

# **Tax Education in New Zealand Secondary Schools and its Impact on Taxpayer Compliance**

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## Abstract

Existing research conducted outside of New Zealand shows that the influence of education on taxpayer compliance has mixed effects, where increased levels of tax education can enhance compliance *or* enhance non-compliance. Hence, the impact of tax education on taxpayers' compliance behaviour is still unclear. This research investigates the impact of tax education on taxpayer compliance in New Zealand, to determine whether increasing taxpayer education levels in New Zealand secondary schools would help to enhance taxpayer compliance behaviour and attitudes towards the tax system. Furthermore, the role of tax education in New Zealand requires further empirical research to determine the impact of education on tax compliance, an analysis of tax education research in a New Zealand context undertaken by Sawyer and Tan (2020) revealed only one publication from 2004. This shows a lack of research undertaken on this topic in New Zealand and requires further analysis. Hence, this study has been conducted in New Zealand to contribute to further research in this area and bridge this gap in the literature. This study will employ a mixed-method research design, comprised of two identical surveys of first-year undergraduate students taking separate courses at the University of Canterbury (UC), and semi-structured interviews of high school teachers across New Zealand.

The surveys utilised replicate and extends the study conducted by Morgan and Castelyn (2018), who researched tax education and its impact on taxpayer compliance in an Australian context in 2018. The questionnaire used in the surveys mainly replicated Morgan and Castelyn's (2018) questionnaire, with adjustments made to better suit the New Zealand context, to analyse students' opinions and attitudes towards taxes and New Zealand's tax system. In addition, interviews of high school teachers across New Zealand were conducted utilising a semi-structured approach. This allowed the researcher to analyse the feelings and opinions of those who would be conferring this information to students, to determine if the current curriculum contains any tax education and if teachers believe it would be beneficial for it to be included. The survey results provide a baseline of students' attitudes and education levels, while the findings of the semi-structured interviews allow the researcher to see this topic through the lens of high school teachers for a more holistic view.

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# **Chapter 1 - Introduction**

## 1.1 Background

Taxpayer non-compliance is an ongoing concern across jurisdictions. A taxpayer's lack of compliance negatively impacts the tax system, both in fairness and the government's ability to provide social services and other improvements to communities (Yong et al., 2019). The level of education a taxpayer holds regarding the purpose of taxes and the ability to comply with their tax obligations is a prevalent factor that impacts voluntary taxpayer compliance. Existing literature suggests that increasing the level of tax knowledge held by a taxpayer, regarding both tax laws and the need for taxes, can help enhance voluntary compliance (Jackson & Milliron, 1986, Chan et al., 2000, Kassipilai, 2000).

Taxpayers who lack the knowledge to comply typically have a negative view of taxation, only viewing tax in terms of its burden, and failing to see the societal benefits provided from the revenue. Existing research conducted in other countries have concluded that a lack of basic tax knowledge can contribute to negative feelings towards taxes such as stress and overwhelm (Oladipupo & Obazee, 2016) when a taxpayer tries to comply with their obligations. Naturally, this further feeds a negative perception of taxes, decreasing a taxpayer's willingness to comply. Chan et al. (2000) used education as a measure of non-compliance opportunities in their study and found that tax education has an indirect, positive link with taxpayer compliance behaviour and attitudes. They found that those with higher levels of tax education were more likely to have a higher level of moral development and a positive attitude toward the tax system, making them more likely to comply with their tax obligations.

Conversely, Jackson and Milliron (1986), who also discussed the importance of education in relation to taxpayer compliance, noted that increased levels of tax education could also have a negative impact on compliance. This is due to a potentially increased awareness regarding evasion opportunities. Jackson and Milliron (1986) suggest the possibility that a higher level of education could result in taxpayers using their acquired skills and knowledge to identify and engage in avoidant or evasive activities. Furthermore, such taxpayers may become more inclined to play the audit lottery – a form of non-compliance which involves taking questionable positions on a tax return when the taxpayer believes that the chance of being

audited is highly unlikely (Ames, 1987). As such, it is suggested that education as a compliance variable should be combined with other factors such as probability of detection to deter educated taxpayers from being non-compliant (Jackson & Milliron, 1986).

While New Zealand operates a tax system that taxes employees directly from their wage, self-employed people are not subjected to this system and are required to submit an individual tax return form every year. There is no single test to determine whether or not an individual is self-employed or employed, however the Inland Revenue Department (IRD) has set out guideline questions to help decide a person's employment status. For example, if a person provides the major assets or working equipment needed for their job, provides/pays for their training, and decides/controls how they work (their working hours, how much they are paid, and when they take holidays), they are likely considered to be self-employed and are required to submit an individual tax return form annually. Under a self-assessment system, the taxpayer is required to meet particular standards: to take reasonable care, and to have an *acceptable interpretation of the law* (Tax Administration Act 1994). A reliance on self-reporting can lead to intentional or unintentional non-compliance if the taxpayer does not hold the required knowledge to meet these standards and to accurately comply with their obligations, which can lead to additional costs incurred by both the taxpayer and the revenue authority (Oladipupo & Obazee, 2016).

## 1.2 Research Questions

The present study partially replicates Morgan and Castelyn's (2018) research which examines taxation education in secondary schools in Australia, with some questions altered and added to better reflect the New Zealand context. Moreover, this study also extends Morgan and Castelyn's (2018) study to analyse the opinions and attitudes of secondary school teachers across New Zealand with regard to including taxation education in secondary schools. Therefore, the key research questions of this study are:

**Research Question 1: How does tax knowledge impact taxpayer compliance attitudes and perceptions?**

**Research Question 2: Would increasing taxpayer education levels help to enhance taxpayer compliance and attitudes?**

The second key research question can be broken down into three aspects to answer within the study:

**Research Question 2(a): Should New Zealand implement a mandatory taxation education programme in New Zealand secondary schools?**

**Research Question 2(b): How would this impact taxpayer knowledge?**

**Research Question 2(c): How would this enhance taxpayer compliance?**

### 1.3 Relevance of Topic

#### 1.3.1 Lack of Tax Education in Secondary Schools across Jurisdictions

Existing research shows that there is little tax education offered in high schools in Australia (Morgan & Castelyn, 2018). The authors found that many people believed it would have been beneficial, and that they often do not feel confident filing their own income tax returns. This can lead to issues of incomplete returns and the misappropriation of tax liability, both intentionally and unintentionally.

Berhane (2011) found that taxpayers in Ethiopia, who had not received any tax education, were unaware of their tax rights and responsibilities, and had very little knowledge about taxes in general. The author noted that educated taxpayers had more desirable attitudes towards tax and a better understanding of the purposes and benefits of tax, resulting in a greater willingness and ability to comply with their obligations than uneducated taxpayers.

Nigerian taxpayers tended to feel stressed or overwhelmed when complying with their tax obligations due to a lack of knowledge regarding taxes (Oladipupo & Obazee, 2016). The authors found that tax education had a significant positive impact on tax compliance and was more effective than imposing penalties. Hite and Hasseldine (2001), in their study in the United States of America (USA), also concluded that education has a significant positive impact on taxpayer compliance, and that tax authorities should place greater efforts into educating taxpayers.

#### 1.3.2 Increasing popularity of Entrepreneurship as a Career Path

In New Zealand, small and medium enterprises (SME) are the second-largest taxpayer group after individual taxpayers (Yong & Freudenberg, 2020). This shows that creating small businesses is becoming, if not already is, a popular career choice for individuals and makes up

a significant portion of taxpayers in New Zealand. While New Zealand's tax system operates to tax individuals directly from their wage, self-employed people are not subjected to this system. They are required to self-assess their tax position and submit an individual tax return every year. SMEs are considered a high-risk tax group with one of the highest tax non-compliance statistics. This can be attributed to their increased opportunity to evade taxes, including participating in the cash economy and failing to declare income to minimise their tax liability (Yong & Freudenberg, 2020).

### 1.3.3 Attitudes towards Taxation

It is a common theme across various jurisdictions that society, as a generalisation, has an inherently moderately negative perception towards taxes and their tax obligations. New Zealanders have shown increasing support when asked if the government should reduce taxes - from 19% in the 1990s, to 23% in 2002, and to 30% by 2005 (Humpage, 2011). Noble (2019) found that tax is perceived as generally necessary in principle but is greatly disliked, and is seen as unfair by both SMEs and employed people in New Zealand. Businesses and individuals recognised that cash jobs are illegal, but felt they are more "socially acceptable" and saw no benefit in stopping the cash economy. The author noted that the public felt that they do not see any benefits in their community from the extra tax that they would pay. This raises the question of whether or not they hold the necessary knowledge or resources to *actually* see/understand the benefits that arise from the government's tax revenue.

Furthermore, it is vital for taxpayers to be educated about the intentions that tax authorities have through the collection of tax revenue, and that taxes provide great value to society (Oladipupo & Obazee, 2016).

## 1.4 Thesis Structure

The remainder of this thesis is outlined as follows. Chapter 2 presents a review on past literature regarding tax compliance and non-compliance, including a discussion on tax avoidance and tax evasion. Chapter 2 also analyses the effects of taxpayer knowledge, attitudes, and non-compliance deterrents. Chapter 3 continues the literature review, focusing on a deeper analysis into the role of tax education on tax compliance that has been presented in prior literature.

Chapter 4 sets out the research questions, as well as the methods and approach employed for both the qualitative and quantitative components used in this research. This chapter also includes a discussion on how the quantitative research component acts as a replication and extension of Morgan and Castelyn's (2018) study.

Chapter 5 discusses the findings of the surveys of first-year undergraduate students, while Chapter 6 discusses the findings of the interviews of high school teachers. Chapter 7 presents an overall discussion of the research findings.

Chapter 8 concludes the thesis, and discusses potential limitations and contributions of this research. Potential areas for future research will also be mentioned.

### 1.5 Contribution

This research contributes to the existing literature in many ways. As mentioned earlier, there is, to the author's knowledge, only one existing published article on tax education in a New Zealand context (Sawyer and Tan, 2020). This shows that very little has been published on tax education in New Zealand to date, and this thesis will add to the limited research currently available in a New Zealand context. As such, the results of this research (provided through surveys of undergraduate students at the UC, and semi-structured, informal interviews with high school teachers across New Zealand), provide current perspectives on the current levels of tax education available in the current New Zealand secondary school curriculum, and the potential benefits of including such information in secondary schools.

## Chapter 2 - Literature Review

### 2.1 Tax Compliance

#### 2.1.1 Definition of Tax Compliance

Tax compliance is defined by the Organisation for Economic Co-Operation and Development (OECD) as “the degree to which a taxpayer complies (or fails to comply) with the tax rules of his country, for example by declaring income, filing a return, and paying tax due in a timely manner” (OECD, n.d.). This definition provided by the OECD is widely accepted across many jurisdictions. However, there are many different variations of the definition of tax compliance that are used within literature when defining tax compliance. For example, in Jackson and Milliron’s (1986, p 130) earlier article regarding tax compliance factors, the authors defined a compliant taxpayer as one who files an “accurate, timely and fully paid return without IRS enforcement efforts”. This definition was scrutinised by Richardson and Sawyer (2001), who stated that while the definition adopted by Jackson and Milliron accounted for both intentional and unintentional non-compliance, it “failed to clarify whether the taking of an aggressive tax position on an ambiguous issue represents non-compliance if the revenue authority or courts fail to accept the treatment at a later date” (Richardson & Sawyer, 2001, p 142). They determined that a more comprehensive definition was provided by Roth, Scholz and Witte (1989, p 21) that covers this issue:

“Compliance with reporting requirements means that the taxpayer files all required tax returns at the proper time and that the returns accurately report tax liability in accordance with the Internal Revenue Code, regulations, and court decisions applicable at the time the return is filed.”

Richardson and Sawyer (2001), highlighted that, while many variations of the definition of tax compliance are adopted, many studies conducted actually failed to provide a definition of tax compliance entirely. Due to a lack of a standardised definition for tax compliance used across studies, a variety of research design purposes arose. This can make it difficult to combine the results of studies, and partially accounts for some conflicting results found in existing studies.

Consideration must also be paid to compliance with the ‘letter’ *and* the ‘spirit’ of the law. The letter of the law is defined as the law as it is written, referring to its literal meaning (Garcia et al., 2014). The spirit of the law refers to its perceived intention (Garcia et al., 2014). Birch et

al. (2003) discussed the difference between complying with the letter and the spirit of tax laws by discussing the different types of tax positions taken by taxpayers. To comply with both the letter and the spirit of the law, a taxpayer must fully comply with their tax obligations as per the definition provided by Roth, Scholz and Witte (1989, p 21). Tax positions that adopt artificial transactions to minimise tax liability (e.g. tax avoidance) comply with the letter of the law but violate the spirit of the law and should be regarded as tax non-compliance. On the other end of the compliance spectrum is tax evasion, the most severe form of non-compliance. Tax positions that are evasive in nature violate both the letter and the spirit of the law.

### 2.1.2 Tax Compliance Factors

Jackson and Milliron (1986) provided seminal research into behavioural tax compliance. In their study, they explored various factors that shape a taxpayer's compliance behaviour. Such factors include education, income source, occupation, fairness, probability of detection, and age (Jackson & Milliron, 1986). These factors can greatly determine whether a taxpayer will be compliant with their tax obligations, or adopt a tax position (such as tax avoidance or evasion) to minimise their tax liability. The authors also determined that taxpayers are not only motivated by one of these factors but that these factors work simultaneously to influence a taxpayer's compliance behaviour.

Education was found to have a very significant effect on tax compliance (Jackson & Milliron, 1986), and was divided into two aspects by the authors. These two aspects are "the general degree of fiscal knowledge", and "the degree of knowledge involving evasion opportunities" (Jackson & Milliron, 1986, p 132). The general degree of fiscal knowledge was the primary aspect that created negative feelings towards tax, meaning taxpayers with a lack of knowledge to comply typically held a negative perception of taxation and their tax obligations. Taxpayers who held less tax knowledge tended to view taxation only in terms of its burden and failed to recognise the societal benefits they receive through the tax revenue, which is why the first aspect was more influential. Jackson and Milliron (1986) determined it is critical for taxpayers to hold the necessary knowledge and technical abilities to comply with their tax obligations.

Taxpayers with limited or minimal tax education tended to experience feelings of stress and overwhelm when trying to comply with their tax obligations (Oladipupo & Obazee, 2016). This is due to the taxpayer not knowing or understanding how to pay their tax liability, why they

have to pay it, and not holding the technical skills required to capably comply with their obligations easily. In saying this, taxpayers who have higher levels of tax education are likely to be more aware of any evasion opportunities (Jackson & Milliron, 1986). Furthermore, they are likely to hold the knowledge needed to be *able* to engage in these opportunities. Hence, a negative impact of education on tax compliance can also be interpreted.

Income source was also discussed by Jackson and Milliron (1986) as a factor of tax compliance. Taxpayers with the least opportunity to evade taxes are typically those whose source of income is dependent on wages and salaries subject to withholding. Conversely, the greatest opportunity to evade taxes lies with taxpayers who derive their income through self-employment schemes, independent trades, and farming (Jackson & Milliron, 1986). This is because incomes of this type must be self-reported to the revenue authority (Gerxhani & Schram, 2006). Mohani (2001) also confirmed this, concluding that taxpayers who deal with many cash transactions, or are self-employed, have a greater opportunity to minimise and evade taxes. The author also confirmed that taxpayers who are employed by somebody else are less likely to evade due to their employer collecting their income tax and passing it onto the tax authority on behalf of the taxpayer. This results in fewer opportunities being presented for such taxpayers to evade.

The occupation of a taxpayer influences their compliance behaviour. Over time, the pattern of evasion across different industries has changed as tax laws have adapted. Originally, evasion was seen as a white-collar crime, where taxpayers who were typically more successful with a high social status were more likely to evade taxes (Jackson & Milliron, 1986). However, over time tax laws have been altered and new legislation has been introduced to cover a broader spectrum of income levels and occupations. Hence, in more recent times it is not only the white-collar communities who have the opportunity to evade taxes. Jackson and Milliron (1986) found that, while white-collar communities tended to have higher levels of evasion and avoidance through overstating deductible expenses, blue-collar communities typically evaded taxes by understating taxable income.

Jackson and Milliron (1986) discussed fairness as a tax compliance factor, which has two dimensions to it. The first dimension is the equity of trade, which refers to the benefits the taxpayer receives for the tax dollars paid by them. The second dimension is the equity of the taxpayer's burden in reference to that of other individuals, which refers to how the taxpayer perceives the horizontal *and* vertical equity of the tax system in their jurisdiction. Horizontal

equity refers to the perception that all taxpayers earning similar (economic) income should be treated equally, and that the burden is shared equally (Devos, 2014). Vertical equity, on the other hand, refers to the perception that the distribution of the tax burden is based on taxpayers' ability to pay (e.g. a progressive tax system).

The second dimension has a more significant impact on taxpayer compliance behaviour than the former dimension (Jackson & Milliron, 1986). Taxpayers were more likely to engage in evasion opportunities if they feel that they are victims of fiscal inequity, and are receiving fewer benefits from tax revenue than other taxpayers. Conversely, taxpayers were less likely to engage in evasion opportunities if they feel they have benefitted from the fiscal inequity.

Tax equity/fairness was also discussed by Devos (2014), who defined tax fairness as the taxpayer's view of the overall fairness of the tax system. The author split this concept of equity into three dimensions: horizontal, vertical, and exchange with government (equity in the exchange of public goods and services from the government in return for taxes paid) (Devos, 2014, pp 6-7).

Devos (2014) found that perceived tax fairness had a significant impact on taxpayer compliance behaviour. In terms of horizontal equity, individuals who felt that they were being inequitably treated compared to others in the same situation tended to engage in non-compliant behaviour in an attempt to rebalance the perceived inequity. He also found that vertical equity had a great impact on compliance behaviour. When a taxpayer was informed about the high taxes imposed on wealthy taxpayers, they were more compliant themselves due to a perception that taxes are distributed fairly based on a taxpayer's ability to pay (that is, their income level).

Regarding Devos's (2014) last dimension of equity, taxpayers who feel they do not receive any societal benefits from paying taxes are more likely to engage in non-compliant behaviour. Such taxpayers fail to see the public benefits they receive that are funded through tax revenue, viewing their tax obligations as a burden instead. This equity dimension endorses Jackson and Milliron's (1986) research on fairness as a tax compliance factor. Both studies concluded that taxpayers are more likely to view their tax obligation as a burden and are typically more likely to be evasive/non-compliant if they feel they are being treated inequitably. The concept of fairness is relatively arbitrary in terms of its definition and its effects; however, it is one of the most important tax variables, especially when the tax system relies heavily on voluntary

compliance for its success (Gilligan & Richardson, 2005). To help ensure that the public perceive their tax system as fair, it is important for the revenue authority to display legitimacy.

Audits are performed by the revenue authority to determine if a taxpayer is accurately and truthfully declaring their tax liability. This is a form of deterrence measure implemented by the revenue authority in an attempt to enhance taxpayer compliance. This factor was identified as significant in shaping taxpayer compliance behaviour by Jackson and Milliron (1986) and was confirmed and extended by Devos (2014) in his study of factors that influence taxpayer compliance behaviour. Probability of detection refers to the likelihood that the revenue authority will discover a taxpayer's non-compliance and remedy the shortcomings (Jackson & Milliron, 1986). However, it can be argued that the *actual* probability of detection is not as important; rather that the *perceived* probability of detection should be considered instead. Andreoni et al. (1998) found that actual detection probability had a smaller effect on voluntary compliance while perceived detection probability had a greater impact, where taxpayers who admitted to evading taxes perceived the chances of being caught lower than honest taxpayers (Mason & Calvin, 1978).

The act of deterrence measures such as audit detection serves two purposes: specific deterrence and general deterrence (Devos, 2014). Specific deterrence refers to the imposition of sanctions, where the aim is to dissuade an offending taxpayer from repeating their crime by imposing penalties. This can be seen as a reactive approach to non-compliance, as a penalty for non-compliance is imposed subsequently to the crime being committed. General deterrence, on the other hand, aims to deter potential offending from engaging in non-compliant behaviour. Examples of general deterrence include increasing the probability of detection and the magnitude of fines. Compared to specific deterrence, general deterrence can be seen as a proactive approach to reducing non-compliance as it aims to *prevent* non-compliance before it occurs.

Devos (2014) found it unlikely that increasing deterrence measures will sufficiently prevent non-compliance unless it was combined with other enforcement measures. General deterrence may be more effective when combined with enforcement measures such as education. This upholds the findings of Jackson and Milliron (1986), where they found that the probability of detection on its own will not significantly impact taxpayer compliance behaviour. This is

because already non-compliant taxpayers typically believed that they were less likely to be caught.

Age is another variable that has an impact on taxpayer compliance. Jackson and Milliron (1986) found that older taxpayers are typically more compliant, while younger taxpayers are more willing to take risks, are less sensitive to sanctions, and reflect social and psychological differences due to generational disparities. Mohani (2001) also confirms that younger taxpayers were more willing to take risks regarding tax compliance. Mohani (2001) found that a child's upbringing may also impact their compliance behaviour in adulthood. If a child experiences "community cohesion" during childhood, there is a reduced chance that they engage in tax evasion and other illegal behaviour later in life (p 39). This further upholds Jackson and Milliron's discussion regarding the impact of social and psychological differences between generations and their impacts on tax compliance. Age as a compliance factor was further examined by Clotfelter (1983), who found that the youngest and oldest divisions of the taxpayer population tended to have the highest degree of compliance and were less likely to evade. Clotfelter's (1983) findings were somewhat contradictory to those of Jackson and Milliron (1986); however, these findings have not been confirmed by other researchers. As stated by Jackson and Milliron (1986), age as a taxpayer compliance variable remains an unanswered question.

## 2.2 Tax Non-Compliance

There is no standard definition of tax non-compliance. However, a definition of tax non-compliance was provided by Saad (2012), who defined non-compliance as "unwillingness to act in accordance with the tax law and administration applicable at one particular time" (p 345). This complements the definition provided by Richardson and Sawyer (2001) who discussed the two main types of non-compliance by taxpayers: non-compliance through overstatement of deductions; and non-compliance through the understatement of income" (p 224).

It is also important to recognise that tax non-compliance is not always an intentional act, and that there are various factors that can result in unintentional non-compliance by a taxpayer. Intentional non-compliance is typically categorised by tax evasion and tax avoidance schemes adopted by taxpayers, and is the main focus of the majority of existing studies of tax non-compliance. Yong et al (2019) performed an examination into existing studies of tax non-

compliance. The authors found that between 1998 and 2017, over 8000 articles mentioned tax evasion and nearly 2000 articles mentioned tax avoidance. However, unintentional non-compliance has often been neglected in previous studies. Unintentional non-compliance refers to when a taxpayer fails to comply with their obligations due to accidental errors (Devos, 2014). This can be due to a lack of understanding, failure to exercise reasonable care, and/or due to the complexity of the tax system and legislation.

## 2.2.1 Tax Evasion

### 2.2.1.1 Definition of Tax Evasion

Tax evasion refers to when taxpayers purposely engage in behaviour that violates the tax laws by underreporting income or overstating deductions (Kirchler & Wahl, 2010). Many researchers believe that taxpayers engage in evasive behaviour to intentionally reduce their tax liability, and that their existing knowledge regarding taxes is utilised in order to do this (Wu, 2012). Taxpayers need to have sufficient knowledge and understanding of taxes and the tax system in order to engage in evasion opportunities (Tooma, 2008). In order to evade taxes, taxpayers need to have the knowledge and skills, plus opportunity, to deliberately deceive the authorities and reduce their tax liability by misrepresenting their affairs.

Be that as it may, there is yet to be a universal definition of tax evasion that is generally accepted (Wu, 2012). There are contradicting opinions regarding what behaviours fall under the scope of tax evasion due to the lack of defined parameters of what constitutes tax evasion. Many researchers believe tax evasion refers to only *deliberate* non-compliance, while some believe that ignorance can also cause tax evasion and should be classed as unintentional non-compliance. In this thesis, the term 'tax evasion' refers to intentional non-compliance. As discussed previously, education can also have a negative impact on tax compliance, where greater levels of education could lead to taxpayers becoming more aware of evasion opportunities (Jackson and Milliron, 1986). Therefore, intentional tax non-compliance will be considered as tax evasion in this thesis in order to gain a comprehensive understanding of the influence of tax education on taxpayer compliance behaviour.

### 2.2.1.2 Attitudes towards Tax Evasion

Attitudes held towards tax evasion vary across different groups of individuals. For example, the majority of existing research about tax compliance and evasion considers evasion to be a

deliberate act of non-compliance. However, taxpayers hold different attitudes and tolerances regarding tax evasion. These opposing attitudes held by taxpayers have been discussed by various researchers. Typically, young taxpayers are found to be more tolerant of evasive activities than elderly people (Marriott, 2017). The author also found that taxpayers with higher levels of education tended to be more tolerant of tax evasion than those who have lower levels of education. This could be due to those who are better educated finding justification in such behaviour.

Tax evasion cases are also becoming increasingly more advertised through media coverage (Marriott, 2017). This has helped taxpayers to have a better insight into the negative impacts that tax evasion can have on society, possibly changing the tolerance of tax evasion held by taxpayers. If tax evasion cases and the harm it causes continue to be prominent in the media, attitudes toward tax evasion may eventually change almost entirely, where the majority of individuals view tax evasion as unacceptable.

## 2.2.2 Tax Avoidance

### 2.2.2.1 Definition of Tax Avoidance

Tax avoidance, similarly to tax evasion, is deliberate non-compliance to reduce tax liability. Opportunities for tax avoidance arise as a result of the complex nature of tax legislation (Otusanya, 2011). Tax avoidance schemes can be described as “creative compliance” (McBarnet, 2003). Such tax positions respect the ‘letter’ of the law but violate the ‘spirit’/intention of the law. However, tax avoidance is legal, yet unethical and has a negative effect on tax revenue (Kirchler & Wahl, 2010).

### 2.2.2.2 Attitudes towards Tax Avoidance

Akin to evasion, individuals hold different attitudes regarding tax avoidance. In existing studies, researchers feel that tax avoidance schemes disregard the impact they have on social and economic development (Richardson, 2006). Contrarily, entrepreneurial taxpayers view tax avoidance schemes as a valid and admissible tax-saving plan that has no impact on society. While most researchers disapprove of tax avoidance, there are some researchers who maintain this perspective. Tooma (2008) felt it was acceptable for taxpayers to arrange their tax affairs in order to pay the least amount of tax possible, and that they should be able to do so if the opportunity presents itself.

Studying the attitudes of taxpayers towards non-compliance behaviours such as tax avoidance and tax evasion may help the revenue authority to respond more appropriately and effectively, and allow them to make appropriate strategy adjustments to address this issue.

### 2.3 Tax Knowledge

As defined by Berhane (2011), tax knowledge refers to a taxpayer's ability to understand taxation laws, and their willingness to comply (p 17). A similar definition was also adopted by Oladipupo and Obazee (2016), who defined tax knowledge as "the level of awareness of sensitivity of the taxpayers to tax legislation" (p 2).

Kasippilai (2000) determined that tax knowledge is an essential element in a voluntary compliance tax system. The author has established in his study that possessing tax knowledge leads to higher levels of compliance amongst the taxpayer community. Without tax knowledge, taxpayers often fail to comply with their tax obligations, whether intentionally or unintentionally. This was also upheld by Chan et. al. (2000), who found that higher levels of tax knowledge are associated with a deeper understanding of the tax system, which positively influences compliance.

A lack of tax knowledge can result in additional costs incurred, both for taxpayers and the revenue authority (Oladipupo and Obazee, 2016). Such additional costs for taxpayers include penalties incurred due to accidental or intentional non-compliance, or administration fees due to paying a tax agent to complete their tax returns. The revenue authority would also experience greater costs through additional revenue collection activities to combat any shortcomings that occur due to taxpayers' knowledge insufficiencies. Oladipupo and Obazee (2016) found that enhancing the tax knowledge possessed by taxpayers would improve their tax morale, therefore enhancing compliance, as they were better equipped to handle their tax obligations.

Saad (2014) showed that very few taxpayers have a sufficient knowledge of the legal aspects of the tax system. Taxpayers found technical knowledge to be the most important type of knowledge to possess. This means that taxpayers found it more important to have the skills required to sufficiently comply with their obligations, rather than being able to understand the legal aspects of the tax system. However, while technical knowledge was deemed more

important to taxpayers, they also were found to have limited technical knowledge and often had to seek assistance from tax professionals to aid them in their tax affairs. There is a possibility that this shortfall in tax knowledge apparent amongst the taxpayer community could lead to unintentional non-compliance by taxpayers (McKerchar, 1995; Loo et al., 2008).

Taxpayers with sufficient tax knowledge and understanding of the tax system tend to have a higher level of moral development, resulting in more desirable attitudes and therefore greater taxpayer compliance (Chan et. al., 2000). Tax knowledge is vital to enhance the public's awareness regarding taxation and the importance of complying with tax obligations (Mohd, 2010).

#### 2.4 Ethics and Attitudes Towards Tax Compliance

Social and psychological factors such as ethics and attitudes can have a considerable impact on compliance, and these factors have often been neglected by revenue authorities in the past. Taxpayers do not always behave as selfish, rational, self-interested individuals as historically believed, but rather are motivated by many factors that are often founded by the individual's morality and social norms, also known as "ethics" (Alm and Torgler, 2011). Social norms have a significant influence on compliance decisions as they shape how taxpayers feel regarding the importance of taxes (Jiminez and Iyer, 2016). An extension to this was provided by Cullis et al. (2012), stating that social norms are internalised into personal norms, which can alter how a taxpayer perceives the personal value of paying taxes. If the people surrounding the taxpayer have undesirable views of taxes, the taxpayer is likely to adopt similar beliefs, decreasing their willingness to comply. Conversely, if social norms incite a positive view of taxes, the taxpayer is likely to view taxes in the same positive way (Cullis et al., 2012). As discussed earlier, if a child is raised surrounded by people who endorse good tax morals, there is a reduced chance that they will engage in non-compliant behaviour in adulthood (Mohani, 2001).

Song and Yarbrough (1978) concluded that a taxpayer's standard of ethics is extremely important in a tax system that is based predominantly on voluntary compliance. However, what is deemed to be an acceptable level of tax ethics is subjective in nature. The authors determined that ethics encourage taxpayers to act in a certain way. For example, a taxpayer with a negative attitude towards taxes tended to be less compliant, while a taxpayer with a positive attitude towards taxes tended to be more compliant. Furthermore, Song and Yarbrough (1978) stated

that taxpayers' attitudes towards the revenue authority are just as crucial as tax attitudes. As such, a taxpayer's ethics tend to depend on the perceived use of the tax revenue collected by the revenue authority. If a taxpayer feels that tax revenue is being inappropriately used, they will feel less willing to comply with their obligations due to perceived unfairness.

If society holds undesirable norms regarding taxes, the revenue authority must change these norms by displaying ethical practices themselves (Bobek et. al., 2012). A revenue authority can achieve this by injecting more resources into trust-building activities in combination with enforcement measures such as penalties and audits (Olsen et. al., 2018). By placing greater emphasis on offering trust-building measures, taxpayers may begin to hold more desirable perceptions regarding the tax system. In turn, this will promote taxpayers to adopt good tax morals and therefore enhance taxpayer compliance (Bobek et. al., 2012; Jiminez & Iyer, 2016). This concept can be seen in the "slippery slope" framework developed by Kirchler et al. (2008). Under this framework, tax compliance is considered along two dimensions: the power of tax authorities, and taxpayers' trust in tax authorities, where these dimensions act dynamically and jointly to influence tax compliance levels. Increased levels of power result in greater enforced compliance, while increased levels of trust result in greater voluntary compliance. Stable areas of high compliance levels are only found where there is maximum power and maximum trust, however this is realistically unobtainable. Where the level of trust in a tax authority is high, variations in the level of power does not matter because the public are willing to contribute their share regardless. However, variations in power can influence trust. An increase in audits can be interpreted by the public as a sign of distrust in taxpayers to honestly fulfil their tax obligations, and lead to taxpayers losing their trust in the revenue authority. On the other hand, if a revenue authority expresses that they are *efficient* in detecting evasion, taxpayers are likely to place more trust in the revenue authority. This framework designed by Kirchler et al. (2008) displays the paramount importance of a taxpayer's perception of the authority's actions and intentions for the community.

## 2.5 Non-Compliance Deterrents

Non-compliance deterrents include the imposition of penalties and sanctions, as discussed by Yunus et. al. (2017) in their study of tax penalties and tax compliance. The authors illustrated that implementing tax penalties demonstrates a high-power approach taken by the revenue authority. This can result in resentment towards the tax system from the public, therefore it is

vital that the revenue authority only imposes penalties fairly and reasonably to reduce this risk. This result is consistent with Jackson and Milliron's (1986) work on tax compliance factors. Jackson and Milliron (1986) found that taxpayers may become alienated if they perceive the penalties and sanctions to be too severe for the crime committed. Hence, it is crucial for the revenue authority to impose penalties and sanctions with due care, in order to avoid creating a negative attitude amongst taxpayers.

Penalties should only be imposed where a taxpayer has intentionally evaded tax (Oladipupo and Obazee, 2016). If a taxpayer has accidentally under-complied with their tax obligations, the revenue authority should grant them more leniency, so as to not cause a negative perception of taxes from already-compliant taxpayers. As discussed by Tan and Braithwaite (2017), if penalties are perceived as unfair by taxpayers who are already trying to be compliant, compliance may overall decrease. While penalties drive compliance of already registered businesses, it is possible that they can act as a deterrent to formalise business if they are not conducted fairly (Swistak, 2015). Hence it is vital for the revenue authority to conduct penalties fairly, to ensure that compliance is not undermined, and that business formalisation is not discouraged. An extension to this was made by Devos (2009), who determined that reduced penalties used in combination with other measures have a greater positive effect on taxpayer compliance rather than substantial penalties. This finding ties in well with that of Brand (1996), who determined that it is more expensive for revenue authorities to collect taxes through enforcement strategies such as penalties, and less expensive through enhancing voluntary compliance.

Another non-compliance deterrent is auditing. Audits are another form of compliance measure that can be used to improve taxpayer compliance behaviour. Kasper and Alm (2021) concluded that audits can deter future non-compliance, as a result of actually being audited or being concerned regarding the probability of being audited. Hence, it is vital that taxpayers perceive audit detection as legitimate and probable for audits to be effective in increasing taxpayer compliance. This extends the study conducted by Mittone et. al. (2017), who discussed the concept of the 'bomb crater' effect. The bomb crater effect refers to when tax compliance drops immediately after a taxpayer is audited (p 1). This occurs due to taxpayers believing that they are unlikely to be re-audited soon after being initially audited. Furthermore, audits must be effective, if an evading taxpayer is not caught through an audit, they are likely to continue to

evade and will believe that the revenue authority is incompetent in regulating evasion (DeBacker et. al., 2018).

## 2.6 Education and its Impact on Tax Compliance

Existing research shows that there is very minimal tax education in high school (Morgan & Castelyn, 2018), despite the authors' research determining that many people would have found it beneficial. The authors found that many undergraduate students were not taught tax in secondary school, felt unconfident filing a tax return, yet still filed their tax returns without help. Consequently, incomplete returns and misappropriation of tax liability become concerns. Comparably, Oladipupo and Obazee (2016) found that taxpayers tended to experience feelings of stress or being overwhelmed while trying to comply, due to a lack of knowledge regarding taxes. The authors discovered that tax education had a positive significant impact on tax compliance and that tax knowledge tends to be more successful in promoting tax compliance than the imposition of penalties (p 6). It is vital for taxpayers to be educated about the intentions that the tax authorities are trying to achieve through the collection of tax revenue and that taxes provide great value to society (Oladipupo & Obazee, 2016).

The concept of education and its impact on compliance was also analysed by Chan et. al. (2000). The authors found that educated taxpayers hold a potentially better understanding of the tax system and a higher level of moral development, which promotes more favourable taxpayer attitudes and enhances greater compliance. However, educated taxpayers may also become more aware of non-compliance opportunities which could possibly have a negative impact on compliance. This finding was also upheld by Jackson and Milliron (1986), who found that if a revenue authority placed more effort on educating taxpayers, these efforts would lead to increased compliance from the less educated. Be that as it may, those who know more about taxes were also more likely to play the "audit lottery". As defined by Ames (1987), the tax audit lottery is defined as a form of non-compliance which involves taking questionable positions on a tax return when the taxpayers believe that the chance of being audited is highly unlikely (p 412).

Berhane (2011) found that taxpayers who had not received any form of tax education were typically unaware of their rights and responsibilities as a taxpayer. Furthermore, such taxpayers had very limited general knowledge regarding taxes. The author found that those who have

received tax education are typically more compliant than taxpayers who did not receive any form of tax education, due to a better understanding of the purpose of taxes and the societal benefits that arise from tax revenue. Educated taxpayers have more favourable attitudes towards taxation, resulting in greater compliance. Hite and Hasseldine (2001) concluded that tax authorities need to place greater emphasis on educating taxpayers, as education has a significant positive impact on taxpayer compliance.

## 2.7 Summary

This chapter has presented an in-depth analysis of the existing literature regarding the various elements of taxation, including an in-depth discussion of prior literature's findings on tax education and how it can affect tax compliance. Overall, the literature indicates a mixed impact of tax education on taxpayer compliance, with some scholars presenting evidence that tax education provides taxpayers with a better understanding of the purposes and benefits of tax (Chan et al., 2000; Berhane, 2011; Hite & Hasseldine, 2001). Conversely, other scholars found that tax education can provide taxpayers with a greater awareness of non-compliance opportunities (Jackson & Milliron, 1986; Chan et al., 2000). Factors such as taxpayer ethics and morale play a collaborative role alongside education when determining the impact of tax education on taxpayer compliance, and need to be considered by the revenue authority when conducting tax affairs.

## Chapter 3 - Tax Compliance and Education

### 3.1 Impact of Tax Education on Compliance

Tax knowledge has a significant impact on a taxpayer's ability to voluntarily comply with their tax obligations; however, it is important to note that tax knowledge can have a positive *or* a negative impact on voluntary tax compliance (Eriksen & Fallan, 1996). The authors found that tax education and specific tax knowledge helps to enhance taxpayer compliance. However, they noted that perceived fairness had a dual effect alongside specific tax knowledge, meaning that the taxpayer needs to perceive the tax system to be fair combined with holding sufficient specific tax knowledge for voluntary compliance to be achieved. Similarly, Song and Yarborough (1978) concluded that tax knowledge had a positive impact on taxpayer compliance, with tax ethics acting as a mediator in their study. They determined that a taxpayer who holds sufficient tax knowledge *and* holds desirable tax ethics are more likely to voluntarily comply with their obligations rather than those who do not uphold ethical tax behaviour. Kasippilai (2000) noted that tax knowledge is a vital factor in a voluntary compliance system and found that possessing adequate tax knowledge leads to greater compliance levels. He concluded that taxpayers often fail to comply with their tax obligations if they do not have sufficient tax knowledge, and this could be either intentional or unintentional non-compliance. Chan et al. (2000) also found that higher levels of tax knowledge are positively associated with a better understanding of the tax system and positively influences tax compliance. However, the authors also concluded that high levels of tax knowledge could lead to greater awareness of evasion opportunities. This ties well with Song and Yarborough's (1978) earlier findings, where tax ethics are necessary, combined with education, to ensure that taxpayers use their knowledge appropriately and not to seek out opportunities to evade their tax obligations.

It is important to recognise, however, that increased knowledge regarding taxes can also have a negative impact on compliance. Jackson and Milliron (1986) noted that higher levels of education could potentially lead to taxpayers using their knowledge to seek out and engage in avoidant or evasive activities. Similar conclusions were made by Ames (1987) and Chan et al. (2000). As previously stated, taxpayers may use their tax knowledge to seek out evasion opportunities, which ultimately decreases voluntary compliance (Chan et al., 2000). This upheld the findings of Ames (1987), who concluded that taxpayers who hold more knowledge regarding tax laws may become more inclined to "play the audit lottery", where the taxpayer

perceives the likelihood of being audited to be highly unlikely and takes the risk of engaging in evasive behaviour, believing that they are unlikely to get caught.

**Table 3.1** *Effects on Tax Education on Compliance Summary*

<b>Author/Year</b>	<b>Tax Education</b>	<b>Findings</b>
Song & Yarborough, 1978	+	Tax knowledge positively impacts tax compliance, combined with tax ethics.
Jackson & Milliron, 1986	Dimensions of education	Noted two aspects of tax education: the general degree of fiscal knowledge, and knowledge regarding evasion opportunities.
Ames, 1987	-	Taxpayers who hold more knowledge about tax laws may be more likely to engage in non-compliant activities (“play the audit lottery”).
Eriksen & Fallan, 1996	+	Tax knowledge may positively impact compliance, combined with perceived fairness.
Chan et al., 2000	+/-	Higher levels of tax knowledge are associated with a deeper understanding of the tax system, which positively influences compliance. Higher levels of tax knowledge could also lead to awareness of evasion opportunities.
Kasippilai, 2000	+	Possessing tax knowledge leads to higher levels of compliance.
Birch et al., 2003	+	Higher exposure to tax material discouraged students to view tax evasive behaviour as “acceptable”.
Oladipupo & Obazee, 2016	+	Tax education has a positive significant impact on tax compliance and is more successful in promoting tax compliance than the imposition of penalties.
Morgan & Castelyn, 2018	+	A degree of basic knowledge and understanding of personal taxation matters is important for compliance.

### 3.2 Reasoning for Mixed Impact of Tax Education

Jackson and Milliron (1986) noted that other compliance variables coexist with education, making the impact of education alone unclear to determine. Table 3.1 displays the impacts of education on taxpayer compliance found in existing studies conducted by various researchers across various jurisdictions. It is important to recognise that each study utilised different variables and perspectives in conjunction with education in their studies, which can ultimately lead to mixed impacts being found across studies. Such variables include societal factors,

demographic factors, and the relevant jurisdiction in which the research is undertaken. Furthermore, different aspects of education are used across existing literature. Four measures of education have been identified in existing comprehensive literature reviews (Jackson & Milliron, 1986; Richardson & Sawyer, 2001): the general degree of fiscal knowledge; knowledge involving evasion opportunities; general education attainment; and specific tax knowledge. The use of these different dimensions across studies help to explain differing results regarding the effect that education has on taxpayer compliance behaviour.

### 3.2.1 Societal Factors

Existing literature has displayed that there are various factors that can impact tax compliance, including a person's upbringing, their perception of fairness, and tax morale. Regarding a person's upbringing, Mohani (2001) noted that if a child is raised in a cohesive community, they are less likely to engage in tax evasive behaviour and other illegal behaviours later in their life (p 39). Frey and Torgler (2007) similarly found that compliance is greater in communities with a stronger sense of social cohesion, and that individuals with tax evaders as friends are more likely to be evaders themselves.

The concept of fairness as a compliance factor is widely discussed in the tax world. Richardson and Sawyer (2001) identified three dimensions of fairness: the equity of the exchange relationship with the government, the equity of a taxpayer's burden with respect to other taxpayers, and the fairness with respect to aid for low-income earners. Tax fairness has a significant impact on taxpayer compliance (Devos, 2014). When a taxpayer feels that the tax system is inequitable under any of the above dimensions, they are less likely to be willing to comply with their obligations and are more likely to view their tax obligations as a burden. Richardson and Sawyer (2001) noted that nearly all studies regarding the impact of tax education on fairness found that an increase in tax education can improve taxpayers' perception of fairness, and therefore enhance their compliance. However, this may not always be the case. Kwok and Yip (2018) found in their Hong Kong study that receiving tax education did improve taxpayers' fairness perceptions, but it also increased their awareness regarding the inequity of the exchange relationship with their government. This higher awareness led to a negative impact of fairness perceptions on their tax compliance attitudes, displaying that the exchange relationship with the government and trust within the government is an important factor in perceived fairness. This supports the finding of Eriksen and Fallen (1996), who emphasised

that fairness is multi-dimensional in nature, and when perceived fairness acts as a mediator, tax education may positively or negatively impact tax compliance.

Tax morale refers to the norms of behaviour governing citizens as taxpayers in their relationship with the government (Song & Yarborough, 1978, p 443). This factor has become an increasingly popular topic regarding taxpayer compliance, with three elements of tax morale being defined by Torgler (2007). These elements of tax morale are: moral rules and sentiments; fairness; and the relationship between taxpayers and governments. Oladipupo and Obazee (2016) concluded that higher levels of tax morale improve taxpayer compliance behaviour, and that enhancing tax knowledge possessed by taxpayers helps to improve their tax morale.

### 3.2.2 Demographic Factors

Demographic factors such as gender, age, and employment are also considered to have an impact on taxpayer compliance levels. In their seminal study, Jackson and Milliron (1986) concluded that older taxpayers are typically more compliant than younger taxpayers who are more willing to take risks and are less sensitive to sanctions. Birch et al. (2003) and Marriott (2017) upheld this finding in their studies, where they found that the younger generation in New Zealand is more likely to engage in tax avoiding or tax evasive behaviours. However, Clotfelter (1983) found that the youngest and oldest groups of taxpayers tended to have the highest levels of compliance and were less likely to evade; these findings have not yet been confirmed by other scholars. The impact of gender, however, is unclear, with mixed results being found in existing literature. For example, Gupta and McGee (2010) concluded that females are more likely to be compliant than males, while Richardson and Sawyer (2001) found that both females and males are equally against tax evasive behaviour. With respect to self-employed taxpayers, Marriott (2017) also noted that self-employed taxpayers are more lenient of non-compliance than other employed taxpayers. Self-employed taxpayers have a greater opportunity to evade taxes than taxpayers who are employed by somebody else, as their income must be self-reported to the revenue authority (Jackson & Milliron, 1986; Mohani, 2001; Gerxhani & Schram, 2006).

Demographic variables, such as those discussed above, co-exist with education to impact taxpayer compliance levels. For example, Jackson and Milliron (1986) discussed that a person's income level and education level are interrelated. Taxpayers with a greater level of

general education are typically found to be in a higher-income group than those with lower education levels (Ross & McGee, 2012). Furthermore, females with higher levels of education were found to have a greater tolerance for non-compliant behaviour than females with lower education levels, while males with lower levels of education were found to have a greater tolerance for non-compliance (Hite, 1997).

### 3.2.3 Relevant Jurisdiction

Undertaking research in different countries may result in different conclusions being drawn due to the impact of cultural backgrounds. For example, Ma (2017) conducted a review on literature regarding taxpayer attitudes in developed versus developing countries. Ma (2017) found that, in developed countries, tax knowledge was not regarded as a determinant of taxpayer compliance. However, he did conclude that in developing countries, tax knowledge had an impact on the behaviours and attitudes of taxpayers towards tax compliance. In terms of the role of education, Ma (2017) noted that there is little evidence in existing research that shows any relationship between education level and tax compliance in developing countries, and that the role of education in developed countries procured mixed results.

### 3.3 Summary

This chapter discusses the impact of tax education on taxpayer compliance, with respect to other variables that play a part in determining the role of tax education. It is important to recognise that the impact of tax education alone is difficult to determine due to other societal and demographic variables playing an intermediary role, and therefore mixed results have been found in the literature regarding the impact of tax education (see Table 3.1). Some scholars have found evidence supporting the view that tax education has a positive impact on taxpayer compliance (Song & Yarborough, 1978; Eriksen & Fallen, 1996; Oladipupo & Obazee, 2016; Morgan & Castelyn, 2018). Other researchers (such as Jackson & Milliron, 1986, Ames, 1987, Chan et al, 2000) either found that there was no relationship between tax education and taxpayer compliance, or that tax education can decrease compliance due to increased awareness regarding evasion opportunities or inequities in the tax system. The reasoning for mixed results in the literature, as explained above, are three-fold. First, different dimensions of education utilised in studies (Richardson & Sawyer, 2001). Secondly, the co-existence of other variables alongside tax education (Eriksen & Fallen, 1996; Richardson & Sawyer, 2001; Mohani, 2001; Frey & Torgler, 2007). Thirdly, different jurisdictions and the impact of different cultural

backgrounds (Ma, 2017). Based on the prior literature's findings, this study is conducted in New Zealand and uses the dimensions of general education attainment and specific tax knowledge when analysing the research data.

## **Chapter 4 - Research Questions and Methodology**

### 4.1 Introduction

This chapter explains the research methodology for the study. It begins by discussing the ontology and epistemology employed in this study, followed by the research design and the author's questions. A discussion of the methods utilised, with justification for their employment, is included. This chapter also analyses the replication and extension of Morgan and Castelyn's (2018) survey as a research technique.

### 4.2 Research Methodology

#### 4.2.1 Ontology and Epistemology

An interpretivist paradigm has been employed in this study to understand the students' and high school teachers' current attitudes and perceptions towards tax education, and to gain an insight into the role that tax education plays in compliance. This approach has also been employed due to the under-researched nature of this topic in New Zealand. An interpretivist approach to this study "provides [the researcher with] an understanding of social reality based on the subjective interpretation of the researcher" (McKerchar, 2010, p.75). As the primary focus of this study is to analyse and discern the perceptions and attitudes of students and high school teachers towards tax education and the role of taxes, this research is inductive in nature. McKerchar (2010) indicated that an interpretivist approach is based upon inductive reasoning, a logical process in which specific observations are made and conclusions are inferred from these observations. This is consistent with the rationale of this study, as conclusions about the impact of tax education are drawn from observations regarding student and high school teacher attitudes on this topic.

#### 4.2.2 Mixed-Methods Approach

A mixed-method approach is adopted in the undertaking of this research. Mixed-methodology involves a combination of both qualitative (e.g., interviews) and quantitative (e.g., surveys) methods to gain broad and in-depth understanding of the research topic (Johnson et al., 2007). Some researchers have previously catechized combining qualitative and quantitative research methods due to being "incompatible" as paradigms, as qualitative and quantitative research have been assumed as separate paradigms to classify ontological and epistemological theories in some past research (Guba, 1985; Bell et al., 2018). Despite this, Bell et al. (2018) note that

it is unclear if these research approaches act as definitive paradigms, due to various overlap and mutuality that occur across these two approaches. A mixed-methods approach, while not necessarily possible from a *philosophical* view, is feasible as the two research strategies are essentially compatible from a *practical* perspective (Bell et al., 2018).

In the present study, a quantitative approach is utilised to understand the attitudes and perceptions of students regarding their current level of tax knowledge and their attitudes towards taxes and the New Zealand tax system. A qualitative approach is also employed to gain an understanding of this topic from another viewpoint – high school teachers. This gives the author a greater breadth and depth of understanding of the logistics and perceptions of including tax education in New Zealand secondary schools.

#### 4.3 Replication and Extension of the study by Morgan and Castelyn (2018)

This study is a replication and extension of Morgan and Castelyn's (2018) Australian study. The questionnaire utilised in the present study is a partial replica of that used by Morgan and Castelyn (2018), with a few changes made to suit the New Zealand context. The selection of participants in the present study was similarly conducted, with the target group being undergraduate students taking an introductory accounting course at UC. Morgan and Castelyn's (2018) study was extended by distributing a second identical survey to a second target group for comparative purposes. This second target group consisted of undergraduate students taking an introductory science course at the University of Canterbury (UC). Additional testing of survey data was undertaken in the present study, including the use of frequency tables and chi-square testing, to identify any relationships between tax education in secondary schools and perceptions and attitudes held by the survey participants.

Previous studies support the replication and expansion of prior studies as a research technique (Jackson & Milliron, 1986; Richardson & Sawyer, 2001). While many researchers focus on developing their own hypotheses and research, the technique and significance of replicating past studies is often overlooked, despite it being argued to promote higher quality research, enhance the certainty of previous findings and examine the validity of research results (Fischer & Russell, 1991). Consequently, this study employs the use of replication and extension techniques based on the study undertaken by Morgan and Castelyn (2018).

## 4.4 Quantitative Surveys

### 4.4.1 Questionnaire Survey Method

Many studies utilise surveys as a research method to investigate tax behaviour and attitudes, and is commonly used to collect data in the tax field (Jackson & Milliron, 1986; Richardson & Sawyer, 2001; Onu, 2016). Many researchers opt for this method in their studies, with approximately 80% of tax studies employing questionnaire surveys as their primary method of research (Ma, 2017). Creswell (2009) discusses that this is because surveys provide a description of trends and common attitudes of a population through surveying a sample of a population. This study utilises surveys to explore the attitudes of recent high school leavers (first-year undergraduate students) regarding taxes and the tax system, and to analyse the levels of education received by these students in secondary school, to determine if education plays a role in the attitudes held by these students.

### 4.4.2 Sample Size for Surveys

Separate populations were selected for each survey: undergraduate students taking an introductory accounting paper (ACCT102) and undergraduate students taking an introductory science paper (BIOL111/BCHM111). The population of students taking ACCT102 when the survey was conducted totalled 638 students, while the population of students taking the combined course BIOL111/BCHM111 when the survey was conducted totalled 274 students. This results in a combined population of 912 students.

Mellahi and Harris (2016) conducted a literature review on response rates, which revealed that there is no necessary agreed upon minimum response rate. Shih and Fan (2008), who conducted a similar study, reported a mean response rate of internet surveys at 34 per cent. However, Fosnacht et al. (2017) found that response rates as low as 5-10 per cent can still provide useable and reliable results, and online surveys often generally receive a lower response rate than other methods of survey distribution, such as mail or face-to-face surveys (Johnson & Owens, 2003). The number of respondents for the first survey distributed to ACCT102 totalled 60, while the number of respondents for the second survey distributed to BIOL111/BCHM111 totalled 33. As a result, a total of 93 respondents participated in the surveys of this study. While the author aimed for an overall response rate of approximately 30 per cent, the response rates of each survey were lower than the author was expecting, with response rates of 9% and 12% for the

ACCT102 class and the BIOL111/BCHM111 class, respectively, and an overall response rate across the two surveys of 10% per cent.

#### 4.4.3 Questionnaire Design

Before completing the questionnaire, all respondents were required to read the information sheet provided at the beginning of the questionnaire that explained the purpose of the research, why they were chosen to participate, and emphasised the anonymity and voluntary participation of the surveys. After reading this information, respondents could choose whether they wanted to continue to complete the questionnaire.

The questionnaire comprised 23 questions. Questions 1 through 12 consisted of questions relating to participants' demographic background, including their gender, age, citizenship/residency, type of enrolment at UC and employment status. This series of questions also asked the participants to identify what type of secondary school they attended, at what year they left secondary school, the location of their secondary school, if they took a BEA (Business, Economics, or Accounting) subject at secondary school, and if they undertook NCEA (National Certificate of Educational Achievement) qualifications or similar. Questions 13, 14 and 15 related to participants' knowledge regarding taxes, including whether they received structured lessons regarding taxation in secondary school, what types of information was conveyed and what subjects contained this information. Questions 16 and 17 asked the participants to rate their knowledge level on various areas of taxation, and whether they felt it was/would have been beneficial to have studied taxation in secondary school. Questions 18 through 23 related to the participants' attitudes and perceptions towards various elements of taxes and the tax system in New Zealand. Most questions included in the questionnaire replicated Morgan and Castelyn's (2018) study. However, as their study was conducted at an Australian university, small adjustments were made to the questions to better suit the New Zealand context while still addressing the same key areas. Additional questions were also included to provide the author with additional insights that were not addressed in Morgan and Castelyn's (2018) study, but were of interest in the present study. It was emphasised that respondents must answer each question before moving to the next question, and only fully completed questionnaires were recorded as valid data in this study.

#### 4.4.4 Pilot Testing

Pilot testing is utilised to strengthen the validity of the research and enable the survey questions to be more efficient in addressing the topic in question (McKerchar, 2010). This allows the researcher to identify and correct any possible problems that may occur during data collections and/or data analysis.

A draft copy of the questionnaire was provided to three postgraduate students in commerce, an undergraduate student in engineering, and an undergraduate student in psychology, who all completed the questionnaire and provided feedback to the researcher regarding the readability and understandability of the questions. Based on the feedback from these students, the researcher updated and refined the questionnaire to improve its understandability, particularly in response to the feedback from the non-commerce students. The same students were then asked to complete the updated questionnaire a second time to ensure that it was understandable and easy to complete. Furthermore, these respondents noted that they took approximately 5-10 minutes to complete the questionnaire in full.

#### 4.4.5 Questionnaire Data Collection Procedure

There are three main ways to distribute a questionnaire online: sending the entire questionnaire through email, sending an email with a hyperlink to the survey, or placing a general request for respondents in an electronic communication environment or on a web page (Van Selm & Jankowski, 2006, p442). Furthermore, Sue and Ritter (2012) acknowledged that researchers should advertise their survey on sites related to their target groups. Regarding the present study, the target groups are undergraduate students at UC; therefore, the survey links should be posted onto a study-related website that they often access. The researcher contacted the course co-ordinators of two courses at UC via email, specifically, one introductory accounting course (ACCT102) and one introductory science course (BIOL111/BCHM111). After gaining permission from each course co-ordinator to go ahead with the questionnaire, the researcher provided each course coordinator with the link to the questionnaire with a display message to post alongside the link. The researcher asked the course co-ordinators to post these onto their course pages on “Learn”, a website that allows UC students to view information and updates about the courses they are enrolled in.

The email sent to the two course co-ordinators explained the purpose of the research being conducted and why their respective course was chosen as a target group. The researcher also placed emphasis on the anonymity and confidentiality of participating in the survey. The message to be posted to students on “Learn” contained similar content to the email to the course co-ordinators but was reworded to be clearer and easier for students to follow. Two weeks after the initial message and questionnaire link was posted to students, the researcher emailed the course co-ordinators to post to their respective “Learn” pages a reminder about the questionnaire. Only one of two course co-ordinators responded to this email, so the researcher cannot confirm if both reminders were posted to “Learn”.

Primarily, a time period of two weeks was set for both surveys. However, because of a low response rate from the accounting students, and an even lower response rate from the science students, the researcher extended this time period for an additional two weeks and requested the course co-ordinators to remind their students about the questionnaire. Over the following two weeks, an increase in responses for both surveys were noted, with 20 additional responses from the accounting students and 16 additional responses from the science students.

#### 4.4.6 Survey Data Analysis

##### 4.4.6.1 Frequency Tables

A frequency table is used to examine the distribution of respondent’s answers for each question in the survey. The use of frequency tables in the present study allows the researcher to understand which attitudes and understandings are common or uncommon within each target group, and to distinguish any differences between the two groups.

##### 4.4.6.2 Chi-square Testing

For the purposes of this study, chi-square testing is used to estimate the relationship between tax education levels and the attitudes and perceptions of students towards taxes and the tax system. Chi-square tests were conducted for the data from each survey and were compared during data analysis to determine if there were any differences between the two groups. Based on the p-values provided by Statistical Product and Service Solutions (SPSS), the Chi-square testing allows the researcher to evaluate whether any significant association exists between tax education and perceptions and attitudes held by students. If the p-value reported from a Chi-square test is less than 0.05, then the research can conclude that there is a statistically significant

relationship. Conversely, if the p-value reported is greater than 0.05, then the result is considered to not be statistically significant.

## 4.5 Semi-structured Interviews

### 4.5.1 Semi-structured Interviews

The qualitative interviews involved questions designed by the researcher. These questions were constructed in a way that allows the interview participants to answer based on their personal knowledge and experience. Face-to-face interviews provide the advantage of allowing the researcher to gain insights by observing the interview participant's body language, face expressions, reactions and other non-verbal cues that otherwise would not have been noticed if conducted over the phone or through message (McKerchar, 2010).

There are three main categories of interviews: structured interviews, semi-structured interviews and unstructured interviews (Bell et al., 2018). Semi-structured interviews allow the researcher to prepare questions on the interview topic prior to commencing the interview, while still giving the interview participant flexibility in the way they respond (Bell et al., 2018). The advantage of a semi-structured interview is that it allows the researcher to ask additional questions that are not necessarily included in their preparation but come naturally through discussion during the interview to gain deeper understanding in what the interviewee is explaining. However, it is important that researchers must still ask all interview participants the same questions as much as possible to uphold consistency across all interviews. Unstructured interviews typically consist of multiple intermittent conversations which are organised into topic-related statements by the researcher after the interview has commenced (Bell et al., 2018). Questions used in unstructured interviews tend to be shorter and easier to understand to allow the conversation to remain unrestrained and unstructured. With structured interviews, the researcher prepares questions and follows this framework strictly during the interview (Saunders et al., 2009).

Semi-structured interviews lie as a happy medium between unstructured and structured interviews. They are inherently more coordinated than unstructured interviews as the researcher has a prepared list of questions (Saunders et al., 2009), but allow more flexibility in the way the conversation flows compared to structured interviews (Lincoln & Guba, 1985). Employing semi-structured interviews allows the researcher to ask questions in a different order to suit the flow of the conversation and allow for a greater depth of discussion (Bell et

al., 2018). Semi-structured interviews also allow the researcher to ask additional questions that naturally arise through conversation, which can lead to further insights being made by the researcher than if they were to stick to their pre-prepared questions. Therefore, this study utilised semi-structured interviews to determine if the current New Zealand secondary school curriculum contains any tax education, and to explore the feelings and opinions of high school teachers across New Zealand regarding tax education in secondary schools.

#### 4.5.2 Sampling Techniques and Interview Design

Researchers are guided by the purpose of their research when determining their sample selection for qualitative interviews (McKerchar, 2010). Therefore, the sampling strategy used in this study is purposive sampling. Purposive sampling is described as “the deliberate choice of a participant due to the qualities the participant possesses” (Etikan et al., 2016a). As the purpose of this phase of research was to gain insight into the current levels of tax education included in New Zealand secondary school, the researcher opted to select high school teachers who teach commerce/social sciences across New Zealand as their sample for the qualitative research component of this study, as this group would likely have the knowledge and experience required to be able to answer the interview questions appropriately.

Eight high school teachers across New Zealand were recruited, and the interviews were typically between 20 and 30 minutes in length. Six of these interviews were conducted via Zoom Video Communications (Zoom) and recorded using Zoom’s automated recording feature. One interview was conducted via a phone call due to technological issues getting Zoom to run at the interviewee’s end, and one interview was conducted face-to-face out of personal preference by the interviewee. These two interviews were recorded via audio recording. Four participants were based in Christchurch, and one each in Palmerston North, Tauranga, Nelson and Masterton, respectively (See Table 4.1). Participants’ work experience was varied, with participants having between five and 37 years of teaching experience. No financial incentives or incentives of any other kind were provided in return for participation in the interviews.

Desired participants were selected via publicly available information, and the researcher emailed the principal of each of the schools that each interviewee is employed at to gain permission before contacting the teachers. This email contained an explanation of why they were being contacted, what the purpose of the research was, and emphasised confidentiality

and anonymity of participation. After permission was received from the school’s principal, the researcher sent an email to the teacher containing similar content, with the information sheet and consent forms attached to the email. Participants were also notified that such interviews were fully confidential, that any information used from the interview will be presented anonymously, and that they had the option to withdraw at any time. If the participant agreed to be interviewed, they returned a signed consent form and any questions they had were answered by the researcher. At the start of the interviews, participants were asked if they give permission for the interview to be recorded, and that the data collected would be used in a research project. All recorded interviews were transcribed by the researcher and sent to the relevant participant (upon request) for review. No interview transcripts were amended in this study.

**Table 4.1** *Interview Participants*

Participant	Gender	Teaching Position	Years of Experience	Location	Type of School	Decile
A	Male	Commerce	16	Palmerston North	State boys	8
B	Female	Social Sciences/Commerce	21	Christchurch	Private girls	10
C	Female	Commerce	37	Tauranga	State girls	6
D	Male	Commerce	29	Christchurch	State co-ed	7
E	Female	Social Sciences/Economics	5	Nelson	Integrated co-ed	8
F	Male	Commerce	32	Christchurch	State boys	10
G	Male	Social Sciences	30	Masterton	State-integrated boys	9
H	Female	Commerce	30	Christchurch	State-integrated girls	7

A factor to consider when utilising purposive sampling is saturation (Etikan et al., 2016a). Saturation is the point at which no substantially new data is being provided from additional interviews; the researcher sees similar responses repeatedly and becomes empirically confident that they have reached saturation (Guest et al., 2006). In the present study, the researcher conducted her interviews until no new information was being conveyed by a participant. While

eight participants were recruited, the researcher understands that the concept of saturation is subjective in nature and cannot guarantee that additional interviews would have produced no new information. Be that as it may, the researcher was content with her findings and noticed similar responses occurring nearing the completion of their interview phase. Hence, the researcher decided to cease interviewing participants as saturation was high.

#### 4.6 Ethical Considerations

As this study involves human participation, prior approval was obtained from the Human Research Ethics Committee (HREC) of UC before the data gathering stages of this study commenced (see Appendix 1). This included ethical considerations, including the survey and interviews being voluntary, anonymous and confidential, gaining informed consent from participants and emphasising the participants' right to withdraw their participation from the survey or interview at any time. This approval was outlined in the information sheets provided to participants prior to participating in the survey or interview (see Appendix 2).

#### 4.7 Research Questions

The key research questions addressed in this thesis are as follows:

RQ1: How does tax knowledge impact taxpayer compliance and attitudes?

RQ2: Would increasing taxpayer education levels help to enhance taxpayer compliance and attitudes?

The second key research question (RQ2) can be broken down into three aspects to answer within the study:

RQ2(a): Should New Zealand implement a mandatory taxation education programme in New Zealand secondary schools?

RQ2(b): How would this impact taxpayer knowledge?

RQ2(c): How would this enhance taxpayer compliance?

The purpose of these research questions is to assess whether or not increasing taxpayer education levels in New Zealand secondary schools would help to enhance taxpayers' compliance behaviour and attitudes towards the tax system, from the perspectives of both high school teachers across New Zealand and recent high school graduates at UC.

## 4.8 Summary

This chapter outlines the methodology and research design adopted for this study. The researcher adopted an interpretivist approach with mixed-methodology, as she felt that this approach was best suited to the purpose of her research. This chapter also discusses how this study replicates and extends Morgan and Castelyn's (2018) study.

In terms of method, the researcher adopted both quantitative and qualitative strategies. The questionnaire utilised in the survey replicated Morgan and Castelyn's (2018) Australian research, with some adjustments to better suit the New Zealand jurisdiction. Two identical questionnaires comprising 23 questions were distributed online to two groups: undergraduate students taking an introductory accounting course, and undergraduate students taking an introductory science course. This phase of research had an initial period of two weeks but was extended an additional two weeks with a follow-up reminder in an attempt to increase the response rates of both surveys. Preliminary pilot testing was also conducted prior to the distribution of surveys to the target groups, to ensure that the survey design was easy to understand and complete, and to strengthen internal validity. Finally, the researcher generated frequency tables and chi-square tests in her data analysis to examine the relationship between tax education and participants' attitudes towards taxes and the tax system.

In the second phase of research, the researcher conducted semi-structured interviews with high school teachers across New Zealand. Eight participants were recruited via publicly available information utilising purposive sampling, with permission granted from the principal of each respective school, prior to contacting the desired participants. The interview questions were semi-structured, which allowed for greater flexibility for both the participants and the researcher during the interview process. All interviewees were asked whether they agreed to the interview being recorded. Six of the eight interviews were conducted via Zoom and recorded using Zoom's automated recording feature. One interview was conducted via a phone call due to technological issues and was recorded via audio recording. One interview was conducted face-to-face by personal preference of the interviewee and was also recorded via audio recording. All transcriptions were completed by the researcher and provided to the respective participant (upon request) within four weeks of the interview date. Human ethics approval was also granted from the HREC of UC before the research data gathering phase commenced. Chapters 5 and 6 detail the findings and discussions of the surveys and interviews.



## Chapter 5 - Findings of Surveys

### 5.1 Introduction

This chapter includes the survey response analyses for both undergraduate courses, and the analysis of the Chi-square tests for each survey. The Chi-square testing method has been utilised to determine if tax education has any impact on students' attitudes and perceptions towards various factors relating to taxes and the tax system. The response rates, demographic background, and outcomes of each survey are compared with Morgan and Castelyn's (2018) results, to see if there are any similarities or disparities between jurisdictions. Two identical surveys were distributed for comparative purposes, one to undergraduate students taking a first-year accounting paper and one to undergraduate students taking a first-year science paper. For the purposes of this thesis, the survey distributed to students taking the first-year accounting paper will be referred to as 'Survey One', and the survey distributed to students taking the first-year science paper will be referred to as 'Survey Two'.

### 5.2 Survey Response Analysis

#### 5.2.1 Response Rate

The data collection for both surveys was undertaken between April 2023 and May 2023. Survey One was distributed to 638 students during this period. Sixty of the returned surveys were fully completed and are analysed in this chapter. Survey Two was distributed to 274 students during this period. Thirty-three of the returned surveys were fully completed and are also analysed in this chapter. Table 5.1 shows that a higher response rate was recorded from the science students (Survey Two) than the accounting students (Survey One).

**Table 5.1** *Survey Response Rates*

<b>Particulars</b>	<b>Population</b>	<b>Quantity</b>	<b>Response Rate %</b>
Survey One	638	60	9%
Survey Two	274	33	12%
<b>Total</b>	912	93	10%

The response rates recorded in this study are considerably lower than the response rate recorded in Morgan and Castelyn's (2018) study. This is likely due to the methods of distribution utilised by Morgan and Castelyn (2018), where their survey was distributed via two methods – email

with an announcement made on the university’s web-based learning management system (Blackboard), and online through the university’s tax team social media profile. In comparison, the surveys of the present study were administered to students simply via an announcement made on UC’s web-based learning management system (AKO: LEARN). However, the researcher is confident that the sample sizes of the present study are significant enough to provide some interesting insights.

### 5.3 Demographics

Tables 5.2 to 5.11 display separately the demographic backgrounds of survey respondents for each survey in this study and for Morgan and Castelyn’s (2018) study. Participant profiles consist of information regarding gender, age, citizenship/residency status, employment status, and their secondary school attendance details.

#### 5.3.1 Gender

Table 5.2 shows that the gender distribution of Survey One respondents was relatively equal, with 43% of respondents being female and 57% of respondents being male. This finding differs from Morgan and Castelyn’s (2018) study, where more respondents were female than male (61% female, 39% male).

Table 5.3 reveals that a majority of Survey Two respondents were female (85%), contrastingly to the respondents of Survey One. This finding is more in line with the findings of Morgan and Castelyn (2018), where more females participated than males, but with greater proportion in the present study.

**Table 5.2** *Gender of Survey One Respondents*

<b>Gender</b>	<b>Frequency counts</b>	<b>%</b>
Female	26	43.3
Male	34	56.7
Other	0	0
<b>Total</b>	60	100

**Table 5.3** *Gender of Survey Two Respondents*

<b>Gender</b>	<b>Frequency counts</b>	<b>%</b>
Female	28	84.8
Male	5	15.2
Other	0	0
<b>Total</b>	33	100

### 5.3.2 Age

Table 5.4 shows that nearly all respondents of Survey One (98%) are between 17 and 24 years of age, with only 2% (one participant) between the ages of 25 and 34 years. Table 5.5 shows similar results for Survey Two, with 100% of respondents falling in the 17-24 year age bracket. Again, this differs from Morgan and Castelyn’s (2018) study, where approximately 52% of respondents were between 18 and 24 years of age, and recorded participants with ages up to the 55–64 year age bracket.

**Table 5.4** *Age of Survey One Respondents*

<b>Age</b>	<b>Frequency counts</b>	<b>%</b>
17-24	59	98.3
25-34	1	1.7
35+	0	0
<b>Total</b>	60	100

**Table 5.5** *Age of Survey Two Respondents*

<b>Age</b>	<b>Frequency counts</b>	<b>%</b>
17-24	33	100.0
25-34	0	0
35+	0	0
<b>Total</b>	33	100

### 5.3.3 Citizenship/Permanent Residency

Tables 5.6 and 5.7 show that predominantly all respondents of both surveys are citizens or permanent residents of New Zealand (98% and 97% for Survey One and Survey Two,

respectively). This is similar to Morgan and Castelyn’s (2018) study, where 81% were citizens in the jurisdiction that their study was conducted (Australia).

**Table 5.6** *Citizenship/Residency of Survey One Respondents*

<b>Citizen/Permanent Resident of New Zealand</b>	<b>Frequency counts</b>	<b>%</b>
Yes	59	98.3
No	1	1.7
<b>Total</b>	<b>60</b>	<b>100</b>

**Table 5.7** *Citizenship/Residency of Survey Two Respondents*

<b>Citizen/Permanent Resident of New Zealand</b>	<b>Frequency counts</b>	<b>%</b>
Yes	32	97.0
No	1	3.0
<b>Total</b>	<b>33</b>	<b>100</b>

#### 5.3.4 Employment Status

Regarding employment status, respondents had four options to choose from. Three of these options regarded some type of employment (full-time, part-time, or casual), while the fourth option are for those who are not currently employed.

Table 5.8 shows that 62% of Survey One respondents were employed, and 23% were not employed. Similarly, Table 5.9 displays that 54% of Survey Two respondents were employed, while 46% were unemployed at the time the survey was conducted. These findings are similar to Morgan and Castelyn’s (2018) study, where 64.5% of respondents were employed.

**Table 5.8** *Employment Status of Survey One Respondents*

<b>Employment Status</b>	<b>Frequency counts</b>	<b>%</b>
Full time	1	1.7
Part time	21	35.0
Casual (includes zero-hour contracts)	15	25.0
Not employed	23	38.3
<b>Total</b>	<b>60</b>	<b>100</b>

**Table 5.9** *Employment Status of Survey Two Respondents*

<b>Employment Status</b>	<b>Frequency counts</b>	<b>%</b>
Full time	0	0
Part time	9	27.3
Casual (includes zero-hour contracts)	9	27.3
Not employed	15	45.4
<b>Total</b>	<b>33</b>	<b>100</b>

### 5.3.5 Secondary School Attendance

Tables 5.10 and 5.11 show that 73% of respondents from both surveys left secondary school in 2022. This was expected by the researcher as this was the year prior to commencement of the present study, and it is a common choice for high school leavers to go directly into tertiary study the year following high school graduation. Comparatively with Morgan and Castelyn's (2018) study, only 3.4% of respondents had left secondary school in the most recent year option available in their data (2014), while 33.2% had left secondary school between 2011 and 2013, and 32.2% selected 'Other'. As their study was published in 2018, it is possible that the respondents who selected 'Other' graduated secondary school between 2014 and 2017, although this is not clarified in their study.

**Table 5.10** *Secondary School Leaving Year of Survey One Respondents*

<b>Year</b>	<b>Frequency counts</b>	<b>%</b>
2022	44	73.3
2021	10	16.7
2020	1	1.7
2019	3	5.0
Other	2	3.3
<b>Total</b>	<b>60</b>	<b>100</b>

**Table 5. 11** *Secondary School Leaving Year of Survey Two Respondents*

<b>Year</b>	<b>Frequency counts</b>	<b>%</b>
2022	24	72.7
2021	5	15.2
2020	2	6.1
2019	0	0
2018	1	3.0
Other	1	3.0
<b>Total</b>	<b>33</b>	<b>100</b>

#### 5.3.6 Type of Secondary School Attended

The majority of Survey One respondents (67%) attended a state secondary school, with 40% attending a state co-educational school. 14% of respondents attended an integrated school (privately owned but receive government funding), and 17% of respondents attended a private secondary school. Table 5.13 displays similar results, with 67% of respondents also attending a state secondary school, 9% attending an integrated secondary school, and 12% attending a private secondary school. These results are fairly similar to the findings of Morgan and Castelyn (2018), where approximately 49% of respondents attended a state government school.

**Table 5.12** *Type of Secondary School Attended by Survey One Respondents*

<b>Year</b>	<b>Frequency counts</b>	<b>%</b>
State boys	12	20.0
State girls	4	6.7
State co-ed	24	40
Integrated boys	1	1.7
Integrated girls	3	5
Integrated co-ed	4	6.7
Private boys	2	3.3
Private girls	1	1.7
Private co-ed	7	11.7
Other	2	3.3
<b>Total</b>	<b>60</b>	<b>100</b>

**Table 5.13** *Type of Secondary School Attended by Survey Two Respondents*

<b>Year</b>	<b>Frequency counts</b>	<b>%</b>
State boys	2	6.1
State girls	3	9.1
State co-ed	17	51.5
Integrated boys	0	0
Integrated girls	1	3.0
Integrated co-ed	2	6.1
Private boys	0	0
Private girls	2	6.1
Private co-ed	2	6.1
Other	4	12.0
<b>Total</b>	<b>33</b>	<b>100</b>

### 5.3.7 Location of Secondary School Attended

Table 5.14 shows that more than half of Survey One respondents (55%) attended secondary school in the Canterbury area; similarly in Table 5.15, more than half of Survey Two Respondents (52%) attended secondary school in the Canterbury area. This was somewhat

expected, as this study was conducted in the Canterbury area. Morgan and Castelyn's (2018) study reported that approximately 12% of respondents came from Perth, the area in which their study was conducted.

**Table 5.14** *Location of Secondary School of Survey One Respondents*

<b>Year</b>	<b>Frequency counts</b>	<b>%</b>
Canterbury	33	55.0
Otago	0	0
Southland	2	3.3
West Coast	1	1.7
Tasman/Nelson	2	3.3
Marlborough	1	1.7
Wellington	7	11.7
Auckland	7	11.7
Other	7	11.7
<b>Total</b>	<b>60</b>	<b>100</b>

**Table 5.15** *Location of Secondary School of Survey Two Respondents*

<b>Year</b>	<b>Frequency counts</b>	<b>%</b>
Canterbury	17	51.5
Otago	0	0
Southland	0	0
West Coast	1	3.0
Tasman/Nelson	2	6.1
Marlborough	0	0
Wellington	3	9.1
Auckland	1	3.0
Other	9	27.3
<b>Total</b>	<b>33</b>	<b>100</b>

### 5.3.8 University Enrolment Status

Tables 5.16 and 5.17 show that nearly all respondents from each survey are enrolled as a full-time student at UC, with 97% of Survey One respondents and 94% of Survey Two respondents

being enrolled as a full-time student. These results differ from those of Morgan and Castelyn (2018), who reported that approximately 56% of respondents were full-time students in their study. They also recorded approximately 21% of respondents who were not currently enrolled at an Australian university, which they speculated was due to past students or recent graduates completing their survey. This option was not provided in the present study, as the researcher wanted to target specifically undergraduate students at UC.

**Table 5.16** *University Enrolment Status of Survey One Respondents*

<b>Enrolment Status</b>	<b>Frequency counts</b>	<b>%</b>
Full time	58	96.7
Part time	2	3.3
<b>Total</b>	<b>60</b>	<b>100</b>

**Table 5.17** *University Enrolment Status of Survey Two Respondents*

<b>Enrolment Status</b>	<b>Frequency counts</b>	<b>%</b>
Full time	31	93.9
Part time	2	6.1
<b>Total</b>	<b>33</b>	<b>100</b>

### 5.3.9 Business, Economics, Accounting (BEA) Subject at Secondary School

When asked if they took a BEA subject at secondary school, 85% of Survey One respondents selected ‘Yes’, as shown in Table 5.18. Contrastingly, only 39% of Survey Two respondents took a BEA subject in secondary school (see Table 5.19). This was expected, as often students will enrol in tertiary courses that align with what they took in secondary school. This additional question was added to the present study’s questionnaire, that was not present in Morgan and Castelyn’s (2018) study, in order to give the researcher a better understanding of survey participants’ secondary school experience with regards to tax education.

**Table 5.18** *BEA Subject Attendance of Survey One Respondents*

<b>BEA Subject?</b>	<b>Frequency counts</b>	<b>%</b>
Yes	51	85.0
No	9	15.0
<b>Total</b>	<b>60</b>	<b>100</b>

**Table 5.19** *BEA Subject Attendance of Survey Two Respondents*

<b>BEA Subject?</b>	<b>Frequency counts</b>	<b>%</b>
Yes	13	39.4
No	20	60.6
<b>Total</b>	<b>33</b>	<b>100</b>

#### 5.3.10 NCEA Qualifications at Secondary School

As above, this question was not in Morgan and Castelyn's (2018) study. This is an additional question added to the present study to better reflect the New Zealand context. As expected, majority of respondents undertook NCEA qualifications in secondary school (95% and 94% for Survey One and Survey Two, respectively) which can be seen in Tables 5.20 and 5.21 below. The few respondents of each survey who selected 'No' clarified that they took an NCEA equivalent qualification or attended secondary school overseas.

**Table 5.20** *NCEA Undertaking of Survey One Respondents*

<b>NCEA Qualifications?</b>	<b>Frequency counts</b>	<b>%</b>
Yes	57	95.0
No	3	5.0
<b>Total</b>	<b>60</b>	<b>100</b>

**Table 5.21** *NCEA Undertaking of Survey Two Respondents*

<b>NCEA Qualifications?</b>	<b>Frequency counts</b>	<b>%</b>
Yes	31	93.9
No	2	6.1
<b>Total</b>	<b>33</b>	<b>100</b>

## 5.4 Survey Findings

The remaining questions in the survey relate to what types of tax information participants received in secondary school (if any), and their attitudes and perceptions towards taxes, the tax system, and tax education.

### 5.4.1 Lessons on Tax

When asked if their secondary school provided structured lessons that explained the purpose of taxation, one third (30%) of Survey One Respondents selected ‘Yes’, while only 15% of Survey Two respondents selected ‘Yes’. This can be seen in Tables 5.22 and 5.23 below.

**Table 5.22** *Lessons on Tax Survey One Respondents*

<b>Lessons on Tax?</b>	<b>Frequency counts</b>	<b>%</b>
Yes	18	30.0
No	42	70.0
<b>Total</b>	60	100

**Table 5.23** *Lessons on Tax Survey Two Respondents*

<b>Lessons on Tax?</b>	<b>Frequency counts</b>	<b>%</b>
Yes	5	15.2
No	28	84.8
<b>Total</b>	33	100

The results of this question for both surveys were expected, showcasing an overall lack of structured taxation education within the New Zealand secondary school curriculum. Of the 18 respondents who selected ‘Yes’ in Survey One, 11 went to a state school, six went to an integrated school, and one did not specify the type of school they attended. Comparatively, of the five respondents who selected ‘Yes’ in Survey Two, three attended a state school, one attended a private school, and one did not specify the type of school they attended. From these results, it may be said that participants who undertook their secondary school education through either a state school or an integrated school received more exposure to taxation education during their time at secondary school.

#### 5.4.2 Types of Tax Information Received

The purpose of this question was to evaluate the types of tax information taught to respondents during their time at secondary school, based on the number of respondents who did receive lessons on tax during their time at secondary school.

**Table 5.24** *Types of Tax Information Received Survey One Respondents*

<b>Information included</b>	<b>Frequency counts</b>
The role of taxation in society	12
Organisations involved within the taxation system	5
How to complete a tax return	1
Types of assessable income	1
Types of deductible expenses	2
How taxes are used in society	14
Types of different business structures, and the tax that applies to them	9
Other	0

**Table 5.25** *Types of Tax Information Received Survey One Respondents*

<b>Information included</b>	<b>Frequency counts</b>
The role of taxation in society	3
Organisations involved within the taxation system	2
How to complete a tax return	1
Types of assessable income	2
Types of deductible expenses	3
How taxes are used in society	4
Types of different business structures, and the tax that applies to them	1
Other	1

These results were anticipated, and exemplify the lack of taxation education provided to secondary school students. Of those who selected ‘Yes’ to the above question in Survey One, 77.8% reported learning about how taxes are used in society, and 66.7% reported learning about the role of taxation in society. Similarly in Survey Two, 60% and 80% reported learning about how taxes are used in society and the role of taxes in society, respectively. Sixty per cent of respondents in Survey Two who said ‘Yes’ to the above question also reported receiving

education regarding the types of deductible expenses. However, information related to the organisations involved, how to complete a tax return, types of assessable income and the different types of business structures, were very limited.

#### 5.4.3 Which School Subject Included Tax Education?

Prior to proceeding with the analysis of this question, the researcher wants to note that ‘Commerce’ includes subjects such as Accounting, Economics and Business Studies. These subjects, however, are mostly elective and do not necessarily form part of the core curriculum that all students receive.

**Table 5.26** *Subjects including Tax Education Survey One Respondents*

<b>What subject was it included in?</b>	<b>Frequency counts</b>
Mathematics	4
Technologies	0
Commerce	15
History	1
Other Social Sciences	1
Other	1

**Table 5.27** *Subjects including Tax Education Survey Two Respondents*

<b>What subject was it included in?</b>	<b>Frequency counts</b>
Mathematics	0
Technologies	0
Commerce	3
History	0
Other Social Sciences	1
Other	1

These results show that while there is some form of tax education that exists in the secondary school curriculum, the distribution of this education is predominantly in Commerce subjects for both Survey One and Survey Two respondents. A total of 83.3% of Survey One respondents and 60% of Survey Two respondents (who did receive structured lessons on tax in secondary school), respectively reported receiving tax education in Commerce. As stated above, the

'Commerce' categories consists of elective subjects, meaning that only a proportion of secondary school students would receive the necessary learning in respect of tax as it does not seem to currently be disseminated through the use of mandatory subjects.

#### 5.4.4 Rating of Knowledge

Tables 5.28 and 5.29 reflect the current confidence levels of the respondents in complying with their tax obligations. As expected, the responses of 'Poor' to 'Very Poor' dominated a majority of the fields. Survey One respondents reported a slightly higher rating average than Survey Two respondents for the purposes of tax in society and general understanding of tax responsibilities, but the rating averages across all other fields was quite low for both survey groups. This illustrates that both survey groups do not feel very confident when it comes to complying with their tax obligations. This was particularly noticeable regarding how to complete a tax return and how to understand a tax assessment, the response of 'Poor' to 'Very Poor' equated to 76.7% and 70%, respectively for Survey One respondents. Similarly, 87.9% of Survey Two respondents selected 'Poor' or 'Very Poor' for how to complete a tax return, and 97% selected the same responses for how to understand a tax assessment. The results from this question raise concerns as it shows how little confidence and knowledge the sample groups have regarding these areas of tax, further illustrating the need for structured taxation education in secondary schools.

**Table 5.28** Knowledge Ratings of Survey One Respondents

<b>Answer options</b>	<b>Very Poor</b>	<b>Poor</b>	<b>Average</b>	<b>Good</b>	<b>Excellent</b>	<b>Rating Average</b>	<b>Response (n)</b>
Purposes of tax in society	1	5	17	30	7	3.62	60
General understanding of tax responsibilities	4	13	19	19	5	3.13	60
Where to get assistance regarding tax responsibilities	8	23	13	12	4	2.68	60
Which stakeholders are part of the tax system	12	21	16	8	3	2.48	60
How to complete a tax return	25	21	5	7	2	2.00	60
How to understand a tax assessment	20	22	7	9	2	2.18	60

**Table 5.29** Knowledge Ratings of Survey Two Respondents

<b>Answer options</b>	<b>Very Poor</b>	<b>Poor</b>	<b>Average</b>	<b>Good</b>	<b>Excellent</b>	<b>Rating Average</b>	<b>Response (n)</b>
Purposes of tax in society	5	6	9	10	3	3.00	33
General understanding of tax responsibilities	7	12	8	6	0	2.39	33
Where to get assistance regarding tax responsibilities	16	7	6	3	1	1.97	33
Which stakeholders are part of the tax system	19	10	2	1	1	1.64	33
How to complete a tax return	23	6	4	0	0	1.42	33
How to understand a tax assessment	23	9	0	1	0	1.36	33

The Chi-square tests do not reveal any significant differences at the 5% level of confidence between tax education and Survey One respondents' knowledge on each area listed in Table 5.28. The p-values generated from this test are presented in Table 5.30. As such the Chi-square tests suggest that tax education does not play an important role in students' knowledge levels regarding the areas listed for Survey One respondents.

**Table 5.30** *Chi-Square Test Results 1*

	<b>Test Statistic</b>	<b>Degrees of Freedom</b>	<b>P-value</b>
Purposes of tax in society	6.897	4	0.141
General understanding of tax responsibilities	4.715	4	0.318
Where to get assistance regarding tax responsibilities	3.570	4	0.467
Which stakeholders are part of the tax system	3.977	4	0.409
How to complete a tax return	9.261	4	0.055
How to understand a tax assessment	5.988	4	0.200

The Chi-square tests for Survey Two are presented in Table 5.31. The chi-square test results are significantly different at the 5% level of confidence between tax education and 'Which stakeholders are part of the tax system' ( $t = 18.630$ ,  $df = 4$ ,  $p = <0.001$ ). Similarly, the chi-square test results are also significantly different at the 5% level of confidence between tax education and 'How to understand a tax assessment' ( $t = 6.696$ ,  $df = 4$ ,  $p = 0.035$ ), which suggest that tax education plays an important role in students' knowledge and understanding regarding which stakeholders are involved in tax, and how to understand a tax assessment.

**Table 5.31** *Chi-Square Test Results 2*

	<b>Test Statistic</b>	<b>Degrees of Freedom</b>	<b>P-value</b>
Purposes of tax in society	2.231	4	0.693
General understanding of tax responsibilities	5.266	4	0.153
Where to get assistance regarding tax responsibilities	3.090	4	0.543
Which stakeholders are part of the tax system	18.630	4	< 0.001
How to complete a tax return	1.463	4	0.481
How to understand a tax assessment	6.696	4	0.035

#### 5.4.5 Beneficial to Receive Tax Education?

Tables 5.32 and 5.33 reflect the responses from participants regarding whether or not they feel it would have been beneficial to receive tax education when they attended secondary school. As expected, 83.3% and 84.8% of Survey One and Survey Two respondents, respectively, felt that it would have been beneficial to receive this type of education in secondary school, with a further 13.3% and 15.2% of Survey One and Survey Two respondents, respectively, feeling that it *may* have been beneficial. Only two respondents from both studies combined felt that it would not have been beneficial.

**Table 5.32** *Survey One Respondents Opinions on Tax Education being Beneficial*

<b>Beneficial?</b>	<b>Frequency counts</b>	<b>%</b>
Yes	50	83.3
Maybe	8	13.3
No	2	3.3
<b>Total</b>	<b>60</b>	<b>100</b>

**Table 5.33** *Survey Two Respondents Opinions on Tax Education being Beneficial*

<b>Beneficial?</b>	<b>Frequency counts</b>	<b>%</b>
Yes	28	84.8
Maybe	5	15.2
No	0	0
<b>Total</b>	<b>33</b>	<b>100</b>

These results show an immensely favourable response to this question, illustrating that participants recognise the value associated with taxation education, and further reflects the demand for structured tax education in New Zealand secondary schools.

#### 5.4.6 Understanding what Taxes do for Society and Taxpayer Rights

Tables 5.34 and 5.35 display the responses for the question ‘Do you feel that students should know about the New Zealand taxation system so that they understand what their taxes do for society?’ As expected, an overwhelming majority (98%) of Survey One respondents, and all

of Survey Two respondents, think that students should learn about the New Zealand tax system so that they are aware of and recognise what their taxes contribute to in society.

**Table 5.34** *Understanding what Taxes do for Society Survey One Respondents*

<b>Understanding what taxes do for society</b>	<b>Frequency counts</b>	<b>%</b>
Yes	59	98.3
No	1	1.7
<b>Total</b>	60	100

**Table 5.35** *Understanding what Taxes do for Society Taxpayers Survey Two Respondents*

<b>Understanding what taxes do for society</b>	<b>Frequency counts</b>	<b>%</b>
Yes	33	100.0
No	0	0
<b>Total</b>	33	100

Moreover, all respondents from Survey One and Survey Two felt that students should know about the New Zealand taxation system so that they understand their rights as taxpayers (see Tables 5.36 and 5.37).

**Table 5.36** *Understanding Rights as Taxpayers Survey One Respondents*

<b>Understanding rights as taxpayers</b>	<b>Frequency counts</b>	<b>%</b>
Yes	60	100.0
No	0	0
<b>Total</b>	60	100

**Table 5.37** *Understanding Rights as Taxpayers Survey Two Respondents*

<b>Understanding rights as taxpayers</b>	<b>Frequency counts</b>	<b>%</b>
Yes	33	100.0
No	0	0
<b>Total</b>	33	100

The results from these two questions reflect that students think it is important to understand the impact of taxes, both with regards to society and individual taxpayers. This further emphasises the need for tax education so that students are aware of their rights as taxpayers when navigating taxes in the future, and can appreciate how taxes contribute to society in New Zealand.

#### 5.4.7 Perception of New Zealand Tax System and its Management

Table 5.38 shows that over half (57%) of Survey One respondents felt that the New Zealand tax system is understandable, and 30% feel that it is complex or extremely complex. Table 5.39, however, displays that under half (42%) of Survey Two respondents perceive the New Zealand tax system to be understandable, while 48% perceive it to be complex or extremely complex. Given that New Zealand’s tax system is considered to be simpler than many, it is alarming that such a high proportion of respondents perceived New Zealand’s tax system to be complex, and further confirms the value of implementing structured tax education.

**Table 5.38** *Perception of Tax System Survey One Respondents*

<b>How do you perceive the New Zealand tax system</b>	<b>Frequency counts</b>	<b>%</b>
It’s extremely complex	2	3.3
It’s complex	16	26.7
It’s understandable	34	56.7
It’s simple	7	11.7
It’s extremely simple	1	1.7
Total	60	100

**Table 5.39** *Perception of Tax System Survey Two Respondents*

<b>How do you perceive the New Zealand tax system</b>	<b>Frequency counts</b>	<b>%</b>
It's extremely complex	4	12.1
It's complex	12	36.4
It's understandable	14	42.4
It's simple	3	9.1
It's extremely simple	0	0
Total	33	100

The Chi-square test for Survey One does not reveal a significant difference at the 5% level of confidence between tax education and Survey One respondents' perceptions of the complexity of the New Zealand taxation system ( $t = 2.277$ ,  $df = 4$ ,  $p = 0.685$ ). The same conclusion can be drawn from the Chi-square test for Survey Two, where no significant difference was revealed at the 5% level of confidence between tax education and Survey Two respondents' perceptions of the complexity of New Zealand's taxation system ( $t = 3.645$ ,  $df = 4$ ,  $p = 0.302$ ). These results suggest that tax education does not play an important role in students' perceptions towards the complexity of the taxation system in New Zealand.

The management of New Zealand's tax system was overall rated as 'Average' by both survey groups (see Tables 5.40 and 5.41). This result is unsurprising given the limited exposure to tax education that the respondents of this study have received, combined with their perception of the complexity of New Zealand's taxation system.

**Table 5.40** *Rating of System Management Survey One Respondents*

<b>How do you rate IRD mgmt. of tax system</b>	<b>Frequency counts</b>	<b>%</b>
Very poor	1	1.7
Poor	6	10.0
Average	36	60.0
Good	17	28.3
Excellent	0	0
Total	60	100

**Table 5.41** *Rating of System Management Survey Two Respondents*

<b>How do you rate IRD mgmt. of tax system</b>	<b>Frequency counts</b>	<b>%</b>
Very poor	1	3.0
Poor	2	6.1
Average	22	66.7
Good	8	24.2
Excellent	0	0
Total	33	100

The Chi-square test for Survey One does not reveal any significant differences at the 5% level of confidence between tax education and students' rating of tax system management ( $t = 2.032$ ,  $df = 4$ ,  $p = 0.566$ ). Similarly, the Chi-square test for Survey Two does not reveal any significant differences at the 5% level of confidence between tax education and students' rating of tax system management ( $t = 4.272$ ,  $df = 4$ ,  $p = 0.234$ ). These results from both Chi-square tests suggests that tax education does not play an important role in how students perceive the overall management of New Zealand's tax system by the IRD.

#### 5.4.8 Perceptions of Fairness

When asked if they think that New Zealand's tax system is fair, 62% and 64% of Survey One and Survey Two respondents, respectively, felt that it is fair (see Tables 5.42 and 5.43). Five respondents of Survey One and six respondents of Survey Two chose not to answer this question and stated that they felt they did not have enough knowledge on this topic to be able to answer honestly. These results were slightly surprising, who expected more respondents to perceive New Zealand's tax system as unfair due to their perception of its complexity, and from the lack of education received by these groups. It is desirable for society to perceive the tax system as fair to help enhance compliance, so these results are positive in this sense.

**Table 5.42** *Perceived Fairness of System Survey One Respondents*

<b>Is it fair?</b>	<b>Frequency counts</b>	<b>%</b>
Yes	37	61.7
No	18	30.0
Did not vote	5	8.3
<b>Total</b>	<b>60</b>	<b>100</b>

**Table 5.43** *Perceived Fairness of System Survey Two Respondents*

<b>Is it fair?</b>	<b>Frequency counts</b>	<b>%</b>
Yes	21	63.6
No	6	18.2
Did not vote	6	18.2
<b>Total</b>	<b>33</b>	<b>100</b>

The Chi-square test for Survey One are significantly different at the 5% level of confidence between tax education and Survey One respondents' fairness perceptions of the tax system ( $t = 5.107$ ,  $df = 1$ ,  $p = 0.024$ ). This result suggests that tax education *does* play an important role in how students perceive the fairness of New Zealand's tax system.

The Chi-square test for Survey Two, however, reveal no significant differences at the 5% level of confidence between tax education and Survey Two respondents' fairness perceptions of the tax system ( $t = 0.682$ ,  $df = 1$ ,  $p = 0.409$ ). This result, contradictory to above, suggests that tax education *does not* play an important role in how students perceive the fairness of New Zealand's tax system.

#### 5.4.9 Do Taxes Pay for a Civilised Society?

Survey participants were provided with a final question stating: "Oliver Wendell Holmes Jr. once said 'Taxes are what we pay for a civilised society' – do you agree?" This statement made by Oliver Wendell Holmes Jr. infers the importance of tax revenue in the development and progress of a country's society and community. As seen in Tables 5.44 and 5.45, this statement seems to resonate with 83% of Survey One respondents, and 91% of Survey Two respondents. Some respondents opted to leave comments explaining their answer. For example, a Survey One respondent stated: "[Taxes] are required in order for the government to be able to pay for

the public services that are used which are a critical part of society”. Another Survey One respondent also added that taxes are needed to help society as a whole to “continue to grow as an intelligent, safe and just place to live”. A respondent of Survey Two, however, felt differently, stating that taxes “aren’t going to fix the world, we still pay taxes and the world is pretty messed up at the moment still”. Overall, the responses to this statement are mostly positive, which supports the view that students should have a basic understanding of the fundamental principles of taxation which can create an increase in compliance.

**Table 5.44** *Taxes = Civilised Society? Survey One Respondents*

<b>Do you agree with this statement?</b>	<b>Frequency counts</b>	<b>%</b>
Yes	50	83.3
No	10	16.7
<b>Total</b>	<b>60</b>	<b>100</b>

**Table 5.45** *Taxes = Civilised Society? Survey Two Respondents*

<b>Do you agree with this statement?</b>	<b>Frequency counts</b>	<b>%</b>
Yes	30	90.9
No	3	9.1
<b>Total</b>	<b>33</b>	<b>100</b>

## 5.5 Discussion of Survey Findings

Questions 13 to 23 of the survey questionnaires examined respondents’ knowledge levels and attitudes towards various factors of taxes. Compared with the results of Morgan and Castelyn’s (2018) study where applicable, the results of the current study are similar in nature.

First, only a small proportion of students from both surveys reported receiving some form of taxation education when they attended secondary school. Only 30% and 15.2% of first year undergraduate accounting students and first year undergraduate science students, respectively, selected ‘Yes’ when asked if their school provided structured lessons on taxation during their time in secondary school. Comparatively, Morgan and Castelyn (2018) found that 13% of their sample population received structured lessons on taxation, indicating that the sample populations of the present study have received more tax education in secondary school than the sample population of Morgan and Castelyn’s (2018) study. The results of the present study

indicate that proportionately more students in the accounting class received taxation education in secondary school than students in the science class. Referring back to Tables 5.26 and 5.27, one can see that there is correlation between students receiving taxation education in secondary school based on their subject choices. As seen in Table 5.26, 83% of first-year undergraduate accounting students who *did* receive tax education in secondary school, received this information through ‘Commerce’ subjects. Similarly in Table 5.27, 60% of first-year undergraduate science students who *did* receive tax education also received this through ‘Commerce’ subjects. In the New Zealand curriculum, Commerce subjects such as Accounting, Economics, and Business Studies, are primarily elective in nature, meaning that students who opt not to take these subjects theoretically do not receive this education at all, and this is reflected in the findings of this study as per Tables 5.22, 5.23, 5.26 and 5.27. This result is in line with the findings of Morgan and Castelyn (2018), who found that dissemination of tax information in Australian secondary schools was predominantly conveyed through elective subjects such as Commerce, Politics and Law.

While only 30% of undergraduate accounting students and 15.2% of undergraduate science students received some form of taxation education in secondary school, a total of 83.3% and 84.8% of undergraduate accounting and science students, respectively, felt that receiving taxation education in secondary school would have been beneficial to them. This overwhelmingly affirmative response, and the difference between those who *did* receive tax education versus those who would have found it beneficial, reveals the sizeable demand for tax education in secondary schools. These results are also comparable to that of Morgan and Castelyn (2018), who found that 93.1% of respondents felt they would have benefitted from this type of education. Conclusively, participants recognise the value associated with tax education, despite the lack of formal tax education currently available within the curriculum.

Cross tabulation testing from both surveys revealed that, out of the total respondents who did receive tax education in secondary school, 87% attended either a state school or an integrated school. These results are similar to those of Morgan and Castelyn (2018), who noted that the majority of respondents who did receive formal tax education attended a state government school. Therefore, it may be said that students who undertake their secondary school education, through either a state or integrated school, are more likely to receive greater exposure to taxation education than those who undertake secondary schooling at a private school.

With respect to respondents' knowledge rating regarding various areas of tax, a majority of respondents felt that they had very little knowledge in the areas listed (see Tables 5.28 and 5.29), with the responses of 'Poor' and 'Very Poor' being the most prevalent responses across most fields. These results are akin to those of Morgan and Castelyn's (2018) study where a degree of basic knowledge and understanding of personal tax matters was not prevalent in their sample population. Similarly, the participants of the present study displayed low levels of confidence when it comes to complying with their tax obligations and understanding the fundamental aspects of taxation, which further exemplifies the need for structured taxation education in New Zealand secondary schools.

The Chi-square test results show that there are minimal statistically significant relationships between taxation education and participants' knowledge regarding various areas of taxation. However, with regard to first-year undergraduate science students, the Chi-square test results did reveal statistically significant relationships between tax education and the respondents' knowledge regarding the stakeholders that are involved in the New Zealand taxation system, and between tax education and the respondents' ability to understand a tax assessment. While the ability to understand and complete a tax assessment in New Zealand is not entirely necessary due to the PAYE system, entrepreneurship is becoming an increasingly popular choice for individuals as a career path with SMEs reportedly being the second-largest taxpayer group in New Zealand (Yong & Freudenberg, 2020). Individuals who choose this career path will be required to self-assess their tax position and submit an individual tax return annually, or use a tax agent to assess their tax position. Therefore, the ability to understand and complete a tax assessment is arguably somewhat necessary, and will be beneficial for those who will opt for this career path beyond their time at secondary school.

Morgan and Castelyn (2018) reported that a majority (96.3%) of respondents felt that students should know about the Australian tax system so that they are aware of what their taxes do for the community. Similarly in the present study, 98.3% of undergraduate accounting students, and 100% of undergraduate science students, believe that students should understand what taxes do for the New Zealand community through learning about taxes at secondary school. Furthermore, 100% of respondents of both surveys in the present study felt that students should learn about the New Zealand tax system so that they are aware of their individual rights as taxpayers in New Zealand. Comparatively, Morgan and Castelyn (2018) reported 96.8% of respondents feeling this way in their study. The results from these two questions of the present

study support the findings of Morgan and Castelyn (2018), and reveal the collective appetite for structured taxation education in the New Zealand secondary school curriculum so that students can appreciate the contribution of taxes and taxpayer rights in New Zealand.

The present study reveals that approximately 30% of undergraduate accounting students, and 48% of undergraduate science students, perceive the New Zealand taxation system to be complex or extremely complex. Unsurprising to the researcher, more science students perceive the tax system to be complex than accounting students. These results could be due to the accounting students being more aware of taxes and its implications as it is more relevant to their area of study compared to science students. The findings from this question differ to that of Morgan and Castelyn (2018) who found that 80% of their respondents felt that the Australian tax system is complex or extremely complex. The difference in these results are unsurprising, as Australia's taxation system is inherently more complex (Chittenden & Foster, 2008) than New Zealand's, due to operating a different income tax collection system combined with the presence of additional taxes, such as Capital Gains Tax, that are not currently present in New Zealand. The Chi-square test results of the present study reveal no statistically significant relationships between tax education and respondents' perceived complexity of the New Zealand tax system for both surveys, which indicates that tax education does not play a role in how individuals view the complexity of New Zealand's tax system. However, considering that New Zealand's tax system is relatively simple compared to many other jurisdictions, the proportion of students that perceive it to be complex indicates the lack of understanding held by recent secondary school graduates regarding how the New Zealand tax system operates.

With regard to how well the IRD manages the New Zealand tax system, the overall consensus in both surveys was that it is 'Average', with 60% and 66.7% of undergraduate accounting and science students, respectively, reporting this answer. Comparatively, Morgan and Castelyn (2018) reported approximately 50% of respondents feeling that the Australian tax system is managed 'averagely'. This result is unsurprising, given than there is very minimal exposure to tax education that the respondents of this study have received. However, the Chi-square results again reveal no significant relationships between taxation education in secondary school and respondents' perceptions of how the IRD manages New Zealand's taxation system, which suggests that tax education does not play a role in this factor.

The results regarding how respondents' perceive the level of fairness of the New Zealand taxation system were surprising to the researcher. Sixty-two per cent of undergraduate accounting students perceived New Zealand's tax system to be fair, while 60% of undergraduate science students reported the same. The researcher expected more respondents to perceive the New Zealand's tax system to be unfair due to how they perceive its complexity, and due to the minimal tax education receive by these groups. While these results are surprising, they are the desired outcome, as perceived fairness is an important factor when enhancing voluntary taxpayer compliance (Devos, 2014). However, the Chi-square test results for each survey are contradictory to each other. The Chi-square results reported a significant relationship between tax education and perceived fairness of undergraduate accounting students, which indicates that tax education has a positive and significant impact on how students perceive the fairness of New Zealand's taxation system. The same cannot be said for the Chi-square results of the second survey (of undergraduate science students), where no significant relationship was found between tax education and perceived fairness. Therefore, the present study finds a mixed result on the relationship between tax education and perceived fairness.

When asked if they agree with the statement 'Taxes are what we pay for a civilised society', a majority of respondents from both surveys reportedly resonated with this statement. A total of 83.3% of undergraduate accounting students felt that this statement is accurate, and 90.9% of undergraduate science students felt the same. These results are comparative to the results of Morgan and Castelyn (2018), where 86.7% of their respondents agreed with the statement. Interestingly, a greater proportion of undergraduate science students agreed with this statement than undergraduate accounting students, which was unexpected by the researcher. Respondents were given the option to leave a comment explaining why they do or do not agree with the statement. The majority of these comments were positive, showing that some respondents of the study understand how taxes are used to support society, which supports the view that students should have a basic understanding of the fundamental principles of taxation in order to appreciate the value that taxes can provide to communities.

## 5.6 Summary

This chapter first presents the results of the survey questionnaires. The researcher has recognised that the response rates of both surveys in this study are considerably lower than the

response rate recorded by Morgan and Castelyn (2018), but is still confident that the responses provide interesting insight into the perceptions and attitudes of students regarding taxes and tax education in secondary schools. The researcher determined that part of the reasoning behind the disparities in response rates between the present study and Morgan and Castelyn's (2018) study is due to the distribution methods adopted, where Morgan and Castelyn (2018) utilised two methods to administer their survey to a broad audience, while the researcher of the present study administered their survey simply via an announcement made on UC's web-based learning platform (AKO: LEARN). Additionally, the researcher of the present study conducted their surveys for an initial period of two weeks, followed by an additional two weeks as an attempt to increase the response rates for both surveys.

Student responses regarding tax education and their attitudes and perceptions towards taxes are analysed using the chi-square testing method via application of the SPSS software. The first 12 questions of each survey relate to participants' demographic background while questions 13 through 23 examined participants' experience with tax education in secondary school, and their knowledge levels regarding various areas of tax. Questions 13 through 23 also examined participants' perceptions and attitudes towards different tax factors such as fairness and complexity of the New Zealand tax system, taxpayer rights and how taxes contribute to society. The findings show that only a small proportion of participants in each survey received some form of taxation education during the time at secondary school. The researcher also noticed that of those who did receive tax education, a majority of the respondents attended a state of integrated school. Any tax education received was most frequently reported to be included under a Commerce subject, which is elective in nature in the New Zealand secondary school curriculum, and suggests that students are theoretically, at least, unlikely to receive any tax education at all unless they choose to take this elective subject. Additionally, a majority of participants in both surveys reported that they would have found it beneficial to have received taxation lessons in secondary school, with over 80% of respondents from each survey stating as such. The results also suggest that participants believe it would be beneficial to include tax education in secondary school so that they are aware of how taxes contribute to society, and so that they are aware of their individual rights as taxpayers. This overwhelmingly affirmative response indicates the desire held by students to have received such education in secondary school, and suggest that tax education would be a useful topic for students to learn.

The survey findings also suggest that participants have very little knowledge and confidence regarding various areas of tax (see Tables 5.28 and 5.29). When asked to rate their knowledge on various areas of tax, the ratings of 'Poor' to 'Very Poor' dominated across a majority of the fields. Regarding the purposes of tax in society, participants of both surveys overall rated their knowledge as 'Average', and undergraduate accounting students also reported their general understanding of their tax responsibilities as 'Average'. The lack of confidence and knowledge that both surveys' participants hold is a cause for concern, and displays the need for structured tax lessons in secondary schools to ensure that students feel confident in their ability to comply with their obligations once they join the workforce.

Additionally, the outcomes suggest that the majority of respondents perceive the New Zealand tax system to be either understandable or complex, and to be managed 'Averagely' by the IRD. Moreover, more than half of each surveys' participants perceive the New Zealand tax system to be fair; however, some participants from each survey commented that they did not know enough about the tax system to be able to understand whether or not it is actually fair. Most participants also agreed with Oliver Wendell Holmes Jr's statement that taxes pay for a civilised society, with some participants commenting that taxes are required in order to fund public services that are critical to society, and contribute to providing a "safe and just place to live". These results suggest that, although many respondents find the system to be complex in nature, many still recognise the benefits that taxes provide to society and, for the most part, perceive it to be fair. These findings are desirable, as perceived fairness and an understanding of how taxes contribute to society are important factors that impact voluntary taxpayer compliance.

Following the mixed-method approach adopted by the researcher in this study, the interviews of high school teachers across New Zealand set out to explore the topic of tax education in secondary schools from a different perspective to gain deeper insight, and is discussed in the following chapter.

## **Chapter 6 - Findings from the Interviews**

### 6.1 Introduction

This chapter presents the findings from the semi-structured interviews of high school teachers across New Zealand. To identify the preferences and opinions of high school teachers regarding the level of tax education in New Zealand secondary schools, the researcher asked the teachers various questions to indicate how much tax education their school includes in their teaching, where they include it, and whether or not they believe that their school has included enough tax information into their school's curriculum.

### 6.2 Interview Findings

#### 6.2.1 Current Level of Tax Education in Schools across New Zealand

The section delves into the interviewees' responses on the levels of tax education included in their current curriculum, including whether any tax education currently taught was conveyed during mandatory or elective classes.

When asked the extent of tax education included in the interviewees' current curriculum, the majority had very similar responses inferring an overall lack of such education (See Table 6.1):

**Table 6.1** *Brief Overview of Q1 Responses*

<b>How much tax education is included in your current curriculum?</b>	
Participant A	“There’s always the implications of tax, but in terms of specifics, probably not a lot.”
Participant B	“Very little. Yeah, very little.”
Participant C	“It’s not a specific topic that we cover, but it is interwoven into a lot of our learning.” We don’t go too much in depth to it, but there is definitely an awareness.”
Participant D	“We do a broad overview of it, I guess... but it’s pretty dry as you can imagine.”
Participant E	“In the current curriculum, or requirements, there isn’t any – there is no requirement to teach tax education at all... I do life skills through financial literacy, but I teach a lot more explicitly than is required of me.”
Participant F	“We teach tax in a number of ways in our curriculum.”
Participant G	“Not a lot.” “The stuff we deliver regarding personal financial education is basically down to us. It’s not actually part of the NCEA syllabus.”
Participant H	“Not a lot, I make sure there’s some.” “They get some introduction, but they certainly don’t get a thorough understanding and it would be nice if they did.”

As seen in Table 6.1, all interviewees except for one have noted that their school provides very little education regarding taxes. Participants E and G also stated that the NCEA curriculum has no requirement to teach tax education at all, although some schools have taken the liberty to implement a financial literacy subject for students to take. For example:

“By my choice and discussion with the students, we have a financial literacy class at both year 10 and 12 level that launches into taxation.”

- Participant D

“We have some financial literacy in year 9, and in year 12 [both of these being mandatory for students to take].”

- Participant H

The researcher has noticed that these schools that have voluntarily implemented a financial literacy class have tended to be higher decile schools, which may indicate that the level of accessibility to resources and the teacher's ability to convey such information has an impact on a school's ability to provide such a class. This finding is akin to those of Morgan and Castelyn (2016), who noted that resourcing and ability is a limitation to providing an appropriate and effective tax education programme in secondary schools.

A common theme noticed across all interviewees was that a majority, if not all, tax education included in their curriculum falls under elective subjects such as Accounting, Economics, or Business Studies, rather than mandatory classes. For example:

“They're all optional classes. So, unless a kid takes a commerce course, theoretically they could get nothing.”

- Participant A

“The stuff we deliver regarding personal financial education is basically down to us. It's not actually part of the NCEA syllabus.”

- Participant G

With respect to the types of information taught in their school, the interviewees typically mentioned calculation-based teaching, such as how to calculate income tax or GST, but very little to no information regarding the rationale about *why* these taxes exist and what they are for. Only three of the eight interviewees stated that their school teaches the conceptual side of taxes, such as the principles of tax, tax brackets and different types of tax systems, why we have taxes and what they go towards. However, these interviewees did acknowledge that they did not discuss these areas in great depth. For instance, Participant C said: “[Our education] is definitely the calculation side of it, it's not the theoretical side of it at all, really.”

### 6.2.2 Attitudes towards Tax Education in Secondary Schools

This section delves into whether interviewees' felt that it was important for tax education to be taught at secondary school, and where they felt it would fit best into their teaching regarding subject and year levels. Despite the interviewees inferring that the majority of the current tax

education is calculation-based, the interviewees believed it to be important for students to learn about more than simply how to calculate taxes. All interviewees felt that students should learn about the purposes of taxes and why they exist. An understanding of the different types of taxes, and how the revenue raised from each type of tax is used in society was also considered important. For example:

“Certainly, the types of taxes... the idea that money taken for a certain tax is spent on this in the same area; so if we’re taxing cigarettes – it goes towards the health budget, you know.”

- Participant F

Interviewees also noted that students would benefit from learning about PAYE and how a progressive tax system works in terms of income tax, and that many of their students often struggle with the concept. For example:

“In our senior school, I’d love them to have a greater understanding of the progressive tax system... They just don’t get it. To be able to make sound financial decisions I think they need to understand that.”

- Participant B

“We should teach them certainly the education around how the system works in terms of PAYE, a lot of students don’t realise that it’s progressive.”

- Participant F

When asked which subject tax education should best fit into, the interviewees had mixed opinions. A majority of interviewees felt that it best belonged under a Commerce subject, such as Accounting or Economics, but noted that this would result in some students missing out due to the subject’s elective nature. Some felt that Social Sciences was best suited for tax education, as this meant that all students would receive the education compared to including it in an elective subject such as Commerce. Two interviewees stated that implementing a stand-alone, compulsory programme would be the best option. For example:

“I think there should be financial literacy across all schools as a separate, compulsory class so that everyone gets it which is what I brought in in 2009... and now we’ve also

got a little bit in Year 9, but still not enough. I would like to have more time on it. I don't think it belongs in accounting. To be honest, it probably belongs in Social Studies because we are a social science, but I actually think it sits separately as a life skills education and I think all schools should be teaching it as a life skills education."

- Participant H

Similarly, interviewees gave mixed answers when considering what year level tax education should be taught at. For instance:

"Probably Year 9 because you capture more people there. I feel like having that knowledge then, at least you capture a whole lot more at that year level and if you could have a resource appropriate to that year level, it would be quite helpful."

- Participant C

"I definitely think it's something that people need to know. But I don't think it's necessary for people that aren't getting close to leaving school and being part of the real world. Because, you know, when you're at school, you're essentially in a bubble... I think Year 12 and 13 is where it should be."

- Participant E

"I'd say probably Year 10 or 11. Year 10 because you're learning quite a bit about the economy, about your place, and those sorts of things, some rights and responsibilities. And then you're starting to get wee jobs in Years 11 and 12, so having that prior learning is going to come in handy."

- Participant F

Some interviewees argued that tax education should not be introduced until Years 12 or 13 as this is when it becomes more relatable for students, while others argued that it would be more ideal for students to be introduced to the idea of taxes slightly earlier (e.g. Years 9 or 10), so that they have this foundation knowledge already when they begin to enter the workforce.

Moreover, the interviewees were asked if they felt it would be more appropriate to have a guest speaker or a teacher to teach taxes to students in secondary schools. Most interviewees felt that teachers were best suited. However, a majority of interviewees acknowledged that it is

important for the person teaching to understand the concepts themselves to have the ability to teach it to an acceptable standard, and that this is where some teachers may struggle. For example:

“If you’ve got people teaching it that don’t get it themselves, what does that add?”

- Participant A

“I guess it depends on who you have in your school that’s experienced and knowledgeable enough to do it. I wouldn’t be opposed to it being a guest speaker, but I don’t think it needs to be one.”

- Participant B

Additionally, whoever is teaching must use appropriate terminology. For example:

“It has to be taught as opposed to the information just being conveyed. And what I mean by that is that it has to be done in a language that school kids will find accessible. Quite often visiting speakers don’t have that language... So, the visitor speakers... not so much... I think you really need to be a teacher to do that.”

- Participant G

“I think it depends on the teacher’s knowledge. I think it would be nice to have a combination but the realistic logistics of getting guest speakers in is just so hard, and then they often go on a tangent, and they don’t pitch it at the right level.”

- Participant H

## 6.3 Discussion of Interview Findings

### 6.3.1 Results regarding Current Levels of Tax Education in New Zealand Schools

Based on the interview results, all interviewees expressed concern that there is an inherent lack of tax education included in their school’s current curriculum. Moreover, the interviewees stated that any tax education that they have included in their school, is taught in elective classes such as Accounting or Economics. This finding is in line with the results of Morgan and Castelyn’s (2018) study, who found that tax education was predominately conducted through the use of elective subjects such as Commerce. This results in many students not receiving this

education, as stated by Participant A: “Unless a kid takes a Commerce course, theoretically they could get nothing”.

When discussing types of tax education, a majority of interviewees recognised that any existing tax education refers more to calculating taxes such as GST or income taxes. The interviewees inferred that the conceptual side of taxes, such as the purposes of tax and what that money is used for in society, is rarely acknowledged in great detail, if at all, in their school curriculum. Furthermore, some interviewees indicated that the current NCEA syllabus does not actually require any tax education to be taught. This means that any tax education included in any school curriculum is currently being provided beyond what is required of the schools. For example, Participant H stated that her school provides a mandatory financial literacy class in Years 9 and 12, which includes some information on taxation. While this is not required of her, she felt it was important for students to be receiving this type of education that she referred to as “life skills”.

### 6.3.2 Discussion about Attitudes towards Tax Education in Secondary Schools

As discussed above, the interview results show that any tax education currently included in secondary schools is predominately calculation-focused, with little consideration being paid to the concepts. However, the interview results also reveal that all interviewees felt it would be beneficial for students to learn more about the theory behind taxes, and that the current curriculum lacks this information. Some interviewees noted that it is particularly important for students to learn about the progressive tax system with regard to income taxes, acknowledging that many students do not understand the progressive nature of New Zealand’s income tax system. Participant B felt that this basic level of tax knowledge is necessary for students to be able to make sound financial decisions. When asked if students should learn how to complete a tax return form, most participants felt that it was beyond what was necessary for students to know at that age, and that it is not necessarily applicable as people who earn a salary/wage have their income taxed before they are paid and therefore are not required to complete a tax return form annually.

Mixed opinions were given regarding which year level to introduce tax education. Some interviewees, such as Participants B and E, felt it more appropriate to introduce tax education in Years 12 or 13, as students typically begin to get part time jobs around this time, and

therefore feel that this type of information is more applicable at this time. Other interviewees, however, felt that introducing basic tax education in Years 9, 10 or 11, followed by more intricate tax education at the senior level, would be more appropriate. These interviewees felt it to be important for students to have a basic understanding of taxes *before* they get to the age where they begin to look for part time jobs, particularly in regard to why we have taxes, and New Zealand's progressive tax system. For example, Participant B felt that it is not relevant for students to learn about taxes until Years 12 or 13 when they start earning income, while Participant F indicated that having prior learning on the basic of taxes would be handy for students to have before they begin to earn income in their senior years of secondary school. Participant H, on the other hand, thought that an introduction into the basic concepts of tax should be provided in the junior levels, which should then flow into more intricate concepts and implications in the senior levels where it would start to become more relevant for them.

The interview results indicate that tax education would best fit into a Commerce subject in secondary school; however, it was recognised that Commerce subjects are elective, and that this could result in students to miss out on this education. For example, Participant A stated: "Commerce is your perfect fit, because you've got a lot of scope to do it... you could do it in Social Studies if it's compulsory because then every kid gets some input." Participant D had a similar response, stating that he felt that Social Studies is a good place as all students take Social Studies. He also noted that it sits well in Commerce in terms of financial literacy, but again recognised that it is an elective class. Alternatively, Participants B and H discussed that a mandatory, stand-alone programme would be a great way to disseminate tax education to students. Both interviewees felt that providing a stand-alone "life skills" programme could be a viable option as it creates a space for students to learn about taxes in a way that makes it relevant to them. Making it mandatory helps to ensure that all students receive this information that they would not otherwise receive if it was only included in an elective subject such as Commerce.

A sizeable theme observed across all participants regards the ability of teachers to disseminate tax education to students. When asked if a guest speaker or teacher should teach tax in secondary school, most interviewees stated that it depends on the ability of the teacher. Most felt that it should be a teacher, not a guest speaker. While guest speakers can be a great way to teach students, they do not often use appropriate language and terms that students at a secondary school level can understand, which can lead to students getting bored and tuning out

of the lesson. Teachers understand the type of language that students understand at a secondary school, and can better teach this type of information in a way that students can understand. However, teachers need to understand themselves what they are teaching in order to teach effectively. Participant B stated:

“It depends who you have in your school that is experienced and knowledgeable enough to do it. I believe it should be about real life tax, as in taxes they will likely experience. So in reality, you should have somebody in your staff who can do that.”

Interviewees did recognise that this can rise to an issue, with Participant A noting that his school’s Social Studies teacher takes a financial literacy unit and likely delivers it with fairly light detail due to a lack of understanding regarding the concepts. This further highlights that the person who is teaching tax education to students has to be able to understand it thoroughly themselves in order to successfully and effectively confer the information to students.

#### 6.4 Summary

This chapter presents the findings from the face-to-face interviews with eight secondary school teachers across New Zealand. The questions discussed in the interviews regard the current level of tax education in secondary schools, and teachers’ attitudes and opinions regarding where structured tax education would best fit into the New Zealand secondary school curriculum. In addition, this chapter analyses the key findings from the interview phase of this study, to explore if the current curriculum contains any tax education, and to determine the attitudes and perceptions of secondary school teachers across New Zealand regarding the implementation of a tax education programme in secondary schools.

The interview findings indicate that the current NCEA curriculum has *no* requirements for schools to teach tax to students, but that some schools have taken the liberty to provide some education regarding taxes within their school. Be that as it may, a majority of the tax education that is provided is almost purely calculations-based. Little to no information regarding the basic principles of taxation, such as why they are needed and what the tax revenue funds in society, is conveyed to secondary school students. Furthermore, most interviewees stated that their school includes this education in elective subjects, meaning that many students are missing out on information that will be relevant to them in their future. Teachers feel that students should

be taught these basic principles and ideas around tax, especially with regard to New Zealand's progressive tax system and PAYE, as well as being self-employed, in order for them to understand how tax affects them and to be able to make sound financial decisions beyond their secondary school career.

Moreover, the interview findings indicate that ability is a barrier for schools to be able to provide such education. The ability of the teacher to be able to identify, construct and communicate tax education in a language that is understandable to students impacts the success of taxation education in secondary schools, and this finding is akin to that of Morgan and Castelyn (2018), who also noted that the teacher needs to understand tax themselves in order to teach it effectively. The next chapter brings together the findings and discussions from the surveys and interviews, to then reflect upon the purposes of this study.

## **Chapter 7 - Conclusion, Limitations and Contributions**

### 7.1 Conclusions

As discussed in Chapter 1, the objective of this study was to explore the current levels of tax education in New Zealand secondary schools, and whether increasing the level of tax education in secondary schools could help to enhance compliance behaviour and attitudes towards the tax system from two perspectives: recent high school graduates at UC, and secondary school teachers across New Zealand. A partial replication and extension of Morgan and Castelyn's (2018) questionnaire for surveys was conducted, as well as semi-structured interviews. In order to achieve this objective, the research was based on the following questions:

RQ1: How does tax knowledge impact taxpayer compliance attitudes and perceptions?

RQ2: Would increasing taxpayer education levels help to enhance taxpayer compliance and attitudes?

RQ2 was broken down into the following sub-questions:

RQ2(a): Should New Zealand implement a mandatory taxation education programme in New Zealand secondary schools?

RQ2(b): How would this impact taxpayer knowledge?

RQ2(c): How would this enhance taxpayer compliance?

#### 7.1.1 Research Question 1

In response to RQ1, the survey results indicated a fairly mixed impact of tax education on compliance attitudes and perceptions. The results show that students have fairly poor knowledge regarding the various areas of taxes (see Tables, 5.28 and 5.29), and low levels of confidence and understanding regarding the fundamental aspects of taxation. Additionally, the interviewees noted that students would benefit from a better understanding of the concepts behind taxes, and that a basic level of knowledge is necessary for students to be able to make sound financial decisions. The survey results revealed that, coupled with the reported low levels of knowledge, a majority of participants perceived the New Zealand tax system to be complex, despite the inherent simplicity of New Zealand's tax system for employees in comparison to many other countries. However, the statistical testing performed did not reveal any statistically significant relationships between tax education and students' perceptions on the tax system's complexity. In saying this, more than half of the survey participants did perceive the New

Zealand taxation system to be fair, with a significant relationship between tax education and perceived fairness being found for undergraduate accounting students. A majority of participants in both surveys also agreed that taxes contribute to maintaining a civilised society and believed that taxes were vital to providing public resources and creating a safe society in New Zealand. The statistical testing, however, suggests that tax knowledge does not have a significant impact on taxpayer compliance attitudes and perceptions in this regard. The results of the surveys do not indicate that tax education has a significant impact on taxpayer compliance attitudes and perceptions. However, the participants in both course surveys and the interviews do feel that students would benefit from taxation education in secondary schools, which illustrates the demand for taxation education in secondary schools to bridge the gap in knowledge.

### 7.1.2 Research Question 2

#### 7.1.2.1 RQ2(a) Should we implement a mandatory taxation education programme in New Zealand secondary schools?

The result of this study suggest that implementing a mandatory taxation education programme in New Zealand secondary schools would, in fact, be beneficial for students. The interview participants indicated there is currently very minimal education included, but that teachers *want to see more*. They also indicated that many students struggle to understand various elements of New Zealand tax, such as the progressive nature of the income tax system, which is a factor that impacts all taxpayers in New Zealand. Similarly, the survey participants indicated that they would have benefitted from a tax education programme during their time at secondary school.

All interviewees felt that students should learn about the purposes of taxes and why they exist, as well as gain a basic understanding of the different types of taxes, and how the revenue raised from taxes are used in society. The results of the interviews indicate that participants feel that there *should* be a separate, compulsory financial literacy unit across all schools, in which tax education would be included. These participants also emphasised the importance of such a programme being mandatory for students to take, as the minimal tax education currently included in the curriculum is typically only in elective subjects, meaning that many students miss out on this vital learning. Implementing a compulsory unit on financial literacy, where tax education is included, would ensure that all students passing through high school would receive

a basic understanding of taxes which would help them understand the need for tax, and to make better financial decisions beyond secondary school.

The interviewees noted that for schools to be able to teach tax education, they need to have the resources available that are appropriate for the level at which they learn, and suitable to be used in a classroom environment. Furthermore, teachers need to understand the concepts that they are teaching in order to be able to teach it effectively and in a way that students will understand. Implementing a compulsory tax education programme would need to be paired with appropriate resources and teacher training to ensure its effectiveness.

#### 7.1.2.2 RQ2(b) How would this impact taxpayer knowledge?

The results suggest that implementing a mandatory programme in which tax education is taught would positively impact taxpayer knowledge. As mentioned above, interviewees stated that students currently struggle to understand the concept of a progressive tax system, and do not have a basic understanding of taxes in general. This was also found in the survey results, where survey participants felt that they had poor or average knowledge on various areas of tax, such as the purposes of tax and their responsibilities as taxpayers. The implementation of a mandatory tax education programme would provide students with a space where they can learn about these tax matters, which would help to enhance their knowledge regarding taxes.

#### 7.1.2.3 RQ2(c) How would this enhance taxpayer compliance?

The effect of implementing a mandatory tax education programme is ultimately undetermined; however, the results from the interviews suggest that it would positively enhance compliance. Interview participants suggested that if students have a better understanding of the fundamental principles of tax, such as why we have them, what that revenue goes towards, and how the tax system operates, they would be able to better make sound financial decisions. Additionally, gaining a better understanding behind how taxes support the community would help lead to enhance levels of voluntary taxpayer compliance as students can see the benefits that taxes provide. Finally, implementing a mandatory tax education programme would provide students with learning regarding their rights as individual taxpayers. One hundred per cent of survey participants reported that it is important for individuals to know their rights, and understanding these rights is vital to enhancing taxpayer compliance.

## 7.2 Limitations and Future Research

### 7.2.1 Sample Sizes

One of the major limitations of this research is the sample size of the two surveys. The response rates of each course survey were lower than the researcher desired; however, there are a few reasons as to why this occurred. The surveys were conducted during mid-term break and mid-term test time. As students would have been more focused on their own studies during this time, it is likely that they did not have time or there was a lack of interest to participate in this study as personal studies took priority. No incentives were used to encourage students to participate in the surveys. Offering an extrinsic reward for participating in the study may have helped to increase the number of responses recorded for each survey. Also, the response rate for the survey targeted to undergraduate science students was lower than the response rate for the survey of accounting students. This was somewhat expected as taxation is not often of interest to students studying a science degree, and therefore a lack of interest may be a key reason behind the lower response rate. As a result, non-response bias may be present in the survey results due to high non-response rates of both course surveys, and thus the sample size of each course survey may not be representative of the population as a whole.

Furthermore, for the reason of limited time, only students from UC were recruited for this research and therefore may not be representative of the student population in New Zealand. It may have been helpful to survey students from other universities across the country to increase the sample size of the surveys and enable the research results to be more representative of first year undergraduate tertiary students in New Zealand. Considering the research time constraints, the researcher opted to only research students at UC. Future research could consider recruiting respondents from multiple universities across New Zealand with a longer research period.

Similarly, the number of interviewees in this research was relatively small, with eight teachers across New Zealand volunteering their time to be interviewed. The researcher believes that the ongoing industrial action in the teaching industry was a factor behind this, as the researcher struggled to get responses from teachers due to teachers' strikes and lack of available staff working at the time this research was conducted. Again, future research could consider expanding the scope of their qualitative research to study the role of tax education to fill this gap.

### 7.2.2 Questionnaire Design

The design of this study's questionnaires also presents some limitations. In total, the questionnaires contained 23 questions, and respondents were required to answer each question before moving on to the next one. Consequently, the researcher suspects that survey fatigue may have had an effect on potential respondents in the sample population. This means that potential participants may withdraw from the survey because it was felt to be too long. With regard to the data analysis of this study, answers were not recorded and analysed if the respondent did not complete the entire questionnaire before submitting. As mentioned above, respondents were required to answer each question before moving on to the next, which could have caused some respondents to withdraw before completion of the survey, either due to lack of interest, understanding or time constraints. As noted by the researcher, some participants who did complete the survey commented that they did not have enough understanding to be able to answer some questions, which suggests some potential respondents may have chosen to opt out of the survey part way through due to a lack of understanding.

The content of this study's questionnaires involved the replication of Morgan and Castelyn's (2018) questionnaire. Some adjustments were made to better suit the New Zealand context, and additional questions were added out of the interest of the researcher. The researcher opted not to ask any questions regarding tax avoidance or tax evasion to prevent any sensitivity issues in the questions, and to help participants feel more comfortable in participating in this study. However, this meant that the researcher gained minimal insight into students' perspectives toward components of tax non-compliance behaviour as an aspect of tax knowledge and education. Future research could consider including these aspects in their study to bridge this gap and gain further insight into how tax education impacts student perceptions regarding non-compliance.

### 7.2.3 Reliability of Results

The final limitation of this research that is noted is the reliability of the results. Due to the nature of this research, survey and interview participants may not have been completely honest in their responses. However, the researcher refrained from using sensitive wording in her questionnaire and interview guide to minimise this issue (Bell et al., 2018). However, the researcher recognises that the interviewees of this study may have answered the interview questions in a way that they felt met the needs of the researcher rather than stating their honest,

unbiased opinions. The researcher emphasised in the information sheet that they were looking to analyse teachers' current perspectives, and that there is no risk to them if they choose to participate. The information sheets for both research methods also emphasised anonymity and confidentiality, to try and reduce the possibility of survey and interview participants responding in a certain way to portray a more favourable image (Bell et al., 2018). Another limitation with regard to the reliability of results is that participants of this study may misconceive what the questions were asking. In the interviews, the researcher had the opportunity to clarify any confusion to prevent this issue, but the same cannot be said for the surveys. As such, the researcher conducted pilot testing of the questionnaires to ensure that the questions were simple and easily understandable. The researcher made sure to run the pilot test with people of different study backgrounds to ensure that it was widely understandable.

### 7.3 Future Research

Due to time and resource constraints, the author was unable to utilise a larger sample size for their course surveys and interviews to help answer the research questions. This presents a few research opportunities for future researchers to consider.

Future researchers could consider recruiting respondents from multiple universities across New Zealand in their surveys. This would allow the researcher to gain a better representation of the population as a whole, which would give deeper insight into students' perceptions and attitudes towards taxes and tax education in New Zealand. Similarly, future researchers could expand their scope of qualitative research for the same reason, which would provide a better representation of the attitudes of secondary school teachers towards tax education in their schools. Furthermore, as this study did not address tax avoidance or evasion, future researchers could include these aspects in their research. This would provide valuable insight into the perceptions and attitudes held towards these tax non-compliance issues in relation to tax education in New Zealand.

### 7.4 Contributions to Knowledge

There is very little existing literature regarding the topic of tax education in New Zealand secondary schools. As mentioned in Chapter One, there is, to the best of the researcher's knowledge, only one existing published article, on tax education in a New Zealand context (Sawyer and Tan, 2020), which indicates the minimal level of published research undertaken

in this area to date. This study explored the impact of tax education in secondary schools by analysing the contemporary perspectives of recent high school graduates, and high school teachers across New Zealand. This study adopted a mixed-method approach through utilising online surveys and semi-structured interviews, to provide the researcher with a more comprehensive and holistic view of the current attitudes held regarding tax education in secondary school. Surveys were utilised to gain insight into the perceptions and attitudes that recent high school graduates hold regarding taxes, as well as to determine how much tax education these individuals may have received during their time at high school. Interviews of high school teachers across New Zealand were then conducted to gain an understanding of this topic from another viewpoint, giving the researcher a greater breadth and depth of understanding behind the perceptions held, and to examine the logistics of including tax education in New Zealand secondary schools.

This study indicates that there is currently very little tax education present in the New Zealand secondary school curriculum, with no requirement for it to be taught at all. The statistical testing performed in this study does not reveal a significant relationship between receiving tax education and students' perceptions and attitudes towards taxes. However, there seems to be a collective appetite for the introduction of tax education in secondary schools, from the survey and interview participants alike. Survey and interview participants believe that it would be beneficial to include a compulsory tax education programme in secondary schools. As noted in the interview findings, high school teachers believe an understanding of taxes to be an important life skill that all secondary school students should acquire during their time at high school to prepare them for life beyond school. Similarly, survey participants believe that an understanding of taxes is important to have in order for individuals to know their rights as taxpayers and appreciate how taxes contribute to communities.

Furthermore, the timeliness of this research is underscored by the New Zealand Labour Party pledging to require compulsory financial literacy classes to be taught at all levels in all schools by 2025, with the New Zealand National Party backing this idea (1News, 2023). This pledge reveals the increasing importance of such education being available and accessible to young people who will become taxpayers in the future. Prime Minister Chris Hipkins stated "Evidence tells us the current approach means too many students leave school without the financial skills they need" (1News, 2023). The findings of this research supports this statement, and the implementation of compulsory financial literacy in schools will reduce the chances that future

students leave high school without the necessary knowledge regarding how to manage their tax obligations. It will also help to ensure that students are aware of the need for taxes, and how they contribute to New Zealand society, which will hopefully help to improve the attitudes and perceptions towards taxes held in society.

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# Appendices

## Appendix 1: University of Canterbury Human Ethics Committee Approval Letter



HUMAN RESEARCH ETHICS COMMITTEE

Secretary, Rebecca Robinson  
Telephone: +64 03 369 4588, Extn 94588  
Email: [human-ethics@canterbury.ac.nz](mailto:human-ethics@canterbury.ac.nz)

Ref: HREC 2022/95/LR

10 January 2023

Amy Beaver  
Accounting and Information Systems  
UNIVERSITY OF CANTERBURY

Dear Amy

Thank you for submitting your low risk application to the Human Research Ethics Committee for the research proposal titled "Tax Education in New Zealand Secondary Schools and its Impact on Taxpayer Compliance".

I am pleased to advise that this application has been reviewed and approved.

Please note that this approval is subject to the incorporation of the amendments you have provided in your email of 19<sup>th</sup> December 2022.

With best wishes for your project.

Yours sincerely

A handwritten signature in black ink, appearing to be 'D. Sutherland', written in a cursive style.

Dr Dean Sutherland  
*Chair, Human Research Ethics Committee*

## Appendix 2: Information Sheets and Consent forms for the Research

### Appendix 2.1 Information Sheet and Consent Tick box for the Questionnaire Surveys



Department of Accounting and Information Systems

Phone: [REDACTED]

Email: amy.beaver@pg.canterbury.ac.nz

10<sup>th</sup> January 2023

HREC Ref: HREC 2022/95/LR

#### **Tax Education in New Zealand Secondary Schools - Survey Information Sheet for participants**

Kia Ora,

You are invited to participate in a research study on tax education in New Zealand secondary schools and its impact on taxpayer compliance. This study is being conducted by Amy Beaver from the University of Canterbury | Te Whare Wānanga o Waitaha (UC). Other research team members include Professor Adrian Sawyer and Alistair Hodson. The study is being carried out as a requirement for my Master of Commerce degree.

#### **What is the purpose of this research?**

This research aims to determine what level of tax education is currently being taught in New Zealand high schools. I am interested in finding out about whether or not it would be beneficial to implement a compulsory tax education programme into secondary schools, and if this would increase future voluntary taxpayer compliance. The information from this study will help me to gauge what tax information (if any) is currently taught in secondary school, and what subjects it is taught under. It will also help me understand the current perspectives held by recent high school leavers, regarding how beneficial they would have found it to be, and how complex they find the New Zealand tax system to be.

#### **Why have you received this invitation?**

You are invited to participate in this research because you are part of the target group that will provide me with insight into the current levels of tax education in New Zealand secondary schools. *We obtained your contact information from publicly available sources (LEARN), however you remain anonymous to myself and my supervisors. You have accessed this document via following a link from an advertisement posted on LEARN.*

Your participation is voluntary (your choice). If you decide not to participate, there are no consequences. Your decision will not affect your relationship with me, UC, or the supervisors involved.

#### **What is involved in participating?**

If you choose to take part in this research, please complete the online survey that follows this information page. The survey involves answering 21 questions about the education you received in high school relating to taxation. Completing the survey should take around ten to fifteen minutes.

**Are there any potential benefits from taking part in this research?**

We do not expect any direct benefits to you personally from completing this survey.

**Are there any potential risks involved in this research?**

We are not aware of any risks to participants involved in the research.

**What if you change your mind during or after the study?**

You are free to withdraw at any time. To do this, simply close your browser window or the application (App) the survey is presented on. Any information you have entered up to that point will be deleted from the data set. As this is an anonymous survey it will not be possible to withdraw your information after you have completed the survey.

**What will happen to the information you provide?**

All data will be anonymous. All data will be stored on UC's computer network in password-protected files.

All data will be destroyed *five years* after completion of the study/publication of study findings. I (Amy) will be responsible for making sure that myself and my supervisors use your data for the purposes mentioned in this information sheet.

**Will the results of the study be published?**

The results of this research will be published in a Master's thesis. This thesis will be available to the general public through the UC library. Results may be published in peer-reviewed, academic journals. Results may also be presented at a professional conference and/or workshop. You will not be identifiable in any publication.

I will send a summary of the research to you at the end of the study, if you request this. If you provide an email address for this purpose, it will not be linked with your survey responses.

**Who can I contact if I have any questions or concerns?**

If you have any questions about the research, please contact Amy: [amy.beaver@pg.canterbury.ac.nz](mailto:amy.beaver@pg.canterbury.ac.nz)

*If you have any other concerns please contact my Primary Supervisor Adrian Sawyer:* [adrian.sawyer@canterbury.ac.nz](mailto:adrian.sawyer@canterbury.ac.nz)

This study has been reviewed and approved by the University of Canterbury Human Research Ethics Committee (HREC). If you have concerns or complaints about this research, please contact the Chair of the HREC at [human-ethics@canterbury.ac.nz](mailto:human-ethics@canterbury.ac.nz) .

**What happens next?**

If you would like a PDF version of this information sheet, please email Amy at the email address above.

**Statement of consent**

I have read the study information and understand what is involved in participating. By completing the survey and submitting my responses, I consent to participate.

*Kind regards,  
Amy Beaver*



Department of Accounting and Information Systems

Phone: [REDACTED]

Email: amy.beaver@pg.canterbury.ac.nz

22<sup>nd</sup> November 2022

HREC Ref: [Provided by HREC when study approved]

**Tax Education in New Zealand Secondary Schools - interview  
Information Sheet for participants**

Kia Ora,

You are invited to participate in a research study on tax education in New Zealand secondary schools and its impact on taxpayer compliance. This study is being conducted by Amy Beaver from the University of Canterbury | Te Whare Wānanga o Waitaha (UC). Other research team members include Professor Adrian Sawyer and Alistair Hodson. The study is being carried out as a requirement for my Masters of Commerce.

**What is the purpose of this research?**

This research aims to determine what level of tax education is currently being taught in New Zealand high schools. I am interested in finding out about whether or not it would be beneficial to implement a compulsory tax education programme into secondary schools, and if it would increase future voluntary taxpayer compliance. The information from this study will help me to gauge what tax information (if any) is currently taught in secondary school, and what subjects it's taught under. It will also help me understand the current perspectives held by high school teachers, regarding how worthwhile you think it would be to include in secondary school.

**Why have you received this invitation?**

You are invited to participate in this research because you are employed in the field that my research is interested in. *Your contact information has been obtained through my supervisors or through publicly available sources.*

Your participation is voluntary (your choice). If you decide not to participate, there are no consequences. Your decision will not affect your relationship with me, UC, the supervisors involved, or your employer.

**What is involved in participating?**

If you choose to take part in this research, you will participate in an interview. This interview will take place face-to-face or virtually. I will contact you to arrange a suitable time and location. The interview will involve me introducing myself, answering any questions you have, and confirming your consent to participate. Then, I will begin the interview and will ask you questions about the level of tax education included in the current curriculum, what types of tax information you think is important to be taught at high school, what subject it should be

included in and what year level it should be taught to. I estimate the interview will take around 30 to 45 minutes.

**Will the interview be recorded?**

With your permission, the interview will be audio-recorded using a portable recorder. The recording will be used to create a written transcript of the interview, which I will analyse as part of the research. I will transcribe (type out all the words said during) the interview. If you choose to review a copy of the interview transcript, I will provide this to you within four weeks (28 days) of the interview. I will ask you to provide any amendments or additions via email within two weeks (14 days) from your receipt of the written transcript.

**Are there any benefits from taking part in this research?**

I do not expect any direct benefits to you personally from participating in this interview. However, the information gathered will potentially benefit the future of the secondary school curriculum and the tax knowledge attained by future high school students during their time at secondary school.

**Are there any risks involved in this research?**

I am not aware of any risks to participants in the research.

**What if you change your mind during or after the study?**

You are free to withdraw at any time. To do this, please let me know either during the interview or after the interview has finished. I will remove any information you have provided up to that point from the data set if it is still possible. Once data analysis has commenced, removal of your data may not be possible.

**What will happen to the information you provide?**

I will transfer the audio recording to a password-protected file on UC's computer network and then delete this from the recording device as soon as practical. All data will be confidential. To ensure your identity is not known to anyone outside the research team, we will keep your signed consent form in a file separate from your interview transcript. Your name will be changed to a pseudonym (a fake name) whenever it appears in the transcript and anywhere else. We will store the file that links your real name and your pseudonym individually on a password-protected, secure device.

All study data will be stored in password-protected files on the UC's computer network or stored in lockable cabinets in lockable offices.

All data will be destroyed *five years* after completion of the study/publication of study findings. I (Amy) will be responsible for making sure that only members of the research team use your data for the purposes mentioned in this information sheet.

**Will the results of the study be published?**

The results of this research will be published in a UC Master's thesis. This thesis will be available to the general public through the UC library. Results may be published in peer-reviewed, academic journals. Results may also be presented at a professional conference and/or workshop. You will not be identifiable in any publication. A summary of results will be sent to all participants who request a copy.

**Who can you contact if you have any questions or concerns?**

If you have any questions about the research, please contact Amy:  
[amy.beaver@pg.canterbury.ac.nz](mailto:amy.beaver@pg.canterbury.ac.nz)

*If you have any other concerns please contact my Primary Supervisor Adrian Sawyer:*  
[adrian.sawyer@canterbury.ac.nz](mailto:adrian.sawyer@canterbury.ac.nz)

This study has been reviewed and approved by the University of Canterbury Human Research Ethics Committee (HREC). If you have a complaint about this research, please contact the Chair of the HREC at [human-ethics@canterbury.ac.nz](mailto:human-ethics@canterbury.ac.nz)).

**What happens next?**

Please review the consent form. If you would like to participate, please sign, scan/take a photo of, and return the consent form to [amy.beaver@pg.canterbury.ac.nz](mailto:amy.beaver@pg.canterbury.ac.nz)

*Kind regards,  
Amy Beaver*

Department of Accounting and Information Systems

Phone: [REDACTED]

Email: amy.beaver@pg.canterbury.ac.nz

22<sup>nd</sup> November 2022

HREC Ref: [Provided by HREC when study approved]

***Tax Education in New Zealand Secondary Schools and its Impact on Taxpayer  
Compliance***

**Consent Form for Participants - Interview**

- I have been given a full explanation of this project and have had the opportunity to ask questions.
- I understand what is required of me if I agree to take part in the research.
- I understand that participation is voluntary and I may withdraw at any time without consequences. Withdrawal of participation will also include the withdrawal of any information I have provided should this remain possible.
- I understand that any information or opinions I provide will be kept confidential to the researcher and their research team. I understand that any published or reported results will not identify me or my place of employment.
- I understand that a thesis is a public document and will be available through the UC Library.
- I understand that all data collected for the study will be kept in locked and secure facilities and/or in password protected electronic form. I understand the data will be destroyed after *five years*.
- I agree to being *audio* recorded. I understand how this recording will be stored and used.
- I understand that I can contact the researcher, Amy Beaver [amy.beaver@pg.canterbury.ac.nz](mailto:amy.beaver@pg.canterbury.ac.nz), or supervisor, Professor Adrian Sawyer [adrian.sawyer@canterbury.ac.nz](mailto:adrian.sawyer@canterbury.ac.nz), for further information. If I have any complaints, I can contact the Chair of the University of Canterbury Human Research Ethics Committee, Private Bag 4800, Christchurch, (email: [human-ethics@canterbury.ac.nz](mailto:human-ethics@canterbury.ac.nz)).
- I would like a summary of the results of the project.
- By signing below, I agree to participate in this research project.

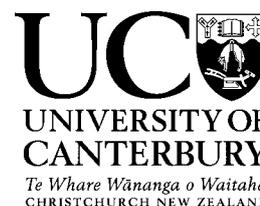
Name: \_\_\_\_\_ Signed: \_\_\_\_\_ Date: \_\_\_\_\_

Email address (for report of findings, if applicable):  
\_\_\_\_\_

To return this consent form, please scan/photograph and return by email to:  
[amy.beaver@pg.canterbury.ac.nz](mailto:amy.beaver@pg.canterbury.ac.nz)

## Appendix 3: Sample of Recruitment Emails

### Appendix 3.1 Email to Principals



Dear **\*high school principal\***,

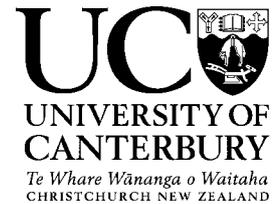
My name is Amy Beaver. I am a postgraduate student at the University of Canterbury undertaking a Master of Commerce, and I am reaching out to you as I am interested in interviewing **\*teachers name\*** as part of my thesis research.

I am completing a research project on tax education in New Zealand secondary schools and its impact on taxpayer compliance. As part of my research, I wish to conduct interviews with high school teachers across New Zealand. The aim of this research is to gain insight into the current level of tax education being taught in New Zealand secondary schools, whether or not it would be beneficial to implement a compulsory tax education programme into secondary schools, and if it would increase future voluntary taxpayer compliance.

I am very interested in interviewing **\*teachers name\*** as part of this research and wish to receive your consent for this. Please let me know if this is possible, I greatly appreciate your time!

Kind regards,  
Amy Beaver

## Appendix 3.2 Email to Teachers



Dear *\*high school teacher\**,

My name is Amy Beaver. I am a postgraduate student at the University of Canterbury undertaking a Master of Commerce, and I am reaching out to you to request some of your time (approx. 20-30 minutes) for an interview as part of my thesis research.

I am completing a research project on tax education in New Zealand secondary schools and its impact on taxpayer compliance. As part of my research, I wish to conduct interviews with high school teachers across New Zealand. The aim of this research is to gain insight into the current level of tax education being taught in New Zealand secondary schools, whether or not it would be beneficial to implement a compulsory tax education programme into secondary schools, and if it would increase future voluntary taxpayer compliance. This research will also help me as the researcher understand the current perspectives held by high school teachers, regarding how worthwhile you think it would be to include in secondary school.

I would love the opportunity to discuss this with you and hear your thoughts on this topic. If you are interested in this, please let me know and I will send you the relevant details!

Kind regards,  
Amy Beaver

### Appendix 3.3 Email to Course Co-ordinators

Dear *\*course coordinators name\**

My name is Amy Beaver. I am a postgraduate student here at UC undertaking a Master of Commerce, and I am reaching out to you to enquire about surveying the students of *\*course code\** as part of my thesis research.

I am completing a research project on tax education in New Zealand secondary schools and its impact on taxpayer compliance. As part of my research, I wish to distribute two identical online surveys (using Qualtrics) to first year undergraduate students taking a 100 level Accounting paper, and to first year undergraduate students taking a 100 level Eng/Sci paper. This is for comparative purposes, and will help me gain an insight into the current level of tax knowledge held by individuals who have recently left high school, and whether or not such individuals received any form of tax education throughout their time in high school.

If this survey fits in with your schedule and you're okay with it, I would love the opportunity to survey the students of *\*course code\** as part of my research. I have attached the Information Sheet to this email for your reference. If you are interested in this, please let me know!

Warm regards,

Amy Beaver

## Appendix 3.4 LEARN Post for Surveys

Hey everyone!

My name is Amy Beaver. I am a Master of Commerce student at UC completing my thesis on tax education in New Zealand secondary schools and its impact on taxpayer compliance.

As part of my thesis research, I am distributing a survey to your class to gain insight into the current levels of tax education in New Zealand secondary schools, and the current levels of tax knowledge held by recent high school leavers. The survey should only take approx. 5-10 minutes of your time. If you would like to participate, click the link below. Thank you for considering this request!

Warm regards,

Amy

## Appendix 4: Research Design

### Appendix 4.1 Questionnaire Survey

#### *Information sheet and consent tickbox*

1. What is your gender?
  - Female
  - Male
  - Other
  
2. What is your age?
  - 17-24
  - 25-34
  - 35-44
  - 45-54
  - 55-64
  - 65 or older
  - Prefer not to say
  
3. Are you a New Zealand citizen or permanent resident?
  - Yes
  - No
  
4. If you answered 'No' to Question 3, what is your country of citizenship/residence?
  
5. How are you currently enrolled as a student at a New Zealand university?
  - Full time
  - Part time
  
6. What is your current employment status?
  - Full time employment
  - Part time employment
  - Casual employment (includes zero-hour contracts)
  - Not employed
  
7. What year did you leave secondary school?
  - 2022
  - 2021
  - 2020
  - 2019
  - 2018
  - 2017
  - Other (please specify year)
  
8. What type of secondary educational institution did you attend?
  - State boys
  - State girls
  - State co-ed
  - Integrated girls
  - Integrated boys

- Integrated co-ed
- Private boys
- Private girls
- Private co-ed
- Other (please specify)

9. If you attended an independent institution, please indicate which type:

- Catholic
- Anglican
- Other Christian
- Non-denominational
- Other (please specify)

10. Where was your secondary educational institution located?

- Canterbury
- Otago
- Southland
- West Coast
- Tasman/Nelson
- Marlborough
- Wellington
- Auckland
- Other (please specify country and city)

11. Did you take a BEA subject at your secondary school?

- Yes
- No

12. Did you undertake NCEA qualifications? If not what? (look at Adrian's copy)

- Yes
- No

13. Did your secondary school provide structured lessons that explained the purpose of taxation?

- Yes
- No

14. If you answered 'Yes' to Question 11, please indicate the types of information provided:

- The role of taxation in society
- Organisations involved within the taxation system
- How to complete a tax return
- Types of assessable income
- Types of deductible expenses
- How taxes are used in society
- Types of different business structures, and the tax that applies to them
- Other (please specify)

15. If you answered 'Yes' to Questions 11 or 12, please indicate which subject classes contained this information:

- Mathematics

- Technologies
- Commerce
- History
- Other social sciences
- Other (please specify)

16. When you left secondary school, please rate your knowledge level on the following areas (tick the box you feel is most applicable):

	Very poor	Poor	Average	Good	Excellent
Purpose of tax in society					
General understanding of tax responsibilities					
Where to get assistance regarding tax responsibilities					
Which stakeholders are part of the tax system					
How to complete a tax return					
How to understand a tax assessment					

17. Do you feel that it would have been/was beneficial to you to have studied taxation when you were in secondary school?

- Yes
- No
- Add a comment explaining why or why not (optional)

18. Do you feel that students should know about the New Zealand taxation system so that they understand what their taxes do for society?

- Yes
- No
- Add a comment explaining why or why not (optional)

19. Do you feel that students should know about the New Zealand taxation system so that when they start working they understand their rights as taxpayers?

- Yes
- No
- Add a comment explaining why or why not (optional)

20. How do you perceive the New Zealand taxation system?

- It's extremely complex
- It's complex
- It's understandable
- It's simple
- It's extremely simply

21. Do you think that New Zealand's tax system is fair?

- Yes
- No
- Add a comment explaining why or why not (optional)

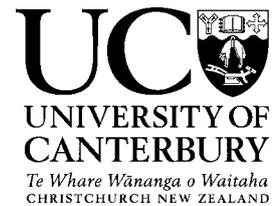
22. How do you rate the Inland Revenue Department's overall management of the New Zealand taxation system?

- Very poor
- Poor
- Average
- Good
- Excellent

23. Oliver Wendell Homes Jr once said 'Taxes are what we pay for a civilised society' – do you agree?

- Yes
- No
- Add a comment explaining why or why not (optional)

## Appendix 4.2 Interview Guide for Semi-structured Interviews



- How much tax education is included in the current curriculum? If any, are they included in mandatory or elective classes?
  - What types of information is included and what should be included?
  - Do you think it's enough?
- What types of information do you think is important for your students to be taught? Do you think it's necessary at all to include tax education in the high school curriculum?
- In which subject do you think would be best to implement a tax education programme? E.g. commerce, social sciences, mathematics
  - Or should it be a separate stand-alone
- Which year level do you think is most appropriate to teach such information?
- Are you aware of the sorted programme?
  - Do you think it would be a good basis for material?