.56%, in arts 7.23%, in humanities 9.86%, in IT/Computing 2.78%, in medicine 11.54%, in nursing 10%, in science 8.14% and 5.88% in social sciences (Appendix 9).

This study confirms the finding of Volpe, Chen, and Kotel (2002), in which they identify that business students outperformed students of other disciplines in a similar study on over four hundred and fifty four randomly selected college students in the United States of America. Interestingly, the high knowledge showed by business students was almost entirely attributed to curriculum and not the students' personal interest. This conclusion is not an isolated phenomenon, in 2005 Pinto, Mansfield & Parente presented strikingly similar results, and went on to make the bold claim that by introducing compulsory financial studies in schools, financial illiteracy will be eliminated. This fuels the debate that the results observed in this study are in fact influenced by the curriculum of the students. Numerous studies in the recent past have examined the link between educational curriculum and financial and debt literacy. Most studies identified a strong correlation between the curriculum students covered and their financial and debt literacy levels (Pinto, Mansfield & Parente, 2005), (Jorgensen, 2007), (Vitt et al, 2005), (Cude et al, 2006), (Suiter & McCorkle, 2008), (Furtuna 2008), (Chen & Volpe, 2010), (UNDP, 2011), (McCormick. 2008), (Lutheran Immigration and Refugee Service, 2009) and (Samkin, Low & Taylor, 2012). In fact four of these studies suggested that an additional financial education curriculum should be integrated into the current educational system in three countries, Turkey (UNDP, 2011), (McCormick. 2008), USA (Lutheran Immigration and Refugee Service, 2009) and New Zealand (Samkin, Low & Taylor, 2012). Of these integrated curricula's, the USA's and the New Zealand's have been evaluated and results from both studies show a statistically significant improvement on the level of financial and debt literacy (Lutheran Immigration and Refugee Service, 2009) and (Samkin, Low & Taylor, 2012).

Advanced Education curriculum equips students with useful skills and knowledge on financial literacy. According to a 2005 study conducted by Varcoe et al. “*Using a Financial Education Curriculum for Teens*” the introduction of “Money Talks: Should I be Listening?” curriculum enables teens to increase their personal financial literacy as well as appealing to them on the importance of considering such a curriculum. The study aimed at analysing the efficiency of the “Money Talks: Should I be Listening?” curriculum on the financial behaviour as well as financial knowledge of teenagers. The results of the study indicate that the curriculum had a positive impact on high school students as it equipped them with vast knowledge on financial literacy and thus improved their attitude towards the subject. In addition, Varcoe et al (2005) confirm that the study reported a massive improvement on students’ behaviour, something that would enable them make informed choices in regard to financial issues. Therefore, the study supports the incorporation of financial literacy curriculum into schools as it has a positive impact on the personal finance knowledge.

The researcher of this study suggest that in disciplines of study where students have shown to be weak in financial and debt literacy, a curriculum could be designed and integrated with the current curriculum. From the finding of this study, a guideline has emerged regarding what specific groups of students need to improve upon. The results of this study could also be used as a reference point when evaluating what, if any, improvements an integrated financial curriculum would make to students in Ireland.

**4.6 Financial literacy levels, debt literacy levels and over-indebtedness in college students in Ireland based on years of study.**

Many studies have found a positive link between year of study and financial literacy among college students. However, this study found a very weak link between year of study and financial knowledge. In question 1, for instance, the results obtained were not consistent (Appendix 10). The table below shows the summary of correct responses by year of study.

| <b>Year of study</b>          | <b>1<sup>st</sup></b> | <b>2<sup>nd</sup></b> | <b>3<sup>rd</sup></b> | <b>4<sup>th</sup></b> | <b>5<sup>th</sup></b> | <b>6<sup>th</sup></b> |
|-------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <b>% of correct responses</b> | <b>62.02</b>          | <b>68.78</b>          | <b>60.29</b>          | <b>68.77</b>          | <b>62.60</b>          | <b>66.67</b>          |

**Table 9: Numeracy test by year of study**

The results shown in table 9 were found not to be consistent and could not be used to draw any conclusion. This necessitated the analysis of the second question probing interest rates. The results obtained in this question did not show any clear relationship between year of study and financial knowledge either (Appendix 10). The summary of correct responses received in the question is shown below.

| <b>Year of study</b>          | <b>1<sup>st</sup></b> | <b>2<sup>nd</sup></b> | <b>3<sup>rd</sup></b> | <b>4<sup>th</sup></b> | <b>5<sup>th</sup></b> | <b>6<sup>th</sup></b> |
|-------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <b>% of correct responses</b> | <b>91.01</b>          | <b>90.84</b>          | <b>84.56</b>          | <b>86.05</b>          | <b>91.67</b>          | <b>66.67</b>          |

**Table 10: Interest rate by year of study**

The results of the third question on credit card debt literacy showed consistent results. The number of students who got the question right increased consistently from the lower to higher years of study as shown in figure 11.

| <b>Year of study</b>          | <b>1<sup>st</sup></b> | <b>2<sup>nd</sup></b> | <b>3<sup>rd</sup></b> | <b>4<sup>th</sup></b> | <b>5<sup>th</sup></b> | <b>6<sup>th</sup></b> |
|-------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <b>% of correct responses</b> | <b>22.47</b>          | <b>19.85</b>          | <b>27.94</b>          | <b>37.21</b>          | <b>50.00</b>          | <b>66.67</b>          |

**Table 11: Credit card debt awareness by year of study**

With this kind of a trend, it could be possible to say that the year of study influences financial literacy and debt awareness. However, a positive result in one question is not substantive enough to draw a conclusion from. Therefore, it was concluded that there is no positive relationship between year of study and financial literacy. This conclusion contradicts the finding found by Jorgensen in 2007 who concluded “The study found that financial knowledge, attitude, and behaviour scores were low but

that they significantly increased each year from freshman to masters”( Jorgensen, 2007) while investigating this relationship with students in Virginia.

## 4.7 How socio-demographic factors affect financial literacy, debt literacy, and over-indebtedness

### 4.7.1 Age

Age plays a vital role in influencing human behaviour. To establish if it plays any role in influencing students' financial literacy, debt literacy and over-indebtedness, the responses of all participants were compared to their ages to establish if any relationship does exist. The results of the five questions of study against age are shown below (Table 12).

| Age of Participants/<br>% of correct responses | 18-22 | 23-30 | 31-40 | 41-50 | 51-60 | 60+   |
|--|-------|-------|-------|-------|-------|-------|
| <b>1. Risk diversification</b>                 | 30.48 | 19.85 | 27.94 | 37.21 | 50.00 | 66.67 |
| <b>2. Numeracy test</b>                        | 89.21 | 83.33 | 88.10 | 86.96 | 83.33 | 100   |
| <b>3. Inflation test</b>                       | 59.05 | 57.14 | 78.57 | 91.30 | 83.33 | 50    |
| <b>4. Interest rate test</b>                   | 19.05 | 40.18 | 50.0  | 52.17 | 66.67 | 50    |
| <b>5. Time value of money</b>                  | 6.67  | 10.71 | 7.14  | 4.35  | -     | -     |

**Table 12: Financial literacy and debt literacy based on age**

From the analysis of the above table based on the findings in appendix 12, it is evident that there exist some weak relationship between age and financial literacy and debt literacy of students. The questions probing risk diversification, simple numeracy, inflation rate, and interest rate all point to increasing financial literacy and debt literacy with age. Older students tend to be more financially informed than young students.

#### 4.7.2 Marital status

People in marriage tend to behave differently from those who are still single (Strong 2013). At the same time, those engaged, and those divorced tend to think differently and behave differently as well. The detailed findings of the study on financial literacy of college students in Ireland in terms of marital status are attached in appendix 12. The summary of the findings are shown below in table 13.

| <b>Marital status of respondents/<br/>% of correct responses</b> | <b>Divorced</b> | <b>Engaged</b> | <b>Married</b> | <b>Single</b> |
|--|-----------------|----------------|----------------|---------------|
| 1. Risk diversification  | 60              | 18.18          | 48.28          | 31.60         |
| 2. Numeracy test   | 80              | 72.73          | 89.66          | 88.40         |
| 3. Inflation test  | 80              | 54.55          | 93.10          | 60.49         |
| 4. Interest rate test  | 60              | 45.45          | 62.05          | 24.65         |
| 5. Time value of money   | 20              | -              | 3.45           | 6.19          |

**Table 13: Financial literacy and debt literacy based on marital status**

From the summarised findings, it is clear that marital status influences financial literacy and debt literacy among college students. The divorced and the married seem to be more financially literate as compared to the engaged and the single. In fact, this performance is consistent in all responses, which confirms that there exist a positive relationship between marital status and financial literacy and debt literacy.

#### 4.7.3 Parents' education

According to the literature review, a 2005 research by Pinto, Mansfield & Parente established that parents and schools played significant roles in informing students' financial habits, this is further supported by the results of Jorgensen in 2007. Other research identifies specific elements of financial and debt literacy which bears a



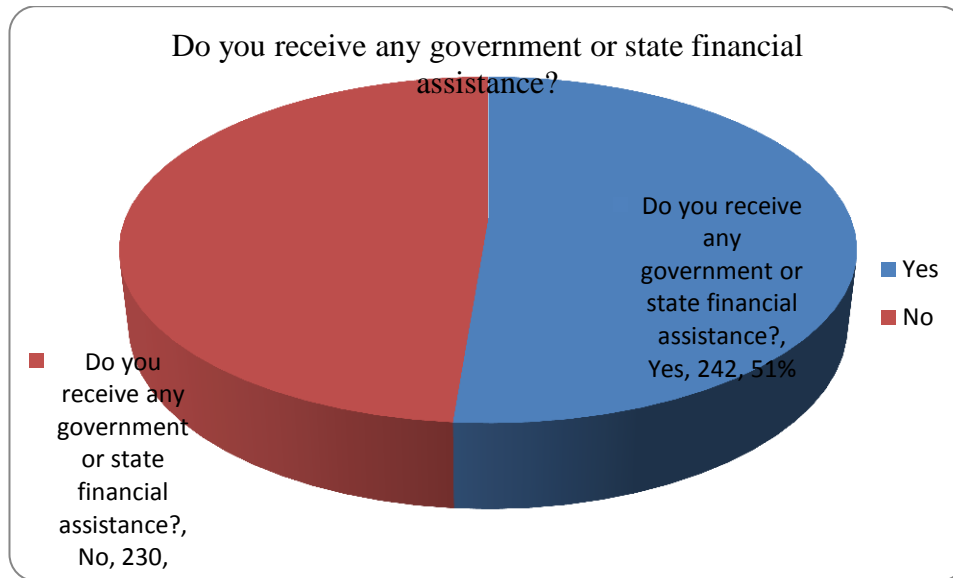
strong relationship with parents education level, according to Lusardi, Mitchell & Curto (2010), “parents’ education was a strong predictor of financial literacy: those whose mothers graduated from college were nearly 6 percentage points more likely to answer the inflation and risk diversification questions correctly”. However, this study did not find a strong link between parents’ education and students’ financial literacy. Even though students whose parents had PhDs performed better, the performance across the other categories was not consistent. For instance, there was no difference in the performance of students who parents were certificate holders from those whose parents were masters or degree holders.

| <b>Marital status of respondents/ % of correct responses</b> | <b>Junior certificate</b> | <b>Leaving certificate</b> | <b>Post leaving certificate qualification</b> | <b>Bachelors</b> | <b>Masters</b> | <b>PhD</b> |
|--|---------------------------|----------------------------|---|------------------|----------------|------------|
| 1. Risk diversification                                      | 10.26                     | 9.75                       | 31.94   | 7.75             | 7.89           | 14.29      |
| 2. Numeracy test   | 85.90                     | 87.41                      | 95.06   | 90.91            | 81.58          | 57.14      |
| 3. Inflation test  | 93.10                     | 80                         | 54.55   | 60.49            |                |            |
| 4. Interest rate test  | 35.90                     | 27.97                      | 23.61   | 33.77            | 18.42          | 28.57      |
| 5. Time value of money                                       | 8.97                      | 6.29                       | 11.11   | 6.49             | 2.63           | 28.57      |

**Table 14: Financial literacy and debt literacy based on parents education**

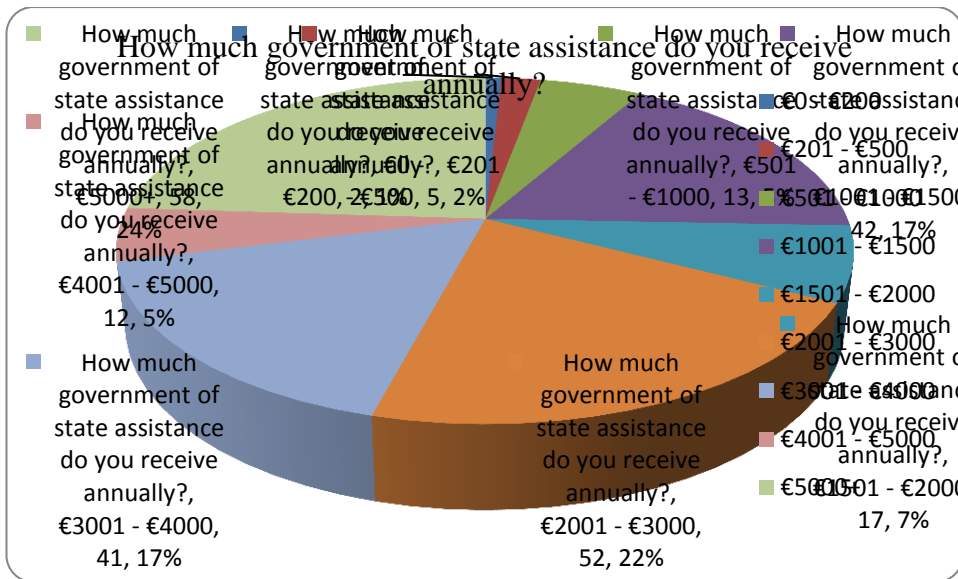
#### 4.8 Students' debt levels and over-indebtedness

According to recent studies, many students receive some form of government or state financial assistance. The findings of this study show that over half the students who participated in the study receive government or state financial assistance. (Figure 21).



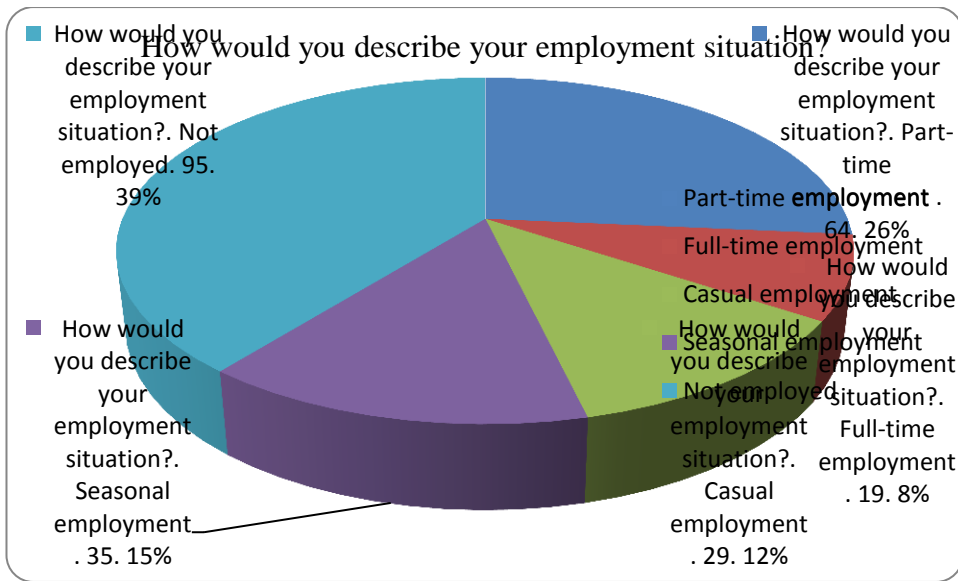
**Figure 21: Students receiving government assistance**

More specifically 51%, of those who took part in the study have received government funding. Even with this assistance; students continue to accumulate debts annually. According to the findings of this study, over 97% of the students who receive state financial assistance of at least €501 annually (Figure 22).



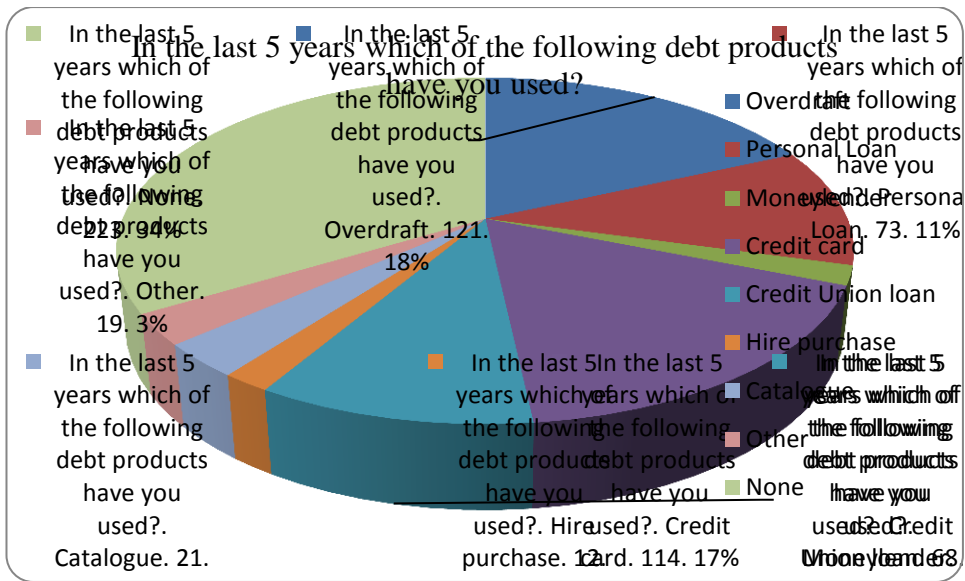
**Figure 22: Annual government assistance**

The majority of those who receive government assistance are not employed at all. According to the findings of the study, 39% of the students receiving government assistance are not employed, 15% are on seasonal employment, 12% are on casual employment and 26% are on part-time employment, while only 8% are on full time employment (Figure 23).



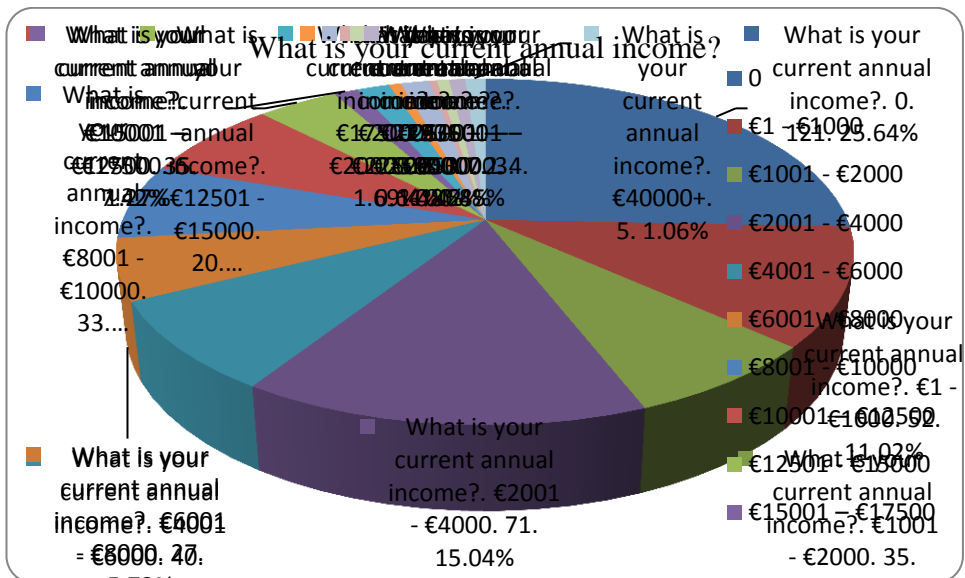
**Figure 23: State of employment of students receiving government assistance**

Notwithstanding the fact that half the students receive financial aid, debt among students is common. For instance, when asked to say which form of debt participants had used in the past five years, 17% mentioned credit cards, 18% overdraft, 10% credit union loans, and 11% had used personal loans (Figure 24).



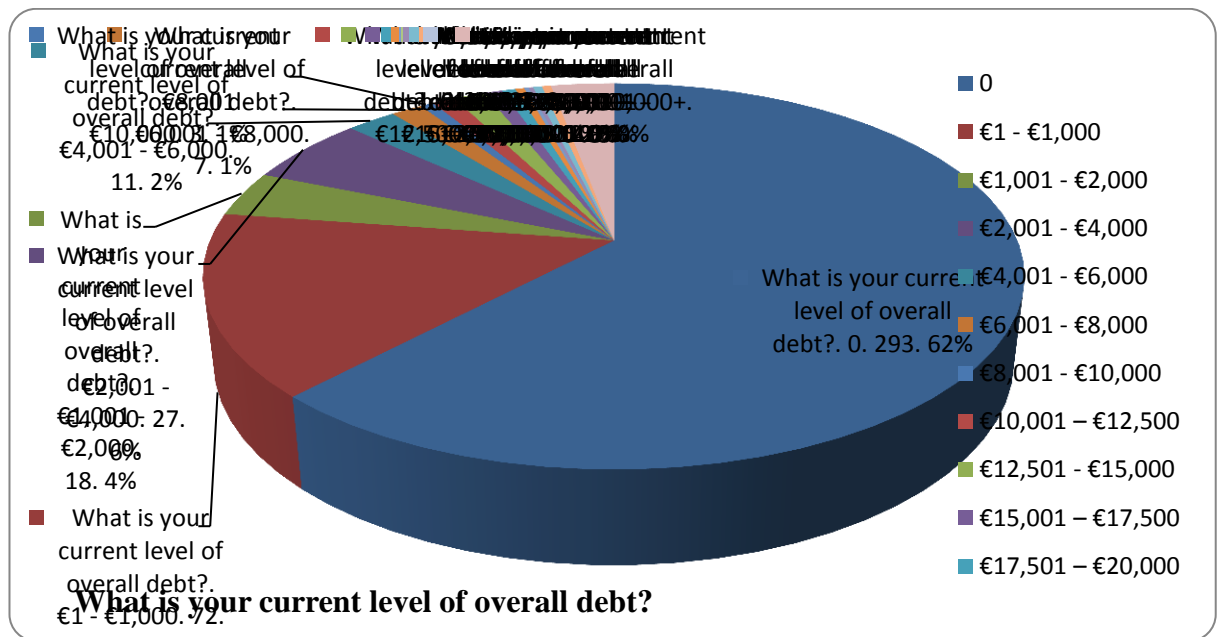
**Figure 24: Forms of debt taken by students**

The question on the income level of students revealed just how poor most students are thereby forcing them to take up loans. A resounding 25.64% of students who took part in the study have completely no source of income. Additional 11.02% earn less that €1000 annually.



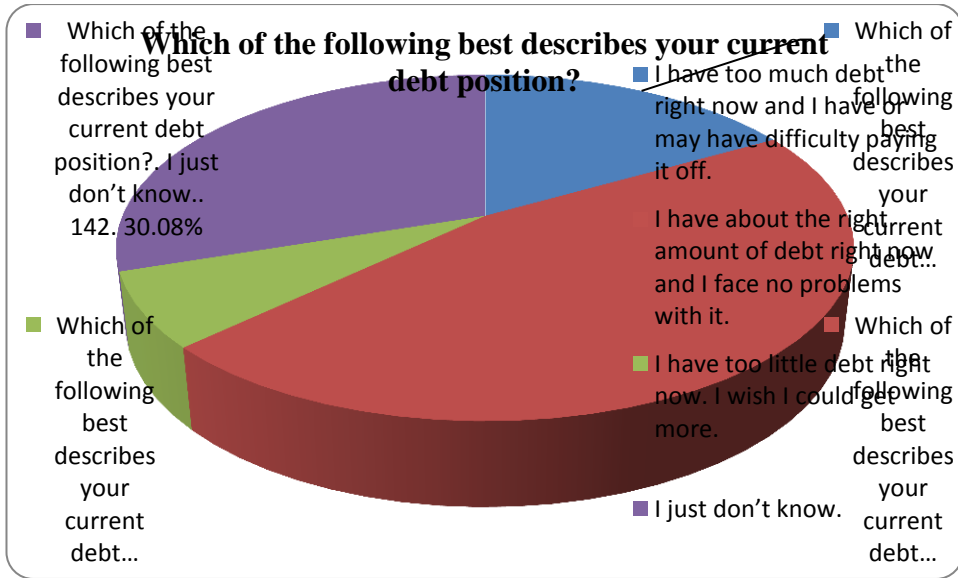
**Figure 25: Students' annual income**

With no source of income, but high bills to pay, students continue to accumulate huge debts. This is evident in the amount of debt students have. Even though 62% of students have no debt, 15% have debts ranging from €10,000-12,500, 4% have €12501-15,000, and 6% have €20,000-40,000, while 3% have €60,000-80,000. These are significant amounts, which could take students years to repay.



**Figure 26: Students' overall debt**

Students seem to downplay the amount of debt they have as insignificant. This is evident in their response to the question seeking their opinion on the amount of debt they have (Figure 27). 46.19% of participants felt they had the right amount of debt. However, of concern are the 16.74% who feel they have too much debt that they may find difficulty in repaying off.



**Figure 27: Students' debt position**

#### **4.9 Comparison of Irish student’s financial literacy level and debt literacy levels to that of other nations**

The questions adopted for this study were used to make comparison with other studies’ findings easier. Using responses from other studies, and those collected in the study, it emerged that college students in Ireland are lagging behind on financial literacy and debt literacy, especially when compared with other European nations, Japan and the US. The data for comparison were extracted from previous studies by Lusardi, Mitchell & Curto (2010), World Pension Summit (2010), and Bianco and Bosco (2000).

|                      | <b>Ireland</b> | <b>USA</b> | <b>Japan</b> | <b>Netherlands</b> | <b>Germany</b> |
|----------------------|----------------|------------|--------------|--------------------|----------------|
| Interest Rate        | 88             | 65         | 71           | 85                 | 82             |
| Inflation            | 62             | 64         | 59           | 77                 | 78             |
| Risk Diversification | 33             | 52         | 40           | 52                 | 62             |

**Table 15: Financial literacy and debt literacy compared**

It is clear to see from the table above that in terms of interest rate knowledge, college students in Ireland perform exceptionally when compared to the USA, Japan, Netherlands and Germany. These countries were chosen for direct comparison due mainly to the very similar or identical in some cases questions used to assess interest rate knowledge. A very interesting aspect in terms of this aspect of financial and debt literacy is that the European countries outperformed the non-European countries. Perhaps the recent European economic crisis has played a role in this result. Students in Europe are constantly hearing news through all media sources of



the debt crisis and perhaps this has contributed to their awareness of interest rate levels. The USA has also had a recent economic crisis, this fact would contradict the above idea that financial crisis lead to a more financially literate student population. More investigation would be needed to determine the exact reason for the difference. Another interesting aspect to point out is that among all nationalities compared this area of financial and debt literacy scored the best. Students in all the aforementioned countries had better Interest rate knowledge than other tested aspects of financial and debt literacy. This must be considered when we take into account that Roberts & Jones in 2001 cited that early accumulation of debts makes students vulnerable to bankruptcy in the future. Even with a relatively high knowledge of interest rates, this level of bankruptcy continues to rise.

When we look at the difference of Irish students compared to the students of the United States of America, Japan, Netherlands and Germany in terms of interest rates, we can see that they performed averagely. The best scores in this category came from the other two European countries. As an observation students in all these countries had a similar trend. Inflation scores performed worse than interest rate scores but better than risk diversification scored.

When we compared the risk diversification scores, we can see that Irish students performed the worst. This was all countries worst scoring element of financial and debt literacy. Germany outperformed the other countries in this category by a substantial margin. It is clear for all to see that the area Irish students need the most financial and debt education is around the area of risk diversification. Perhaps a

reason for the low scores in this category is the fact that many students do not have a lot of disposable income which they can invest. The lack of investing while in college may contribute to the fact that this is the worst scoring aspect for all countries in the study. This is an area which all countries should look at addressing.

Interestingly when we look and examine all countries we can see that in terms of difference in best and worst scores we can see the Irish students have the biggest gap. The college students of Ireland scored 88% on the interest rate aspect while only 33% on the risk diversification aspect. This is a huge difference and in fact the biggest difference in the study. Germany overall performed the best of the countries compared, scoring best in two categories and only 6% behind Ireland in the other.

In conclusion, Ireland is slightly below average when compared with college students of other nations in terms of financial and debt literacy. Germany appears to have the most financially and debt literate students. All countries have a similar trend with risk diversification being the least knowledgeable aspect and students having the best knowledge of interest rates.

## **CHAPTER V: CONCLUSIONS AND RECOMMENDATIONS**

### **5.1 Chapter Introduction**

This section presents the conclusions derived from the analysis of the findings obtained in the study. It goes further to detail the researcher's recommendations based on the research findings.

### **5.2 Research Conclusions**

The study's principal objective was to establish the level of financial literacy, debt literacy and over-indebtedness of students in Ireland. To achieve this objective, the research explored and carefully analysed several specific objectives including examining the literature on college students in relation to financial literacy, debt literacy, and over-indebtedness, the differences, if any, in financial literacy levels, debt literacy levels and over-indebtedness in college students in Ireland based on gender, disciplines, years of study and marital status, to determine how socio-demographic factors affect financial literacy levels and debt literacy in college students in Ireland, and to compare Irish student's financial literacy levels, debt literacy levels and over-indebtedness to that of other nations.

The results of the study have confirmed that financial literacy and debt literacy are low in Ireland. Additionally, it has established that some students are over-indebted and may find it hard repaying their loans. Even though the performance in the numeracy test was excellent with 88% of participants getting the question right,

performance in other questions was below expectation. Knowledge of inflation score, for instance, stood at 62% while risk diversification's, which had the worst performance, stood at 32%.

The research hypothesis one (H1) "Type of education and discipline of study influence students' financial literacy and debt literacy" was determined to hold as the data collected showed that students in business, accounting, economics, and engineering consistently performed well in the financial literacy, and debt literacy questions. Additionally, the study established that students in the school of education performed poorly in financial literacy questions as compared to other students in other institutions.

A review of the literature on financial literacy of students led to the development of hypothesis two (H2) "Parents' financial literacy and level of education influence students' financial literacy and debt literacy." However, the study did not find a strong link between parents' education and students' financial literacy. Even though students whose parents had PhDs performed better, the performance across the other categories was not consistent. For instance, there was no difference in the performance of students whose parents were certificate holders from those whose parents were masters or degree holders. Given these results, research hypothesis two was, therefore, rejected.

Mixed results were obtained for research hypothesis three (H3) with some findings contradicting the results of previous studies reviewed under the literature review

section. The research found sufficient evidence that there exist some weak relationship between age and financial literacy and debt literacy of students. It established that older students tend to be more financially informed than young students. Another variable that was found to have apposite association with financial literacy and debt literacy was marital status. The study established that the divorced and the married are more financially literate as compared to the engaged and the single. In fact, their performance was consistent in all responses, which confirms that there exist a positive relationship between marital status and financial literacy and debt literacy. On the contrary parent's education was found not to have any impact on students' financial literacy and debt literacy.

Ireland is slightly below average when compared with college students of other nations in terms of financial and debt literacy. Although Irish students' knowledge of interest rates is relatively good, their knowledge of inflation is average and they perform very poorly compared to students of other countries when it comes to the area risk diversification.

### **5.3 Limitations**

There are some limitations to the study. Perhaps some entries may not have been college students. It is possible that the attraction of a free iPod may have encouraged individuals whom did not meet the criteria to enter the study. There is no evidence this occurred, however perhaps more strict measures could have been enforced to limit the chances of this occurring, perhaps using a college email account or having to disclose a current student number.

Another limitation is the possibility that participants could use external sources to aid their responses. Although there is no benefit to this and students were encouraged to do the study without any assistance, there were no measures in place to stop this from occurring.

Although all efforts were made to make this researches findings as comparable to previous studies as possible, it simple was not possible to directly compare these results with other results. For example previous researches had used different questions to estimate the same aspect, that is, financial literacy and debt literacy. This makes direct comparison with all previous studies questionable as different research methods were employed.

#### **5.4 Future Research**

An investigation into why males outperform females with regards to financial and debt literacy levels.

An investigation into the potential benefit vs. cost of the implementation of financial and debt literacy curriculum in third level education institutions in Ireland

A standardised financial literacy and debt literacy assessment should be established as there is a lack of consistency in the area which makes comparison between studies challenging

## 5.5 Research Recommendations

The study has confirmed that financial literacy and debt literacy is low amongst students in Ireland. It has also established that students tend to overrate their level of financial awareness. This could be the reason behind poor performance in financial awareness questions and increasing level of financial illiteracy. If this problem is to be solved, then students should be helped to realise that they are illiterate. This can be done through campaigns and mobilisations.

The study established that most students prefer using the internet to get financial information and would prefer to receive information via the internet in the future. This valuable information should be adopted by the government and other stakeholders to ensure that traditional modes of passing financial information are replaced with the internet. This could increase reach tremendously.

Educational curriculum has been proven, beyond any reasonable doubt, to influence financial literacy and debt literacy amongst students in Ireland. Additionally, students who did some accounting, economics, and business courses in secondary school were found to be more financially informed than those who did not have such basic teachings. Using this revelation, the government should restructure the education curriculum to incorporate financial studies from the lowest to the highest level of education. This is a proven means of increasing the financial literacy of students as was observed by the results of a study by the United Nations Development Programme (UNDP) in 2011 on *“Increasing Financial Awareness*



*Amongst Youth in Turkey*” which revealed that modelling educational curriculum to incorporate personal financial skills enhances students’ financial literacy

## List of References

- Agarwal, S., & Ambrose, B. W. (2007). *Household credit usage: personal debt and mortgages*. New York, NY: Palgrave Macmillan.
- Almenberg, J., and A. Dreber. 2011. Gender, financial literacy and stock market participation. Working Paper, Stockholm School of Economics.
- Almenberg, J., and C. Gerdes. 2011. Exponential growth bias and financial literacy, IZA Discussion Paper n. 5814.
- Almenberg, J., and J. Säve-Söderbergh. 2011. Financial literacy and retirement planning in Sweden. *Journal of Pension Economics and Finance* 10(4)
- AMF. (2011). *Financial Literacy in France: There's Room for Improvement!*. Paris: The IFEP & AMF.
- AMF. (2011). *Financial Literacy in France: There's Room for Improvement!*. Washington: The IFEP & AMF.
- Arthur, C. (2012). *Financial literacy education neoliberalism, the consumer and the citizen*. Rotterdam: Sense Publishers.
- Bertola, G., Disney, R., & Grant, C. (2006). *The economics of consumer credit*. Cambridge, Mass.: MIT Press.
- Bertola, G., Disney, R., & Grant, C. (2006). *The economics of consumer credit*. Cambridge, Mass.: MIT Press.
- BertoneÛche, M., & Knight, R. (2001). *Financial performance*. Oxford: Butterworth-Heinemann.
- Bianco, C. A., & Bosco, S. M. (2000). *Financial Illiteracy â€“ What Are Business Schools Teaching?*. Bristol, RI: Gabelli School of Business Roger Williams University.

- Chen, H., & Volpe, R. P. (1998). An Analysis of Personal Financial Literacy Among College Students. *Financial Services Review*, 7(2), 107-128.
- Clarke, M. C., Heaton, M. B., Israelsen, C. L., & Eggett, D. L. (2005). The acquisition of family financial roles and responsibilities. *Family and Consumer Sciences Research Journal*, 33(4), 321-340.
- Claxton, N. (2008). *Using deliberative techniques to teach financial literacy*. New York: International Debate Education Association.
- Collinge, A. (2009). *The student loan scam: the most oppressive debt in U.S. history, and how we can fight back*. Boston, MA: Beacon Press.
- Collis, J., & Hussey, R. (2009). *Business research: a practical guide for undergraduate & postgraduate students* (3rd ed.). Basingstoke, Hampshire, [UK: Palgrave Macmillan.
- Congress United States of America 107<sup>th</sup> (2002) BANKRUPTCY ABUSE PREVENTION AND CONSUMER PROTECTION ACT OF 2001 H. Rept. 107-3
- Creswell, J. W. (2003). *Research design: qualitative, quantitative, and mixed method approaches* (2nd ed.). Thousand Oaks, Calif.: Sage Publications.
- Crossman, A. (2009, January 1). Sociology - Sociology information, resources, and news from About.com. *Deductive Reasoning Versus Inductive Reasoning*. Retrieved August 1, 2013, from <<http://sociology.about.com/od/Research/a/Deductive-Reasoning-Versus-Inductive-Reasoning.htm>>
- Cude, B. J. (2006). College Students and Financial Literacy: What They Know and What We Need to Learn. *Eastern Family Economics and Resource*

- Management Association*, 4(1), 102-109.
- Danes, S. M. (1994). Parental Perceptions of Children's Financial Socialization. *Journal of Financial Counseling and Planning*, 58(1), 127-149.
- Facebook. (2013) Facebook Advertising, potential reach. Online Available [https://www.facebook.com/ads/manage/adgroups.php?campaign\\_id=6007388281930&act=59711384](https://www.facebook.com/ads/manage/adgroups.php?campaign_id=6007388281930&act=59711384) Accessed 1st June 2013
- FINRA Investor Education Foundation, (2006), "Dollar & Sense: Building Financial Dreams "
- Fonseca, R., Kathleen, M., Zamarro, G., & Zissimopoulos, J. (2012). What Explains the Gender Gap in Financial Literacy? The Role of Household Decision Making. *The Journal of Consumer Affairs*, 10(11), 1745-6606.
- Fornero, E., & Monticone, P. (2010). *Pension systems: beyond mandatory retirement*. Cheltenham, UK: Elgar.
- Furtuna, F. (2008). College Students Personal Financial Literacy: Economic Impact and Public Policy Implications. *Undergraduate Economic Review*, 4(1), 21-47.
- Gill, M. (2009). *Accountants' truth: knowledge and ethics in the financial world*. New York, Oxford: Oxford University Press.
- Gottschalk, P. (2010). *Investigation and prevention of financial crime knowledge management, intelligence strategy and executive leadership*. Farnham Surrey, England: Gower Pub..
- Gutter, M., & Copur, Z. (2011). Financial behaviors and financial well-being of college students: Evidence from a national survey. *Journal of Family and Economic Issues*, 32

- Hall, R. (2008). *Applied social research: planning, designing and conducting real-world research* (Updated ed.). South Yarra, Vic.: Palgrave Macmillan.
- Harnisch, T. L. (2010). *Boosting Financial Literacy in America: A Role for State Colleges and Universities*. Washington, DC: American Association of State Colleges and Universities. Retrieved from <http://www.aascu.org/policy/publications/perspectives/>
- Hayhoe, C. R. (2002). Comparison of affective credit attitude scores and credit use of college students at two points in time. *Journal of Family and Consumer Sciences: From Research to Practice*
- Hayhoe, C. R., Leach, L., Allen, M. W., & Edwards, R. (2005). Credit cards held by college students. *Financial Counseling and Planning*,
- Hendriks, T. P. (2010). *National financial literacy strategy*. New York: Nova Science Publishers.
- Hoyer, W. D., & MacInnis, D. J. (2001). *Consumer behavior*. Boston: Houghton Mifflin.
- Hoyer, W. D., & MacInnis, D. J. (2010). *Consumer behavior*. Boston: Houghton Mifflin.
- Hussey, R. (1997), *Business Research. A Practical Guide for Undergraduate and Postgraduate Students*, Palgrave: Basingstoke. Irish Associations of Pension Fund. (1999) Available online <http://www.iapf.ie/>
- Johnson, E., & Sherraden, M. S. (2007). From financial literacy to financial capability among youth. *Journal of Sociology and Social Welfare*, 34(3), 119-145.
- Jorgensen, B. (2007). Financial Literacy of College Students: Parental and Peer

- Influences (Master's thesis). Retrieved from  
[http://scholar.lib.vt.edu/theses/available/etd-10162007-143627/unrestricted/Thesis\\_BJ2.pdf](http://scholar.lib.vt.edu/theses/available/etd-10162007-143627/unrestricted/Thesis_BJ2.pdf)
- Jump\$tart Coalition. (2008). *The financial literacy of young American adults*. Washington, D.C.: Jump\$tart Coalition for Personal Financial Literacy.
- Kolb, R. W., & Overdahl, J. A. (2003). *Financial derivatives* (3rd ed.). Hoboken, N.J.: John Wiley.
- Lamanna, M. A., Riedmann, A. C., & Strahm, A. (2012). *Marriages, families, and relationships: making choices in a diverse society* (11th ed.). Belmont, CA: Wadsworth, Cengage Learning.
- Lamdin, D. J. (2012). *Consumer knowledge and financial decisions lifespan perspectives*. New York, NY: Springer Science+Business Media, LLC.
- Lane, P. R. (2011, January 1). The Irish Crisis | The World Financial Review. *The World Financial Review*. Retrieved December 23, 2012, from <http://www.worldfinancialreview.com/?p=874>
- Lawless, R. E. (2010). *The student's guide to financial literacy*. Santa Barbara, Calif.: Greenwood.
- Loke, V., & Hageman, S. (2013). Debt Literacy and Social Work. *Journal Of Financial Therapy*, 4(1)
- Lusardi, A. (2008). *Overcoming the saving slump: how to increase the effectiveness of financial education and saving programs*. Chicago: University of Chicago Press.
- Lusardi, Annamaria (2008), "Household Saving Behavior: The Role of Financial Literacy, Information and Financial Education Programs," NBER Working

paper n. 13824.

- Lusardi, A, Mitchell, O (2006), “Financial Literacy and Planning: Implications for Retirement Wellbeing,” MRRC Working Paper n. 2006-144.
- Lusardi, A, Mitchell, O (2007a), “Baby Boomer Retirement Security: The Role of Planning, Financial Literacy, and Housing Wealth,” *Journal of Monetary Economics*, 54, pp. 205-224
- Lusardi, A, Mitchell, O (2007b), “Financial Literacy and Retirement Preparedness. Evidence and Implications for Financial Education,” *Business Economics*, January 2007, pp. 35-44.
- Lusardi, A, Mitchell, O (2007c), Financial Literacy and Retirement Planning: New Evidence from the Rand American Life Panel,” MRRC Working Paper n. 2007-157.
- Lusardi, A, Mitchell, O (2008a), “Planning and Financial Literacy. How Do Women Fare?,” *American Economic Review*, 98(2), pp. 413-417.
- Lusardi, A and Mitchell, O (2008b), “How Much Do People Know About Economics and Finance? Financial Illiteracy and the Importance of Financial Education,” Policy Brief n. 5, MRRC, March 2008
- Lusardi, A., Mitchell, O. S., & Curto, V. (2010). Financial Literacy among the Young. *The Journal of Consumer Affairs*, 44(2), 358-380.
- Lutheran Immigrant and Refugee Service, “Financial Literacy for Newcomers: Weaving Immigrant Needs into Financial Education” (Baltimore: LIRS, 2007), 10.
- Mandell, L. (2008). In *Overcoming the Saving Slump: How to Increase the Effectiveness of Financial Education and Saving Programs*. *Financial*

*Literacy in High School*, 20(1), 257-279.

McCormick, M. H. (2008, July 1). The Effectiveness of Youth Financial Education | NewAmerica.net. *NewAmerica.net*. Retrieved December 28, 2012, from [http://newamerica.net/publications/policy/effectiveness\\_youth\\_financial\\_education\\_0](http://newamerica.net/publications/policy/effectiveness_youth_financial_education_0)

Ministry of Education, Ontario. (2011). Financial literacy: Scope and sequences of expectations, p. 3. Retrieved March 3, 2013 from <http://www.edu.gov.on.ca/eng/document/policy/FinLitGr9to12.pdf>

Mitchell, O. S. (2011). *Financial literacy: implications for retirement security and the financial marketplace*. Oxford: Oxford University Press.

Mottola, G. (2012). In Our Best Interest: Women, Financial Literacy and Credit Card Behavior. Insights, FINRA Investor Education Foundation.

Nidar, S. R., & Bestari, S. (2012). Personal financial literacy among university students. *World Journal of Social Sciences*

Pedro, (2006) "The return to firm investment in human capital," Policy Research Working Paper Series 3851, The World Bank.

Pinto, M. B., Mansfield, P. M., & Parente, D. H. (2005). Information learned from socialization agents: Its relationship to credit card use. *Family and Consumer Sciences Research Journal*, 33(4), 357-367.

Research Advisors. (2006). Required sample size, online. Available <http://www.research-advisors.com/tools/SampleSize.htm> accessed March 2013

Richardson, H. (2010, August 12). BBC News - Student debt 'to reach  $\tilde{A}$ ,  $\hat{A}$ £25,000' for 2010 intake . *BBC - Homepage*. Retrieved December 23, 2012, from



<http://www.bbc.co.uk/news/education-10952303>

- Riles, A. (2011). *Collateral knowledge: legal reasoning in the global financial markets*. Chicago: University of Chicago Press.
- Roberts, J. A., & Jones, E. (2001). Money Attitudes, Credit Card Use, and Compulsive Buying Among American College Students. *Journal of Consumer Affairs*, 35(1), 213-240 .
- Rodrigues DT, Novais RF, Alvarez VH, Dias JMM. 2012. Cultivo in vitro de orquídea em meios com diferentes concentrações de fertilizante mineral. *Revi Ceres*
- Samkin, G., Low, M., & Taylor, J. (2012). Incorporating Financial Literacy into the Secondary School Accounting Curriculum: A New Zealand Perspective. *Australasian Accounting Business and Finance Journal*, 6(4), 5-30.
- Saunders, M., Lewis, P., & Thornhill, A. (2003). *Research methods for business students* (3rd ed.). Harlow, England: Prentice Hall.
- Scholnick, Barry, Nadia Massoud and Anthony Saunders (2008), “The Impact of Wealth on Inattention: Evidence from Credit card Repayments, mimeo, University of Alberta, Canada.
- Shekedi, A. (2005). *Multiple case narrative a qualitative approach to studying multiple populations*. Amsterdam: John Benjamins Pub..
- Shim, J. K., & Siegel, J. G. (2009). *Financial management* (2nd ed.). Hauppauge, N.Y.: Barron's.
- Smith, Barbara and Fiona Stewart (2008), “Learning from the Experience of OECD Countries: Lessons for Policy, Programs and Evaluations,” forthcoming in Annamaria Lusardi (ed.), *Overcoming the Saving Slump: How to Increase*

- the Effectiveness of Financial Education and Saving Programs, University of Chicago Press.
- Stango, Victor and Jonathan Zinman (2007), "Fuzzy Math and Household Finance: Theory and Evidence," Working Paper, Dartmouth College
- Strong, B. (2014). *The marriage and family experience: intimate relationships in a changing society* (12th ed.). Belmont, CA: Wadsworth.
- Sugden, R., & Valania, M. (2013). *Leadership and Cooperation in Academia Reflecting on the Roles and Responsibilities of University Faculty and Management*. Cheltenham: Edward Elgar Publishing.
- Suiter, M. & McCorkle, S. (2008). Money math: Lessons for life. St. Louis, MO: The Curators of the University of Missouri.
- Toby, J. (2012). *The lowering of higher education in America: why student loans should be based on credit worthiness*. New Brunswick, N.J.: Transaction Publishers.
- Nations Development Programme. (2011). *Increasing Financial Awareness Amongst Youth in Turkey*. Ankara: UNDP.
- Union of students Ireland. (2013) 'About Us' online: available <http://usi.ie/> accessed 24<sup>th</sup> March 2013
- Van Rooij, Maarten, Annamaria Lusardi and Rob Alessie (2007), "Financial Literacy and Stock Market Participation," MRRC
- Varcoe, K., A. Martin, Z. Devitto, and C. Go (2005). "Using a Financial Education Curriculum for Teens." *Financial Counseling and Planning* 16 (1), 63-71.[35]
- Volpe, R. P., Chen, H., & Kotel, J. E. (2002). Personal investment literacy among

- college students: A survey. *Financial Practice and Education*, 1(1), 86-94.
- Vitt, E., Luckevich, M., Misner, S., & Steward, J. (2002). *Business intelligence: making better decisions faster*. Redmond, Wash.: Microsoft Press.
- Wholey, J. S., Hatry, H. P., & Newcomer, K. E. (2010). *Handbook of practical program evaluation* (3rd ed.). San Francisco: Jossey-Bass.
- Williams, S. (2010). Parental Influence on the Financial Literacy of Their School-Aged Children: An Exploratory Study. *Exceptional Children, Journal of Special Education*, 1(1), 23-33.

## Appendices

### Appendix 1: Timeline for the Study

| Tasks to be completed                                    | Description  | Jan | Feb | Mar | Apr | May | June |
|--|--|-----|-----|-----|-----|-----|------|
| Begin meeting with my supervisor to discuss the proposal | Expecting to discuss the proposal and agree on the aims and objectives by early 2013   |     |     |     |     |     |      |
| Proposal development                                     | Amend and review proposal after discussion with supervisor   |     |     |     |     |     |      |
| Literature Review  | Write a background and a review of the literature from highly recognised sources in print and those available online and from the AIT library. |     |     |     |     |     |      |
| Literature Review(Draft)                                 | Submit a draft lit review, receive guidelines on how to improve this section   |     |     |     |     |     |      |
| Continuing reading/reviewing                             | Continue to improve literature review and selecting best approaches  |     |     |     |     |     |      |
| Research Methods   | Write on the RM in agreement with supervisor   |     |     |     |     |     |      |



**Appendix 2: Budget for the Study**

| <b>ITEMS</b>  | <b>QUANTITY</b> | <b>COST<br/>(€ Euro)</b> |
|---|-----------------|--------------------------|
| Typing, printing, photocopying and binding for examination by supervisors | 3               | 140                      |
| Ipod for prize  | 1               | 50                       |
| Advertising cost  | 1               | 180                      |
| <b>TOTAL</b>  |                 | <b>370</b>               |

**Appendix 3: Tables of General results**

**What is your age?**

|                         | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------------------------|-----------|---------|---------------|--------------------|
| Valid 18 - 22 years old | 315       | 66.7    | 66.7          | 66.7               |
| 23 - 30 years old       | 84        | 17.8    | 17.8          | 84.5               |
| 31 - 40 years old       | 42        | 8.9     | 8.9           | 93.4               |
| 41 - 50 years old       | 23        | 4.9     | 4.9           | 98.3               |
| 51 - 60 years old       | 6         | 1.3     | 1.3           | 99.6               |
| Under 18 years old      | 2         | .4      | .4            | 100.0              |
| Total                   | 472       | 100.0   | 100.0         |                    |

**What is your current marital status?**

|                   | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------------------|-----------|---------|---------------|--------------------|
| Valid Divorced    | 5         | 1.1     | 1.1           | 1.1                |
| Engaged           | 11        | 2.3     | 2.3           | 3.4                |
| Married           | 29        | 6.1     | 6.1           | 9.5                |
| Prefer not to say | 22        | 4.7     | 4.7           | 14.2               |
| Single            | 405       | 85.8    | 85.8          | 100.0              |
| Total             | 472       | 100.0   | 100.0         |                    |

**What is the type of third level institution you attend?**

|                                  | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------------------------------|-----------|---------|---------------|--------------------|
| Valid College of Education       | 21        | 4.4     | 4.4           | 4.4                |
| Independent or Further Education | 18        | 3.8     | 3.8           | 8.3                |
| Institute of Technology          | 190       | 40.3    | 40.3          | 48.5               |
| University                       | 242       | 51.3    | 51.3          | 99.8               |
| University                       | 1         | .2      | .2            | 100.0              |
| Total                            | 472       | 100.0   | 100.0         |                    |

**Which of the following best describes your major or area of study in college?**

|                                   | Frequency | Percent | Valid Percent | Cumulative Percent |
|-----------------------------------|-----------|---------|---------------|--------------------|
| Valid Arts                        | 83        | 17.6    | 17.6          | 17.6               |
| Business, Accounting or Economics | 80        | 16.9    | 16.9          | 34.5               |
| Engineering                       | 36        | 7.6     | 7.6           | 42.2               |
| Humanities                        | 71        | 15.0    | 15.0          | 57.2               |
| I.T. / Computing                  | 36        | 7.6     | 7.6           | 64.8               |
| Medicine                          | 26        | 5.5     | 5.5           | 70.3               |
| Nursing                           | 20        | 4.2     | 4.2           | 74.6               |
| Science                           | 86        | 18.2    | 18.2          | 92.8               |
| Social Science                    | 34        | 7.2     | 7.2           | 100.0              |
| Total                             | 472       | 100.0   | 100.0         |                    |

**Have you studied business, accounting or economics in secondary school?**

|          | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------|-----------|---------|---------------|--------------------|
| Valid No | 150       | 31.8    | 31.8          | 31.8               |
| Yes      | 322       | 68.2    | 68.2          | 100.0              |
| Total    | 472       | 100.0   | 100.0         |                    |

**What is the highest academic level attained by your Father**

|                          | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------------------------|-----------|---------|---------------|--------------------|
| Valid Bachelors Degree   | 70        | 14.8    | 14.8          | 14.8               |
| Don't know               | 71        | 15.0    | 15.0          | 29.9               |
| Junior Certificate       | 129       | 27.3    | 27.3          | 57.2               |
| Leaving Certificate      | 112       | 23.7    | 23.7          | 80.9               |
| Masters Degree           | 31        | 6.6     | 6.6           | 87.5               |
| PHD                      | 9         | 1.9     | 1.9           | 89.4               |
| Post Leaving Certificate | 50        | 10.6    | 10.6          | 100.0              |
| Qualification            |           |         |               |                    |
| Total                    | 472       | 100.0   | 100.0         |                    |



**Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After one year, would you be able to buy more than, exactly the same as or less than today with the money in this account?**

|                           | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------------------------|-----------|---------|---------------|--------------------|
| Valid Do not know         | 93        | 19.7    | 19.7          | 19.7               |
| Exactly the same as today | 25        | 5.3     | 5.3           | 25.0               |
| Less than today           | 294       | 62.3    | 62.3          | 87.3               |
| More than today           | 60        | 12.7    | 12.7          | 100.0              |
| Total                     | 472       | 100.0   | 100.0         |                    |

**Do you think that the following statement is true or false? Buying a single company stock usually provides a safer return than a stock mutual fund.**

|             | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------------|-----------|---------|---------------|--------------------|
| Valid 0     | 154       | 32.6    | 32.6          | 32.6               |
| 1           | 41        | 8.7     | 8.7           | 41.3               |
| Do not know | 277       | 58.7    | 58.7          | 100.0              |
| Total       | 472       | 100.0   | 100.0         |                    |

**You owe € 3,000 on your credit card. You pay a minimum payment of € 30 each month. At an Annual Percentage Rate of 12% (or 1% per month), how many years would it take to eliminate your credit card debt if you made no additional new charges?**

|  | Frequency | Percent | Valid Percent | Cumulative Percent |
|--|-----------|---------|---------------|--------------------|
| Valid Between 10 and 15 years          | 88        | 18.6    | 18.6          | 18.6               |
| Between 5 and 10 years                 | 87        | 18.4    | 18.4          | 37.1               |
| Do not know                            | 122       | 25.8    | 25.8          | 62.9               |
| Less than 5 years                      | 43        | 9.1     | 9.1           | 72.0               |
| Never, you will continue to be in debt | 132       | 28.0    | 28.0          | 100.0              |
| Total                                  | 472       | 100.0   | 100.0         |                    |

**You purchase an appliance which costs € 1,000. To pay for this appliance, you are given the following two options: a) Pay 12 monthly instalments of € 100 each; b) Borrow at a 20% annual interest rate and pay back € 1,200 a year from now. Which is the more advantageous offer?**

|                   | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------------------|-----------|---------|---------------|--------------------|
| Valid Do not know | 71        | 15.0    | 15.0          | 15.0               |
| Option (a)        | 178       | 37.7    | 37.7          | 52.8               |
| Option (b)        | 34        | 7.2     | 7.2           | 60.0               |
| They are the same | 189       | 40.0    | 40.0          | 100.0              |
| Total             | 472       | 100.0   | 100.0         |                    |

**What is your current level of overall debt?**

|                   | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------------------|-----------|---------|---------------|--------------------|
| Valid € 1 - 1,000 | 72        | 15.3    | 15.3          | 15.3               |
| € 1,001 - 2,000   | 18        | 3.8     | 3.8           | 19.1               |
| € 10,001 - 12,500 | 5         | 1.1     | 1.1           | 20.1               |
| € 100,000+        | 14        | 3.0     | 3.0           | 23.1               |
| € 12,501 - 15,000 | 7         | 1.5     | 1.5           | 24.6               |
| € 15,001 - 17,500 | 4         | .8      | .8            | 25.4               |
| € 17,501 - 20,000 | 3         | .6      | .6            | 26.1               |
| € 2,001 - 4,000   | 27        | 5.7     | 5.7           | 31.8               |
| € 22,501 - 25,000 | 1         | .2      | .2            | 32.0               |
| € 4,001 - 6,000   | 11        | 2.3     | 2.3           | 34.3               |
| € 40,001 - 60,000 | 2         | .4      | .4            | 34.7               |
| € 6,001 - 8,000   | 7         | 1.5     | 1.5           | 36.2               |
| € 60,001 - 80,000 | 2         | .4      | .4            | 36.7               |
| € 8,001 - 10,000  | 3         | .6      | .6            | 37.3               |
| €0                | 293       | 62.1    | 62.1          | 99.4               |
| â€20,001 â€     | 2         | .4      | .4            | 99.8               |
| â€22,500         |           |         |               |                    |
| â€30,001 â€     | 1         | .2      | .2            | 100.0              |
| â€40,000         |           |         |               |                    |
| Total             | 472       | 100.0   | 100.0         |                    |

**Which of the following best describes your current debt position?**

|   | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|-----------|---------|---------------|--------------------|
| Valid I have about the right amount of debt right now and I face no problems with it. | 218       | 46.2    | 46.2          | 46.2               |
| I have too little debt right now. I wish I could get more.                            | 33        | 7.0     | 7.0           | 53.2               |
| I have too much debt right now and I have or may have difficulty paying it off.       | 79        | 16.7    | 16.7          | 69.9               |
| I just don't know.  | 142       | 30.1    | 30.1          | 100.0              |
| Total   | 472       | 100.0   | 100.0         |                    |

**In the future which of the following ways would you prefer to be informed about financial matters?**

|   | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|-----------|---------|---------------|--------------------|
| Valid AIB   | 1         | .2      | .2            | .2                 |
| By my bank.   | 1         | .2      | .2            | .4                 |
| College society/club  | 6         | 1.3     | 1.3           | 1.7                |
| College society/club;I have no wish to stay informed about financial matters. | 1         | .2      | .2            | 1.9                |
| College society/club;Personal finance course or night class                   | 2         | .4      | .4            | 2.3                |
| Family and friends  | 4         | .8      | .8            | 3.2                |
| Family and friends;College society/club                                       | 2         | .4      | .4            | 3.6                |
| Financial advisor   | 19        | 4.0     | 4.0           | 7.6                |
| Financial advisor;College society/club  | 3         | .6      | .6            | 8.3                |
| Financial advisor;Family and friends  | 14        | 3.0     | 3.0           | 11.2               |
| Financial advisor;Family and friends;College society/club                     | 2         | .4      | .4            | 11.7               |
| Financial advisor;Family and friends;Personal finance course or night class   | 3         | .6      | .6            | 12.3               |
| Financial advisor;Personal finance course or night class                      | 3         | .6      | .6            | 12.9               |
| Financial advisor;Personal finance course or night class;Dave Ramsey Books    | 1         | .2      | .2            | 13.1               |
| I have no wish to stay informed about financial matters.                      | 30        | 6.4     | 6.4           | 19.5               |
| Internet  | 62        | 13.1    | 13.1          | 32.6               |
| Internet;bloomberg  | 1         | .2      | .2            | 32.8               |
| Internet;College society/club   | 7         | 1.5     | 1.5           | 34.3               |

|   |    |     |     |      |
|---|----|-----|-----|------|
| Internet;College society/club;Personal finance course or night class                    | 2  | .4  | .4  | 34.7 |
| Internet;Family and friends   | 13 | 2.8 | 2.8 | 37.5 |
| Internet;Family and friends;College society/club  | 5  | 1.1 | 1.1 | 38.6 |
| Internet;Family and friends;College society/club;Personal finance course or night class | 2  | .4  | .4  | 39.0 |
| Internet;Family and friends;I have no wish to stay informed about financial matters.    | 1  | .2  | .2  | 39.2 |
| Internet;Family and friends;Personal finance course or night class                      | 1  | .2  | .2  | 39.4 |
| Internet;Financial advisor  | 14 | 3.0 | 3.0 | 42.4 |
| Internet;Financial advisor;College society/club   | 1  | .2  | .2  | 42.6 |
| Internet;Financial advisor;Family and friends   | 19 | 4.0 | 4.0 | 46.6 |
| Internet;Financial advisor;Family and friends;College society/club                      | 3  | .6  | .6  | 47.2 |
| Internet;I have no wish to stay informed about financial matters.                       | 1  | .2  | .2  | 47.5 |
| Internet;Personal finance course or night class   | 2  | .4  | .4  | 47.9 |
| Internet;Post   | 1  | .2  | .2  | 48.1 |
| MABS  | 1  | .2  | .2  | 48.3 |
| Newspapers  | 10 | 2.1 | 2.1 | 50.4 |
| Newspapers;College society/club   | 3  | .6  | .6  | 51.1 |
| Newspapers;Family and friends;Personal finance course or night class                    | 1  | .2  | .2  | 51.3 |
| Newspapers;Financial advisor;Family and friends   | 1  | .2  | .2  | 51.5 |
| Newspapers;Financial advisor;Family and friends;College society/club                    | 2  | .4  | .4  | 51.9 |

|   |    |     |     |      |
|---|----|-----|-----|------|
| Newspapers;Internet   | 13 | 2.8 | 2.8 | 54.7 |
| Newspapers;Internet;College society/club  | 1  | .2  | .2  | 54.9 |
| Newspapers;Internet;Family and friends  | 7  | 1.5 | 1.5 | 56.4 |
| Newspapers;Internet;Family and friends;College society/club                                     | 1  | .2  | .2  | 56.6 |
| Newspapers;Internet;Financial advisor   | 4  | .8  | .8  | 57.4 |
| Newspapers;Internet;Financial advisor;Family and friends  | 1  | .2  | .2  | 57.6 |
| Newspapers;Internet;Financial advisor;Family and friends;Personal finance course or night class | 1  | .2  | .2  | 57.8 |
| Newspapers;Radio;Financial advisor;Family and friends;College society/club                      | 1  | .2  | .2  | 58.1 |
| Newspapers;Radio;Financial advisor;Personal finance course or night class                       | 1  | .2  | .2  | 58.3 |
| Newspapers;Radio;Internet   | 5  | 1.1 | 1.1 | 59.3 |
| Newspapers;Radio;Internet;Family and friends;Personal finance course or night class             | 1  | .2  | .2  | 59.5 |
| Newspapers;Radio;Internet;Financial advisor;Family and friends                                  | 1  | .2  | .2  | 59.7 |
| Newspapers;T.V.   | 4  | .8  | .8  | 60.6 |
| Newspapers;T.V.;College society/club;Personal finance course or night class                     | 1  | .2  | .2  | 60.8 |
| Newspapers;T.V.;Family and friends  | 1  | .2  | .2  | 61.0 |
| Newspapers;T.V.;Financial advisor   | 1  | .2  | .2  | 61.2 |
| Newspapers;T.V.;Financial advisor;Family and friends  | 1  | .2  | .2  | 61.4 |
| Newspapers;T.V.;Financial advisor;Family and friends;College society/club                       | 1  | .2  | .2  | 61.7 |

|   |    |     |     |      |
|---|----|-----|-----|------|
| Newspapers;T.V.;Internet  | 12 | 2.5 | 2.5 | 64.2 |
| Newspapers;T.V.;Internet;College society/club   | 1  | .2  | .2  | 64.4 |
| Newspapers;T.V.;Internet;Family and friends   | 4  | .8  | .8  | 65.3 |
| Newspapers;T.V.;Internet;Family and friends;College society/club  | 2  | .4  | .4  | 65.7 |
| Newspapers;T.V.;Internet;Family and friends;College society/club;Personal finance course or night class | 2  | .4  | .4  | 66.1 |
| Newspapers;T.V.;Internet;Financial advisor  | 3  | .6  | .6  | 66.7 |
| Newspapers;T.V.;Internet;Financial advisor;Family and friends   | 2  | .4  | .4  | 67.2 |
| Newspapers;T.V.;Internet;Financial advisor;Family and friends;Personal finance course or night class    | 1  | .2  | .2  | 67.4 |
| Newspapers;T.V.;Internet;Financial advisor;Personal finance course or night class                       | 1  | .2  | .2  | 67.6 |
| Newspapers;T.V.;Internet;Personal finance course or night class   | 1  | .2  | .2  | 67.8 |
| Newspapers;T.V.;Radio   | 2  | .4  | .4  | 68.2 |
| Newspapers;T.V.;Radio;Financial advisor;Family and friends;College society/club                         | 1  | .2  | .2  | 68.4 |
| Newspapers;T.V.;Radio;Financial advisor;Family and friends;Personal finance course or night class       | 1  | .2  | .2  | 68.6 |
| Newspapers;T.V.;Radio;Internet  | 15 | 3.2 | 3.2 | 71.8 |
| Newspapers;T.V.;Radio;Internet;College society/club   | 2  | .4  | .4  | 72.2 |

|  |    |     |     |      |
|--|----|-----|-----|------|
| Newspapers;T.V.;Radio;Internet;Family and friends  | 13 | 2.8 | 2.8 | 75.0 |
| Newspapers;T.V.;Radio;Internet;Family and friends;College society/club   | 2  | .4  | .4  | 75.4 |
| Newspapers;T.V.;Radio;Internet;Family and friends;Personal finance course or night class   | 2  | .4  | .4  | 75.8 |
| Newspapers;T.V.;Radio;Internet;Financial advisor   | 4  | .8  | .8  | 76.7 |
| Newspapers;T.V.;Radio;Internet;Financial advisor;College society/club  | 1  | .2  | .2  | 76.9 |
| Newspapers;T.V.;Radio;Internet;Financial advisor;College society/club;Personal finance course or night class   | 1  | .2  | .2  | 77.1 |
| Newspapers;T.V.;Radio;Internet;Financial advisor;Family and friends  | 7  | 1.5 | 1.5 | 78.6 |
| Newspapers;T.V.;Radio;Internet;Financial advisor;Family and friends;College society/club   | 1  | .2  | .2  | 78.8 |
| Newspapers;T.V.;Radio;Internet;Financial advisor;Family and friends;College society/club;Personal finance course or night class  | 3  | .6  | .6  | 79.4 |
| Newspapers;T.V.;Radio;Internet;Financial advisor;Family and friends;College society/club;Personal finance course or night class;I have no wish to stay informed about financial matters. | 1  | .2  | .2  | 79.7 |



|  |    |     |     |      |
|--|----|-----|-----|------|
| Newspapers;T.V.;Radio;Internet;Financial advisor;Family and friends;Personal finance course or night class | 2  | .4  | .4  | 80.1 |
| Newspapers;T.V.;Radio;Internet;Personal finance course or night class                                      | 1  | .2  | .2  | 80.3 |
| Personal finance course or night class   | 9  | 1.9 | 1.9 | 82.2 |
| Radio  | 3  | .6  | .6  | 82.8 |
| Radio;Family and friends   | 1  | .2  | .2  | 83.1 |
| Radio;Financial advisor;Family and friends   | 1  | .2  | .2  | 83.3 |
| Radio;Internet   | 4  | .8  | .8  | 84.1 |
| Radio;Internet;Family and friends  | 1  | .2  | .2  | 84.3 |
| Radio;Internet;Financial advisor;Family and friends  | 1  | .2  | .2  | 84.5 |
| Radio;Internet;Financial advisor;Family and friends;College society/club                                   | 1  | .2  | .2  | 84.7 |
| T.V.   | 12 | 2.5 | 2.5 | 87.3 |
| T.V.;College society/club  | 1  | .2  | .2  | 87.5 |
| T.V.;College society/club;2nd Level Education  | 1  | .2  | .2  | 87.7 |
| T.V.;Family and friends  | 1  | .2  | .2  | 87.9 |
| T.V.;Financial advisor;Personal finance course or night class  | 1  | .2  | .2  | 88.1 |
| T.V.;Internet  | 17 | 3.6 | 3.6 | 91.7 |
| T.V.;Internet;College society/club   | 1  | .2  | .2  | 91.9 |
| T.V.;Internet;Family and friends   | 4  | .8  | .8  | 92.8 |
| T.V.;Internet;Family and friends;College society/club  | 2  | .4  | .4  | 93.2 |
| T.V.;Internet;Family and friends;Personal finance course or night class                                    | 1  | .2  | .2  | 93.4 |
| T.V.;Internet;Financial advisor  | 1  | .2  | .2  | 93.6 |
| T.V.;Internet;Financial advisor;College society/club   | 1  | .2  | .2  | 93.9 |

|   |     |       |       |       |
|---|-----|-------|-------|-------|
| T.V.;Internet;Financial advisor;Family and friends  | 3   | .6    | .6    | 94.5  |
| T.V.;Internet;Financial advisor;Family and friends;College society/club                   | 2   | .4    | .4    | 94.9  |
| T.V.;Internet;Financial advisor;Family and friends;Personal finance course or night class | 1   | .2    | .2    | 95.1  |
| T.V.;Internet;I have no wish to stay informed about financial matters.                    | 1   | .2    | .2    | 95.3  |
| T.V.;Internet;Personal finance course or night class;Social media                         | 1   | .2    | .2    | 95.6  |
| T.V.;Personal finance course or night class   | 1   | .2    | .2    | 95.8  |
| T.V.;Radio  | 2   | .4    | .4    | 96.2  |
| T.V.;Radio;College society/club   | 1   | .2    | .2    | 96.4  |
| T.V.;Radio;Financial advisor;Personal finance course or night class                       | 1   | .2    | .2    | 96.6  |
| T.V.;Radio;Internet   | 4   | .8    | .8    | 97.5  |
| T.V.;Radio;Internet;Family and friends  | 4   | .8    | .8    | 98.3  |
| T.V.;Radio;Internet;Family and friends;College society/club                               | 2   | .4    | .4    | 98.7  |
| T.V.;Radio;Internet;Financial advisor   | 1   | .2    | .2    | 98.9  |
| T.V.;Radio;Internet;Financial advisor;Family and friends                                  | 4   | .8    | .8    | 99.8  |
| T.V.;Radio;Internet;Financial advisor;Family and friends;College society/club             | 1   | .2    | .2    | 100.0 |
| Total   | 472 | 100.0 | 100.0 |       |

**On a scale from 1 to 7, where 1 means very low and 7 means very high, how would you assess your overall financial knowledge?**

|         | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------|-----------|---------|---------------|--------------------|
| Valid 1 | 31        | 6.6     | 6.6           | 6.6                |
| 2       | 74        | 15.7    | 15.7          | 22.2               |
| 3       | 107       | 22.7    | 22.7          | 44.9               |
| 4       | 136       | 28.8    | 28.8          | 73.7               |
| 5       | 96        | 20.3    | 20.3          | 94.1               |
| 6       | 21        | 4.4     | 4.4           | 98.5               |
| 7       | 7         | 1.5     | 1.5           | 100.0              |
| Total   | 472       | 100.0   | 100.0         |                    |



**Appendix 5: Financial Literacy and Discipline Summary**

| Which of the following best describes your major or area of study in college? |   | Suppose you had €-100 in a savings account and the interest rate was 2% per year. After five years, how much do you think you would have in the account if you left the money to grow? | Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After one year, would you be able to buy more than, exactly the same as or less than today with the money in this account? | Do you think that the following statement is true or false? Buying a single company stock usually provides a safer return than a stock mutual fund. | You owe € 3,000 on your credit card. You pay a minimum payment of € 30 each month. At an Annual Percentage Rate of 12% (or 1% per month), how many years would it take to eliminate your credit card debt if you made no additional new charges? | You purchase an appliance which costs € 1,000. To pay for this appliance, you are given the following two options: a) Pay 12 monthly instalments of € 100 each; b) Borrow at a 20% annual interest rate and pay back € 1,200 a year from now. Which is the more | On a scale from 1 to 7, where 1 means very low and 7 means very high, how would you assess your overall financial knowledge? |
|---|---|--|--|---|--|---|--|
| Arts  | N | Valid   83<br>Missing   0  | 83<br>0  | 83<br>0   | 83<br>0  | 83<br>0   | 83<br>0  |
| Business, Accounting or Economics   | N | Valid   80   | 80   | 80  | 80   | 80  | 80   |
|   |   |  |  |   |  |   | 3.60<br>1.219<br>1.486   |

|                     |           |         |    |    |    |    |    |    |       |
|---------------------|-----------|---------|----|----|----|----|----|----|-------|
|                     |           | Missing | 0  | 0  | 0  | 0  | 0  | 0  | 0     |
|                     | Mean      |         |    |    |    |    |    |    | 4.11  |
|                     | Std.      |         |    |    |    |    |    |    | 1.283 |
|                     | Deviation |         |    |    |    |    |    |    | 1.645 |
|                     | Variance  |         |    |    |    |    |    |    | 36    |
| Engineering         | N         | Valid   | 36 | 36 | 36 | 36 | 36 | 36 | 36    |
|                     |           | Missing | 0  | 0  | 0  | 0  | 0  | 0  | 0     |
|                     | Mean      |         |    |    |    |    |    |    | 3.83  |
|                     | Std.      |         |    |    |    |    |    |    | 1.404 |
|                     | Deviation |         |    |    |    |    |    |    | 1.971 |
|                     | Variance  |         |    |    |    |    |    |    | 71    |
| Humanities          | N         | Valid   | 71 | 71 | 71 | 71 | 71 | 71 | 71    |
|                     |           | Missing | 0  | 0  | 0  | 0  | 0  | 0  | 0     |
|                     | Mean      |         |    |    |    |    |    |    | 3.28  |
|                     | Std.      |         |    |    |    |    |    |    | 1.311 |
|                     | Deviation |         |    |    |    |    |    |    | 1.720 |
|                     | Variance  |         |    |    |    |    |    |    | 36    |
| I.T. /<br>Computing | N         | Valid   | 36 | 36 | 36 | 36 | 36 | 36 | 36    |
|                     |           | Missing | 0  | 0  | 0  | 0  | 0  | 0  | 0     |
|                     | Mean      |         |    |    |    |    |    |    | 4.03  |
|                     | Std.      |         |    |    |    |    |    |    | 1.383 |
|                     | Deviation |         |    |    |    |    |    |    | 1.913 |
|                     | Variance  |         |    |    |    |    |    |    | 26    |
| Medicine            | N         | Valid   | 26 | 26 | 26 | 26 | 26 | 26 | 26    |
|                     |           | Missing | 0  | 0  | 0  | 0  | 0  | 0  | 0     |
|                     | Mean      |         |    |    |    |    |    |    | 3.35  |
|                     | Std.      |         |    |    |    |    |    |    | 1.294 |
|                     | Deviation |         |    |    |    |    |    |    |       |

|                |                |         |    |    |    |    |    |    |       |
|----------------|----------------|---------|----|----|----|----|----|----|-------|
| Nursing        | Variance       |         |    |    |    |    |    |    | 1.675 |
|                | N              | Valid   | 20 | 20 | 20 | 20 | 20 | 20 | 20    |
|                |                | Missing | 0  | 0  | 0  | 0  | 0  | 0  | 0     |
|                | Mean           |         |    |    |    |    |    |    | 2.95  |
|                | Std. Deviation |         |    |    |    |    |    |    | 1.317 |
|                | Variance       |         |    |    |    |    |    |    | 1.734 |
| Science        | N              | Valid   | 86 | 86 | 86 | 86 | 86 | 86 | 86    |
|                |                | Missing | 0  | 0  | 0  | 0  | 0  | 0  | 0     |
|                | Mean           |         |    |    |    |    |    |    | 3.45  |
|                | Std. Deviation |         |    |    |    |    |    |    | 1.378 |
|                | Variance       |         |    |    |    |    |    |    | 1.898 |
| Social Science | N              | Valid   | 34 | 34 | 34 | 34 | 34 | 34 | 34    |
|                |                | Missing | 0  | 0  | 0  | 0  | 0  | 0  | 0     |
|                | Mean           |         |    |    |    |    |    |    | 3.29  |
|                | Std. Deviation |         |    |    |    |    |    |    | 1.268 |
|                | Variance       |         |    |    |    |    |    |    | 1.608 |

**Appendix 6: Suppose you had €100 in a savings account and the interest rate was 2% per year. After five years, how much do you think you would have in the account if you left the money to grow?**

| Which of the following best describes your major or area of study in college? |       |                 | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|-------|-----------------|-----------|---------|---------------|--------------------|
| Arts  | Valid | Do not know     | 5         | 6.0     | 6.0           | 6.0                |
|   |       | Exactly € 102   | 7         | 8.4     | 8.4           | 14.5               |
|   |       | Exactly €102    | 1         | 1.2     | 1.2           | 15.7               |
|   |       | Less than € 102 | 1         | 1.2     | 1.2           | 16.9               |
|   |       | More than € 102 | 69        | 83.1    | 83.1          | 100.0              |
|   |       | Total           | 83        | 100.0   | 100.0         |                    |
| Business, Accounting or Economics   | Valid | Do not know     | 2         | 2.5     | 2.5           | 2.5                |
|   |       | Less than € 102 | 1         | 1.3     | 1.3           | 10.0               |
|   |       | More than € 102 | 72        | 90.0    | 90.0          | 100.0              |
|   |       | Exactly € 102   | 5         | 6.3     | 6.3           | 8.8                |
|   |       | Total           | 80        | 100.0   | 100.0         |                    |
| Engineering   | Valid | Do not know     | 2         | 5.6     | 5.6           | 5.6                |
|   |       | More than € 102 | 34        | 94.4    | 94.4          | 100.0              |
|   |       | Total           | 36        | 100.0   | 100.0         |                    |
| Humanities  | Valid | Do not know     | 8         | 11.3    | 11.3          | 11.3               |
|   |       | More than € 102 | 55        | 77.5    | 77.5          | 100.0              |
|   |       | Exactly € 102   | 8         | 11.3    | 11.3          | 22.5               |
|   |       | Total           | 71        | 100.0   | 100.0         |                    |
| I.T. / Computing  | Valid | Do not know     | 1         | 2.8     | 2.8           | 2.8                |
|   |       | More than € 102 | 35        | 97.2    | 97.2          | 100.0              |
|   |       | Total           | 36        | 100.0   | 100.0         |                    |
| Medicine  | Valid | Do not know     | 2         | 7.7     | 7.7           | 7.7                |
|   |       | More than € 102 | 23        | 88.5    | 88.5          | 100.0              |
|   |       | Exactly € 102   | 1         | 3.8     | 3.8           | 11.5               |
|   |       | Total           | 26        | 100.0   | 100.0         |                    |
| Nursing   | Valid | Less than € 102 | 1         | 5.0     | 5.0           | 20.0               |
|   |       | More than € 102 | 16        | 80.0    | 80.0          | 100.0              |
|   |       | Exactly € 102   | 3         | 15.0    | 15.0          | 15.0               |
|   |       | Total           | 20        | 100.0   | 100.0         |                    |
| Science   | Valid | Do not know     | 1         | 1.2     | 1.2           | 1.2                |
|   |       | Less than € 102 | 4         | 4.7     | 4.7           | 9.3                |
|   |       | More than € 102 | 78        | 90.7    | 90.7          | 100.0              |
|   |       | Exactly € 102   | 3         | 3.5     | 3.5           | 4.7                |
|   |       | Total           | 86        | 100.0   | 100.0         |                    |
| Social Science  | Valid | Do not know     | 1         | 2.9     | 2.9           | 2.9                |



|                 |    |       |       |       |
|-----------------|----|-------|-------|-------|
| More than € 102 | 33 | 97.1  | 97.1  | 100.0 |
| Total           | 34 | 100.0 | 100.0 |       |

**Appendix 7: Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After one year, would you be able to buy more than, exactly the same as or less than today with the money in this account?**

| Which of the following best describes your major or area of study in college? |       |                           | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|-------|---------------------------|-----------|---------|---------------|--------------------|
| Arts  | Valid | Do not know               | 13        | 15.7    | 15.7          | 15.7               |
|   |       | Exactly the same as today | 5         | 6.0     | 6.0           | 21.7               |
|   |       | Less than today           | 51        | 61.4    | 61.4          | 83.1               |
|   |       | More than today           | 14        | 16.9    | 16.9          | 100.0              |
|   |       | Total                     | 83        | 100.0   | 100.0         |                    |
| Business, Accounting or Economics   | Valid | Do not know               | 8         | 10.0    | 10.0          | 10.0               |
|   |       | Exactly the same as today | 4         | 5.0     | 5.0           | 15.0               |
|   |       | Less than today           | 60        | 75.0    | 75.0          | 90.0               |
|   |       | More than today           | 8         | 10.0    | 10.0          | 100.0              |
|   |       | Total                     | 80        | 100.0   | 100.0         |                    |
| Engineering   | Valid | Do not know               | 5         | 13.9    | 13.9          | 13.9               |
|   |       | Less than today           | 24        | 66.7    | 66.7          | 80.6               |
|   |       | More than today           | 7         | 19.4    | 19.4          | 100.0              |
|   |       | Total                     | 36        | 100.0   | 100.0         |                    |
| Humanities  | Valid | Do not know               | 18        | 25.4    | 25.4          | 25.4               |
|   |       | Exactly the same as today | 3         | 4.2     | 4.2           | 29.6               |
|   |       | Less than today           | 39        | 54.9    | 54.9          | 84.5               |
|   |       | More than today           | 11        | 15.5    | 15.5          | 100.0              |
|   |       | Total                     | 71        | 100.0   | 100.0         |                    |
| I.T. / Computing  | Valid | Do not know               | 4         | 11.1    | 11.1          | 11.1               |
|   |       | Exactly the same as today | 2         | 5.6     | 5.6           | 16.7               |
|   |       | Less than today           | 26        | 72.2    | 72.2          | 88.9               |
|   |       | More than today           | 4         | 11.1    | 11.1          | 100.0              |
|   |       | Total                     | 36        | 100.0   | 100.0         |                    |
| Medicine  | Valid | Do not know               | 6         | 23.1    | 23.1          | 23.1               |
|   |       | Exactly the same as today | 1         | 3.8     | 3.8           | 26.9               |
|   |       | Less than today           | 17        | 65.4    | 65.4          | 92.3               |
|   |       | More than today           | 2         | 7.7     | 7.7           | 100.0              |
|   |       | Total                     | 26        | 100.0   | 100.0         |                    |
| Nursing   | Valid | Do not know               | 11        | 55.0    | 55.0          | 55.0               |
|   |       | Exactly the same          | 1         | 5.0     | 5.0           | 60.0               |

|                   |       |                              |    |       |       |       |
|-------------------|-------|------------------------------|----|-------|-------|-------|
|                   |       | as today                     |    |       |       |       |
|                   |       | Less than today              | 7  | 35.0  | 35.0  | 95.0  |
|                   |       | More than today              | 1  | 5.0   | 5.0   | 100.0 |
|                   |       | Total                        | 20 | 100.0 | 100.0 |       |
| Science           | Valid | Do not know                  | 17 | 19.8  | 19.8  | 19.8  |
|                   |       | Exactly the same<br>as today | 5  | 5.8   | 5.8   | 25.6  |
|                   |       | Less than today              | 53 | 61.6  | 61.6  | 87.2  |
|                   |       | More than today              | 11 | 12.8  | 12.8  | 100.0 |
|                   |       | Total                        | 86 | 100.0 | 100.0 |       |
| Social<br>Science | Valid | Do not know                  | 11 | 32.4  | 32.4  | 32.4  |
|                   |       | Exactly the same<br>as today | 4  | 11.8  | 11.8  | 44.1  |
|                   |       | Less than today              | 17 | 50.0  | 50.0  | 94.1  |
|                   |       | More than today              | 2  | 5.9   | 5.9   | 100.0 |
|                   |       | Total                        | 34 | 100.0 | 100.0 |       |

**Appendix 8: You owe € 3,000 on your credit card. You pay a minimum payment of € 30 each month. At an Annual Percentage Rate of 12% (or 1% per month), how many years would it take to eliminate your credit card debt if you made no additional new charges?**

| Which of the following best describes your major or area of study in college? |       |  | Frequency | Percent                 | Valid Percent | Cumulative Percent |
|---|-------|--|-----------|-------------------------|---------------|--------------------|
| Arts  | Valid | Between 10 and 15 years                | 16        | 19.3                    | 19.3          | 19.3               |
|   |       | Between 5 and 10 years                 | 23        | 27.7                    | 27.7          | 47.0               |
|   |       | Do not know                            | 22        | 26.5                    | 26.5          | 73.5               |
|   |       | Less than 5 years                      | 7         | 8.4                     | 8.4           | 81.9               |
|   |       | Never, you will continue to be in debt | 15        | 18.1                    | 18.1          | 100.0              |
|   |       | Total                                  | 83        | 100.0                   | 100.0         |                    |
|   |       | Business, Accounting or Economics      | Valid     | Between 10 and 15 years | 18            | 22.5               |
| Between 5 and 10 years  | 12    |  |           | 15.0                    | 15.0          | 37.5               |
| Do not know   | 17    |  |           | 21.3                    | 21.3          | 58.8               |
| Less than 5 years   | 9     |  |           | 11.3                    | 11.3          | 70.0               |
| Never, you will continue to be in debt  | 24    |  |           | 30.0                    | 30.0          | 100.0              |
| Total   | 80    |  |           | 100.0                   | 100.0         |                    |
| Engineering   | Valid |  |           | Between 10 and 15 years | 6             | 16.7               |
|   |       | Between 5 and 10 years                 | 4         | 11.1                    | 11.1          | 27.8               |
|   |       | Do not know                            | 5         | 13.9                    | 13.9          | 41.7               |
|   |       | Less than 5 years                      | 3         | 8.3                     | 8.3           | 50.0               |
|   |       | Never, you will continue to be in debt | 18        | 50.0                    | 50.0          | 100.0              |
|   |       | Total                                  | 36        | 100.0                   | 100.0         |                    |
|   |       | Humanities                             | Valid     | Between 10 and 15 years | 11            | 15.5               |
| Between 5 and 10 years  | 18    |  |           | 25.4                    | 25.4          | 40.8               |
| Do not know   | 25    |  |           | 35.2                    | 35.2          | 76.1               |
| Less than 5 years   | 4     |  |           | 5.6                     | 5.6           | 81.7               |
| Never, you will continue to be in   | 13    |  |           | 18.3                    | 18.3          | 100.0              |
| Total   |       |  |           |                         |               |                    |

|                     |       |  |    |       |       |       |
|---------------------|-------|--|----|-------|-------|-------|
|                     |       | debt   |    |       |       |       |
|                     |       | Total  | 71 | 100.0 | 100.0 |       |
| I.T. /<br>Computing | Valid | Between 10 and<br>15 years                   | 9  | 25.0  | 25.0  | 25.0  |
|                     |       | Between 5 and 10<br>years                    | 11 | 30.6  | 30.6  | 55.6  |
|                     |       | Do not know                                  | 4  | 11.1  | 11.1  | 66.7  |
|                     |       | Less than 5 years                            | 2  | 5.6   | 5.6   | 72.2  |
|                     |       | Never, you will<br>continue to be in<br>debt | 10 | 27.8  | 27.8  | 100.0 |
|                     |       | Total  | 36 | 100.0 | 100.0 |       |
| Medicine            | Valid | Between 10 and<br>15 years                   | 6  | 23.1  | 23.1  | 23.1  |
|                     |       | Between 5 and 10<br>years                    | 1  | 3.8   | 3.8   | 26.9  |
|                     |       | Do not know                                  | 6  | 23.1  | 23.1  | 50.0  |
|                     |       | Less than 5 years                            | 2  | 7.7   | 7.7   | 57.7  |
|                     |       | Never, you will<br>continue to be in<br>debt | 11 | 42.3  | 42.3  | 100.0 |
|                     |       | Total  | 26 | 100.0 | 100.0 |       |
| Nursing             | Valid | Between 10 and<br>15 years                   | 5  | 25.0  | 25.0  | 25.0  |
|                     |       | Between 5 and 10<br>years                    | 2  | 10.0  | 10.0  | 35.0  |
|                     |       | Do not know                                  | 9  | 45.0  | 45.0  | 80.0  |
|                     |       | Less than 5 years                            | 2  | 10.0  | 10.0  | 90.0  |
|                     |       | Never, you will<br>continue to be in<br>debt | 2  | 10.0  | 10.0  | 100.0 |
|                     |       | Total  | 20 | 100.0 | 100.0 |       |
| Science             | Valid | Between 10 and<br>15 years                   | 12 | 14.0  | 14.0  | 14.0  |
|                     |       | Between 5 and 10<br>years                    | 10 | 11.6  | 11.6  | 25.6  |
|                     |       | Do not know                                  | 29 | 33.7  | 33.7  | 59.3  |
|                     |       | Less than 5 years                            | 10 | 11.6  | 11.6  | 70.9  |
|                     |       | Never, you will<br>continue to be in<br>debt | 25 | 29.1  | 29.1  | 100.0 |
|                     |       | Total  | 86 | 100.0 | 100.0 |       |
| Social<br>Science   | Valid | Between 10 and<br>15 years                   | 5  | 14.7  | 14.7  | 14.7  |
|                     |       | Between 5 and 10<br>years                    | 6  | 17.6  | 17.6  | 32.4  |

|  |    |       |       |       |
|--|----|-------|-------|-------|
| Do not know                                  | 5  | 14.7  | 14.7  | 47.1  |
| Less than 5 years                            | 4  | 11.8  | 11.8  | 58.8  |
| Never, you will<br>continue to be in<br>debt | 14 | 41.2  | 41.2  | 100.0 |
| Total  | 34 | 100.0 | 100.0 |       |

**Appendix 9: On a scale from 1 to 7, where 1 means very low and 7 means very high, how would you assess your overall financial knowledge?**

| Which of the following best describes your major or area of study in college? |       |                                   | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|-------|-----------------------------------|-----------|---------|---------------|--------------------|
| Arts  | Valid | 1                                 | 6         | 7.2     | 7.2           | 7.2                |
|   |       | 2                                 | 9         | 10.8    | 10.8          | 18.1               |
|   |       | 3                                 | 18        | 21.7    | 21.7          | 39.8               |
|   |       | 4                                 | 31        | 37.3    | 37.3          | 77.1               |
|   |       | 5                                 | 18        | 21.7    | 21.7          | 98.8               |
|   |       | 7                                 | 1         | 1.2     | 1.2           | 100.0              |
|   |       | Total                             | 83        | 100.0   | 100.0         |                    |
|   |       | Business, Accounting or Economics | Valid     | 1       | 1             | 1.3                |
| 2   | 6     |                                   |           | 7.5     | 7.5           | 8.8                |
| 3   | 18    |                                   |           | 22.5    | 22.5          | 31.3               |
| 4   | 29    |                                   |           | 36.3    | 36.3          | 67.5               |
| 5   | 13    |                                   |           | 16.3    | 16.3          | 83.8               |
| 6   | 10    |                                   |           | 12.5    | 12.5          | 96.3               |
| 7   | 3     |                                   |           | 3.8     | 3.8           | 100.0              |
| Total   | 80    |                                   |           | 100.0   | 100.0         |                    |
| Engineering   | Valid | 1                                 | 2         | 5.6     | 5.6           | 5.6                |
|   |       | 2                                 | 5         | 13.9    | 13.9          | 19.4               |
|   |       | 3                                 | 8         | 22.2    | 22.2          | 41.7               |
|   |       | 4                                 | 6         | 16.7    | 16.7          | 58.3               |
|   |       | 5                                 | 12        | 33.3    | 33.3          | 91.7               |
|   |       | 6                                 | 3         | 8.3     | 8.3           | 100.0              |
|   |       | Total                             | 36        | 100.0   | 100.0         |                    |
| Humanities  | Valid | 1                                 | 7         | 9.9     | 9.9           | 9.9                |
|   |       | 2                                 | 12        | 16.9    | 16.9          | 26.8               |
|   |       | 3                                 | 22        | 31.0    | 31.0          | 57.7               |
|   |       | 4                                 | 17        | 23.9    | 23.9          | 81.7               |
|   |       | 5                                 | 11        | 15.5    | 15.5          | 97.2               |
|   |       | 6                                 | 1         | 1.4     | 1.4           | 98.6               |
|   |       | 7                                 | 1         | 1.4     | 1.4           | 100.0              |
| Total   | 71    | 100.0                             | 100.0     |         |               |                    |
| I.T. / Computing  | Valid | 1                                 | 1         | 2.8     | 2.8           | 2.8                |
|   |       | 2                                 | 5         | 13.9    | 13.9          | 16.7               |
|   |       | 3                                 | 6         | 16.7    | 16.7          | 33.3               |
|   |       | 4                                 | 9         | 25.0    | 25.0          | 58.3               |
|   |       | 5                                 | 11        | 30.6    | 30.6          | 88.9               |
|   |       | 6                                 | 3         | 8.3     | 8.3           | 97.2               |
|   |       | 7                                 | 1         | 2.8     | 2.8           | 100.0              |

|                   |       |       |    |       |       |       |
|-------------------|-------|-------|----|-------|-------|-------|
|                   |       | Total | 36 | 100.0 | 100.0 |       |
| Medicine          | Valid | 1     | 3  | 11.5  | 11.5  | 11.5  |
|                   |       | 2     | 4  | 15.4  | 15.4  | 26.9  |
|                   |       | 3     | 5  | 19.2  | 19.2  | 46.2  |
|                   |       | 4     | 9  | 34.6  | 34.6  | 80.8  |
|                   |       | 5     | 5  | 19.2  | 19.2  | 100.0 |
|                   |       | Total | 26 | 100.0 | 100.0 |       |
| Nursing           | Valid | 1     | 2  | 10.0  | 10.0  | 10.0  |
|                   |       | 2     | 8  | 40.0  | 40.0  | 50.0  |
|                   |       | 3     | 2  | 10.0  | 10.0  | 60.0  |
|                   |       | 4     | 5  | 25.0  | 25.0  | 85.0  |
|                   |       | 5     | 3  | 15.0  | 15.0  | 100.0 |
|                   |       | Total | 20 | 100.0 | 100.0 |       |
| Science           | Valid | 1     | 7  | 8.1   | 8.1   | 8.1   |
|                   |       | 2     | 16 | 18.6  | 18.6  | 26.7  |
|                   |       | 3     | 20 | 23.3  | 23.3  | 50.0  |
|                   |       | 4     | 23 | 26.7  | 26.7  | 76.7  |
|                   |       | 5     | 15 | 17.4  | 17.4  | 94.2  |
|                   |       | 6     | 4  | 4.7   | 4.7   | 98.8  |
|                   |       | 7     | 1  | 1.2   | 1.2   | 100.0 |
|                   |       | Total | 86 | 100.0 | 100.0 |       |
| Social<br>Science | Valid | 1     | 2  | 5.9   | 5.9   | 5.9   |
|                   |       | 2     | 9  | 26.5  | 26.5  | 32.4  |
|                   |       | 3     | 8  | 23.5  | 23.5  | 55.9  |
|                   |       | 4     | 7  | 20.6  | 20.6  | 76.5  |
|                   |       | 5     | 8  | 23.5  | 23.5  | 100.0 |
|                   |       | Total | 34 | 100.0 | 100.0 |       |



**Appendix 10: Findings on year of study and financial literacy**

**Do you think that the following statement is true or false? Buying a single company stock usually provides a safer return than a stock mutual fund.**

| What is your current year of study? |       |             | Frequency   | Percent | Valid Percent | Cumulative Percent |       |
|-------------------------------------|-------|-------------|-------------|---------|---------------|--------------------|-------|
| 1st                                 | Valid | 0           | 40          | 44.9    | 44.9          | 44.9               |       |
|                                     |       | 1           | 13          | 14.6    | 14.6          | 59.6               |       |
|                                     |       | Do not know | 36          | 40.4    | 40.4          | 100.0              |       |
|                                     |       | Total       | 89          | 100.0   | 100.0         |                    |       |
| 2nd                                 | Valid | 0           | 37          | 28.2    | 28.2          | 28.2               |       |
|                                     |       | 1           | 11          | 8.4     | 8.4           | 36.6               |       |
|                                     |       | Do not know | 83          | 63.4    | 63.4          | 100.0              |       |
|                                     |       | Total       | 131         | 100.0   | 100.0         |                    |       |
| 3rd                                 | Valid | 0           | 32          | 23.5    | 23.5          | 23.5               |       |
|                                     |       | 1           | 14          | 10.3    | 10.3          | 33.8               |       |
|                                     |       | Do not know | 90          | 66.2    | 66.2          | 100.0              |       |
|                                     |       | Total       | 136         | 100.0   | 100.0         |                    |       |
| 4th                                 | Valid | 0           | 33          | 38.4    | 38.4          | 38.4               |       |
|                                     |       | 1           | 1           | 1.2     | 1.2           | 39.5               |       |
|                                     |       | Do not know | 52          | 60.5    | 60.5          | 100.0              |       |
|                                     |       | Total       | 86          | 100.0   | 100.0         |                    |       |
| 5th                                 | Valid | 0           | 8           | 33.3    | 33.3          | 33.3               |       |
|                                     |       | 1           | 2           | 8.3     | 8.3           | 41.7               |       |
|                                     |       | Do not know | 14          | 58.3    | 58.3          | 100.0              |       |
|                                     |       | Total       | 24          | 100.0   | 100.0         |                    |       |
| 6th                                 | Valid | 0           | 4           | 66.7    | 66.7          | 66.7               |       |
|                                     |       |             | Do not know | 2       | 33.3          | 33.3               | 100.0 |
|                                     |       |             | Total       | 6       | 100.0         | 100.0              |       |

**Suppose you had €100 in a savings account and the interest rate was 2% per year. After five years, how much do you think you would have in the account if you left the money to grow?**

| What is your current year of study? |       |                 | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------------------------------------|-------|-----------------|-----------|---------|---------------|--------------------|
| 1st                                 | Valid | Do not know     | 2         | 2.2     | 2.2           | 2.2                |
|                                     |       | Exactly € 102   | 1         | 1.1     | 1.1           | 3.4                |
|                                     |       | Exactly â,¬102  | 4         | 4.5     | 4.5           | 7.9                |
|                                     |       | Less than € 102 | 1         | 1.1     | 1.1           | 9.0                |
|                                     |       | More than € 102 | 81        | 91.0    | 91.0          | 100.0              |
|                                     |       | Total           | 89        | 100.0   | 100.0         |                    |
| 2nd                                 | Valid | Do not know     | 5         | 3.8     | 3.8           | 3.8                |
|                                     |       | Exactly € 102   | 1         | .8      | .8            | 4.6                |
|                                     |       | Exactly â,¬102  | 4         | 3.1     | 3.1           | 8.4                |
|                                     |       | Less than € 102 | 1         | .8      | .8            | 9.2                |
|                                     |       | More than € 102 | 119       | 90.8    | 90.8          | 100.0              |
|                                     |       | Exactly €102    | 1         | .8      | .8            | 5.3                |
| Total                               | 131   | 100.0           | 100.0     |         |               |                    |
| 3rd                                 | Valid | Do not know     | 8         | 5.9     | 5.9           | 5.9                |
|                                     |       | Exactly € 102   | 2         | 1.5     | 1.5           | 7.4                |
|                                     |       | Exactly â,¬102  | 8         | 5.9     | 5.9           | 13.2               |
|                                     |       | Less than € 102 | 3         | 2.2     | 2.2           | 15.4               |
|                                     |       | More than € 102 | 115       | 84.6    | 84.6          | 100.0              |
|                                     |       | Total           | 136       | 100.0   | 100.0         |                    |
| 4th                                 | Valid | Do not know     | 4         | 4.7     | 4.7           | 4.7                |
|                                     |       | Exactly € 102   | 3         | 3.5     | 3.5           | 8.1                |
|                                     |       | Exactly â,¬102  | 4         | 4.7     | 4.7           | 12.8               |
|                                     |       | Less than € 102 | 1         | 1.2     | 1.2           | 14.0               |
|                                     |       | More than € 102 | 74        | 86.0    | 86.0          | 100.0              |
|                                     |       | Total           | 86        | 100.0   | 100.0         |                    |
| 5th                                 | Valid | Do not know     | 1         | 4.2     | 4.2           | 4.2                |
|                                     |       | Less than € 102 | 1         | 4.2     | 4.2           | 8.3                |
|                                     |       | More than € 102 | 22        | 91.7    | 91.7          | 100.0              |
|                                     |       | Total           | 24        | 100.0   | 100.0         |                    |
| 6th                                 | Valid | Do not know     | 2         | 33.3    | 33.3          | 33.3               |
|                                     |       | More than € 102 | 4         | 66.7    | 66.7          | 100.0              |
|                                     |       | Total           | 6         | 100.0   | 100.0         |                    |

that the interest rate on your savings account was 1% per year and inflation was 2% per year. After one year, would you be able to buy more than, exactly the same as or less than today with the money in this account?

| What is your current year of study? |       |                           | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------------------------------------|-------|---------------------------|-----------|---------|---------------|--------------------|
| 1st                                 | Valid | Do not know               | 15        | 16.9    | 16.9          | 16.9               |
|                                     |       | Exactly the same as today | 4         | 4.5     | 4.5           | 21.3               |
|                                     |       | Less than today           | 56        | 62.9    | 62.9          | 84.3               |
|                                     |       | More than today           | 14        | 15.7    | 15.7          | 100.0              |
|                                     |       | Total                     | 89        | 100.0   | 100.0         |                    |
| 2nd                                 | Valid | Do not know               | 27        | 20.6    | 20.6          | 20.6               |
|                                     |       | Exactly the same as today | 8         | 6.1     | 6.1           | 26.7               |
|                                     |       | Less than today           | 77        | 58.8    | 58.8          | 85.5               |
|                                     |       | More than today           | 19        | 14.5    | 14.5          | 100.0              |
|                                     |       | Total                     | 131       | 100.0   | 100.0         |                    |
| 3rd                                 | Valid | Do not know               | 34        | 25.0    | 25.0          | 25.0               |
|                                     |       | Exactly the same as today | 6         | 4.4     | 4.4           | 29.4               |
|                                     |       | Less than today           | 82        | 60.3    | 60.3          | 89.7               |
|                                     |       | More than today           | 14        | 10.3    | 10.3          | 100.0              |
|                                     |       | Total                     | 136       | 100.0   | 100.0         |                    |
| 4th                                 | Valid | Do not know               | 13        | 15.1    | 15.1          | 15.1               |
|                                     |       | Exactly the same as today | 3         | 3.5     | 3.5           | 18.6               |
|                                     |       | Less than today           | 60        | 69.8    | 69.8          | 88.4               |
|                                     |       | More than today           | 10        | 11.6    | 11.6          | 100.0              |
|                                     |       | Total                     | 86        | 100.0   | 100.0         |                    |
| 5th                                 | Valid | Do not know               | 3         | 12.5    | 12.5          | 12.5               |
|                                     |       | Exactly the same as today | 3         | 12.5    | 12.5          | 25.0               |
|                                     |       | Less than today           | 15        | 62.5    | 62.5          | 87.5               |
|                                     |       | More than today           | 3         | 12.5    | 12.5          | 100.0              |
|                                     |       | Total                     | 24        | 100.0   | 100.0         |                    |
| 6th                                 | Valid | Do not know               | 1         | 16.7    | 16.7          | 16.7               |
|                                     |       | Exactly the same as today | 1         | 16.7    | 16.7          | 33.3               |
|                                     |       | Less than today           | 4         | 66.7    | 66.7          | 100.0              |
|                                     |       | Total                     | 6         | 100.0   | 100.0         |                    |

**Suppose you owe € 1,000 on your credit card and the interest rate you are charged is 20% per year compounded annually. If you didn't pay anything off, at this interest rate, how many years would it take for the amount you owe to double?**

| What is your current year of study? |       |                    | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------------------------------------|-------|--------------------|-----------|---------|---------------|--------------------|
| 1st                                 | Valid | 2 years            | 7         | 7.9     | 7.9           | 7.9                |
|                                     |       | 5 - 10 years       | 22        | 24.7    | 24.7          | 32.6               |
|                                     |       | Do not know        | 8         | 9.0     | 9.0           | 41.6               |
|                                     |       | Less than 5 years  | 49        | 55.1    | 55.1          | 96.6               |
|                                     |       | More than 10 years | 3         | 3.4     | 3.4           | 100.0              |
|                                     |       | Total              | 89        | 100.0   | 100.0         |                    |
| 2nd                                 | Valid | 2 years            | 8         | 6.1     | 6.1           | 6.1                |
|                                     |       | 5 - 10 years       | 44        | 33.6    | 33.6          | 39.7               |
|                                     |       | Do not know        | 17        | 13.0    | 13.0          | 52.7               |
|                                     |       | Less than 5 years  | 61        | 46.6    | 46.6          | 99.2               |
|                                     |       | More than 10 years | 1         | .8      | .8            | 100.0              |
|                                     |       | Total              | 131       | 100.0   | 100.0         |                    |
| 3rd                                 | Valid | 2 years            | 6         | 4.4     | 4.4           | 4.4                |
|                                     |       | 5 - 10 years       | 39        | 28.7    | 28.7          | 33.1               |
|                                     |       | Do not know        | 21        | 15.4    | 15.4          | 48.5               |
|                                     |       | Less than 5 years  | 65        | 47.8    | 47.8          | 96.3               |
|                                     |       | More than 10 years | 5         | 3.7     | 3.7           | 100.0              |
|                                     |       | Total              | 136       | 100.0   | 100.0         |                    |
| 4th                                 | Valid | 2 years            | 3         | 3.5     | 3.5           | 3.5                |
|                                     |       | 5 - 10 years       | 24        | 27.9    | 27.9          | 31.4               |
|                                     |       | Do not know        | 10        | 11.6    | 11.6          | 43.0               |
|                                     |       | Less than 5 years  | 48        | 55.8    | 55.8          | 98.8               |
|                                     |       | More than 10 years | 1         | 1.2     | 1.2           | 100.0              |
|                                     |       | Total              | 86        | 100.0   | 100.0         |                    |
| 5th                                 | Valid | 2 years            | 3         | 12.5    | 12.5          | 12.5               |
|                                     |       | 5 - 10 years       | 8         | 33.3    | 33.3          | 45.8               |
|                                     |       | Do not know        | 4         | 16.7    | 16.7          | 62.5               |
|                                     |       | Less than 5 years  | 8         | 33.3    | 33.3          | 95.8               |
|                                     |       | More than 10 years | 1         | 4.2     | 4.2           | 100.0              |
|                                     |       | Total              | 24        | 100.0   | 100.0         |                    |
| 6th                                 | Valid | 2 years            | 3         | 50.0    | 50.0          | 50.0               |
|                                     |       | Do not know        | 1         | 16.7    | 16.7          | 66.7               |
|                                     |       | Less than 5 years  | 2         | 33.3    | 33.3          | 100.0              |
|                                     |       | Total              | 6         | 100.0   | 100.0         |                    |

**You owe € 3,000 on your credit card. You pay a minimum payment of € 30 each month. At an Annual Percentage Rate of 12% (or 1% per month), how many years would it take to eliminate your credit card debt if you made no additional new charges?**

| What is your current year of study? |       |  | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------------------------------------|-------|--|-----------|---------|---------------|--------------------|
| 1st                                 | Valid | Between 10 and 15 years                | 22        | 24.7    | 24.7          | 24.7               |
|                                     |       | Between 5 and 10 years                 | 16        | 18.0    | 18.0          | 42.7               |
|                                     |       | Do not know                            | 22        | 24.7    | 24.7          | 67.4               |
|                                     |       | Less than 5 years                      | 9         | 10.1    | 10.1          | 77.5               |
|                                     |       | Never, you will continue to be in debt | 20        | 22.5    | 22.5          | 100.0              |
|                                     |       | Total                                  | 89        | 100.0   | 100.0         |                    |
| 2nd                                 | Valid | Between 10 and 15 years                | 30        | 22.9    | 22.9          | 22.9               |
|                                     |       | Between 5 and 10 years                 | 26        | 19.8    | 19.8          | 42.7               |
|                                     |       | Do not know                            | 36        | 27.5    | 27.5          | 70.2               |
|                                     |       | Less than 5 years                      | 13        | 9.9     | 9.9           | 80.2               |
|                                     |       | Never, you will continue to be in debt | 26        | 19.8    | 19.8          | 100.0              |
|                                     |       | Total                                  | 131       | 100.0   | 100.0         |                    |
| 3rd                                 | Valid | Between 10 and 15 years                | 20        | 14.7    | 14.7          | 14.7               |
|                                     |       | Between 5 and 10 years                 | 30        | 22.1    | 22.1          | 36.8               |
|                                     |       | Do not know                            | 39        | 28.7    | 28.7          | 65.4               |
|                                     |       | Less than 5 years                      | 9         | 6.6     | 6.6           | 72.1               |
|                                     |       | Never, you will continue to be in debt | 38        | 27.9    | 27.9          | 100.0              |
|                                     |       | Total                                  | 136       | 100.0   | 100.0         |                    |
| 4th                                 | Valid | Between 10 and 15 years                | 14        | 16.3    | 16.3          | 16.3               |
|                                     |       | Between 5 and 10 years                 | 11        | 12.8    | 12.8          | 29.1               |
|                                     |       | Do not know                            | 22        | 25.6    | 25.6          | 54.7               |
|                                     |       | Less than 5 years                      | 7         | 8.1     | 8.1           | 62.8               |
|                                     |       | Never, you will continue to be in debt | 32        | 37.2    | 37.2          | 100.0              |
|                                     |       | Total                                  | 86        | 100.0   | 100.0         |                    |
| 5th                                 | Valid | Between 10 and 15 years                | 2         | 8.3     | 8.3           | 8.3                |
|                                     |       | Between 5 and 10 years                 | 4         | 16.7    | 16.7          | 25.0               |
|                                     |       | Do not know                            | 2         | 8.3     | 8.3           | 33.3               |
|                                     |       | Less than 5 years                      | 4         | 16.7    | 16.7          | 50.0               |
|                                     |       | Never, you will continue to be in debt | 12        | 50.0    | 50.0          | 100.0              |
|                                     |       | Total                                  | 24        | 100.0   | 100.0         |                    |
| 6th                                 | Valid | Do not know                            | 1         | 16.7    | 16.7          | 16.7               |
|                                     |       | Less than 5 years                      | 1         | 16.7    | 16.7          | 33.3               |
|                                     |       | Never, you will continue to be in debt | 4         | 66.7    | 66.7          | 100.0              |
|                                     |       | Total                                  | 6         | 100.0   | 100.0         |                    |

**You purchase an appliance which costs € 1,000. To pay for this appliance, you are given the following two options: a) Pay 12 monthly instalments of € 100 each; b) Borrow at a 20% annual interest rate and pay back € 1,200 a year from now. Which is the more advantageous offer?**

| What is your current year of study? |       |                   | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------------------------------------|-------|-------------------|-----------|---------|---------------|--------------------|
| 1st                                 | Valid | Do not know       | 10        | 11.2    | 11.2          | 11.2               |
|                                     |       | Option (a)        | 39        | 43.8    | 43.8          | 55.1               |
|                                     |       | Option (b)        | 9         | 10.1    | 10.1          | 65.2               |
|                                     |       | They are the same | 31        | 34.8    | 34.8          | 100.0              |
|                                     |       | Total             | 89        | 100.0   | 100.0         |                    |
| 2nd                                 | Valid | Do not know       | 26        | 19.8    | 19.8          | 19.8               |
|                                     |       | Option (a)        | 47        | 35.9    | 35.9          | 55.7               |
|                                     |       | Option (b)        | 7         | 5.3     | 5.3           | 61.1               |
|                                     |       | They are the same | 51        | 38.9    | 38.9          | 100.0              |
|                                     |       | Total             | 131       | 100.0   | 100.0         |                    |
| 3rd                                 | Valid | Do not know       | 21        | 15.4    | 15.4          | 15.4               |
|                                     |       | Option (a)        | 48        | 35.3    | 35.3          | 50.7               |
|                                     |       | Option (b)        | 7         | 5.1     | 5.1           | 55.9               |
|                                     |       | They are the same | 60        | 44.1    | 44.1          | 100.0              |
|                                     |       | Total             | 136       | 100.0   | 100.0         |                    |
| 4th                                 | Valid | Do not know       | 12        | 14.0    | 14.0          | 14.0               |
|                                     |       | Option (a)        | 34        | 39.5    | 39.5          | 53.5               |
|                                     |       | Option (b)        | 5         | 5.8     | 5.8           | 59.3               |
|                                     |       | They are the same | 35        | 40.7    | 40.7          | 100.0              |
|                                     |       | Total             | 86        | 100.0   | 100.0         |                    |
| 5th                                 | Valid | Do not know       | 2         | 8.3     | 8.3           | 8.3                |
|                                     |       | Option (a)        | 9         | 37.5    | 37.5          | 45.8               |
|                                     |       | Option (b)        | 4         | 16.7    | 16.7          | 62.5               |
|                                     |       | They are the same | 9         | 37.5    | 37.5          | 100.0              |
|                                     |       | Total             | 24        | 100.0   | 100.0         |                    |
| 6th                                 | Valid | Option (a)        | 1         | 16.7    | 16.7          | 16.7               |
|                                     |       | Option (b)        | 2         | 33.3    | 33.3          | 50.0               |
|                                     |       | They are the same | 3         | 50.0    | 50.0          | 100.0              |
|                                     |       | Total             | 6         | 100.0   | 100.0         |                    |

## Appendix 11: Findings based on age

**Do you think that the following statement is true or false? Buying a single company stock usually provides a safer return than a stock mutual fund.**

| What is your age?  |       |             | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------------------|-------|-------------|-----------|---------|---------------|--------------------|
| 18 - 22 years old  | Valid | 0           | 96        | 30.5    | 30.5          | 30.5               |
|                    |       | 1           | 32        | 10.2    | 10.2          | 40.6               |
|                    |       | Do not know | 187       | 59.4    | 59.4          | 100.0              |
|                    |       | Total       | 315       | 100.0   | 100.0         |                    |
| 23 - 30 years old  | Valid | 0           | 30        | 35.7    | 35.7          | 35.7               |
|                    |       | 1           | 7         | 8.3     | 8.3           | 44.0               |
|                    |       | Do not know | 47        | 56.0    | 56.0          | 100.0              |
|                    |       | Total       | 84        | 100.0   | 100.0         |                    |
| 31 - 40 years old  | Valid | 0           | 15        | 35.7    | 35.7          | 35.7               |
|                    |       | 1           | 1         | 2.4     | 2.4           | 38.1               |
|                    |       | Do not know | 26        | 61.9    | 61.9          | 100.0              |
|                    |       | Total       | 42        | 100.0   | 100.0         |                    |
| 41 - 50 years old  | Valid | 0           | 11        | 47.8    | 47.8          | 47.8               |
|                    |       | 1           | 1         | 4.3     | 4.3           | 52.2               |
|                    |       | Do not know | 11        | 47.8    | 47.8          | 100.0              |
|                    |       | Total       | 23        | 100.0   | 100.0         |                    |
| 51 - 60 years old  | Valid | 0           | 2         | 33.3    | 33.3          | 33.3               |
|                    |       | Do not know | 4         | 66.7    | 66.7          | 100.0              |
|                    |       | Total       | 6         | 100.0   | 100.0         |                    |
| Under 18 years old | Valid | Do not know | 2         | 100.0   | 100.0         | 100.0              |

**Suppose you had €-100 in a savings account and the interest rate was 2% per year. After five years, how much do you think you would have in the account if you left the money to grow?**

| What is your age?  |       |                 | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------------------|-------|-----------------|-----------|---------|---------------|--------------------|
| 18 - 22 years old  | Valid | Do not know     | 13        | 4.1     | 4.1           | 4.1                |
|                    |       | Exactly € 102   | 3         | 1.0     | 1.0           | 5.1                |
|                    |       | Exactly €102    | 1         | .3      | .3            | 5.4                |
|                    |       | Exactly €102    | 13        | 4.1     | 4.1           | 9.5                |
|                    |       | Less than € 102 | 4         | 1.3     | 1.3           | 10.8               |
|                    |       | More than € 102 | 281       | 89.2    | 89.2          | 100.0              |
|                    |       | Total           | 315       | 100.0   | 100.0         |                    |
| 23 - 30 years old  | Valid | Do not know     | 8         | 9.5     | 9.5           | 9.5                |
|                    |       | Exactly €-102   | 3         | 3.6     | 3.6           | 13.1               |
|                    |       | Less than € 102 | 3         | 3.6     | 3.6           | 16.7               |
|                    |       | More than € 102 | 70        | 83.3    | 83.3          | 100.0              |
|                    |       | Total           | 84        | 100.0   | 100.0         |                    |
| 31 - 40 years old  | Valid | Exactly € 102   | 3         | 7.1     | 7.1           | 7.1                |
|                    |       | Exactly €-102   | 2         | 4.8     | 4.8           | 11.9               |
|                    |       | More than € 102 | 37        | 88.1    | 88.1          | 100.0              |
|                    |       | Total           | 42        | 100.0   | 100.0         |                    |
| 41 - 50 years old  | Valid | Exactly € 102   | 1         | 4.3     | 4.3           | 4.3                |
|                    |       | Exactly €-102   | 2         | 8.7     | 8.7           | 13.0               |
|                    |       | More than € 102 | 20        | 87.0    | 87.0          | 100.0              |
|                    |       | Total           | 23        | 100.0   | 100.0         |                    |
| 51 - 60 years old  | Valid | Do not know     | 1         | 16.7    | 16.7          | 16.7               |
|                    |       | More than € 102 | 5         | 83.3    | 83.3          | 100.0              |
|                    |       | Total           | 6         | 100.0   | 100.0         |                    |
| Under 18 years old | Valid | More than € 102 | 2         | 100.0   | 100.0         | 100.0              |



**Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After one year, would you be able to buy more than, exactly the same as or less than today with the money in this account?**

| What is your age?  |       |                           | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------------------|-------|---------------------------|-----------|---------|---------------|--------------------|
| 18 - 22 years old  | Valid | Do not know               | 65        | 20.6    | 20.6          | 20.6               |
|                    |       | Exactly the same as today | 17        | 5.4     | 5.4           | 26.0               |
|                    |       | Less than today           | 186       | 59.0    | 59.0          | 85.1               |
|                    |       | More than today           | 47        | 14.9    | 14.9          | 100.0              |
|                    |       | Total                     | 315       | 100.0   | 100.0         |                    |
| 23 - 30 years old  | Valid | Do not know               | 19        | 22.6    | 22.6          | 22.6               |
|                    |       | Exactly the same as today | 7         | 8.3     | 8.3           | 31.0               |
|                    |       | Less than today           | 48        | 57.1    | 57.1          | 88.1               |
|                    |       | More than today           | 10        | 11.9    | 11.9          | 100.0              |
|                    |       | Total                     | 84        | 100.0   | 100.0         |                    |
| 31 - 40 years old  | Valid | Do not know               | 7         | 16.7    | 16.7          | 16.7               |
|                    |       | Exactly the same as today | 1         | 2.4     | 2.4           | 19.0               |
|                    |       | Less than today           | 33        | 78.6    | 78.6          | 97.6               |
|                    |       | More than today           | 1         | 2.4     | 2.4           | 100.0              |
|                    |       | Total                     | 42        | 100.0   | 100.0         |                    |
| 41 - 50 years old  | Valid | Do not know               | 1         | 4.3     | 4.3           | 4.3                |
|                    |       | Less than today           | 21        | 91.3    | 91.3          | 95.7               |
|                    |       | More than today           | 1         | 4.3     | 4.3           | 100.0              |
|                    |       | Total                     | 23        | 100.0   | 100.0         |                    |
| 51 - 60 years old  | Valid | Do not know               | 1         | 16.7    | 16.7          | 16.7               |
|                    |       | Less than today           | 5         | 83.3    | 83.3          | 100.0              |
|                    |       | Total                     | 6         | 100.0   | 100.0         |                    |
| Under 18 years old | Valid | Less than today           | 1         | 50.0    | 50.0          | 50.0               |
|                    |       | More than today           | 1         | 50.0    | 50.0          | 100.0              |
|                    |       | Total                     | 2         | 100.0   | 100.0         |                    |

**You owe € 3,000 on your credit card. You pay a minimum payment of € 30 each month. At an Annual Percentage Rate of 12% (or 1% per month), how many years would it take to eliminate your credit card debt if you made no additional new charges?**

| What is your age?  |       |  | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------------------|-------|--|-----------|---------|---------------|--------------------|
| 18 - 22 years old  | Valid | Between 10 and 15 years                | 70        | 22.2    | 22.2          | 22.2               |
|                    |       | Between 5 and 10 years                 | 66        | 21.0    | 21.0          | 43.2               |
|                    |       | Do not know                            | 94        | 29.8    | 29.8          | 73.0               |
|                    |       | Less than 5 years                      | 25        | 7.9     | 7.9           | 81.0               |
|                    |       | Never, you will continue to be in debt | 60        | 19.0    | 19.0          | 100.0              |
|                    |       | Total                                  | 315       | 100.0   | 100.0         |                    |
| 23 - 30 years old  | Valid | Between 10 and 15 years                | 7         | 8.3     | 8.3           | 8.3                |
|                    |       | Between 5 and 10 years                 | 13        | 15.5    | 15.5          | 23.8               |
|                    |       | Do not know                            | 17        | 20.2    | 20.2          | 44.0               |
|                    |       | Less than 5 years                      | 13        | 15.5    | 15.5          | 59.5               |
|                    |       | Never, you will continue to be in debt | 34        | 40.5    | 40.5          | 100.0              |
|                    |       | Total                                  | 84        | 100.0   | 100.0         |                    |
| 31 - 40 years old  | Valid | Between 10 and 15 years                | 6         | 14.3    | 14.3          | 14.3               |
|                    |       | Between 5 and 10 years                 | 4         | 9.5     | 9.5           | 23.8               |
|                    |       | Do not know                            | 7         | 16.7    | 16.7          | 40.5               |
|                    |       | Less than 5 years                      | 4         | 9.5     | 9.5           | 50.0               |
|                    |       | Never, you will continue to be in debt | 21        | 50.0    | 50.0          | 100.0              |
|                    |       | Total                                  | 42        | 100.0   | 100.0         |                    |
| 41 - 50 years old  | Valid | Between 10 and 15 years                | 4         | 17.4    | 17.4          | 17.4               |
|                    |       | Between 5 and 10 years                 | 3         | 13.0    | 13.0          | 30.4               |
|                    |       | Do not know                            | 3         | 13.0    | 13.0          | 43.5               |
|                    |       | Less than 5 years                      | 1         | 4.3     | 4.3           | 47.8               |
|                    |       | Never, you will continue to be in debt | 12        | 52.2    | 52.2          | 100.0              |
|                    |       | Total                                  | 23        | 100.0   | 100.0         |                    |
| 51 - 60 years old  | Valid | Between 10 and 15 years                | 1         | 16.7    | 16.7          | 16.7               |
|                    |       | Do not know                            | 1         | 16.7    | 16.7          | 33.3               |
|                    |       | Never, you will continue to be in debt | 4         | 66.7    | 66.7          | 100.0              |
|                    |       | Total                                  | 6         | 100.0   | 100.0         |                    |
| Under 18 years old | Valid | Between 5 and 10 years                 | 1         | 50.0    | 50.0          | 50.0               |
|                    |       | Never, you will continue to be in debt | 1         | 50.0    | 50.0          | 100.0              |
|                    |       | Total                                  | 2         | 100.0   | 100.0         |                    |

**You purchase an appliance which costs € 1,000. To pay for this appliance, you are given the following two options: a) Pay 12 monthly instalments of € 100 each; b) Borrow at a 20% annual interest rate and pay back € 1,200 a year from now. Which is the more advantageous option?**

| What is your age?  |       |                   | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------------------|-------|-------------------|-----------|---------|---------------|--------------------|
| 18 - 22 years old  | Valid | Do not know       | 55        | 17.5    | 17.5          | 17.5               |
|                    |       | Option (a)        | 127       | 40.3    | 40.3          | 57.8               |
|                    |       | Option (b)        | 21        | 6.7     | 6.7           | 64.4               |
|                    |       | They are the same | 112       | 35.6    | 35.6          | 100.0              |
|                    |       | Total             | 315       | 100.0   | 100.0         |                    |
| 23 - 30 years old  | Valid | Do not know       | 12        | 14.3    | 14.3          | 14.3               |
|                    |       | Option (a)        | 28        | 33.3    | 33.3          | 47.6               |
|                    |       | Option (b)        | 9         | 10.7    | 10.7          | 58.3               |
|                    |       | They are the same | 35        | 41.7    | 41.7          | 100.0              |
|                    |       | Total             | 84        | 100.0   | 100.0         |                    |
| 31 - 40 years old  | Valid | Do not know       | 2         | 4.8     | 4.8           | 4.8                |
|                    |       | Option (a)        | 17        | 40.5    | 40.5          | 45.2               |
|                    |       | Option (b)        | 3         | 7.1     | 7.1           | 52.4               |
|                    |       | They are the same | 20        | 47.6    | 47.6          | 100.0              |
|                    |       | Total             | 42        | 100.0   | 100.0         |                    |
| 41 - 50 years old  | Valid | Do not know       | 1         | 4.3     | 4.3           | 4.3                |
|                    |       | Option (a)        | 4         | 17.4    | 17.4          | 21.7               |
|                    |       | Option (b)        | 1         | 4.3     | 4.3           | 26.1               |
|                    |       | They are the same | 17        | 73.9    | 73.9          | 100.0              |
|                    |       | Total             | 23        | 100.0   | 100.0         |                    |
| 51 - 60 years old  | Valid | Do not know       | 1         | 16.7    | 16.7          | 16.7               |
|                    |       | Option (a)        | 2         | 33.3    | 33.3          | 50.0               |
|                    |       | They are the same | 3         | 50.0    | 50.0          | 100.0              |
|                    |       | Total             | 6         | 100.0   | 100.0         |                    |
| Under 18 years old | Valid | They are the same | 2         | 100.0   | 100.0         | 100.0              |

**Appendix 12: Findings based on marital status**

**Do you think that the following statement is true or false? Buying a single company stock usually provides a safer return than a stock mutual fund.**

| What is your current marital status? |       |             | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------------------------------------|-------|-------------|-----------|---------|---------------|--------------------|
| Divorced                             | Valid | 0           | 3         | 60.0    | 60.0          | 60.0               |
|                                      |       | Do not know | 2         | 40.0    | 40.0          | 100.0              |
|                                      |       | Total       | 5         | 100.0   | 100.0         |                    |
| Engaged                              | Valid | 0           | 2         | 18.2    | 18.2          | 18.2               |
|                                      |       | Do not know | 9         | 81.8    | 81.8          | 100.0              |
|                                      |       | Total       | 11        | 100.0   | 100.0         |                    |
| Married                              | Valid | 0           | 14        | 48.3    | 48.3          | 48.3               |
|                                      |       | Do not know | 15        | 51.7    | 51.7          | 100.0              |
|                                      |       | Total       | 29        | 100.0   | 100.0         |                    |
| Prefer not to say                    | Valid | 0           | 7         | 31.8    | 31.8          | 31.8               |
|                                      |       | Do not know | 14        | 63.6    | 63.6          | 100.0              |
|                                      |       | 1           | 1         | 4.5     | 4.5           | 36.4               |
|                                      |       | Total       | 22        | 100.0   | 100.0         |                    |
| Single                               | Valid | 0           | 128       | 31.6    | 31.6          | 31.6               |
|                                      |       | Do not know | 237       | 58.5    | 58.5          | 100.0              |
|                                      |       | 1           | 40        | 9.9     | 9.9           | 41.5               |
|                                      |       | Total       | 405       | 100.0   | 100.0         |                    |

**Suppose you had €-100 in a savings account and the interest rate was 2% per year. After five years, how much do you think you would have in the account if you left the money to grow?**

| What is your current marital status? |       |                 | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------------------------------------|-------|-----------------|-----------|---------|---------------|--------------------|
| Divorced                             | Valid | Do not know     | 1         | 20.0    | 20.0          | 20.0               |
|                                      |       | More than € 102 | 4         | 80.0    | 80.0          | 100.0              |
|                                      |       | Total           | 5         | 100.0   | 100.0         |                    |
| Engaged                              | Valid | Do not know     | 1         | 9.1     | 9.1           | 9.1                |
|                                      |       | More than € 102 | 8         | 72.7    | 72.7          | 100.0              |
|                                      |       | Exactly â,-102  | 1         | 9.1     | 9.1           | 18.2               |
|                                      |       | Less than € 102 | 1         | 9.1     | 9.1           | 27.3               |
|                                      |       | Total           | 11        | 100.0   | 100.0         |                    |
| Married                              | Valid | More than € 102 | 26        | 89.7    | 89.7          | 100.0              |
|                                      |       | Exactly â,-102  | 2         | 6.9     | 6.9           | 10.3               |
|                                      |       | Exactly € 102   | 1         | 3.4     | 3.4           | 3.4                |
|                                      |       | Total           | 29        | 100.0   | 100.0         |                    |
| Prefer not to say                    | Valid | Do not know     | 2         | 9.1     | 9.1           | 9.1                |
|                                      |       | More than € 102 | 19        | 86.4    | 86.4          | 100.0              |
|                                      |       | Exactly â,-102  | 1         | 4.5     | 4.5           | 13.6               |
|                                      |       | Total           | 22        | 100.0   | 100.0         |                    |
| Single                               | Valid | Do not know     | 18        | 4.4     | 4.4           | 4.4                |
|                                      |       | More than € 102 | 358       | 88.4    | 88.4          | 100.0              |
|                                      |       | Exactly â,-102  | 16        | 4.0     | 4.0           | 10.1               |
|                                      |       | Less than € 102 | 6         | 1.5     | 1.5           | 11.6               |
|                                      |       | Exactly € 102   | 6         | 1.5     | 1.5           | 5.9                |
|                                      |       | Exactly €102    | 1         | .2      | .2            | 6.2                |
|                                      |       | Total           | 405       | 100.0   | 100.0         |                    |

**Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After one year, would you be able to buy more than, exactly the same as or less than today with the money in this account?**

| What is your current marital status? |       |                           | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------------------------------------|-------|---------------------------|-----------|---------|---------------|--------------------|
| Divorced                             | Valid | Do not know               | 1         | 20.0    | 20.0          | 20.0               |
|                                      |       | Less than today           | 4         | 80.0    | 80.0          | 100.0              |
|                                      |       | Total                     | 5         | 100.0   | 100.0         |                    |
| Engaged                              | Valid | Do not know               | 3         | 27.3    | 27.3          | 27.3               |
|                                      |       | Less than today           | 6         | 54.5    | 54.5          | 90.9               |
|                                      |       | Exactly the same as today | 1         | 9.1     | 9.1           | 36.4               |
|                                      |       | More than today           | 1         | 9.1     | 9.1           | 100.0              |
|                                      |       | Total                     | 11        | 100.0   | 100.0         |                    |
| Married                              | Valid | Do not know               | 2         | 6.9     | 6.9           | 6.9                |
|                                      |       | Less than today           | 27        | 93.1    | 93.1          | 100.0              |
|                                      |       | Total                     | 29        | 100.0   | 100.0         |                    |
| Prefer not to say                    | Valid | Do not know               | 7         | 31.8    | 31.8          | 31.8               |
|                                      |       | Less than today           | 12        | 54.5    | 54.5          | 90.9               |
|                                      |       | Exactly the same as today | 1         | 4.5     | 4.5           | 36.4               |
|                                      |       | More than today           | 2         | 9.1     | 9.1           | 100.0              |
|                                      |       | Total                     | 22        | 100.0   | 100.0         |                    |
| Single                               | Valid | Do not know               | 80        | 19.8    | 19.8          | 19.8               |
|                                      |       | Less than today           | 245       | 60.5    | 60.5          | 85.9               |
|                                      |       | Exactly the same as today | 23        | 5.7     | 5.7           | 25.4               |
|                                      |       | More than today           | 57        | 14.1    | 14.1          | 100.0              |
|                                      |       | Total                     | 405       | 100.0   | 100.0         |                    |

**You owe € 3,000 on your credit card. You pay a minimum payment of € 30 each month. At an Annual Percentage Rate of 12% (or 1% per month), how many years would it take to eliminate your credit card debt if you made no additional new charges?**

| What is your current marital status? |       |  | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------------------------------------|-------|--|-----------|---------|---------------|--------------------|
| Divorced                             | Valid | Between 5 and 10 years                 | 2         | 40.0    | 40.0          | 40.0               |
|                                      |       | Never, you will continue to be in debt | 3         | 60.0    | 60.0          | 100.0              |
|                                      |       | Total                                  | 5         | 100.0   | 100.0         |                    |
| Engaged                              | Valid | Between 5 and 10 years                 | 3         | 27.3    | 27.3          | 36.4               |
|                                      |       | Never, you will continue to be in debt | 5         | 45.5    | 45.5          | 100.0              |
|                                      |       | Between 10 and 15 years                | 1         | 9.1     | 9.1           | 9.1                |
|                                      |       | Do not know                            | 2         | 18.2    | 18.2          | 54.5               |
|                                      |       | Total                                  | 11        | 100.0   | 100.0         |                    |
| Married                              | Valid | Between 5 and 10 years                 | 2         | 6.9     | 6.9           | 20.7               |
|                                      |       | Never, you will continue to be in debt | 18        | 62.1    | 62.1          | 100.0              |
|                                      |       | Between 10 and 15 years                | 4         | 13.8    | 13.8          | 13.8               |
|                                      |       | Do not know                            | 2         | 6.9     | 6.9           | 27.6               |
|                                      |       | Less than 5 years                      | 3         | 10.3    | 10.3          | 37.9               |
|                                      |       | Total                                  | 29        | 100.0   | 100.0         |                    |
| Prefer not to say                    | Valid | Between 5 and 10 years                 | 1         | 4.5     | 4.5           | 18.2               |
|                                      |       | Never, you will continue to be in debt | 6         | 27.3    | 27.3          | 100.0              |
|                                      |       | Between 10 and 15 years                | 3         | 13.6    | 13.6          | 13.6               |
|                                      |       | Do not know                            | 8         | 36.4    | 36.4          | 54.5               |
|                                      |       | Less than 5 years                      | 4         | 18.2    | 18.2          | 72.7               |
|                                      |       | Total                                  | 22        | 100.0   | 100.0         |                    |
| Single                               | Valid | Between 5 and 10 years                 | 79        | 19.5    | 19.5          | 39.3               |
|                                      |       | Never, you will continue to be in debt | 100       | 24.7    | 24.7          | 100.0              |
|                                      |       | Between 10 and 15 years                | 80        | 19.8    | 19.8          | 19.8               |
|                                      |       | Do not know                            | 110       | 27.2    | 27.2          | 66.4               |
|                                      |       | Less than 5 years                      | 36        | 8.9     | 8.9           | 75.3               |
|                                      |       | Total                                  | 405       | 100.0   | 100.0         |                    |

**You purchase an appliance which costs € 1,000. To pay for this appliance, you are given the following two options: a) Pay 12 monthly installments of € 100 each; b) Borrow at a 20% annual interest rate and pay back € 1,200 a year from now. Which is the more advantageous option?**

| What is your current marital status? |       |                   | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------------------------------------|-------|-------------------|-----------|---------|---------------|--------------------|
| Divorced                             | Valid | Do not know       | 1         | 20.0    | 20.0          | 20.0               |
|                                      |       | Option (b)        | 1         | 20.0    | 20.0          | 40.0               |
|                                      |       | They are the same | 3         | 60.0    | 60.0          | 100.0              |
|                                      |       | Total             | 5         | 100.0   | 100.0         |                    |
| Engaged                              | Valid | Do not know       | 1         | 9.1     | 9.1           | 9.1                |
|                                      |       | They are the same | 6         | 54.5    | 54.5          | 100.0              |
|                                      |       | Option (a)        | 4         | 36.4    | 36.4          | 45.5               |
|                                      |       | Total             | 11        | 100.0   | 100.0         |                    |
| Married                              | Valid | Option (b)        | 1         | 3.4     | 3.4           | 31.0               |
|                                      |       | They are the same | 20        | 69.0    | 69.0          | 100.0              |
|                                      |       | Option (a)        | 8         | 27.6    | 27.6          | 27.6               |
|                                      |       | Total             | 29        | 100.0   | 100.0         |                    |
| Prefer not to say                    | Valid | Do not know       | 4         | 18.2    | 18.2          | 18.2               |
|                                      |       | Option (b)        | 4         | 18.2    | 18.2          | 72.7               |
|                                      |       | They are the same | 6         | 27.3    | 27.3          | 100.0              |
|                                      |       | Option (a)        | 8         | 36.4    | 36.4          | 54.5               |
|                                      |       | Total             | 22        | 100.0   | 100.0         |                    |
| Single                               | Valid | Do not know       | 65        | 16.0    | 16.0          | 16.0               |
|                                      |       | Option (b)        | 28        | 6.9     | 6.9           | 62.0               |
|                                      |       | They are the same | 154       | 38.0    | 38.0          | 100.0              |
|                                      |       | Option (a)        | 158       | 39.0    | 39.0          | 55.1               |
|                                      |       | Total             | 405       | 100.0   | 100.0         |                    |



Appendix 13: Online Questionnaire

## To establish the level of financial literacy, debt literacy and over-indebtedness of students in Ireland

I am conducting research, as part of my Masters degree, which is investigating the level of financial literacy, debt literacy and over-indebtedness of students in Ireland. Please answer all questions, honestly, and without assistance. Also please share and send to others you know who are currently college students in Ireland. Thank You.

\* Required

1. What is your gender? \*

Mark only one oval.

- Male  
 Female

2. What is your age? \*

Mark only one oval.

- Under 18 years old  
 18 - 22 years old  
 23 - 30 years old  
 31 - 40 years old  
 41 - 50 years old  
 51 - 60 years old  
 60+ years old

3. What is your current marital status? \*

Mark only one oval.

- Single  
 Engaged  
 Married  
 Divorced  
 Prefer not to say

**4. What is the type of third level Institution you attend? \***

Please select the type of institution you currently attend

Mark *only one oval*.

- University *Skip to question 5.*
- College of Education *Skip to question 6.*
- Institute of Technology *Skip to question 7.*
- Other National Institution *Skip to question 8.*
- Independent or Further Education *Skip to question 9.*

## Universities

Please select which University you attend

**5. Which University do you attend? \***

Only answer if you selected University on Question 5

Mark *only one oval*.

- Dublin City University
- University College Cork
- University College Dublin
- National University of Ireland, Galway
- National University of Ireland, Maynooth
- University of Limerick
- Trinity College Dublin

## Colleges of Education

*Skip to question 10.*

**6. Please select which College of Education you attend. \***

Mark *only one oval*.

- St Angela's College of Education, Sligo
- Church of Ireland College of Education
- Froebel College of Education
- Marino Institute of Education
- Mary Immaculate College, Limerick
- Mater Dei Institute of Education
- St Patrick's College of Education

## Institutes of Technology

*Skip to question 10.*

7. Please select which Institute of Technology you attend. \*

Mark only one oval.

- Athlone Institute of Technology
- Institute of Technology, Blanchardstown
- Institute of Technology, Carlow
- Cork Institute of Technology
- Waterford Institute of Technology
- Dún Laoghaire Institute of Art, Design and Technology
- Dundalk Institute of Technology
- Galway-Mayo Institute of Technology
- Letterkenny Institute of Technology
- Limerick Institute of Technology
- Institute of Technology, Sligo
- Institute of Technology, Tallaght
- Institute of Technology, Tralee
- Dublin Institute of Technology

## National Institutions

Skip to question 10.

8. Please select which National Institution you attend. \*

Mark only one oval.

- Dublin Institute for Advanced Studies
- Garda Síochána College
- Institute of Public Administration
- Irish Management Institute
- Military College, Curragh Camp
- National Ambulance Service College

## Independent and further education

Skip to question 10.

9. Please select which Independent or further education Institution you attend. \*

Mark only one oval.

- Abbey School of Theatre
- All Hallows College
- American College Dublin
- Burren College of Art
- College of Computer Training
- Cork College of Commerce

- Development Studies Centre
- Dublin Business School
- Dublin Institute of Design
- Edgewater College
- Gaiety School of Acting
- Griffith College Cork
- Griffith College Dublin
- Griffith College Limerick
- Hibernia College
- Honorable Society of King's Inns
- Irish Bible Institute
- Irish School of Ecumenics
- Mallow College of Further Education
- Milltown Institute of Theology and Philosophy
- National College of Art and Design
- National College of Ireland
- Pitman Training Ireland
- Portobello Institute
- Royal Irish Academy of Music
- Royal College of Physicians of Ireland
- Royal College of Surgeons in Ireland
- St. John's Central College, Cork
- St Michael's House
- St Nicholas Montessori College
- St Patrick's College, Maynooth (also known as Maynooth College or Pontifical University, Maynooth)
- St. Patrick's, Carlow College
- St. Patrick's College, Thurles
- Sallynoggin College of Further Education
- Setanta College
- Shannon College of Hotel Management
- Tipperary Institute
- Tourism College Killybegs

10. Do you receive any government or state financial assistance e.g. grant, social welfare etc? \*

Mark only one oval.

- Yes Skip to question 11.  
 No Skip to question 12.

Skip to question 12.

11. How much government or state assistance do you receive annually? \*

Mark only one oval.

- €0 - €200  
 €201 - €500  
 €501 - €1000  
 €1001 - €1500  
 €1501 - €2000  
 €2001 - €3000  
 €3001 - €4000  
 €4001 - €5000  
 €5000+

12. Which of the following best describes your major or area of study in college? \*

Mark only one oval.

- Arts  
 Business, Accounting or Economics  
 Engineering  
 Humanities  
 Nursing  
 Science  
 Social Science  
 Medicine  
 I.T. / Computing

13. What is your current year of study? \*

Mark only one oval.

- 1st  
 2nd  
 3rd  
 4th  
 5th  
 6th

14. Have you studied business, accounting or economics in secondary school? \*  
Mark only one oval.

- Yes Skip to question 15.  
 No Skip to question 16.

15. \*

Mark only one oval per row.

|            | Never                 | Junior Certificate Level | Leaving Certificate Level |
|------------|-----------------------|--------------------------|---------------------------|
| Business   | <input type="radio"/> | <input type="radio"/>    | <input type="radio"/>     |
| Accounting | <input type="radio"/> | <input type="radio"/>    | <input type="radio"/>     |
| Economics  | <input type="radio"/> | <input type="radio"/>    | <input type="radio"/>     |

16. How would you describe your employment situation? \*  
Mark only one oval.

- Full-time Employment  
 Part-time Employment  
 Casual Employment  
 Seasonal Employment  
 Not Employed

17. What is your current annual income? \*

Mark only one oval.

- €0
- €1 - €1000
- €1001 - €2000
- €2001 - €4000
- €4001 - €6000
- €6001 - €8000
- €8001 - €10000
- €10001 - €12500
- €12501 - €15000
- €15001 - €17500
- €17501 - €20000
- €20001 - €22500
- €22501 - €25000
- €25001 - €27500
- €27501 - €30000
- €30001 - €40000
- €40000+

18. What is the highest academic level attained by your Mother? \*

Mark only one oval.

- Junior Certificate
- Leaving Certificate
- Post Leaving Certificate Qualification
- Bachelors Degree
- Masters Degree
- PHD
- Dont know

19. What is the highest academic level attained by your Father? \*

Mark only one oval.

- Junior Certificate
- Leaving Certificate
- Post Leaving Certificate Qualification
- Bachelors Degree
- Masters Degree
- PHD
- Dont know

20. Suppose you had €100 in a savings account and the interest rate was 2% per year. After five years, how much do you think you would have in the account if you left the money to grow? \*

Mark only one oval.

- More than €102
- Exactly €102
- Less than €102
- Do not know

21. Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After one year, would you be able to buy more than, exactly the same as or less than today with the money in this account? \*

Mark only one oval.

- More than today
- Exactly the same as today
- Less than today
- Do not know

22. Do you think that the following statement is true or false? "Buying a single company stock usually provides a safer return than a stock mutual fund." \*

Mark only one oval.

- True
- False
- Do not know

23. Suppose you owe €1,000 on your credit card and the interest rate you are charged is 20% per year compounded annually. If you didn't pay anything off, at this interest rate, how many years would it take for the amount you owe to double? \*

Mark only one oval.

- 2 years
- Less than 5 years
- 5 - 10 years
- More than 10 years
- Do not know



24. You owe €3,000 on your credit card. You pay a minimum payment of €30 each month. At an Annual Percentage Rate of 12% (or 1% per month), how many years would it take to eliminate your credit card debt if you made no additional new charges? \*

Mark only one oval.

- Less than 5 years  
 Between 5 and 10 years  
 Between 10 and 15 years  
 Never, you will continue to be in debt  
 Do not know

25. You purchase an appliance which costs €1,000. To pay for this appliance, you are given the following two options: a) Pay 12 monthly instalments of €100 each; b) Borrow at a 20% annual interest rate and pay back €1,200 a year from now. Which is the more advantageous offer? \*

Mark only one oval.

- Option (a)  
 Option (b)  
 They are the same  
 Do not know

26. On a scale from 1 to 7, where 1 means very low and 7 means very high, how would you assess your overall financial knowledge? \*

Mark only one oval.

|          |                       |                       |                       |                       |                       |                       |                       |           |
|----------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------|
|          | 1                     | 2                     | 3                     | 4                     | 5                     | 6                     | 7                     |           |
| Very Low | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Very High |

27. In the last 5 years which of the following debt products have you used? \*

Check all that apply.

- Overdraft  
 Personal Loan  
 Moneylender  
 Credit card  
 Credit Union loan  
 Hire purchase  
 Catalogue  
 Other  
 None

28. What is your current level of overall debt? \*

Mark only one oval.

- €0
- €1 - €1,000
- €1,001 - €2,000
- €2,001 - €4,000
- €4,001 - €6,000
- €6,001 - €8,000
- €8,001 - €10,000
- €10,001 - €12,500
- €12,501 - €15,000
- €15,001 - €17,500
- €17,501 - €20,000
- €20,001 - €22,500
- €22,501 - €25,000
- €25,001 - €27,500
- €27,501 - €30,000
- €30,001 - €40,000
- €40,001 - €60,000
- €60,001 - €80,000
- €80,001 - €100,000
- €100,000+

29. In the last twelve months, which of the following best describes your use of credit cards? \*

•

Mark only one oval.

- I don't have any credit cards or did not use them
- In some months, I ran an outstanding balance and paid finance charges
- In some months, I paid the minimum payment only
- In some months, I was charged a late charge for late payments
- In some months, I was charged an over the limit charge for charging more than my credit limit
- In some months, I used the cards for a cash advance i.e. withdrew cash from an ATM
- My account was closed down by the credit card company
- I always paid my credit cards in full

30. Which of the following best describes your current debt position? \*

Mark only one oval.

- I have too much debt right now and I have or may have difficulty paying it off.
- I have about the right amount of debt right now and I face no problems with it.
- I have too little debt right now. I wish I could get more.
- I just don't know.

31. When purchasing financial products in the last 5 years which of the following information sources have you used to keep up to date with financial matters? \*

Check all that apply.

- Newspapers
- T.V.
- Radio
- Internet
- Financial advisor
- Family and friends
- College society/club
- Personal finance course or night class
- I have never used any information sources to keep abreast of financial matters
- Other: \_\_\_\_\_

32. In the future which of the following ways would you prefer to be informed about financial matters? \*

Check all that apply.

- Newspapers
- T.V.
- Radio
- Internet
- Financial advisor
- Family and friends
- College society/club
- Personal finance course or night class
- I have no wish to stay informed about financial matters.
- Other: \_\_\_\_\_

**Appendix 14: Required Sample**

| <b>Required Sample Size<sup>†</sup></b> |                  |      |      |      |                  |      |      |       |
|---|------------------|------|------|------|------------------|------|------|-------|
| Population Size                         | Confidence = 95% |      |      |      | Confidence = 99% |      |      |       |
|   | Margin of Error  |      |      |      | Margin of Error  |      |      |       |
|   | 5.0%             | 3.5% | 2.5% | 1.0% | 5.0%             | 3.5% | 2.5% | 1.0%  |
| 50,000                                  | 381              | 772  | 1491 | 8056 | 655              | 1318 | 2520 | 12455 |
| 75,000                                  | 382              | 776  | 1506 | 8514 | 658              | 1330 | 2563 | 13583 |
| 100,000                                 | 383              | 778  | 1513 | 8762 | 659              | 1336 | 2585 | 14227 |
| 250,000                                 | 384              | 782  | 1527 | 9248 | 662              | 1347 | 2626 | 15555 |
| 500,000                                 | 384              | 783  | 1532 | 9423 | 663              | 1350 | 2640 | 16055 |

(Research Advisors, 2006)

## Appendix 15: Snapshots of advertising campaign

This screenshot shows the Facebook page for 'Thesis Questionnaire'. At the top, there is an 'Admin Panel' with options to 'Edit page', 'Build Audience', 'Help', and 'Show'. Below this is a message: 'To turn on replies later, open the Edit Page dropdown and select Edit Settings.' The page features a cover image of several colorful folders and a post titled 'Thesis Questionnaire' with 46 likes. The post text reads: 'I am conducting research, as part of my Masters degree, which is investigating the level of financial literacy, debt literacy and over-indebtedness of students in Ireland. If you are a 3rd level student in Ireland please fill out and you may win Ipad!!'. The right sidebar contains a 'See Your Ad Here' section with a link to a Google Docs form and a 'Promote Your Page' button.

This screenshot shows the Facebook page for 'Thesis Questionnaire' with the 'Timeline' view selected. The top navigation bar includes 'Status', 'Photo / Video', and 'Event, Milestone +'. The main content area shows a post from '9 June' with the text 'Joined Facebook' and '9 June'. Below this is another post with the text 'When was this founded?'. The right sidebar includes a 'See Your Ad Here' section with a link to a Google Docs form and a 'Promote Your Page' button. The footer contains links for 'About', 'Create Advert', 'Create Page', 'Developers', 'Careers', 'Privacy', 'Cookies', 'Terms', and 'Help', along with the copyright notice 'Facebook © 2013 · English (UK)'.

## All Campaigns

Create an advert

**Notifications** **Daily spend**

|                                  |                  |
|----------------------------------|------------------|
| You don't have any notifications | Today \$0.00 USD |
|                                  | 13/07 \$0.00 USD |
|                                  | 12/07 \$0.00 USD |
|                                  | 11/07 \$0.00 USD |
|                                  | 10/07 \$0.00 USD |

Lifetime stats All except deleted Select rows to edit Full report 2 results

| Campaign  | Status | Start date          | End date            | Budget           | Remaining        | Total Spent     |
|---|--------|---------------------|---------------------|------------------|------------------|-----------------|
| <a href="https://docs.google.com/...-Clicks-IE-17-65">https://docs.google.com/...-Clicks-IE-17-65</a> | ✓      | 09/06/2013<br>19:00 | 15/06/2013<br>10:34 | \$40.00<br>Daily | \$40.00<br>Today | \$240.94        |
| Thesis questionnaire  | ✓      | 11/06/2013<br>00:39 | 12/06/2013<br>05:39 | \$3.00<br>Daily  | \$3.00<br>Today  | \$6.00          |
| <b>Totals</b>   |        |                     |                     |                  |                  | <b>\$246.94</b> |

2 results

| Name  | Status | Link Clicks | Advert Reach | Freq. | Clicks | Click-Through Rate | Max. Bid      | Avg. Price    | Total Spent | Cost per Link Click |
|---|--------|-------------|--------------|-------|--------|--------------------|---------------|---------------|-------------|---------------------|
| <a href="https://docs.google.com/forms/d/14Fn9t8BAw6sFN8h0VuwKEW-XLKSQE85d876P63ze...">https://docs.google.com/forms/d/14Fn9t8BAw6sFN8h0VuwKEW-XLKSQE85d876P63ze...</a> - Right Column Advert | ✓      | 7           | 5,328        | 2.9   | 6      | 0.039%             | \$0.26<br>CPC | \$0.21<br>CPC | \$1.27      | \$0.18              |

**Advert Preview** [Edit](#)

**Thesis Questionnaire**



Fill in this questionnaire if u are a 3rd level student in Ireland to win an Ipod Shuffle!

Shane Donohoe likes Thesis Questionnaire.

[View on Right-hand Side](#) · [Create a similar advert](#)

**Targeting** [Edit](#)

**This advert targets 80,000 people:**

- who live in Ireland
- age exactly 17 and older
- who are at university
- who are in the classes of 2013, 2014, 2015 or 2016

Suggested bid: \$0.18-0.28 USD

**Performance**

**Actions**

7 Total Actions?

7 Link Clicks?

[See full actions report](#)

Close

| Name   | Status | Link Clicks | Advert Reach | Freq. | Clicks | Click-Through Rate | Max. Bid      | Avg. Price    | Total Spent | Cost per Link Click |
|--|--------|-------------|--------------|-------|--------|--------------------|---------------|---------------|-------------|---------------------|
| <a href="https://docs.google.com/forms/d/14Fn9tBAw6sFN8h0VuwKEW-XLKSQE85d876P63ze...">https://docs.google.com/forms/d/14Fn9tBAw6sFN8h0VuwKEW-XLKSQE85d876P63ze...</a> - Right Column Advert    | ✔      | 7           | 5,328        | 2.9   | 6      | 0.039%             | \$0.26<br>CPC | \$0.21<br>CPC | \$1.27      | \$0.18              |
| <a href="https://docs.google.com/forms/d/14Fn9tBAw6sFN8h0VuwKEW-XLKSQE85d876P63zec/v...">https://docs.google.com/forms/d/14Fn9tBAw6sFN8h0VuwKEW-XLKSQE85d876P63zec/v...</a> - News Feed Advert | ✔      | 676         | 51,852       | 1.9   | 977    | 0.983%             | \$0.40<br>CPC | \$0.24<br>CPC | \$236.14    | \$0.35              |

**Advert Preview** [Edit](#)

View on Right-hand Side · Create a similar advert

**Targeting** [Edit](#)

This advert targets 74,000 people:

- who live in Ireland
- age exactly 17 and older
- who are at university
- who are in the classes of 2013, 2014, 2015 or 2016
- on PAGE\_HOME\_FEED or PAGE\_MOBILE\_FEED

Suggested bid: \$4.39-7.41 USD

**Performance**

Actions ▾

730 Total Actions?

- 676 Link Clicks?
- 26 Page Post Likes?
- 23 Page Likes?
- 5 Other Actions?

See full actions report

[Close](#)

| Name   | Status | Link Clicks | Advert Reach | Freq. | Clicks | Click-Through Rate | Max. Bid      | Avg. Price    | Total Spent | Cost per Link Click |
|--|--------|-------------|--------------|-------|--------|--------------------|---------------|---------------|-------------|---------------------|
| <a href="https://docs.google.com/forms/d/14Fn9tBAw6sFN8h0VuwKEW-XLKSQE85d876P63ze...">https://docs.google.com/forms/d/14Fn9tBAw6sFN8h0VuwKEW-XLKSQE85d876P63ze...</a> - Right Column Advert    | ✔      | 7           | 5,328        | 2.9   | 6      | 0.039%             | \$0.26<br>CPC | \$0.21<br>CPC | \$1.27      | \$0.18              |
| <a href="https://docs.google.com/forms/d/14Fn9tBAw6sFN8h0VuwKEW-XLKSQE85d876P63zec/v...">https://docs.google.com/forms/d/14Fn9tBAw6sFN8h0VuwKEW-XLKSQE85d876P63zec/v...</a> - News Feed Advert | ✔      | 676         | 51,852       | 1.9   | 977    | 0.983%             | \$0.40<br>CPC | \$0.24<br>CPC | \$236.14    | \$0.35              |
| <a href="https://docs.google.com/forms/d/14Fn9tBAw6sFN8h0VuwKEW-XLKSQE85d876P63zec/v...">https://docs.google.com/forms/d/14Fn9tBAw6sFN8h0VuwKEW-XLKSQE85d876P63zec/v...</a> - News Feed Advert | ✔      | 6           | 3,046        | 1.2   | 9      | 0.251%             | \$1.20<br>CPM | \$0.98<br>CPM | \$3.53      | \$0.59              |

**Advert Preview** [Edit](#)

View on Right-hand Side · Create a similar advert

**Targeting** [Edit](#)

This advert targets 74,000 people:

- who live in Ireland
- age exactly 17 and older
- who are at university
- who are in the classes of 2013, 2014, 2015 or 2016
- on PAGE\_HOME\_FEED or PAGE\_MOBILE\_FEED

Suggested bid: \$2.83-3.00 USD

**Performance**

Actions ▾

7 Total Actions?

- 6 Link Clicks?
- 1 Page Likes?

See full actions report

[Close](#)

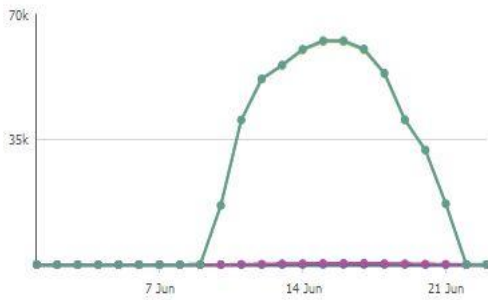
Show All

How You Reached People (Reach and Frequency)

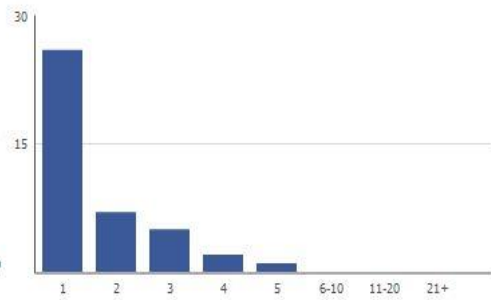
All Page Content

Reach

Organic  Paid  Viral  Total



Unique Users by Frequency

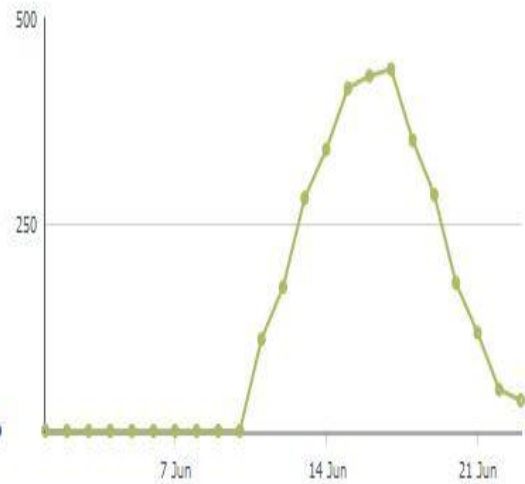
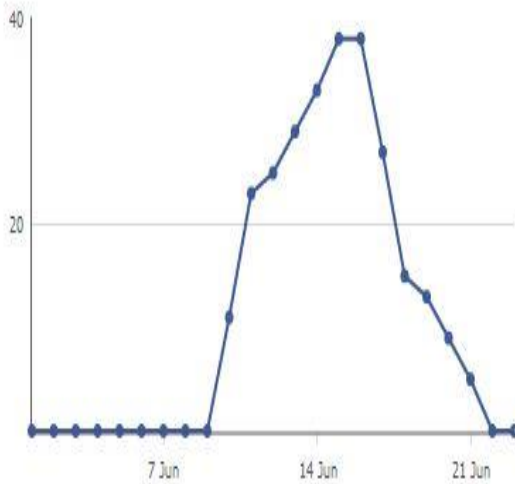


How People Are Talking About Your Page

All stories

Talking about this

Viral Reach





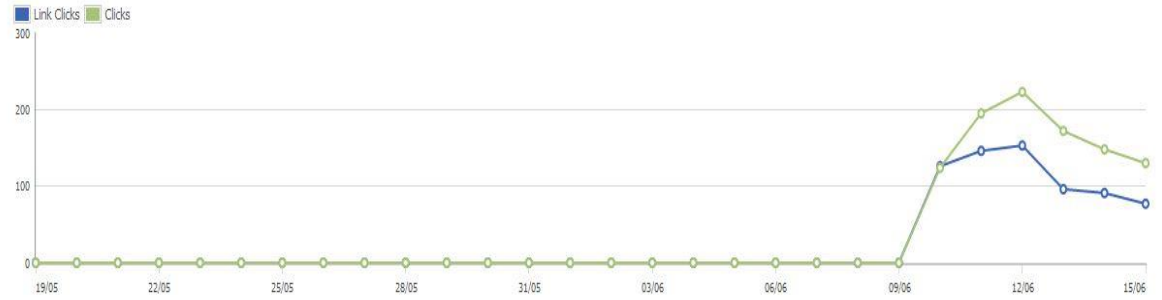
Campaign: <https://docs.google.com/forms/d/14Fn9tBAw6sFN8h0VuvkEW-XLKSQE85d876P63ze...> - Clicks-IE-17-65

Create Advert for Campaign

Status: Completed Budget: \$40.00 Daily Duration (Pacific time): 9 June 2013 19:00 - 15 June 2013 10:34 Potential Reach: 78,000 people

Link Clicks: **689** Campaign reach: **55,398** Frequency: **2.1** Clicks: **992** Click-Through Rate: **0.837%** Total Spent: **\$240.94**

19/05/2013-15/06/2013 Custom



All except deleted Select rows to edit Full report

3 results

| Name   | Status         | Link Clicks | Advert Reach | Freq. | Clicks | Click-Through Rate | Max. Bid      | Avg. Price    | Total Spent | Cost per Link Click |
|--|----------------|-------------|--------------|-------|--------|--------------------|---------------|---------------|-------------|---------------------|
| <a href="https://docs.google.com/forms/d/14Fn9tBAw6sFN8h0VuvkEW-XLKSQE85d876P63ze...">https://docs.google.com/forms/d/14Fn9tBAw6sFN8h0VuvkEW-XLKSQE85d876P63ze...</a> - Right Column Advert    | <span>✔</span> | 7           | 5,328        | 2.9   | 6      | 0.039%             | \$0.26<br>CPC | \$0.21<br>CPC | \$1.27      | \$0.18              |
| <a href="https://docs.google.com/forms/d/14Fn9tBAw6sFN8h0VuvkEW-XLKSQE85d876P63zec/v...">https://docs.google.com/forms/d/14Fn9tBAw6sFN8h0VuvkEW-XLKSQE85d876P63zec/v...</a> - News Feed Advert | <span>✔</span> | 676         | 51,852       | 1.9   | 977    | 0.983%             | \$0.40<br>CPC | \$0.24<br>CPC | \$236.14    | \$0.35              |
| <a href="https://docs.google.com/forms/d/14Fn9tBAw6sFN8h0VuvkEW-XLKSQE85d876P63zec/v...">https://docs.google.com/forms/d/14Fn9tBAw6sFN8h0VuvkEW-XLKSQE85d876P63zec/v...</a> - News Feed Advert | <span>✔</span> | 6           | 3,046        | 1.2   | 9      | 0.251%             | \$1.20<br>CPM | \$0.98<br>CPM | \$3.53      | \$0.59              |