

Understanding how education affects students' attitudes towards tax evasion and tax avoidance in New Zealand

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Abstract

Previous scholars have come to conflicting conclusions on the relationship between tax education and taxpayer attitudes towards tax evasion. In addition, the impact of tax education on taxpayers' tax avoidance attitudes is still unclear. The key purpose of this study is to investigate the impact of tax education on tax evasion and tax avoidance attitudes of New Zealand students. Birch et al. (2003) conducted an earlier study on the tax evasion attitudes of students at the University of Canterbury (UC) and concluded that receiving tax education reduces the tendency of students to evade tax. However, their study did not explain why this relationship exists. Therefore, the current study replicates and expands their study through a mixed methods approach. The questionnaire used in the survey mainly replicated Birch et al.'s (2003) questionnaire to investigate student attitudes towards tax evasion, and the questions concerning tax avoidance in the questionnaire were adapted from Kirchler and Wahl's (2010) questionnaire. Whether students' attitudes have changed in the past 18 years is also one of the goals of this research. In addition, follow-up interviews were undertaken with self-selection sampling. The survey results provide a baseline of student attitudes, while the findings of the follow-up explore more deeply their attitudes towards tax non-compliance and the role of tax education in it.

The survey results show that the impact of tax education on student attitudes towards tax evasion is uncertain, and there is no statistically significant impact on student attitudes towards tax avoidance. Compared with non-tax students, tax respondents had a higher acceptance of over-declared deductions and small undeclared cash withdrawals, but a lower acceptance of undeclared cash salary. In addition, more tax respondents believed that, compared with five years ago, the proportion of underreporting income by individuals or small business owners has increased. The interview findings show that tax interviewees felt that their attitudes towards tax evasion and avoidance had not changed much before or after receiving tax education. Nevertheless, the positive correlation between taxation education and taxation knowledge is evident. Tax students are more aware of tax concepts, such as tax evasion, tax avoidance, and tax planning than non-tax students.

In addition, the results of the present study found that compared with 18 years ago, respondents' acceptance of tax evasion has decreased. However, the proportion of whole respondents who believed that tax evasion in society has risen in the past five years has increased compared with

18 years ago. Moreover, this study did not find that tax education interacts with other demographic variables to affect student attitudes.

Overall, the results of this study show that tax education is helpful to the growth of students' tax knowledge. Although most tax interviewees believed that their attitudes towards tax evasion and avoidance have changed a little before and after taking tax courses, tax education still plays a role in different tax evasion and tax avoidance behaviours.

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Chapter 1: Introduction

1.1 Background

Tax non-compliance has a negative impact on the fairness of the tax system and hinders social development as a result of governments' raising insufficient tax revenue (Yong et al., 2019). One possible reason for this issue is the application of the self-assessment system (SAS). One of the features of the SAS is that the responsibility for determining the tax payable and completing tax returns has shifted from the tax authority to the taxpayer, which necessitates that the taxpayer is familiar with relevant tax laws and provisions (James & Alley, 2002; Saad, 2014). As suggested by the prior literature, enhancing taxpayers' knowledge of the tax laws may be a way to promote tax compliance (Loo, 2006; Loo et al., 2009; Saad, 2014).

In addition, voluntary compliance is another distinctive feature of the SAS (James & Alley, 2002; Saad, 2014). In recent years, when investigating the reasons for taxpayers' non-compliance with taxes, there has been a significant increase in research that analyses taxpayers' motivations in respect of voluntary tax compliance, rather than just using economic deterrence models, which had been the approach of earlier researchers, to find effective enforcement measures (for example, Eriksen & Fallan, 1996; Gilligan & Richardson, 2005; Gupta & McGee, 2010; Rodriguez-Justicia & Theilen, 2018). As a result, the tax compliance literature has introduced other hybrid models (such as the social psychology and fiscal psychology models), including a range of economic and social variables (Smart, 2012). Although education is shown in the literature of psychology as an important factor in guiding individual behaviour, research on the impact of education in the tax context is limited, and the results are mixed (Jackson & Milliron, 1986; Richardson & Sawyer, 2001; Rodriguez-Justicia & Theilen, 2018; Yong et al., 2019). In addition, it remains unclear whether tax education interacts with other demographic variables to influence student tax compliance attitudes.

Yong et al. (2019) reviewed the tax compliance literature between 1998 and 2017 and concluded that only three per cent of the literature had considered the impact of education over this period. Although previous scholars have found that the level of education impacts on taxpayer compliance, Eriksen and Fallan (1996) emphasised that whether or not taxpayers have received tax education can have a greater impact on their tax knowledge. Although obtaining tax education is generally believed to improve tax knowledge, the findings of previous studies on tax education are inconclusive as to whether tax education has a positive or negative effect on taxpayer compliance (Jackson & Milliron, 1986; Richardson & Sawyer, 2001).

This study has been conducted in New Zealand (NZ) because the NZ government relies on voluntary reporting by taxpayers, and it implemented the SAS more than two decades ago (IRD, 2001). In addition, there are only a few studies on the topic of tax education in the NZ setting (such as the studies of Birch et al., 2003, and Gupta & McGee, 2010). Sawyer and Tan (2020)¹ undertook a content analysis of publications on tax research in NZ. Their findings showed that only one article on tax education has been contributed by NZ authors and was published in the *e-Journal of Tax Research* in 2004. Therefore, the role of tax education in NZ needs more empirical research.

1.2 Research Objectives

The present study replicates part of Birch et al.'s (2003) study examining the impact of tax education on students' attitudes towards tax evasion. In addition, this study extends Birch et al.'s (2003) research assessing whether tax education influences student opinions on tax avoidance. Therefore, the primary objectives of this study are:

Research Question 1: How does tax education affect students' attitudes towards tax evasion in NZ?

Research Question 2: How does tax education affect students' attitudes towards tax avoidance in NZ?

Research Question 3: How have students' views of tax evasion behaviour changed in the past 18 years?

Research Question 4: How do other demographic variables interact with tax education to influence students' views of tax non-compliance?

1.3 Contributions of this Research

Prior literature on tax compliance has shown the existence of a large number of independent variables that could individually affect tax compliance behaviour or interact with other variables (Jackson & Milliron, 1986; McKerchar, 2010; Richardson & Sawyer, 2001; Yong et al., 2019). The New Zealand Inland Revenue Department (IRD) pointed out in its *Statement of Intent 2018 to 2022* (IRD, 2018) that in order to control the risk of reducing voluntary compliance levels over a sustained period, they aimed to help taxpayers understand and meet their obligations via educational campaigns. Therefore, the tax authority needs to understand the impact of tax education on taxpayers for organising effective future tax-related educational activities. This study makes a positive contribution to identifying the possible

¹ Sawyer and Tan's (2020) undertook the content analysis of research published in the *New Zealand Journal of Taxation Law and Policy* (NZJTLP), the *Australian Tax Forum* (ATF), and the *e-Journal of Tax Research* (EJTR) between 1994 and 2019, were included.

impact of tax education on students' tax compliance. Although only students are used as participants, 83% of the survey respondents have work experience, which means they also have experience of being taxpayers.

The contribution of this study not only enriches the literature on tax education, but also in part adds to the limited replicative research in the tax context (Fischer & Russell, 1991; Richardson & Sawyer, 2001). Fischer and Russell (1991) indicated that replicative research plays an important role in the tax compliance literature. They pointed out that the strengths of replication are to enhance the certainty of research results and test the validity of research results across populations, time periods, and research methods. Birch et al.'s (2003) study is one of the few studies investigating how tax education affects taxpayer compliance in New Zealand. The authors used students as participants and concluded that tax education positively influences students' attitudes towards tax compliance. In addition, they also found that respondents from the taxation course were more likely to believe that the amount of taxable income understated by small businesses and individuals had increased in the five years preceding their study.

However, in recent years, online knowledge sharing has developed rapidly, making it easier for students to obtain the information or knowledge they require. For example, students who do not have access to tertiary level tax courses can learn about tax topics of interest via online videos. Hence, this study explores whether or not participating in tertiary tax courses still has a significant impact on students' attitudes towards tax evasion, and whether it has a positive or negative effect. Through replicating Birch et al.'s (2003) study, it is envisaged that the present study will identify the impact of tax education on students' attitudes towards tax evasion, as well as the changes in student attitudes compared to 18 years ago.

In addition to exploring students' attitudes towards tax evasion, this study also makes a positive contribution in probing the relationship between tax education and students' tax avoidance attitudes. Tax evasion and tax avoidance are the main sub-categories of tax non-compliance (Braithwaite, 2003; Kirchler et al., 2003). Tax evasion is undoubtedly non-compliant behaviour because it is considered illegal (IRD, 2019b; Kirchler et al., 2003). Tax avoidance involves using legal means to attempt to prevent or reduce the tax liability, which could arise from exploiting loopholes in tax laws (Kirchler & Wahl, 2010; Wenzel, 2004). Although tax evasion and tax avoidance have different legal status and definitions, both actions are likely to cause the actual revenue of the tax authorities to be lower than the revenue they should obtain.

The IRD has utilised civil and criminal penalties to deter these non-compliant behaviours and encourage taxpayers to comply voluntarily with the tax laws. Due to tax evasion violating the tax law, civil and

criminal penalties will be imposed according to the seriousness of the specific behaviour. Although tax avoidance actions follow the letter of the law, it may see civil penalties being imposed because it undermines the spirit of the tax law. The civil penalty regime in NZ includes shortfall, late filing and late payment penalties. Regarding penalties for a tax shortfall, when a taxpayer carries out serious tax avoidance, according to Section 141E of the Tax Administration Act 1994 (TAA 1994), this will be regarded as an “abusive tax position”. Without any adjustment to the penalty, the amount of the penalty is set at 100% of the tax shortfall.

It can be seen from this regime that the tax authority seeks to discourage both tax evasion and tax avoidance. Therefore, this study aims to investigate whether student tax compliance attitudes will be enhanced if they understand the consequences of tax avoidance or potential civil penalties after receiving tax education. Since the line that separates tax avoidance from acceptable tax planning is blurred, this study also considers whether taking formal tax courses assists students in distinguishing between these two concepts, and it also examines students’ attitudes towards these two concepts.

Birch et al.’s (2003) study examined the relationship between demographic variables and students’ tax compliance attitudes, while the present study focuses on investigating the role of tax education. Therefore, this study adopts a mixed methods approach. Use of the survey method is expected to provide a baseline of the students’ attitudes, and the subsequent follow-up interviews seek to explore students’ opinions in more depth. The mixed methods approach maximises the strengths of the methods to compensate for the limitations of a single method (McKerchar, 2010). In addition, as the researcher chose to avoid using the two sensitive terms of tax evasion and tax avoidance in the survey, this made it difficult to identify directly whether the respondents understand the difference between these two concepts. In contrast, the researcher could directly explore the interviewees’ understandings of tax evasion and tax avoidance in the interviews. Hence, this study makes a positive contribution through its attempt to explore students’ understandings of tax evasion and tax avoidance, their attitudes towards these two behaviours, and their perceptions of the role of tax education.

Previous literature has drawn contradictory conclusions on the effect of tax education on taxpayers’ compliance. Richardson and Sawyer (2001), for example, pointed out that one possible explanation for the conflicting findings is that tax education interacts with other variables, affecting taxpayers’ compliance attitudes. Although Birch et al.’s (2003) study examined the impact of demographic variables on taxpayer compliance, they did not consider the interaction between variables. Therefore, the fourth objective of this study aims to determine whether tax education interacts with other demographic variables to affect students’ attitudes towards tax evasion and tax avoidance.

1.4 Structure of the Thesis

The remainder of this thesis is structured as follows. Chapter 2 reviews prior literature in the area of behavioural tax compliance and non-compliance. The concepts of tax evasion and tax avoidance are discussed. The difference between tax avoidance and acceptable tax planning is also mentioned. In addition, this chapter analyses previous literature on the theoretical concept of behavioural tax compliance. Chapter 3 continues the literature review, focusing on analysing the role of tax education in the tax compliance literature and the possible reasons for the different impacts of tax education.

Chapter 4 describes how this research replicates Birch et al.'s (2003) study and outlines the mixed methods approach consisting of the quantitative component and qualitative component used in this research. This chapter also outlines the research design, sampling, data collection procedure and data analysis techniques utilised in the survey and interviews, respectively.

Chapter 5 presents the data collected from the survey and discusses the survey findings. After that, key findings from the interviews are set out and explained in Chapter 6. Chapter 7 goes over the research questions and answers these questions through summarising the results of the surveys and interviews. This chapter also lays out the limitations of the research and provides suggestions for further study.

Chapter 2: Literature Review –Tax Compliance

2.1 Introduction

The purpose of this chapter is to review prior literature in the area of behavioural tax compliance and non-compliance. Since this study recruits New Zealand (NZ) students as the research subjects, the probing of the definitions of these concepts is mainly based on NZ studies. Furthermore, as the replication of Birch et al.'s (2003) study, the definitions adopted in this study follow the definition used in their study.

This chapter also introduces three blends of models commonly used in behavioural tax compliance research: Economic Deterrence Models, Social Psychology Models and Fiscal Psychology Models. Theory of Planned Behaviour (TPB) is one of the Social Psychology Models. Many TPB studies, such as Ajzen and Fishbein (1980), have found that attitudes toward behaviour are the most influential factor in predicting and explaining tax compliant behaviour. This study uses the TPB model in order to understand students' attitudes towards tax compliance that further affect their behaviour.

2.2 Behavioural Tax Non-Compliance and Tax Compliance

According to Tan and Sawyer (2003), tax non-compliance is the “antithesis of compliance, and it represents the failure by a taxpayer to meet all of their compliance obligations in a timely and accurate manner” (p. 432). Richardson and Sawyer (2001) pointed out in their review that there are two main types of non-compliance by taxpayers: “non-compliance through the overstatement of deductions; and non-compliance through the understatement of income” (p. 224). Although Roth et al. (1989) suggested that non-compliance can also arise from an over-payment of tax, tax authorities, such as the Inland Revenue Department (IRD), does not consider those who pay more than they legally owe in taxes as non-compliant taxpayers (Burton, 2008).

2.2.1 Tax Evasion

As the most serious action of tax non-compliance, tax evasion is a core area in tax research. Wu (2012) reviewed the definition of tax evasion in various tax compliance studies between 1995 and 2011, and identified three main characteristics of tax evasion: illegal activity, a deliberate act, and lesser payment of taxes due. In Wu's (2012) review, scholars generally believe that taxpayers intentionally violate the tax laws and use their pre-requisite knowledge to assist them to underreport income or to overstate

deductions. For instance, the concept proposed by Tooma (2008) shows that taxpayers need to have a certain understanding of the tax system to support them in their tax evasion activities:

Tax evasion is the unlawful escaping of tax liabilities. Tax evasion involves taxpayers deliberately misrepresenting or concealing the true state of their affairs to tax authorities to reduce their tax liability. That is, evasion requires deceit on the part of the taxpayer. (p. 14)

The present study adopts this definition because it shows that taxpayers' deliberate behaviour is critical in tax evasion. In other words, this tax evasion concept suggests that the taxpayers' "tax knowledge" and "intention of evading tax" are closely related, which matches the purpose of this study. The NZ government has adopted the concept that tax evasion behaviour is a deliberate act of taxpayers. The Inland Revenue Department (2019b) indicated that tax evasion behaviour is an act of "intentionally not paying the correct amount of tax" by concealing earned income or inflating expenses (p. 1). As tax evasion is a criminal offence, the criminal penalties also clearly express that tax evaders need to have tax knowledge to evade tax (Sawyer, 2021). For example, Section 143B (an offence for evasion or similar behaviour) of the TAA 1994 uses terms like "knowingly" or "intending" to show that tax evaders are aware of their tax obligations and know that their actions are illegal.

Furthermore, it is interesting to note that although most research considers tax evasion to be harmful to tax revenue, researchers have different attitudes towards how tax evasion should be treated. For instance, taking into account the administrative costs, Porcano (1988) recognised that the tax evasion problem is inevitable and "some degree of tax evasion should be expected and tolerated" (p. 48). However, Gupta (2007) considered that intentional tax evasion is as serious as tax fraud because taxpayers do so deliberately. In addition, the variables that affect taxpayers' attitudes towards taxation have always been a popular topic in the tax context. Researchers like Jackson and Milliron (1986), Richardson and Sawyer (2001), and Yong et al. (2019) have found that a series of factors, such as demographic variables, tax morale, and tax complexity, may affect taxpayers' tax evasion attitudes, and the influencing factors are increasing with the development of tax compliance research. Marriott (2017) emphasised that through the media's coverage of tax evasion cases in recent years, people better understand the harm caused by tax evasion, and the historical tolerance for tax evasion (as in Porcano's earlier statement) may decrease.

2.2.2 Tax Avoidance

Kirchler and Wahl (2010) on the subject of tax avoidance pointed out that "Taxes are intentionally reduced by legal means through taking advantage of loopholes in the law" (p.333). This definition shows that although tax avoidance is also a deliberate means to reduce tax liability, it is legal. Some researchers,

such as Barkoczy (2021), Duff (2009), Sonia and Suparmun (2019) maintain that acceptable tax planning and tax avoidance are often difficult to distinguish. According to Barkoczy (2021), in order to encourage taxpayers to engage in specific activities, governments provide incentives under certain tax expenditure programmes. This has led some taxpayers to seek to take advantage of the legal opportunities provided by the tax law to minimise their tax liability, and these legal arrangements are permissible tax planning.

The unclear boundary between tax planning and tax avoidance has led to different views on tax avoidance among scholars. For example, some researchers, such as Braithwaite (2003), and Kirchler et al. (2003), believe that tax avoidance activities ignore the tax system's equity and hinder social and economic development. They defined tax avoidance actions as aggressive strategies, and they believed that these actions exploit tax loopholes. Likewise, Otusanya (2011) pointed out that, when taxpayers realise the tax system is unfair and lose faith in it, they are more likely to join the group of tax avoiders. Some other scholars have taken the opposite attitude. For example, Hofmann et al. (2008) believed that tax avoidance is "legal and moral" (p. 210), and Kasipillai et al. (2003) maintained that it reduces tax in a "proper manner" (p. 135). Also, Tooma (2008) indicated that "taxpayers should be allowed to arrange their affairs to pay the least tax possible" (p. 16). Many charities, such as Christian Aid and Oxfam, have investigated tax avoidance schemes and explored their impact on the world's poor (Christian Aid, 2005, 2008; Oxfam, 2000, 2005).

The diversity of legislation interpretation is generally considered to be one of the reasons for the unclear distinction between acceptable tax planning and tax avoidance schemes (Palan et al., 2013; Otusanya, 2011). NZ General Anti-Avoidance Rules (GAAR) are included in Sections BG 1 of ITA 2007, and related terms are defined in Section YA 1 of the same act. However, due to the complexity of the tax law, some tax arrangements may comply with the letter of the tax law but undermine the spirit of the law, and these tax arrangements are considered as tax avoidance (Birch et al., 2003; James & Alley, 2002; McBarnet, 2003; 2006). As described by Keating (2021), in the last century, NZ had been influenced by the *IRC v Duke of Westminster* (1936) case², and adopted the interpretation of "form over substance". However, when tax avoidance began to prevail, the NZ government acknowledged that the "form over substance" approach did not apply in some extreme cases and realised the importance of the spirit of the tax law .

² The UK case of *IRC v Duke of Westminster* [1936] AC 1 suggested that every taxpayer is entitled to set arrangements that minimise their tax liability, and it implied a "form over substance" approach. The adoption of the principles in the *Duke of Westminster* case was reflected in *Anderson v Commissioner of Taxes (Vic)* (1937) 57 CLR 233 in New Zealand.

New Zealand established the “parliamentary contemplation test” to determine avoidance. A concrete example is the case *Ben Nevis Forestry Ventures Ltd & Ors* (2008)³. Section YA 1 of the NZ Income Tax Act 2007 (ITA 2007) points out the substance of tax avoidance arrangements as “ha[ving] tax avoidance as its purpose or effect” or one of its purposes or effects is not “merely incidental.” Although Ben Nevis’s behaviour was considered to have “satisfied the ordinary meaning of the specific provisions relied on to claim the deductions”, the Supreme Court argued that they had failed to show that “the specific provisions they relied on had been used in a manner which was within Parliament’s purpose and contemplations when it enacted them” (*Ben Nevis* Supreme Court, paragraph [156]). Therefore, this tax scheme was recognised as a tax avoidance arrangement. Similarly, in the *Ian David Penny and Gary John Hooper v Commissioner of Inland Revenue* (2011) case⁴, the Supreme Court stated that Penny and Hooper’s behaviour constituted a tax avoidance arrangement since their salary levels “cannot have been within the contemplation of Parliament” (*Penny and Hooper* Supreme Court, paragraph [47]). Therefore, some scholars, such as Atkinson (2012), suggest Sections BG 1 and YA 1 are not fully operational as a guide for taxpayers and tax practitioners because the New Zealand case law places much power in the hands of the Judiciary to interpret the intentions of Parliament.

Atkinson (2012) pointed out that GAARs are purposely designed to be flexible to potentially apply to a wide range of arrangements. Although Freedman (2005) and James et al. (2015) suggested that legal certainty is a key element of the tax system, certainty is not the primary goal of GAAR. As explained by Atkinson (2012), a precise definition of tax avoidance may lead to “creative compliance”, defining by McBarnet (2003) as “finding ways to accomplish compliance with the letter of the law while totally undermining the policy behind the words” (p.7). As a result, to define avoidance with such precision would cause an unintended increase in tax avoidance. In addition, the wordings of BG 1 and YA 1 are identical to that utilised in earlier NZ GAARs since 1974⁵ (Atkinson, 2012). At the same time, civil penalties are enforced when a GAAR-applicable behaviour is found. Hence, the continued use of wording and the enforcement of civil penalties can enhance the certainty of tax avoidance in NZ to some extent (Atkinson, 2012).

According to the concept of tax avoidance mentioned above, general taxpayers who have not received tax education may have difficulty in finding loopholes in the law to exploit. At the same time, those general taxpayers may also find it hard to understand the difference between the letter and the spirit of

³ For further details of *Ben Nevis and Ors v CIR / Accent Management Ltd and Ors v CIR* [2008] NZSC 115, please read: <https://www.courtsofnz.govt.nz/assets/cases/2008/sc-43-2007-ben-nevis-and-ors-vcir.pdf>

⁴ The details of *Ian David Penny and Gary John Hooper v Commissioner of Inland Revenue* [2011] NZSC 95, please read: <https://www.courtsofnz.govt.nz/assets/cases/2011/sc-62-2010-penny-and-hooper-v-cir-v-2.pdf>

⁵ *Land and Income Tax Amendment Act (No. 2) 1974* (NZ). See former *Land and Income Tax Act 1954* (NZ) s 108; *Income Tax Act 1976* (NZ) s 99; *Income Tax Act 2004* (NZ) s BG 1.

the tax laws, and recognise that a certain tax planning scheme is abusive tax avoidance. In contrast, although a precise definition of tax avoidance is not the primary goal of GAAR, whether this imprecise definition would confuse people who have obtained tax education still needs to be explored. Therefore, in addition to focusing on students' tax evasion attitudes, this study also explores tax avoidance attitudes of tax and non-tax students. Especially for tax students, this study explores whether receiving tax education allows them to have confidence in distinguishing tax avoidance and acceptable tax planning, and whether tax education changes their views on tax avoidance.

According to Keating (2021), the most significant difference between tax evasion and tax avoidance is legality. In addition, due to the different legal statuses of the two non-compliant behaviours, the severity of the consequences of the accused taxpayer is also different in terms of civil penalties and criminal penalties mentioned before. However, both tax evasion and tax avoidance will harm society and the economy, namely reducing taxpayers' perceived fairness of the tax system and declining revenue of tax authorities. The relationship between tax evasion and tax avoidance should be apparent to those who have obtained tax education. However, whether those who have not been exposed to tax education and lack expertise on tax can distinguish tax evasion and tax avoidance remains to be investigated.

2.3 Behavioural Tax Compliance

A review of the tax compliance literature shows that a standard, all-embracing definition of compliance still remains elusive (Birch et al., 2003; Devos, 2004; Richardson & Sawyer, 2001; Wu, 2012). A comprehensive definition, and widely cited in the literature, was provided by Roth et al. (1989), who defined tax compliance as follows:

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 following the Internal Revenue Code, regulations, and court decisions applicable at the time the return is filed (p. 2).

The above definition includes three main factors: (i) filing at the proper time, (ii) accurately calculating the tax liability, and (iii) in accordance with applicable legislation (Smart, 2012; Wu, 2012). However, this definition does not specify intentional or unintentional compliance.

James and Alley (2002) developed a more comprehensive definition, viewing the meaning of compliance as a continuum of definitions. They pointed out the following:

The meaning of compliance ranges from the narrow law enforcement approach, through wider economic definitions and on to even more comprehensive versions relating to taxpayer decisions to conform to the wider objectives of society as reflected in tax policy (p. 29).

The above definition was composed from a number of criteria by James and Alley (2002) that attempted to cover a wide range of tax compliance behaviour: degree of non-compliance; uncertainty regarding the tax compliance measurement; voluntary and compulsory compliance; timing issues on tax payment; intentional and unintentional behaviour; the letter and spirit of tax law. James and Alley (2002) distinguished between voluntary compliance and compliance due to the application of enforcement actions. They indicated that when taxpayers comply with tax law “only because of dire threats or harassment or both” (p. 30), their behaviour would not be regarded as proper compliance, and the taxpayers should not be considered as compliant taxpayers.

Birch et al. (2003) emphasised that when reviewing and synthesising the findings from tax compliance literature, it should be noted that there is no standard definition of compliance adopted across studies. Although Wu (2012) attempted to develop a universal definition of tax compliance by reviewing a large volume of tax compliance literature, she failed to achieve a universal definition based on the current state of the literature and case law.

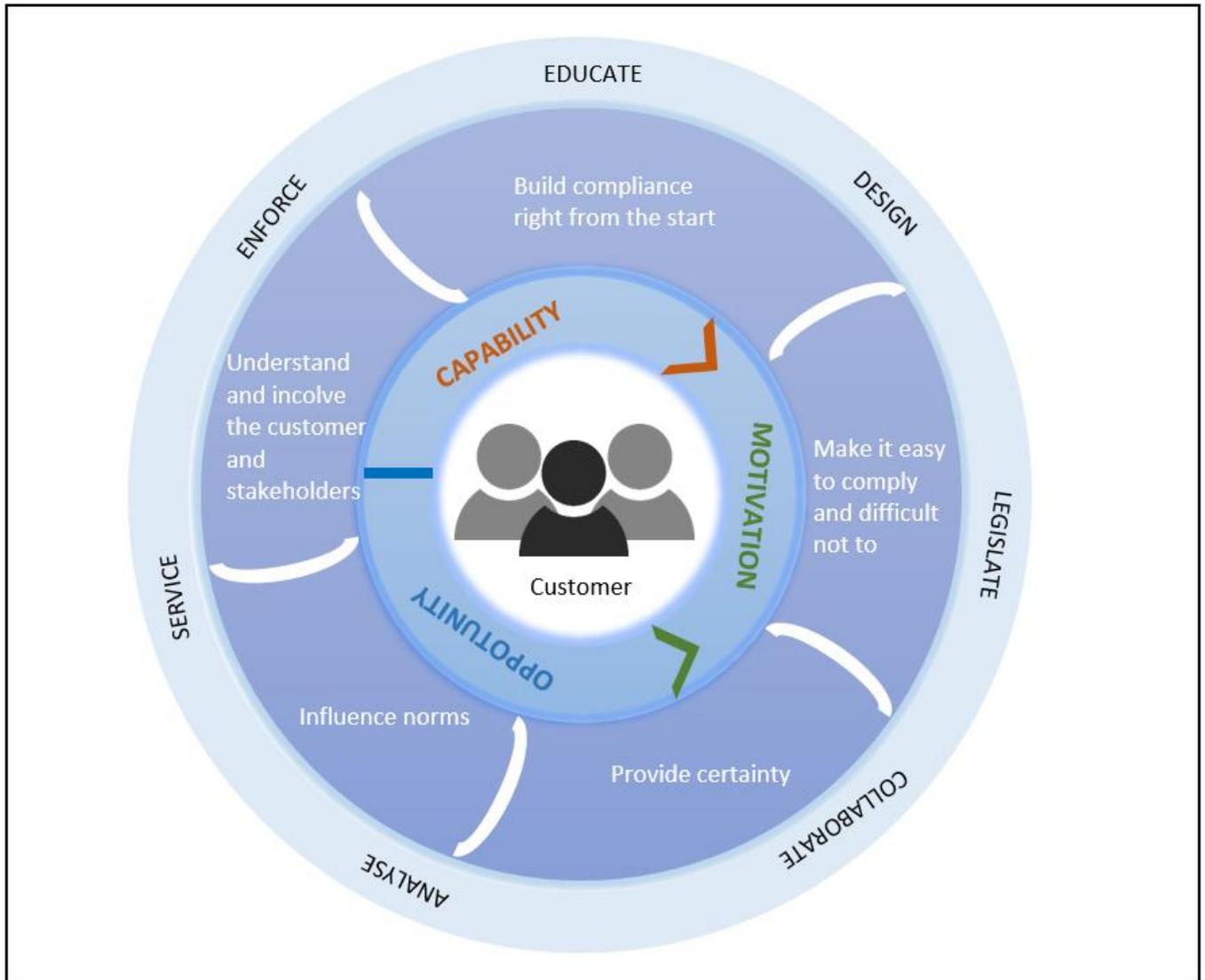
The IRD does not provide clear definitions or interpretations for understanding the concept of tax compliance, but adopts compliance models to show how they measure taxpayer compliance. Figure 2.1 shows the model used by the IRD from 2015 to the present, which is what Hodson (2018) calls a “thinking tool” (p. 192). This model emphasises the central position of taxpayers and adopts a three-layer Behaviour Change Wheel to gain insights into taxpayers from three perspectives: behaviour change, principles, and activities. Therefore, the IRD can draw flexibly on the elements in the model to understand the motivations of voluntary taxpayer compliance.

However, compared with the more recent model, the model used by the IRD before 2015 is commonly cited by scholars, as consisting of two parts (see Figure 2.2). The first part is a circle with the customer (taxpayer) as the core, which introduces five factors, including business, industrial, sociological, economic and psychological (BISEP), that influence customers' decision-making and behaviour. The shape of the other part of the model is a pyramid, which reveals four groups of taxpayer attitudes when faced with their tax liabilities, and which suggests that most people wanted to comply. This pyramid also guides IRD staff on treating these four groups of people with different approaches, which, according to Hodson (2018), was well regarded within the IRD. Although the previous compliance

model did not examine taxpayers' intentions or motivations for complying with tax laws, it assists in determining the attitudes of the four types of taxpayers when facing their tax obligations.

Figure 2.1

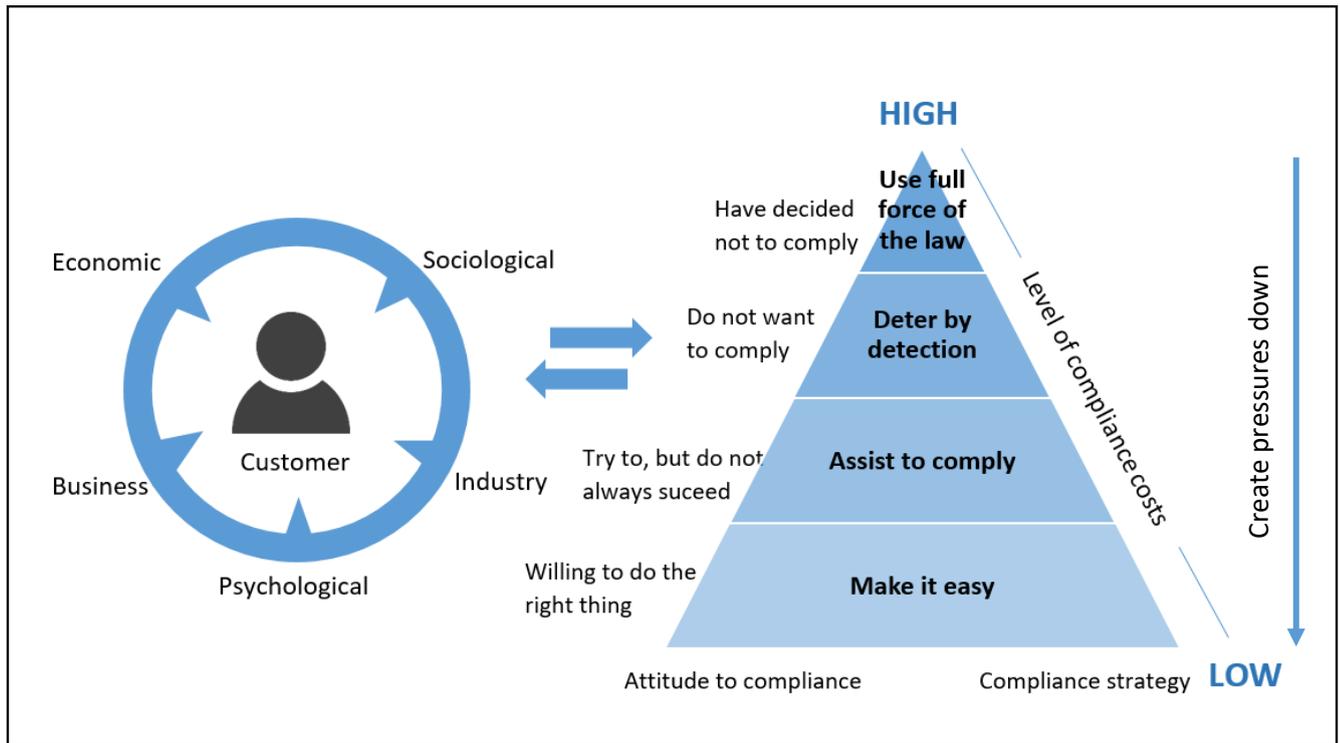
The NZ Inland Revenue Department's Compliance Model



Source. Inland Revenue (2019a, p. 6)

Figure 2.2

The Braithwaite Compliance Model⁶



Source. Hodson (2018, p. 189).

2.4 Theoretical Models in Behavioural Tax Compliance Research

Understanding why taxpayers engage in tax non-compliance is of great significance in reducing tax non-compliance. Although theories and models have been developed over the last 60 years in the social field, there are three blends of theoretical models related closely to tax compliance: Economic Deterrence Models, Social Psychology Models and Fiscal Psychology Models. Among them, Fiscal Psychology Models include both economic factors and psychological factors.

2.4.1 Economic Deterrence Models

The establishment of Economic Deterrence Models in the taxation field is based on taxpayers' fears about punishment for non-compliant tax behaviour. Considering this assumption, Allingham and Sandmo (1972) used the expected utility function of tax evaders to propose an influential economic deterrence model. Their model indicated whether a taxpayer evading taxes may be affected by their

⁶ This model is no longer available on the Inland Revenue website.

degree of risk aversion and the probability of detection. For the former, the higher level of risk aversion the taxpayer has, the less likely he or she is to understate income. In respect to probability of detection, the premise is that the taxpayer has the tax knowledge to assess the probability of being detected and the size of the penalties that may be incurred when detected. In addition, Allingham and Sandmo's (1972) model showed that taxpayers are more likely to be conservative and have a lower level of risk aversion when they face uncertainty.

However, other scholars, like Yitzhaki (1974), Yong (2006), Smart (2012), and Alm (2012) have criticised Allingham and Sandmo's (1972) model from several aspects. First, their model only considered the utility function of income and neglected expenditure on compliance (Smart, 2012; Yong, 2006). The literature has generally shown that both understating income and overstating deductions are common methods used by tax evaders (Alm, 2012; Smart, 2012). According to Yitzhaki (1974), taxpayers who earn business income, for example, overstating deductions has an equal effect as understating income in reducing a taxpayer's income tax liability. Therefore, instead of measuring the amount of understated income, he suggested that the penalty for discovered evasion should be based on the amount of tax underreported.

Another aspect of Allingham and Sandmo's (1972) model that can be criticised is a common issue with other Economic Deterrence Models. According to Hasseldine and Bebbington (1991), the Economic Deterrence Models predicts that economically rational taxpayers (or tax evaders) will evade taxes as long as the return of tax evasion is greater than the expected value of the fines that would be imposed if caught. Nevertheless, Alm (2012) showed that the probability of a thorough tax audit is generally less than 1 per cent of all individual income tax returns in most countries. In this case, Economic Deterrence Models assume that most economically rational taxpayers would be inclined to evade tax because such cheating seems unlikely to be caught and penalised. In reality, however, most taxpayers are willing to pay their tax on time and the correct amount. This demonstrates that whether taxpayers are willing to pay taxes cannot be explained simply by considering Economic Deterrence Models alone.

Moreover, according to Allingham and Sandmo (1972) and Yitzhaki (1974) these Economic Deterrence Models suggest that tax compliance improvement depends on enforcement activities. Although enforcement is still considered a critical factor in motivating tax compliance, an increasing number of scholars have studied tax evaders' motivations from the social psychology perspective (Smart, 2012). Richardson and Sawyer (2001) indicated that the tax compliant determinants related to enforcement activities, such as sanctions and probability of detections, have been found to have unclear effects on tax compliance. Furthermore, the impact of tax morale also plays an important role in tax reporting

decisions (Kirchler, 2007; Torgler, 2007). Therefore, the following section considers analysing taxpayer motivation for tax compliance with Social Psychology Models.

2.4.2 Social Psychology Models

Social Psychology Models aim to predict and understand human behaviour by examining individuals' attitudes and beliefs (Birch et al., 2003). Because most tax non-compliant activities can be viewed as deliberate decisions, insights from the psychological perspective are valuable in promoting tax compliance (Mckerchar, 2001). Hence, this section introduces four Social Psychology Models for studying the taxation decision-making process.

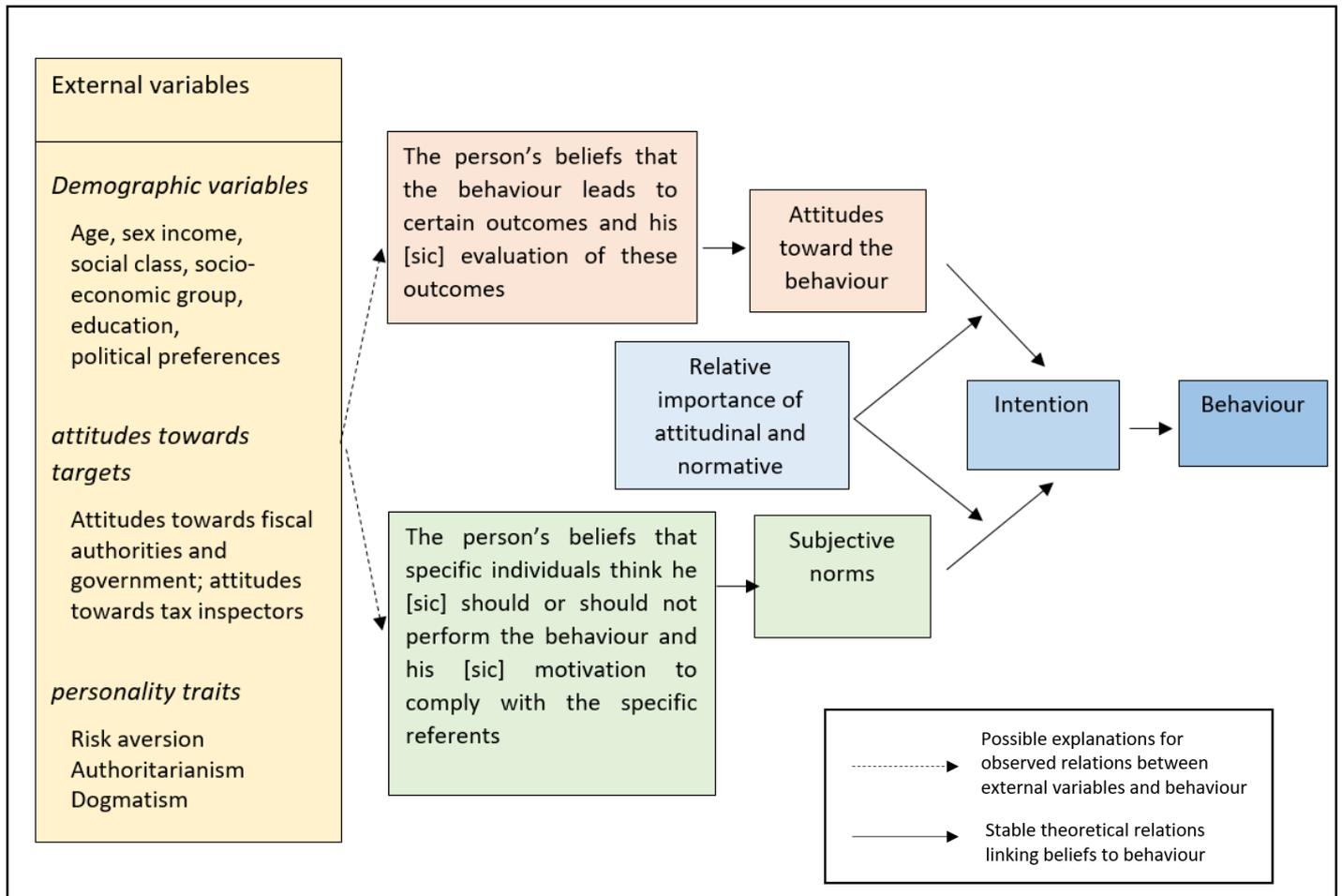
Compositional Modelling states that individuals will act rationally according to their preferences and is generally referred to as the Theory of Reasoned Action (TRA) (Ajzen & Fishbein, 1980). The TRA was first proposed by Ajzen and Fishbein (1980) (see Figure 2.3) who suggested that people's intentions determine their behaviour. Individuals' intention is a function of their attitudes towards behaviour and their subjective norms. According to Aizen and Fishbein's TRA, whether a person engages in a specific behaviour depends on whether the person naturally has a positive or negative predisposition with respect to the behaviour. At the same time, subjective norms, which are equivalent to social influence, also play an important role (Devos, 2013; Mckerchar, 2001). Social influence or social pressure, such as family members' or friends' approval of specific tax behaviour, will affect the taxpayer's intentions to perform the behaviour (Smart, 2012). For example, Saad (2014) examined the impact of tax knowledge and tax complexity on taxpayers' behavioural intentions. The results with respect to NZ taxpayers pointed out that subjective norms have significant effects on intentions. Although Ajzen and Fishbein's (1980) model also indicates *personality traits*, *attitude towards the target* and *demographic variables* as external variables, they did not find a clear relationship between these external variables and behaviour. This outcome is different from later literature related to tax compliance. In the three literature reviews of Jackson and Milliron (1986), Richardson and Sawyer (2001), and Yong et al. (2019)⁷, the influence of these external variables on taxpayers' intentions and behaviours of tax compliance has been verified in prior studies. Cialdini (2016) also supported the TRA but employed direct observations and case studies as his research methods. As a result, he supposes that commitment is the most potent influence on taxpayer behaviour; that is, taxpayer compliance can be improved by educating them about social responsibility.

⁷ Jackson and Milliron (1986) reviewed the findings of tax compliance studies conducted prior to 1986. Richardson and Sawyer (2001) built upon Jackson and Milliron's (1986) research by synthesising the work between 1986 and 1997. Yong et al. (2019) reviewed and analysed the tax compliance literature from 1998 to 2017 to identified "variables."

Although the TRA provides a clear explanation for human behaviour formation, its successor, the Theory of Planned Behaviour (TPB), has become popular in recent years. According to Ajzen's (2005) model, the TPB considers that a person's intention to engage in a particular behaviour is the most significant determinant of that action. Similar to the TPA, the intention is also a function of attitude toward the behaviour and subjective norm. However, this model has the third determinant that directly affects intention and may directly predict behaviour, namely perceived behaviour control (See Figure 2.4). Ajzen (2005) pointed out that perceived behaviour control is "the sense of self-efficacy or ability to perform the behaviour of interest" (p. 118). Hence, according to the TPB, people plan to perform a behaviour when they have a favourable judgement of the behaviour, when the social influence from important referents motivates them to engage in the behaviour, and when they suppose they have the opportunities and ways to do so. Furthermore, the TPB illustrates that attitudes, subjective norms, and perceptions of control can be accounted for by a set of person's beliefs, depicted in Figure 2.4. Although Ajzen (2005) examined background factors from a personal, social, and informational perspective, he again concluded that these factors have no significant impact on beliefs, intentions, and behaviour. There are a number of extensions of the TPB, but most of them focus on marketing rather than the tax context. Smart's (2012) study filled this gap, and she found that the attitude towards the behaviour is the most influential predictor of tax compliance behaviour. Similarly, subjective norms were also significantly related to tax compliance behaviour. Perceived behavioural control was only significant for general taxpayers with respect to her findings. On the contrary, the perception of the tax authority was only significant for those who have adequate knowledge of tax matters.

Figure 2.3

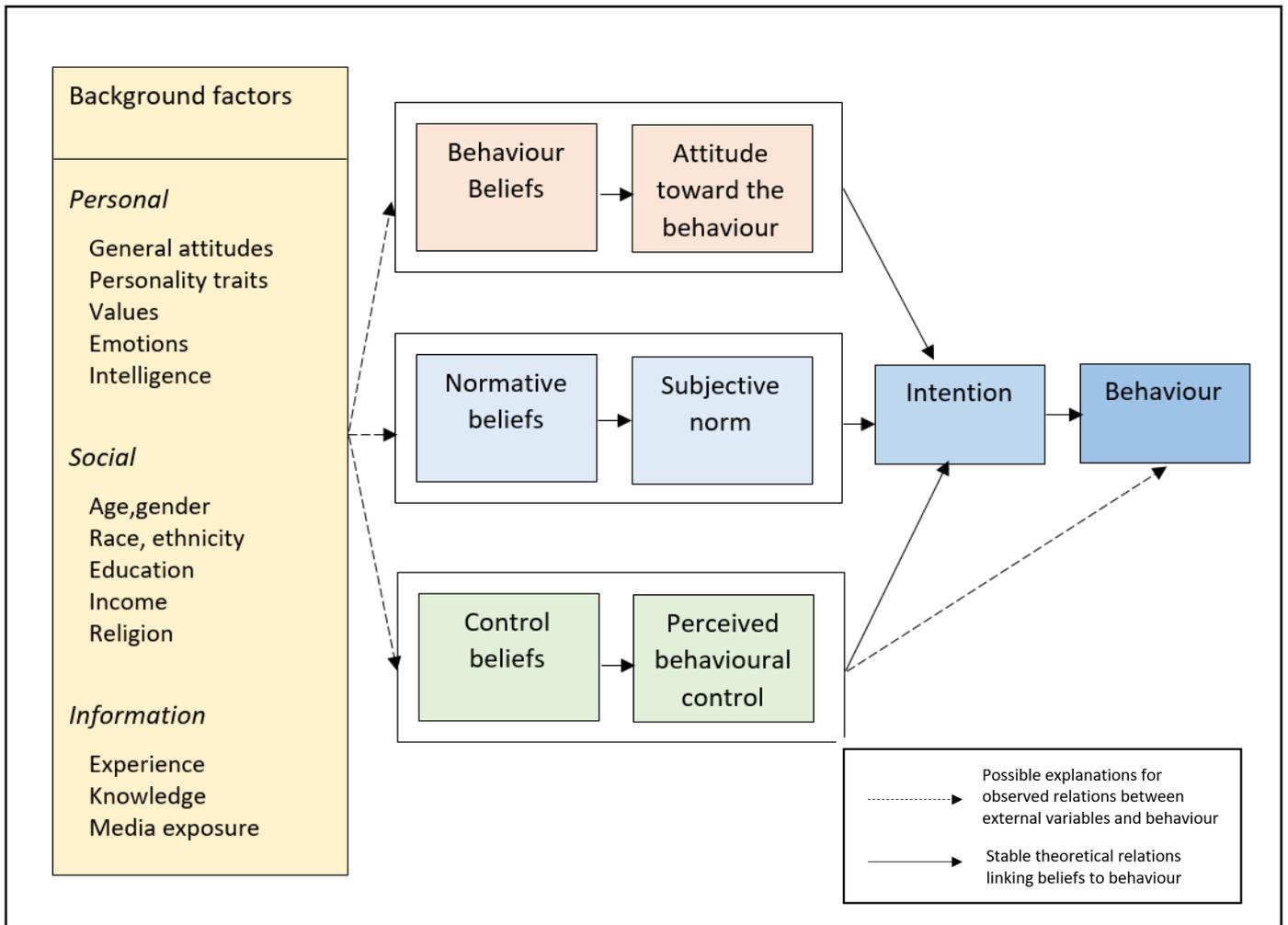
Ajzen and Fishbein's (1980) Model of Theory of Reasoned Action



Source. Ajzen & Fishbein (1980, p. 8)

Figure 2.4

Ajzen's (2005) Model of Theory of Planned Behaviour



Source. Ajzen (2005, p. 135)

Decompositional Modelling is an approach that considers known overall performance or decisions and then looks backwards to determine the reasons and the trade-offs (which may not always be made consciously) for people's decisions (Mckerchar, 2001). Because Decompositional Modelling is more suitable for large-scale research, it has been widely used in marketing and environmental areas (Mckerchar, 2001; Mercedes-Martín et al., 2017). However, the time-consuming collection of large-scale data makes this method rarely used in the tax context (Smart, 2012).

Attribution Theory provides the framework for uninformed individuals, and explains why events and actions happened around them (Martinko & Mackey, 2019). People usually attribute behavioural outcomes to personal or situational factors. When evaluating the behaviour of others, people attribute

the reasons why others do it to personal factors. However, when evaluating their own behaviour, they attribute it to situational factors (Mckerchar, 2001). Hite (1987) tested this theory in a study on tax evasion and found that tax evaders generally blamed their behaviour on situational factors rather than themselves. However, her conclusion pointed out that this finding is not generalisable and could be affected by the questionnaire framework used.

Equity Theory refers to people making decisions by examining the outcome of input ratio in an exchange relationship, and it is closely associated with the Theory of Cognitive Dissonance (Adams, 1965). The inequality between personal monetary rewards and task contributions at work was the topic of earlier research (Adams, 1965), while Thibaut et al. (1974) extended Equity Theory to a broader concept that includes fairness and commitment. With respect to tax compliance, taxpayers are concerned with the fairness between the taxes they pay to the government (inputs) and the services they receive (outputs). When taxpayers realise the inequity between the inputs and outputs, they are inclined to engage in tax non-compliant activities (Smart, 2012).

2.4.3 Fiscal Psychology Models

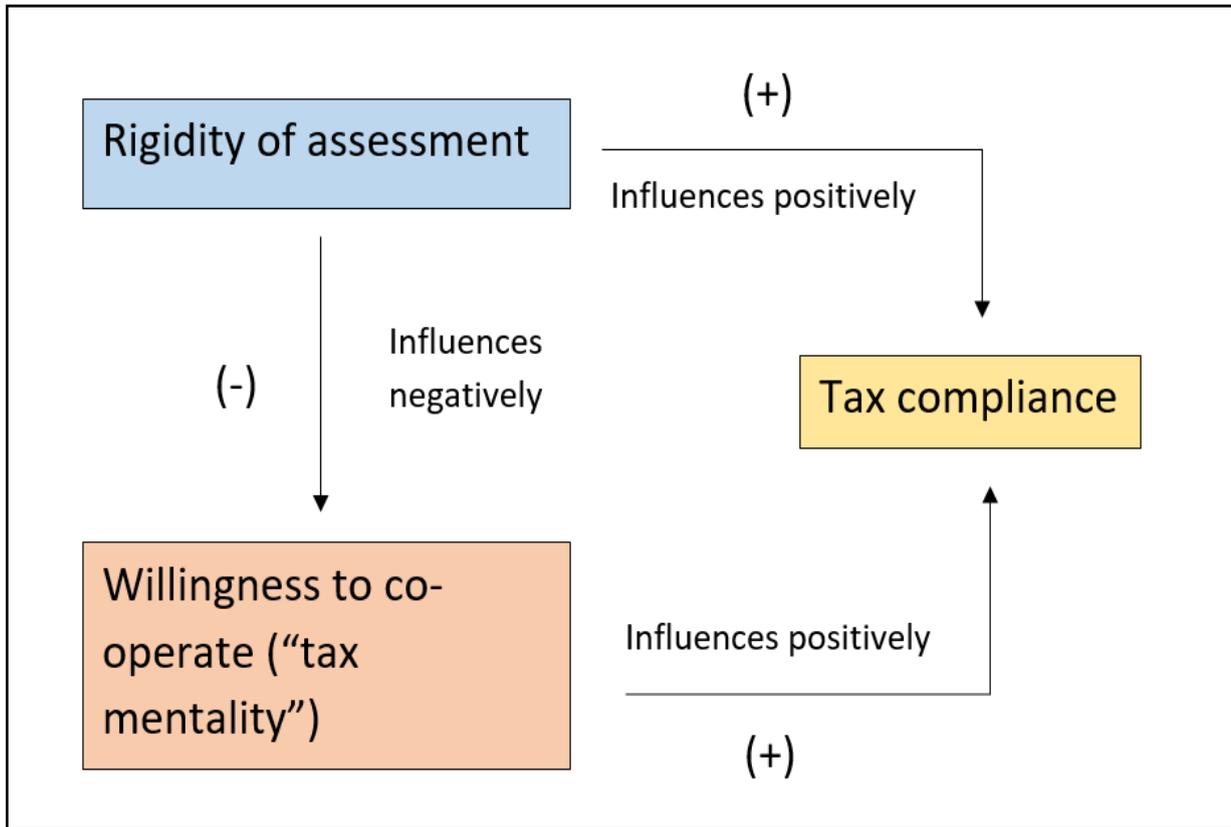
The Fiscal Psychology Models aim to show comprehensively that individual behaviour is affected by economic or financial factors and social or psychological factors. One of the earliest studies involving the term “Fiscal Psychology” is Schmölder’s (1959) on tax-dodging, which also explored a “tax mentality” concept (p. 341). Tax mentality refers to taxpayers’ attitudes towards tax compliance or non-compliance. Schmölders (1959) believed that cultural differences cause individuals to have divergent perspectives of their obligation to contribute to society, leading to their distinct tax mentality. Furthermore, the positive impact of tax mentality on the willingness of the taxpayer to collaborate with tax administrations was mentioned by him. Alm and Torgler (2006) indicated that the concept of tax mentality lays the foundation for the concept of tax morale.

Another early Fiscal Psychology Model on tax compliance was developed by Strümpel (1969). This model posits that tax compliance is a function of two determinants: the *rigidity of assessment* and *willingness to cooperate* (see Figure 2.5). The former measures “the amount of tax and the level of fines, the assessment process and the level of ‘red tape’ involved in engaging with the tax authority,” while the latter reflects “individuals’ attitudes and perceptions of the tax system” (Strümpel cited in Smart, 2012, p. 29). According to his model, *willingness to cooperate* with taxpayers positively impacts on tax compliance behaviour, whereas *rigidity of assessment* is posited to have two opposite effects. On the one hand, it has a direct positive effect on tax compliance. On the other hand, it can negatively affect the willingness to cooperate, consequently leading to a decline in tax compliance. according to Kinsey

(1992), the negative impact of the *rigidity of assessment* implies the limitations of traditional Economic Deterrence Models, that is, the rigid enforcement by tax authorities may eventually undermine taxpayer compliance when not affected by any supporting norms.

Figure 2.5

Strümpel's (1969) Model of Tax Compliance



Source. Strümpel (1969), as cited by Hessing et al. (1988, p. 526)

Although these earlier Fiscal Psychology Models provide advice for promoting taxpayer compliance from different points of view, Cuccia (1994) showed that several issues were still not resolved. The first issue concerns using self-reports, which are considered to be unable to capture compliance data reliably. The lack of assumptions regarding how demographic variables influence taxpayer attitudes and behaviour is the second issue with earlier models (Cuccia, 1994). Nevertheless, the second issue has been considered by other empirical studies later (such as Birch et al., 2003).

Building on these earlier studies, later research on the Fiscal Psychology Models mainly encourages more voluntary compliance instead of deterring non-compliance, as in the work of Pope and McKerchar

(2011). This shift in focus may be because the impact of psychological factors on taxpayer compliance was seen as playing a more important role than traditional economic deterrence factors. In addition, tax fairness has been a predominant factor in other research using Fiscal Psychology Models, because it is asserted to offer major insights into developing a successful tax system (see Devos, 2013; James, 2014). Nevertheless, Devos (2013) found that the relationship between fairness and tax compliance has mixed results, and the reason for this mixed result is the multi-dimensional nature of fairness and its measures.

In summary, Fiscal Psychology Models assume that taxpayers are more likely to pay taxes when they feel that they receive benefits in either monetary or social goods from complying with tax laws (Schmölders, 1959). In addition, these models focus on the relationship between taxpayer attitudes and behaviour, and they primarily look into voluntary tax compliance rather than enforcement of tax compliance.

2.5 Summary

This chapter focuses on the two sub-categories of tax non-compliance, namely tax evasion and tax avoidance. The two concepts are clearly distinguished in terms of legality, and due to different legal statuses, taxpayers who fail to comply may be penalised differently. Nevertheless, whether non-tax students can distinguish a specific behaviour from tax evasion or tax avoidance remains to be explored, and their attitude towards tax evasion and tax avoidance needs to be investigated. Tax avoidance, as a form of tax mitigation, is vaguely divided from acceptable tax planning. Therefore, whether tax or non-tax students understand the difference between these two concepts remains to be examined. Especially for tax students who should understand the difference between these two concepts, their attitudes towards tax avoidance and acceptable tax planning need to be probed.

Furthermore, this chapter briefly reviews current definitions of tax compliance. There is no all-embracing and universal definition of tax compliance, which needs to be noted when synthesising the findings of earlier tax compliance literature. Birch et al.'s (2003) study, as the replication object of this research, also did not clarify the definition of tax compliance. Moreover, instead of utilising the definitions or interpretations for understanding the concept of tax compliance, the IRD has adopted the compliance model in order to understand the motivations of voluntary taxpayer compliance.

This chapter also reviewed the three key tax compliance models: the Economic Deterrence Models, the Social Psychology Models, and the Fiscal Psychology Models. Among them, the features of the Economic Deterrence Models and the Social Psychology Models features are presented in Table 1, and the Fiscal Psychology Models are a combination of the former two blends of models.

Table 2.1*James and Alley's (2002) Table of Different Approaches to Tax Compliance*

Tax Compliance	Economic Deterrence Models	Social Psychology Models
Concept of	Tax Gap The actual revenue collected is less than the amount that would be collected if there were 100 per cent compliance.	Voluntary Willingness to act in accordance with the spirit as well as the letter of tax law.
Definition	Narrower	Wider
Tax Compliance	Economic rationality	Behavioural cooperation
Exemplified by	Trade-off: 1. Expected benefits of evading 2. Risk of detection and application of penalties 3. Maximise personal income and wealth	Individuals are not simply independent, selfish utility maximisers. They interact according to differing attitudes, beliefs, norms and roles. Success depends on cooperation.
Issues of	Efficiency in resource allocation	Equity, fairness and incidence
The taxpayer has seen as	Selfish calculator of pecuniary gains and losses	“good citizen”
It can be termed the	Economic approach	Behavioural approach

Source. James & Alley (2002, p. 33)

The primary purpose of this study is to understand students' attitudes towards tax non-compliance. Tax students have learned about the civil or criminal penalties caused by tax non-compliance from the tax courses, but non-tax students may not understand the consequences of taxpayer non-compliance. Although some students may have jobs and have paid taxes, they are less likely to receive the impact from economic deterrence. Therefore, this study uses Social Psychological Models to analyse how social and psychological factors affect students' attitudes. In addition, Birch et al. (2003) used the TPA model in their research. As the replication of their research, this study utilises the TPA's successor, the TPB model, to explore the impact of tax education on students' attitudes towards tax evasion and tax avoidance behaviour. In addition to attitude toward the behaviour, subjective norm and perceived

behavioural control are also considered, but they are not the primary investigation factors. More information about the use of the TPB will be explained in Chapter 4. The next chapter reviews the literature on the relationship between tax education and tax compliance.

Chapter 3: Tax Compliance and Education

3.1 Introduction

Tax knowledge generally plays an essential role in voluntary tax compliance, which may be positive or negative (Eriksen & Fallan, 1996; Palil, 2010). Although the amount of tax knowledge people has does not entirely depend on the level of tax education they receive, tax education is still an important source of tax knowledge for most people (Kurniawan, 2020; Ma, 2017; Mukhlis et al., 2015; Saad, 2011). However, it needs to be noted that receiving more tax education does not always promote taxpayer compliance. Tax education may have no impact or even a negative impact on tax compliance. Thus, this chapter reviews prior research to discuss the impact of tax education on taxpayer compliance. In addition, the chapter outlines possible explanations for why tax education has a complicated impact on tax compliance. The first reason for mixed findings is that tax education is defined and measured from different dimensions. Second, the interaction of tax education and other compliance determinants may lead to different results about taxpayer compliance. Also, scholars have undertaken studies in different jurisdictions, and differences caused by cultural background and a series of regional factors may affect taxpayers' attitudes.

Some scholars have studied the impact of education on individuals' tax compliance. For example, Gupta and McGee (2010) found that undergraduate students are less opposed to tax evasion than postgraduates, which indicated that education level positively affects students' tax compliance. However, some researchers concluded that higher education might build taxpayers' capacity to exploit the advantages of the tax law and increase the probability of evading tax (Chan et al., 2000; Gilligan & Richardson, 2005). In particular, Chan et al. (2000) found that education level had a significant negative association with taxpayer compliance for their US samples, but the two variables had no relationship for the Hong Kong samples.

Although the above literature has shown that education level may affect taxpayer compliance, Eriksen and Fallan (1996) criticised those studies that only examined respondents' education level. They pointed out that using education level as a background variable is based on the assumption that taxation knowledge increases with the extension of education time regardless of the content of education. Their argument was supported by Devos (2008) and Loo and Ho (2005). The former conducted an electronic survey using 300 Australian personal taxpayers. He found that most respondents had little or no knowledge of taxation, despite their higher than average level of education. Similarly, Loo and Ho (2005) surveyed 250 highly educated respondents in Malaysia. Their survey results showed that these

respondents did not have sufficient knowledge of issues related to personal taxation. According to Malaysia's self-assessment system, these respondents may lack the ability to submit appropriate tax returns under the self-assessment system. In other words, the findings of Loo and Ho (2005) show that since taxpayers' education level does not directly affect their tax knowledge, and examining taxpayers' education level only is not sufficiently reliable to draw conclusions about to what extent education affects taxpayers' compliance. However, there is evidence that, in most cases, receiving specific tax education can promote taxpayers' knowledge of taxation (Kurniawan, 2020; Ma, 2017; Mukhlis et al., 2015; Saad, 2011). Therefore, this research mainly examines the impact of taxation education on respondents, but controls the impact of education level on them.

3.2 The Impact of Tax Education on Tax Compliance

As shown in Table 3.1, prior literature has indicated that tax education has a mixed effect on taxpayer compliance. Some scholars pointed out that tax education plays a positive role in tax compliance. For instance, Eriksen and Fallan (1996) concluded that receiving specific tax knowledge helps improve tax attitudes, enhancing taxpayers' compliance and reducing the tendency for tax evasion. Furthermore, Birch et al. (2003) drew a similar conclusion that tax education significantly influences student attitudes towards tax non-compliance. They found that students who had acquired tax knowledge are less likely to consider tax evasion, such as understating interest income or not declaring cash drawings, as acceptable behaviour. Hamilton (2012) also believed that taxpayers could better understand the tax law and the tax authorities' expectations through tax education, thus encouraging taxpayers to be more capable and willing to comply with tax laws. Kwok and Yip (2018) concluded that tax education positively affects taxpayer compliance, based on the Hong Kong samples. They found this impact could be explained by three intermediate channels: readiness to comply, perception of system fairness, and moral reasoning. Kwok and Yip (2018) also indicated that the impact of specific tax education on undergraduates' tax compliance is higher than that of postgraduate students. In addition, Song and Yarbrough (1978) and Lewis (1982) believed that even general fiscal knowledge could positively affect taxpayer compliance. For example, Lewis' (1982) study indicated that general fiscal ignorance could lead taxpayers to evade tax intentionally. Because these taxpayers can only view the tax burden as it impacts on themselves, they may overlook the services and benefits provided by the revenue authorities.

However, some studies have reached different conclusions. For example, Chang (1984) found that taxpayers who are better acquainted with the tax laws are more likely to engage in tax non-compliance, such as playing the audit lottery. Saad (2012) conducted telephone interviews in New Zealand with 30 participants to explore the reasons for taxpayers' non-compliance. One interviewee suggested that

taxpayers with good tax knowledge may abuse this knowledge in an attempt to avoid full compliance. Moreover, Tan and Chin-Fatt (2000), by investigating students enrolled in an introductory taxation course in a New Zealand tertiary institution, found no significant impact of tax knowledge on perceived fairness and tax compliance attitudes. Likewise, in a survey recruiting New Zealand students as participants, Gupta and McGee (2010) did not find subjects, accounting, business economics, and law, have any significant impact on student attitudes towards tax evasion. Based on Australian samples, Devos (2012) did not find any impact of tax education on taxpayer attitudes towards tax evasion.

Three possible reasons for these conflicting results will be discussed in the next section. First, scholars may measure the impact of tax education on taxpayers, including students, from different aspects. The second possible reason for the above variation is that, as shown by Richardson & Sawyer (2001) some other tax compliance determinants, such as income level and fairness, interact with education, involving demographic and social factors. Furthermore, reviewing the previous research conclusions across different jurisdiction may result in conflicting results since education systems and content vary throughout the world.

Table 3.1

A Summary of the Effects of Tax Education on Taxpayer Compliance

Author/Year	Tax Education	Different Dimensions	Findings of Tax Education
Song & Yarbrough, 1978	+	General degree of fiscal knowledge	Fiscal knowledge positively affects tax compliance, and tax ethics acts as a mediator.
Lewis, 1982	+	General degree of fiscal knowledge	General fiscal ignorance could intentionally lead taxpayers to evade tax because these taxpayers can only view the tax burden on themselves.
Chang, 1984	-	Knowledge involving evasion opportunities.	Taxpayers who know more about tax laws are more likely to engage in tax non-compliance.
Jackson & Milliron, 1986	The dimensions of education content		They pointed out two aspects of education content: the general degree of fiscal knowledge and knowledge involving evasion opportunities.

Eriksen & Fallan, 1996	+	General degree of fiscal knowledge and specific tax knowledge	Specific tax knowledge (such as studying tax law) can positively affect tax compliance, and perceived fairness acts as a mediator.
Tan & Chin-Fatt, 2000	0	General educational attainment and specific tax knowledge	An increase in tax knowledge did not significantly impact on perceptions of fairness and tax compliance attitudes.
Richardson & Sawyer, 2001	The dimensions of education content		They indicated the two other aspects of education: general educational attainment and specific tax knowledge.
Birch et al., 2003	+	General educational attainment and specific tax knowledge	The students who had been exposed to most of the tax material were less likely to consider tax evasion behaviour as acceptable.
Gupta & McGee, 2010	0	General educational attainment and the general degree of fiscal knowledge	Academic majors are not a factor that affects the viewpoint of tax compliance.
Hamilton, 2012	+	Specific tax knowledge	Tax education can prepare taxpayers to comply with taxation.
Devos, 2012	0	Specific tax knowledge	The relationship between tax awareness and tax compliance was examined. He found that having tax knowledge cannot affect taxpayer compliance.
Kwok & Yip, 2018	+	General educational attainment and specific tax knowledge	Tax education has a positive impact on tax compliance. This positive association was explained by three intermediate factors: readiness to comply; perception of system fairness; and moral reasoning. The impact of specific tax education on undergraduates' tax compliance is higher than that of postgraduate students.

Note. +, positively associated with tax compliance attitudes; -, negatively associated with tax compliance attitudes; 0, no impact on tax compliance attitudes.

3.3 Why is the Impact of Tax Education Mixed?

3.3.1 Different Aspects of Tax Education

Table 3.1 lists how scholars study the impact on taxpayer compliance from different perspectives of tax education. Jackson and Milliron's (1986) review of tax compliance studies before 1985 indicated two educational content aspects: the general degree of fiscal knowledge and knowledge involving evasion opportunities. They reviewed prior literature and concluded that increasing the general degree of fiscal knowledge positively affects taxpayer compliance, while learning more about evasion opportunities may have the opposite effect. Richardson and Sawyer (2001) reviewed literature between 1986 and 1997 and identified two more aspects: general educational attainment and specific tax knowledge. In their review, only Carroll (1992) was found to have examined the impact of specific tax knowledge on compliance. However, in the past two decades, the number of studies considering special tax education has increased. Most studies (such as Eriksen & Fallan, 1996 and Kwok & Yip, 2018) have concluded that special tax education positively affects or does not affect taxpayer (students) compliance.

3.3.2 Other Compliance Determinants

Jackson and Milliron (1986) stated that the impact of education is not clear when other compliance variables interact with education. Similarly, Richardson and Sawyer (2001) reviewed the literature between 1986 and 1997 and agreed that other compliance variables play an essential role in affecting individuals' tax compliance attitudes. They suggested that future studies need to pay attention to the effects of interaction between compliance determinants and education. Nevertheless, when reviewing the tax compliance literature from 1998 to 2017⁸, Yong et al. (2019) indicated that the number of articles mentioning education was still relatively small, and they only found interaction between education and gender.

3.3.2.1 Demographic Factors

Some researchers have considered the impact of demographic variables on taxpayer compliance. For example, certain studies suggested that females are more opposed to tax evasion than males (Gupta & McGee, 2010; Hofmann et al., 2017), whereas Richardson & Sawyer (2001) found that males and females are equally opposed to tax evasion. In addition, Birch et al. (2003) and Marriott (2017) found

⁸ Yong et al. (2019) found that only 3% of tax compliance literature mentioned "education." Also, they did not clarify whether education refers to general education level or specific tax education, which means that the number of studies mentioning the role of tax education may be fewer. They believed that the possible reason for so few articles on the role of education is that many scholars regard education as a part of tax morale, instead of studying it separately.

that the older generations are more opposed to tax evasion than the younger generation in New Zealand. Similarly, prior literature, such as Marriott (2017) and Torgler (2011), has also shown that self-employed taxpayers are more tolerant of tax non-compliance than full-time employed taxpayers. Although work experience and tax return filing experience are complementary ways to gain tax knowledge over and above tax education, there is limited literature on how these factors affect taxpayer compliance. In Birch et al.'s (2003) study, the respondents with no work experience were more tolerant of overclaimed deductions than those with more than one year of work experience. However, they found that respondents with more than ten years of work experience rarely underreport their taxable income. Consequently, tax evasion behaviour tends to diminish as a taxpayer's work experience increases.

At the same time, some demographic variables may also interact with education to affect tax compliance. For instance, Hite (1997) concluded that highly educated females were more tolerant of tax non-compliance than those with low education levels. In contrast, males without high education were more tolerant of taxpayer non-compliance. Moreover, Jackson and Milliron (1986) assumed that there might be a correlation between income level and education, affecting taxpayers' attitudes. This hypothesis was supported by Ross and McGee (2012), whose study concluded that taxpayers with a high level of education are generally in a higher-income group. Those taxpayers are more likely to feel exploited by the graduated income tax system and more tolerant of tax non-compliance. Similarly, Mamun et al. (2014) found a significant correlation between education level and income level. It needs to note that the above research only explored the interaction between education level and other demographic variables on taxpayer compliance. There is still a gap for research exploring the interaction between tax education and other demographic variables. Therefore, this study will explore how tax education interacts with other demographic variables to affect tax compliance.

3.3.2.2 Societal Variables

The existing literature has shown that, on the one hand, tax compliance is determined by deterrence elements of the tax system, such as sanctions and probability of detection (Kleven et al., 2011; Pomeranz, 2015). On the other hand, taxpayer behaviour may also reflect tax morale, including non-pecuniary motivations and reciprocal actions (Bazart & Bonein, 2014; Luttmer & Singhal, 2014). Tax morale, which refers to the intrinsic motivation to pay taxes, has recently become a popular topic related to tax compliance (Pope & McKerchar, 2011; Torgler & Murphy, 2006; Yong et al., 2019). Yong et al. (2019) reviewed the tax compliance literature in the new millennium and found that the relevance percentage between tax morale and tax evasion concepts was as high as 42%.

Torgler (2007) outlined three elements of understanding tax morale: moral rules and sentiments, fairness, and the relationship between taxpayers and governments. Most literature (e.g., Frey, 1997, 2003; Frey & Feld, 2002; Feld & Tyran, 2002) has concluded that high tax morale increases tax compliance. Education is also regarded as one factor that can interact with societal variables (such as fairness or trust in public institutions) and indirectly affect tax morale, thereby affecting tax compliance.

One of the commonly examined relationships is the impact of tax education on fairness. Richardson and Sawyer (2001) pointed out that almost all studies of this nature conclude that the increase in tax education can improve fairness perceptions, then, enhancing taxpayers' compliance. Nevertheless, Richardson and Sawyer (2001) cautioned that there is no guarantee that tax compliant behaviour will increase when improving perceptions of tax fairness. Kwok and Yip's (2018) research supports this view. They analysed Hong Kong student attitudes and noted that the increase in perceptions of tax fairness negatively influences tax compliance. This unusual conclusion is not difficult to understand because of the multi-dimensional nature of fairness. 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. In the case of Hong Kong, although receiving tax education enhanced tax respondents' perceived tax fairness, it also made them aware of the unfairness in the exchange relationship with the government. Therefore, Kwok and Yip (2018) emphasised that distrust of the government led to negative association between the respondents' perceptions of fairness and their tax compliance attitudes. Similarly, Rodriguez-Justicia and Theilen (2018) concluded that education harms tax morale when the public rarely obtains any benefits from the welfare state. Therefore, when perceived fairness acts as an intermediary, the impact of education on tax compliance may be complicated due to the multi-dimensional nature of fairness.

3.3.3 Jurisdiction

In the above literature reviewing the role of tax education in tax compliance, the researcher does not classify the literature by jurisdiction. However, undertaking research in different countries and regions may draw different conclusions due to different cultural backgrounds. A striking example is McGee's (2011)⁹ collaboration with scholars from various countries to conduct a series of studies on students' perceptions of tax evasion ethics in different countries. In terms of his findings, the factors that significantly impact on student opinions on the ethics of tax evasion were not uniform in different

⁹ Although McGee conducted similar surveys and studies with other scholars in different countries at different times to examine students' tax evasion ethics, the articles have been edited in "The ethics of tax evasion: Perspectives in theory and practice."

jurisdictions. In addition, Ma (2017) reviewed and synthesised literature findings on taxpayers' attitudes towards tax compliance in developed and developing countries. He concluded that tax knowledge was regarded as a determinant only in developing countries to affect tax compliance attitudes. In addition, Ma (2017) indicated that the role of education level has produced mixed results in research in developed countries, while research in developing countries has rarely found evidence of a correlation between education level and tax compliance.

3.4 Summary

This chapter explains why the present study focuses on the impact of tax education, instead of education level, on taxpayer compliance. However, considering that much prior research has also pointed out the impact of education level on taxpayer compliance, this study selects respondents with a similar education level to highlight the role of tax education. In addition, this chapter reviews the relationship between tax education and tax compliance. Literature has shown mixed results regarding the impact of tax education (see Table 3.1). Some researchers (such as, Eriksen & Fallan, 1996, Hamilton, 2012, and Kwok & Yip, 2018) supported the view that tax education positively affects taxpayer compliance. Other researchers (such as Tan & Chin-Fatt, 2000, and Gupta & McGee, 2010) either found no relationship between these two variables or concluded that tax education actually provides taxpayers with the capability to engage in tax non-compliance (Chang, 1984). Prior research indicated three possible reasons for such mixed results: 1) different dimensions of education (Richardson & Sawyer, 2001); 2) the interaction between education and other variables (Birch et al., 2003; Ma, 2017; Richardson & Sawyer, 2001); and 3) research participants coming from different jurisdictions (Ma, 2017; McGee, 2011). Therefore, this study is undertaken in New Zealand and uses two dimensions of educational content, general educational attainment and specific tax education, as grouping criteria for recruiting participants. In addition, this study explores the effects of interaction between tax education and other demographic variables and its effects on tax compliance in order to fill the gap in the literature.

Furthermore, most previous research has focused on exploring the impact of tax education on tax evasion because of the negative consequence of tax evasion. Another variable, tax avoidance, has frequently been overlooked, even though this form of intentional non-compliant activity also causes substantial losses in tax revenue (Richardson & Sawyer, 2001). Alm (1988) noted that taxpayers tend to utilise the term tax avoidance instead of tax evasion to reduce taxes when the government introduces a policy to reduce tax evasion. Thus, this study also explores how tax education affects student attitudes towards tax avoidance. After presenting the relevant literature leading up to this study, the next chapter explains the selected research methodology and research design.

Chapter 4: Research methodology

4.1 Introduction

This chapter explains the research methodology for the study. An interpretivist paradigm and a mixed methods approach are discussed in this chapter to examine student attitudes. The discussion has also involved replicating and extending Birch et al.'s (2003) study, sampling, research design, data collection procedure, and data analysis for both quantitative and qualitative components.

4.2 Research Methodology

4.2.1 Ontology and Epistemology

The interpretivist paradigm has been employed to understand why students have certain attitudes towards tax evasion and avoidance, and what role tax education plays. McKerchar (2010) suggested that interpretivism is based on inductive reasoning, which is consistent with the logic of this study, which observes student attitudes towards tax evasion and tax avoidance, and, on this basis, draws conclusions about the role of tax education. The interpretivist paradigm is concerned that social reality is emergent, subjectively created, and objectified through human interaction (Chua, 1986). Two students who receive the same tax education may undertake different actions given the same scenario. However, it is also possible that these two students undertake the same action for different reasons. Although receiving the same education, students may still subjectively view the same action from different perspectives. Therefore, the researcher needs to learn about one reality with different understandings or interpretations (McKerchar, 2010). In order to better observe and understand the impact of tax education on student attitudes, this study employs a mixed methods approach.

4.2.2 Mixed Methods Approach

Mixed Methodology refers to a combination of qualitative and quantitative approaches for the purposes of breadth and depth of understanding and corroboration (Johnson et al., 2007). When using an effective mixed methods approach, the limitations and biases of any single method can be compensated for by maximising the strengths of each methodology (McKerchar, 2010). Nevertheless, certain previous researchers have questioned the combination of qualitative and quantitative methodology because of the paradigm argument. Both qualitative and quantitative research have been assumed as paradigms to classify certain ontological and epistemological suppositions in some business research (Bell et al., 2018). Thus, some researchers, such as Guba (1985), believe that qualitative and quantitative research

are incompatible as paradigms. However, it is still unclear whether these two approaches are real paradigms, particularly since overlap and commonalities exist between both these approaches (Bell et al., 2018). Regarding the debate about mixed methodology, Bell et al. (2018) considered it from two perspectives. They supposed that while mixed methods research is impossible from a philosophical view, quantitative and qualitative research strategies are considered essentially compatible from a technical or practical perspective. Hence, the mixed methods approach is both feasible and desirable (Bell et al., 2018).

In this study, the qualitative approach is designed to understand better why students have certain attitudes towards tax non-compliance. However, as this approach has only considered the perceptions of a few participants, it lacks the capacity for the results to be generalised (Creswell & Plano Clark, 2011). Hence, this study also uses a quantitative approach to provide a baseline of the attitudes of students from different groups. Using different types of methods, data and analysis, the mixed methods approach can increase the credibility and validity of the findings, and researchers can comprehensively explore the research objectives (Creswell, 2009; Wheeldon, 2010). Although the mixed methods design is in line with the explanatory sequential mixed methods design proposed by Creswell (2009)¹⁰, since the number of respondents with qualitative methods is relatively small, the purpose of the follow-up interviews is to explore the respondents' views on tax issues rather than to explain the survey results.

4.3 Replication and Extension of the study by Birch et al. (2003)

This study is a replication and extension of Birch et al.'s study. Although the present study only focuses on tax education, the selection of participants and research methods partly replicates the study of Birch et al. (2003). As such, this study examines student opinions on tax evasion by using a similar questionnaire. In addition, this research selects its participants from the University of Canterbury (UC). Apart from the survey approach, this study also utilises follow-up interviews with self-selected interviewees to examine the reasons for their opinions. Furthermore, being an extension of Birch et al.'s (2003) study, this study also explores the impact of tax education on student tax avoidance attitudes through the survey. It needs to highlight that although this study also recruits participants from UC, the selection of participants is different from Birch et al. (2003). In order to study the impact of different variables on student attitudes, Birch et al. (2003) used UC students from Introductory Accounting, Second Year Taxation, and Continuing Education classes. Since Continuing Education classes were

¹⁰ Creswell (2009) put forward six common mixed method designs, including convergent parallel, sequential explanatory, sequential exploratory, embedded, transformative, and multiphase designs. In the explanatory sequential mixed methods approach, researchers use a quantitative approach to collect and analyse data, then, follow up with a qualitative approach. The overall intent of this design is to have the qualitative data help explain in more detail the initial quantitative results.

cancelled some years ago, the present study cannot replicate Birch et al.'s (2003) course selection criteria. In addition, since assessing the role of tax education is the main goal of this study, the subjects of this research are students who have received general education and specific taxation knowledge (Richardson & Sawyer, 2001). Hence, the present study uses third-year tax students who have been exposed to knowledge about tax evasion and tax avoidance, and third-year non-tax students as its samples. The next section (Section 4.4) will introduce more details about the selection of the sample.

This replication and expansion of existing research is supported by previous studies (Jackson & Milliron, 1986; Richardson & Sawyer, 2001). Scholars believed that this form of study could enhance the certainty of the study findings and play an essential role in the tax compliance area. The findings of Fischer and Russell (1991) provided evidence for this statement. They indicated that the strengths of replication are to check the previous research findings and to examine the validity of the research results across populations, time, and research methods. However, many scholars focus on developing and testing their hypotheses and neglect the importance of replicating and extending previous studies (Jackson & Milliron, 1986; Richardson & Sawyer, 2001). This study aims to assist in filling the gaps and it is based on the study of Birch et al. (2003).

4.4 Sample Selection

This study involves two phases: namely two samples for the quantitative and qualitative approaches, respectively. Creswell (2009) indicated that candidates for the qualitative sample should be selected from the initial quantitative sample, because the purpose of the qualitative phase is to follow up on the quantitative results in order to understand the results more deeply. Furthermore, if the research subjects comprise different groups, and if the research conclusions need to be drawn by comparing the findings of the different groups, the sample sizes of these groups should be similar (Creswell, 2009). For example, as this study uses both tax and non-tax groups, to consider whether tax education has an impact on student opinions, it needs to compare the findings between the attitudes of tax students and non-tax students. Therefore, the number of tax and non-tax respondents should be similar.

The participants are third-year students from UC. Through studying tax courses, third-year tax students have a better understanding of tax avoidance and tax evasion. Although third-year tax students are not required to master all tax laws, they have already taken commercial law and have studied taxation as a general concept in their second year of study. The course outline¹¹ of Advanced Taxation (ACCT358)

¹¹ ACCT 358 course outline:
[https://www.canterbury.ac.nz/courseinfo/GetCourseDetails.aspx?course=ACCT358&occurrence=21S1\(C\)&year=2021](https://www.canterbury.ac.nz/courseinfo/GetCourseDetails.aspx?course=ACCT358&occurrence=21S1(C)&year=2021)

states that students, after taking this course, are expected to be able to evaluate whether a particular arrangement or transaction constitutes tax evasion or tax avoidance. The textbook's content introduces tax cases regarding tax evasion and tax avoidance, and provides scenarios for students to investigate whether certain actions should be considered to be tax evasion or tax avoidance. Since this study is carried out after they finish the class that is related to the topic, this study assumes that tax students know tax cases concerning tax evasion and tax avoidance and have the capability to distinguish between these two behaviours. For students who gain tax understanding from work experience, parents or friends, or online rather than through university courses, this study considers them to be part of the non-tax student group. From their perspective, two years of university education may also change how they view the world. Although non-tax students may not have specific tax knowledge, they still have personal views about whether a certain tax scheme is acceptable. In this study, the non-tax participants are selected from three non-tax courses, Software Engineering II (SENG301), Deterministic Mathematical Methods (ENCN304), and Internet Technology and Engineering (COS364). These three courses were targeted because they have a large number of enrolled students, so the researcher could collect sufficient data. Also, based on the respective course outlines offered by the College of Engineering at UC, there is no tax-related content in these courses. This means that students are unlikely to learn tax-related knowledge from these courses.

Moreover, this study replicates Birch et al.'s (2003) study and selects UC students as participants. When exploring the changes in the past 18 years, using the participants from the same university can reduce the impact of geographic factors and differences between educational institutions, allowing possibly greater comparability. In addition, using UC students as participants will assist in the follow up with face-to-face interviews. However, it is still difficult to control for any changes to the curriculum and society and the student composition during the last 18 years, because taxation is an evolving subject. For instance, the proportion of international students and ethnic minorities has changed over the past 18 years. Fortunately, the concept of tax evasion has not changed much, and the lecturer composition of the tax course, and the course outline, are similar to 2003. Although the concept of tax avoidance has changed considerably in New Zealand, Birch et al.'s (2003) study did not examine student attitudes toward this form of action, which means no comparison can be made on this aspect.

The use of students instead of taxpayers as a sample may be criticised. However, tax education in this study refers to the education at universities, so using students as respondents is expected. Moreover, recruiting students as participants does not mean the research results cannot be generalised to a wider taxpayer group. Alm, Bloomquist and McKee (2015) found that the responses from student and non-student subject pools are largely the same, and experimental data versus non-experimental data show

very similar patterns. Furthermore, all students in this study are at least 18 years old, and they are expected to have basic knowledge about paying taxes. Thus, the results from using students as samples are not necessarily different from using taxpayers.

4.5 Ethical Considerations

Taking into account that this study involves human participation and sensitive issues on student attitudes towards tax non-compliance in New Zealand, the prior approval was obtained from the Human Ethics Committee (HEC) of UC before proceeding with the study (see Appendix 1). This application included ethical considerations, such as being voluntary, maintaining confidentiality and anonymity of the survey information, maintaining confidentiality in interviews, informed consent of participants, and participants' right to withdraw their participation from the survey or interviews at any time. The approval was outlined in the email to course co-ordinators of the target courses (see Appendix 3) and in the information sheet sent to the survey and interview participants (see Appendix 2).

4.6 Quantitative Component

4.6.1 Questionnaire Survey Method

A questionnaire survey is commonly adopted to collect data in the tax field (Jackson & Milliron, 1986; Richardson & Sawyer, 2001). For example, Ma (2017) summarised the research methods of 66 tax studies, and around 80% of these studies employed questionnaire surveys as their principal research method. A large number of scholars have used this method because a questionnaire survey describes trends or attitudes of a population through investigating a sample of that population (Creswell, 2009). In this study, the survey is utilised to explore the attitudes of tax students and non-tax students towards tax evasion and tax avoidance, and specifically considers the impact of tax education on their attitudes.

Although there are many means in conducting a survey, an internet survey is used in this study. Sue and Ritter (2012) pointed out the strength of internet surveys, including recruiting sufficient respondents quickly, low cost, and the ability to ask sensitive questions. In order to allow respondents to answer sensitive questions related to tax non-compliance freely and honestly, an online survey was selected to enable students to answer the questions confidentially and anonymously.

However, prior studies have generally shown that the response rate to internet surveys is unstable. McKerchar's (2010) study received a 1 per cent response rate from an internet survey, while the response rate for mail survey is between 26 and 50 per cent in the tax context. The response rate in Birch

et al.'s (2013) study was considerably higher than both average internet and mail surveys, reaching 86 per cent overall. Nevertheless, the response rate in this study is not expected to be that high. This is due to the researchers in Birch et al.'s (2003) study being people the students knew and trusted, while students have never seen the researcher of the present study before. Thus, students may consider carefully whether to participate in this study. Furthermore, Birch et al. (2003) conducted their survey in person in classes, while the present study employs a web-based survey.

4.6.2 Sample Size for the Survey

Sections 4.3 and 4.4 have explained why this study recruited UC students as participants. Respondents were selected from two groups: tax students and non-tax students. Since the tax students are those who enrolled in course ACCT358, the population of tax students is fixed at 121¹². However, the non-tax group was selected from students without business or law background, and this group has a large population. Due to the wide variation between the numbers of tax and non-tax participants, the researcher uses two approaches to collect data.

Shih and Fan (2008) analysed 39 studies published between 1998 and 2006 and reported a mean response rate of internet surveys at 34 per cent. Thus, this study assumed that the number of useable tax students' responses are between 30 and 40. In order to achieve this ideal number of tax respondents, the researcher gave a longer response time and asked the lecturers of ACCT358 to remind the students of the survey four times.

For students who have not received tax education, ideally the number of respondents should be similar to that of the tax group, ranging between 30 and 40 respondents. Considering that those non-tax students may not be as interested in tax topics as tax-students, and considering the time limit of this research, the researcher finally contacted three course co-ordinators and took a large population of around 300 non-tax students as a sample¹³. The researcher collected the data from non-tax respondents within two weeks and gave a reminder one week after the investigation started. As a result, 78 respondents participated in this study, including 36 tax respondents and 42 non-tax respondents¹⁴.

¹² There were 121 students enrolled in ACCT358 in 2021.

¹³ The data collection procedure is discussed in Subsection 4.6.5 of this chapter and explains why contact with course co-ordinators was made to conduct survey.

¹⁴ The survey was distributed to 491 students during this period, including 121 tax students and 370 non-tax students. The details of sample size and response rate are discussed in Chapter 5.

4.6.3 Questionnaire Design

Prior to answering the questionnaire, all respondents were required to read the information sheet that introduced the aims of the survey and highlighted its confidentiality and anonymity. After reading the information sheet, respondents were able to decide whether they would like to fill out the questionnaire.

The questionnaire survey was made up of four sections (see Appendix 4). The whole questionnaire did not mention the terms “tax evasion” and “tax avoidance” in order to avoid emotive terminology that might cause students to withdraw from the survey or answer dishonestly. Before the first section, there was a screener question for asking respondents’ grade. It needs to be noted that sophomores or seniors were not excluded because a small number of them might also choose the third-year courses. However, if any respondents come from the second or fourth year, the researcher will indicate it in the survey results. The first section contained questions related to participants’ demographic background, which replicated Birch et al.’s (2003) study, including their field of study, age, gender, ethnicity, type of job, income level, work experience, and experience in checking personal tax information on the IRD website. Section 2 has 10 questions. The first seven tax evasion related questions were taken from Birch et al.’s (2003) study, including six tax evasion scenarios and a question of respondents’ attitudes towards various illegal actions, including tax evasion. However, the amounts in the questions were updated to reflect inflation. Also, there were three tax avoidance related questions drawn from Kirchler and Wahl (2010). Questions in the second section provided respondents with four response options: totally acceptable, mildly acceptable, mildly unacceptable or totally unacceptable – to investigate how they view the taxpayer’s actions in these scenarios. Section Three partly replicated Birch et al.’s (2003) study to explore respondents’ views on tax evasion-related statements, and asked if they, or anyone they know, had participated in tax evasion activities in the five years prior to this study. Furthermore, the third section also asked a tax avoidance related question adapted from Kirchler and Wahl (2010). This tax avoidance related question was to examine how interested the respondents are in obtaining knowledge on tax savings. The final section invited respondents to participate in a face-to-face interview via a separate link¹⁵. It needs to be highlighted that the respondents must answer the questions one by one without skipping, and their responses are recorded as valid data only after answering all the questions and submitting their responses. In addition, at the end of the questionnaire, there was a sheet (see Appendix 4) to show the essential differences between tax evasion and tax avoidance, so that non-tax students can learn from the survey.

¹⁵ The details of the interview link are explained in subsection 4.7.4 of this chapter.

4.6.4 Pilot Testing

Pilot testing is a means to make survey questions more useful and to strengthen their internal validity (McKerchar, 2010). A small group of respondents is usually asked to participate in pilot testing to identify any possible problems when collecting or analysing data (McKerchar, 2010).

The survey questionnaire in draft form was initially reviewed by two senior tax academics, who had designed and conducted similar research. The questionnaire was updated to take into account the recommendations provided, and the questions and instructions were slightly changed. In the next stage, the researcher asked four postgraduate students in accounting and taxation, and three postgraduate students in engineering, data analysis, and forestry, to fill out the questionnaire and their opinions were solicited. Based on the feedback from those seven postgraduate students, the researcher refined the questionnaire further. Moreover, these respondents commented that they mostly took 10-15 minutes to complete the questionnaire.

4.6.5 Questionnaire Data Collection Procedure

Sue and Ritter (2012) pointed out that researchers need to advertise a survey on related sites when targeting specific groups. For example, the participants of the present study are students, so, the questionnaire links should be posted onto a study-related website. The researcher contacted the course co-ordinators to post the link to the questionnaire on “Learn,” a website that allows UC students to view updated information from their enrolled courses. An email message was sent by the researcher to the course co-ordinators of the target courses, more specifically, one tax course (ACCT358) and six non-tax courses¹⁶. Eventually, the course co-ordinators, together with the lecturers of the tax course and the three non-tax courses (SENG301, ENCN304 and COSC364), gave permission to the researcher to go ahead with the research. It should be noted that, since the researcher initially did not intend to distinguish the subjects of the non-tax students, the questionnaire did not ask which class the students came from. As a result, the number of survey participants from each course is uncertain.

The message sent to course co-ordinators explained the purpose of the questionnaire survey, why the course was chosen as the target course and emphasised the confidentiality and anonymity of participating in the survey (see Appendix 3). Also, the initial message and the future follow-up reminder posted on Learn were included in that email. The initial message was a simplified version of the email

¹⁶ These six initially targeted courses come from the College of Arts, the College of Science, and the College of Engineering. In addition to considering whether students access to tax education, the selection criteria for these six courses were mainly based on the number of students enrolled. However, the course co-ordinators who eventually responded to the researcher were all from the College of Engineering.

to the course co-ordinators (see Appendix 3). The content was similar, but the wording was more concise and clearer so that students would find it easier to follow. One week after the first message was released, the follow-up reminder was posted on “Learn” for the target courses.

Initially, a two-week return date was planned for both cohorts of students. However, because of the low response rate from the tax students, the researcher made a brief presentation in ACCT358. That presentation aimed to encourage more tax students to participate in the survey and built some trust in the researcher in a face-to-face environment. The results of this presentation were remarkable. In the next three weeks, another 32 tax students participated in the survey. During this period, another two follow-up reminders were posted on “Learn” by the course co-ordinator, and lecturers after the class also played a key role.

4.6.6 Survey Data Analysis

4.6.6.1 Chi-square Testing

A Chi-square statistic is used to evaluate relationships between the impact of tax education and the different issues of tax evasion and tax avoidance. In addition, as part of the replication of Birch et al.’s (2003) research, the present study also used the Chi-square tests to assess whether other demographic variables have an impact on these issues raised in the questionnaires. Although the sample size of this study is small, it still meets the requirement of at least 50 participants in total (Turhan, 2020). The Chi-square tests compare the observed data with the expected data, to examine whether an association exists between two variables (Barceló, 2018). Based on the p -values provided by Statistical Product and Service Solutions (SPSS), the Chi-square tests allows the researcher to assess whether the observed data is significantly different from the expected data. In this study, when the p -value is less than 0.05, which is the alpha level associated with a 95 per cent confidence level, the researcher can conclude that there is a statistically significant relationship between the examined variables.

4.6.6.2 Two-way ANOVA

Two-way Analysis of Variance (ANOVA) is used for exploring how tax education interacts with other interdependent variables to affect students’ views on tax evasion and tax avoidance¹⁷. In this study,

¹⁷ It needs to be noted that the dependent variable must be measured at the continuous level. Therefore, the researcher computes the mean of Questions 1-6 in Section 2 of the questionnaire, which provides scenarios about tax evasion. In addition, the mean values of the taxpayer's perception of the tax issues (Section 3 of the questionnaire) are calculated in the same way.

when the p -values of between-subjects tests are less than .05, the researcher can draw conclusions about the interaction effects between tax education and another demographic variable.

4.7 Qualitative Component

4.7.1 Qualitative Interview

The qualitative interviews involved questions devised by the researcher and allowed the interviewees to answer based on their experience and knowledge. Patton (1990) described this as finding “what is in and on some else’s mind” (p. 278). Furthermore, a face-to-face interview is desirable because other valuable insights can be gained by observing the interviewees’ body language, eye contact, reactions and so on (McKerchar, 2010). Face-to-face interviews can also be used to solicit information for topics that could be considered to be sensitive (Lavrakas, 2008).

Bell et al. (2018) categorised qualitative interviewing into two main types: unstructured interviews and semi-structured interviews. Unstructured interviewing consists of a series of broken and incomplete conversations which need to be organised into topic-related statements by researchers (Dalton, 1959; Bell et al., 2018). Also, the questions need to be short and easy to understand in order to allow the conversation to flow freely (Liamputtong, 2009). A semi-structured interview allows researchers to have a list of questions on a set of topics to be explored, but the interviewee has a great deal of leeway in replying (Bell et al., 2018). When the researchers are interested in specific things said by interviewees, they can ask further questions that are not included in the list. Nevertheless, the researchers should ask all the interviewees the same questions as far as possible, according to the interview guide. Structured interviews are also a form of interview (Lincoln & Guba, 1985; Saunders et al., 2009). Structured interviews require researchers to prepare the questions and consider what the interviewee is likely to answer. During the interviews, participants follow the framework prepared by the researchers to provide answers (Lincoln & Guba, 1985).

Compare to unstructured interviews, semi-structured interviews are more organised because the researcher has a list of questions and themes to be covered (Saunders et al., 2009). However, semi-structured interviews are more flexible than structured interviews. The researchers can depart from the interview guide and ask new questions to follow up on interviewees’ replies. The order of questions can also be varied in the light of the process of conversation (Bell et al., 2018). Furthermore, a semi-structured interview can reveal not only the ‘what’ and ‘how’ but also the ‘why’ (Saunders et al., 2009). As a result, this study selected the semi-structured interview approach to explore why students have certain attitudes towards tax non-compliance and to explore the impact of tax education.

4.7.2 Sample Selection and Size for Interviews

Sampling in qualitative interviews refers to the researchers being guided by the purpose of the research to determining the scope, boundary for the selection of sampling (McKerchar, 2010). As discussed in Section 4.5, the researcher should consider selecting the qualitative phase sample from the quantitative phase sample. Thus, the interviewees in this study were respondents to the UC questionnaire survey, who have voluntarily expressed their willingness to be interviewed by filling out their personal information in the final part of the questionnaire. The information sheet and consent form (see Appendix 2) were emailed to them. According to Saunders et al. (2009), the sampling strategy used in this study can be considered to be “self-selection sampling” (p. 177) because the interviewees have already had the right to identify whether or not they would like to participate in the research.

Bell et al. (2018) indicated that the sample size in qualitative research does not depend on the appropriate sample size mentioned in the prior literature, but is determined by the interview procedure of the research. For example, in this study, the sampling procedure of the interview was that the survey respondents chose whether to participate in the interview or not. Therefore, the interview sample size depended on the sample size of the survey respondents and the extent they were interested in tax issues. At the same time, the time and resources available were considered in the study.¹⁸ This investigation finally conducted a total of six follow-up interviews with three non-tax students and three tax students.

4.7.3 Interview Design

Preparing an interview guide allows the researcher to organise and conduct an in-depth interview in a limited time. The interview guide for a semi-structured interview does not necessarily have to be as specific as for a structured interview (Bell et al., 2018). Such a guide is capable not only of covering certain themes relevant to the study, but also providing the flexibility to discuss other themes during the interview. Moreover, using the interview guide can increase the reliability of the semi-structured interview somewhat, because the interview content would be more systematic and focused on the subject area when following the interview guide (Patton, 1990).

The interview guide used in this study covers questions that were puzzling the researcher and they apply the Theory of Planned Behaviour (TPB) items introduced in Section 2.4. Three aspects related to the

¹⁸ The researcher waited for tax students to take courses related to tax evasion and tax avoidance, and conducted this research after March 2021. Therefore, the time to collect data from follow-up interviews was limited. In addition, in order to ensure that students' participation in the research was based on interest in tax issues, rather than on incentives, such as cash or vouchers, this study did not provide students with any incentives.

TPB are focused on in the interview, and the interview guide is developed based on the following discussion.

4.7.3.1 Attitude towards the Behaviour

Attitude towards the behaviour refers to a person's evaluation of performing a given behaviour. This attitude, positive or negative, links to that person's beliefs and determines the person's intention to perform the behaviour (Ajzen, 2005). Although the tax and non-tax interviewees had different interview guides, this study used five questions to measure interviewees' beliefs according to three dimensions (see Table 4.1). In addition to open-ended questions, four evaluative semantic differential scales were employed for these questions: such as positive or negative; agree or disagree; benefit or harm; interested/not interested. Furthermore, the dimensions of time (past and present) were also considered in questioning. The evaluation of student attitudes toward the behaviour was the main part of the interview to find answers to the researched questions. Hence, many optional sub-questions were also presented in the interview guide (see Appendix 4) and raised during the interview.

Table 4.1

Interview Guide about Attitude towards the Behaviour

Dimensions	Interviewee groups	Questions
Behaviour related to tax compliance	Non-tax students	What do you think about taxation? (positive or negative)
		What do you think of tax evasion and tax avoidance? Do you know what is tax planning? (open-ended question)
	Tax students	What do you think about taxation? (positive or negative)
Behaviour related to tax education	Non-tax students	If there is a course to teach people about further possibilities for making claims against tax, would you be interested in participating in such a course? (interested or not interested)
		If possible, would you be interested in learning more about taxation at the university? (interested or not interested)
	Tax students	Did you clearly know the difference between tax evasion and tax avoidance before you enrolled in ACCT358? How do you view these two tax non-compliant behaviours after taking ACCT358, and what is your opinion about tax planning and tax avoidance? (open-ended question)
		In addition to benefits to your career, what are the other aspects of learning taxation that can help in your life? (open-ended question)
Other certain behaviour	Non-tax students	What do you think of cash payments? (open-ended question) “Cash payments that are not included as income for tax purposes may significantly affect taxation”: do you agree with it? (agree or disagree)
	Tax students	“Helping clients avoid tax is part of the work of tax professionals”: do you agree with this statement? (agree or disagree)
		What do you think of cash payments? (open-ended question) “Cash payments that are not included as income for tax purposes may significantly affect taxation”: do you agree with this statement? (agree or disagree)

4.7.3.2 Subjective Norms

Subjective norms are related to perceived normative beliefs affected by social pressure. Social pressure is likely to come from the “important referents” of individuals (Ajzen, 1991, p. 195). These individuals’ motivations for achieving or avoiding certain behaviour may conform to their referents’ expectations. In other words, when their important referent complies with, or does not comply with, the taxation obligations, the individuals may adopt similar behaviours (Ajzen, 1991). The important referents include parents, spouses, close friends, and co-workers (Ajzen, 2005). Ajzen (2005) put forward that the subjective norms can be evaluated by “asking respondents to judge how likely it is that most people who are important to them would approve of their performing a given behaviour” (p. 125). However, Armitage and Conner (2001) found that subjective norms had the weakest correlation with intention among the TPB components in their meta-analysis review. Smart (2012), thus, developed six questions to replace Ajzen’s (2005) traditional measures of subjective norms. Three of those questions measure normative beliefs by asking important referents’ behaviour, while another three questions assess the interviewee’s motivation to comply.

The tax awareness of non-tax students is more likely to be affected by their important referents, rather than by tertiary education. This study assessed this TPB component through four questions (see Table 4.2):

Table 4.2

Interview Guide about Subjective Norms

Interviewee groups	Dimensions	Questions
Both tax students and non-tax students	Normative beliefs	Whether your important referents would themselves comply?
		Whether you will lose the respect of your important referents if they do not comply?
	Motivation to comply	Will you want to behave similarly to your important referents? What is your motivation?
		What is your motivation to maintain respect for your referents (when they do not comply)?

4.7.3.3 Perceived Behavioural Control

Perceived behavioural control (PBC) is where the TPB differs from the TPA (details in Section 2.4). The term “perceived behavioural control” refers to the degree to which individuals think they have control over something, rather than their actual ability to control. For example, after individuals receive tax education, they may think that they are capable of paying less tax through legal means (their control beliefs). However, this does not mean that they are actually capable of doing this kind of behaviour. The likelihood of behavioural achievement depends somewhat on the resources and opportunities available to an individual. Control beliefs refer to a person’s beliefs with respect to the presence or absence of those resources and opportunities, and whether they have the ability to perform the specific behaviour (Ajzen, 1991; Smart, 2012). In the tax context, PBC measurement indicates whether the interviewees believe that compliance or non-compliance with tax obligations is easy or difficult. Smart (2012) proposed six questions to assess PBC from three aspects: third party reporting; cash flow issues or financial distress; and opportunity for underreporting income. Considering all respondents in this study are students, and they are less likely to be confronted by these issues, this study only asked two questions that are developed from perceived control factors and control belief power:

1. Based on your ability, do you think you have a chance to underreport income in the future?
(*Perceived control factors*)
2. If you think you are capable of underreporting income, how often will you do it? (*Control belief power*)

Furthermore, the researcher believes that respondents’ perceived control of opportunities depends not only on how they view their ability, but also on their perceptions of tax authorities’ actions. Hence, the third question was asked of the respondents:

3. If you engage successfully in non-compliance, how likely do you think you will be found and punished by the tax authority?

4.7.4 Interview Data Collection Procedure

The selection of interviewees was conducted randomly from the respondents of the survey based on self-selection. As discussed in Section 4.6.3, an online survey was used to collect quantitative data. In Section 4 of the questionnaires, the respondents were provided with the information sheet for the interview (see Appendix 4). They were then asked if they were interested in this topic and wanted to participate in a follow-up interview. If they clicked “Yes”, their personal information would be collected

separately from another survey link. This means the researcher was not allowed to view the interviewee's answers to the questionnaire, in order to protect the confidentiality and anonymity of the quantitative survey. Since the decision on whether to participate in the follow-up interview needed to be made when the questionnaire was completed, the researcher could only determine the number of interviewees when the questionnaire was closed. In the two weeks after the survey, the researcher conducted the interviews with the interviewees.

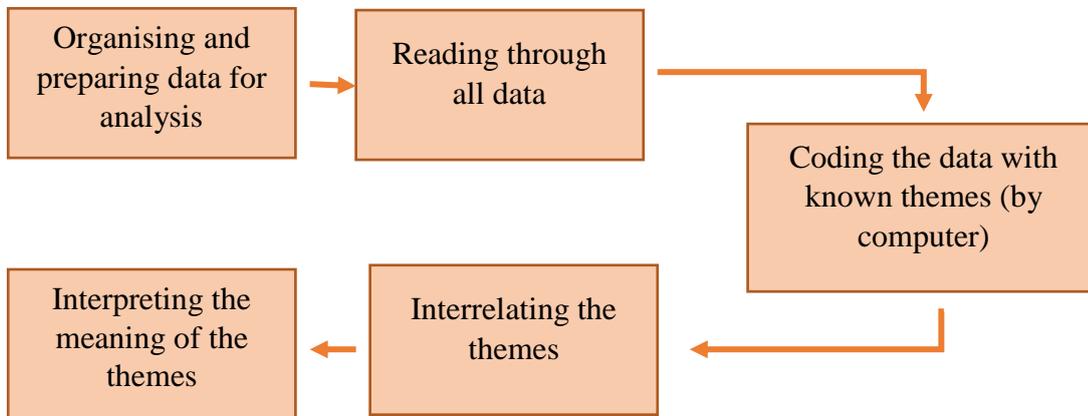
Six participants showed interest in participating in the follow-up interview and sent back their personal information. Three of them came from the tax course (ACCT358), while another three were from the non-tax group (SENG301 & COSC364). All interviews were conducted via the face-to-face method, and participants were reminded of the important points in the information sheet, and were asked to sign a consent form. All interviewees agreed to be audio-recorded, and they were aware of their right to withdraw at any stage of the process. Collecting data by audio-recording can increase the validity of the data gathering process, because it does not only rely on the researcher's note-taking, which may be influenced by the researcher's opinions (Oltmann, 2016). The duration of each interview was between 30 - 60 minutes, which was longer than the initial design of 15 - 20 minutes since the interviewees were more active in expressing their opinions than expected.

4.7.5 Interview Data Analysis

Within one week of each interview, all audio-recordings were transcribed into a Word document and sent to the interviewees. After interviewees had checked and modified the transcriptions with tracked changes, the documents were stored securely on the University of Canterbury computer server. Once all six interviews were completed and checked by the interviewees, the documents were analysed by using NVivo, a qualitative data analysis computer software package, which helps researchers to organise, analyse and find insights into qualitative data (McNiff, 2016). The use of NVivo mainly helps in coding the data and allows the researcher to identify and interpret themes and patterns from interviews by following Creswell's (2009) data analysis diagram. Creswell (2009, p. 197) summarised six steps in analysing qualitative data (see Figure 4.1), but the order of the steps was changed in this study. In Creswell's (2009) diagram, the themes are identified after coding the data. Since the present study employs TPB models, the themes were known before coding the data. Therefore, the data analysis process in this study is to explore and explain known themes by coding the data after analysing the transcription of all interviews. Eventually, the findings from the interviews were compared to the survey results in order to form conclusions, which would be applied to answering the research questions.

Figure 4.1

Data Analysis Diagram in Qualitative Research Applied in this Study



Source. Adapted from Creswell (2009, p. 197)

4.8 Summary

This chapter provides a detailed summary of the methodology and the research design. In order to achieve the four objectives of this study, an interpretivist paradigm was employed with mixed methodology. This chapter also explains how the study replicates and extends Birch et al.'s (2003) study. Similar to Birch et al. (2003), this study recruited students as participants, but selected one tax course and three non-tax courses as the target.

The discussion on the quantitative component initially indicates the application of the questionnaire survey method in the tax context, while the discussion of the qualitative component explained why the semi-structured interview was used. The research subjects of the study were composed of a tax group and a non-tax group, and the available population for these two groups was considerably different. Therefore, this study used two approaches to select survey respondents. For the non-tax group, in addition to business and law courses, other courses could be selected as targets for non-tax respondents. However, non-tax students might not be very interested in tax issues. For the tax group, since only students from one course could be the subject of the survey, the researcher employed a longer survey time and multiple reminders to get as many respondents as possible. Therefore, this research eventually decided on two weeks to obtain respondents from three non-tax courses and four weeks to obtain a similar number of respondents from tax courses. Follow-up interviews with students in both the non-tax group and the tax group were conducted within two weeks of the completion of the survey by each group. Participants in the follow-up interview were all from the survey sample, and they were all self-

selected – whether they wished to participate in the interview or not. As a result, the sample of the follow-up interviews is small, with only three non-tax and tax students participating in the interview.

The questionnaire followed Birch et al.'s (2003) research, but made some adjustments based on realistic conditions, such as inflation. Also, some tax avoidance related questions adapted from Kirchler and Wahl (2010) were asked in the questionnaire. In addition, at the end of the questionnaire, the researcher provided basic knowledge about tax avoidance and tax evasion, including their concepts and differences. The researcher hopes that non-tax respondents can obtain some knowledge after completing this study. In addition, a pilot test was undertaken before the formal survey in order to make the survey questions more useful and to strengthen internal validity. The interview part took into account the application of TPB in analysing student attitudes, and partly draws on Smart's (2012) research to develop the interview guide. This research repeatedly emphasised the importance of anonymity and confidentiality in the survey, in the information form and in the message posted on "Learn". On the interview information sheet and before the face-to-face interview, anonymity and confidentiality were highlighted again, and the interviewees were asked whether they agreed to the interview being recorded.

This chapter also explains how to analyse data from the survey and the follow-up interview. After collecting the data from survey, the researcher performed the Chi-square tests and two-way ANOVA to examine the impact of tax education on student attitudes towards tax evasion and tax avoidance. In addition, the researcher recorded the interviews, and transcribed them into a text document for the interviewees to check. The final transcriptions were coded by NVivo for analysis. The next chapter details the findings and discussion of the survey.

Chapter 5: Findings of Survey

5.1 Introduction

This chapter is divided into two main parts: the survey response analysis and the analysis of the Chi-square tests. The response rate and demographic background of the survey respondents are discussed and compared with Birch et al.'s (2003) study. Furthermore, the Chi-square method has been used to analyse the survey outcomes in order to determine the impact of tax education on student attitudes towards tax evasion and their potential views on tax avoidance. The outcomes are also compared with Birch et al.'s (2003) results to probe the changes in student attitudes over the last 18 years. In addition, the relationships between other demographic variables and student attitudes towards tax non-compliance are also discussed in this chapter.

5.2 Survey Response Analysis

5.2.1 Response Rate

The data collection was undertaken between March 2021 and April 2021. The survey was distributed to 491 students during this period, including 121 tax students and 370 non-tax students. Seventy-eight of the returned surveys were fully completed and are analysed in this chapter. Table 5.1 shows that a higher response rate was obtained from the tax group than the non-tax group, with the overall response rate reaching 16%.

Table 5.1

Survey Response Rate

Particulars	Population	Quantity	Response rate %
Tax students	121	36	30
Non-tax students	370	42	11
Total	491	78	16

However, the response rate of this study (86%) is considerably lower than in Birch et al.'s (2003) study. This is first because Birch et al. (2003) conducted their survey in class time using a paper questionnaire.

Moreover, as mentioned in Section 4.6, the researchers in Birch et al.'s (2003) study were known and trusted by students, but students have never seen the researcher of the present study.

5.2.2 Demographics

Tables 5.2 - 5.8 tabulate the demographic background of survey respondents both for this study and for Birch et al.'s (2003) study. The respondent profiles are made up of information on age, gender, ethnicity, employment status, income level, number of years of work experience, and number of times tax information has been checked. This study focuses on the respondents' tax education background while examining remaining demographics to replicate Birch et al.'s (2003) study.

5.2.2.1 Age

Table 5.2 reveals that the majority of respondents (86%) are under 30 years old. This finding is similar to Birch et al.'s (2003) study, where 79% of all respondents are under 30 years of age.

Table 5.2

Age of Survey Respondents

Age	Frequency counts	%
18 - 25	41	53
25 - 29	26	33
30 - 39	10	13
40 - 49	1	1
Total	78	100

5.2.2.2 Gender

Table 5.3 shows that the percentages of female respondents (49%) and male respondents (50%) are similar. In Birch et al.'s (2003) study, on the other hand, there were more female respondents (56%) than male respondents (44%).

Table 5.3*Gender of Survey Respondents*

Gender	Frequency counts	%
Female	38	49
Male	39	50
Non binary	1	1
Total	78	100

5.2.2.3 Ethnicity

Table 5.4 shows that New Zealand European (56%) and Chinese (17%) respondents dominated the survey participation compared with other groups. This is similar to Birch et al.'s (2003) study, where 72% were New Zealand Europeans, and 17% were Chinese who participated in the survey.

Table 5.4*Ethnicity of Survey Respondents*

Ethnicity	Frequency counts	%
New Zealand European	44	56
Māori	3	4
Pacific Islander	1	1
Australian	6	8
Chinese	13	17
Other	11	14
Total	78	100

5.2.2.4 Employment Status

With regard to employment status, there are two main categories in Table 5.5: full-time or part-time wage and salary earners (51%) and those not currently in paid employment (44%). In comparison, the percentage of full-time and part-time wage and salary earners (45%) was lower than those not currently in paid employment (47%) in Birch et al.'s (2003) study. This shows that more students tend to find part-time or full-time jobs while studying, compared with 18 years ago.

Table 5.5*Employment Status of Survey Respondents*

Employment status	Frequency counts	%
Not currently in paid employment/business (e.g., full-time parent or student)	34	44
Full-time wage or salary earner	4	5
Part-time wage or salary earner	36	46
Self-employed with no employees (Either full-time or part-time)	2	3
Self-employed with employees (Either full-time or part-time)	1	1
Other	1	1
Total	78	100

5.2.2.5 Income Level

Table 5.6 shows that the income level variable is mainly composed of low-income earners (82%) who earned \$14,000 or less per annum. In Birch et al.'s (2003) study, the low-income earners were those with an annual income of \$10,000 or less. Their findings revealed that the percentage of low-income earners (70%) was less than the current study. This suggests that the majority of respondents participate in part-time jobs with low wages, or work only for short periods of time during holidays.

Table 5.6*Income Level of Survey Respondents*

Income level	Frequency counts	%
No formal income	31	40
Under \$14,000	33	42
Between \$14,001 and \$48,000	12	15
Between \$48,001 and \$70,000	2	23
Total	78	100

5.2.2.6 Number of Years of Work Experience

Table 5.7 shows that 82% of respondents have had work experience, with 58% of respondents having 1-4 years of work experience. In Birch et al.'s (2003) study, forty-two per cent of respondents had more than five years of work experience, but the proportion of this group dropped dramatically in the present study (7%). This is mainly because the present study only recruited third-year students as participants, while in Birch et al.'s (2003) study, 18% of respondents were from continuing education courses.

Table 5.7

Number of Years Work Experience of Survey Respondents

Number of years work experience	Frequency counts	%
None	14	18
Less than 1 year	13	17
1 - 4	45	58
5 - 9	5	6
10 - 19	1	1
Total	78	100

5.2.2.7 Frequency of Tax Information Check

Table 5.8 reveals that 77% of respondents check their tax information at least once per annum. This proportion is higher than in Birch et al.'s (2003) study, which showed that around 70% of respondents checked at least once per annum. The fact that more respondents are checking their tax information more frequently may be because more people have part-time jobs. Another possible reason is the use of a secure online service tool, myIR,¹⁹ making tax information checks more convenient and quicker.

¹⁹ myIR is Inland Revenue's secure online services tool, and can be accessed simply on various devices. By registering for a myIR account, taxpayers can check their student loan balance, and their working for families' tax credits, and whether they are due a tax refund or have tax to pay, etc.

Table 5.8*Frequency of Tax Information Check of Survey Respondents*

Frequency of tax information check (per year)	Frequency counts	%
Never	18	23
Once	21	27
2-5 times	35	45
More than 5 times	4	5
Total	78	100

5.3 Survey Findings and Discussion

5.3.1 Results of Section 2

5.3.1.1 Undeclared Cash Withdrawals

Questions 1 and 2 in Section 2 ask for respondents' opinions on scenarios involving the acceptability of undeclared cash withdrawals. The questions involve a person, Jenny, who takes two different amounts of cash from the till of her owned hairdressing salon in a town. Furthermore, she does not declare these amounts in her income tax or GST returns. The first scenario (Question 1) involved Jenny taking \$150 in cash from the till every week in the past five years, while the amount changed to \$30 per week in the second scenario (Question 2).

Table 5.9*Undeclared Cash Withdrawals - \$150 per week*

Respondents' opinions	Non-tax students %	Tax students %	Total %	Birch et al. study %
Totally acceptable	2	0	1	10
Mildly acceptable	3	8	6	24
Mildly unacceptable	38	17	28	37
Totally unacceptable	57	75	65	29
Total	100	100	100	100

Table 5.10*Undeclared Cash Withdrawals - \$30 per week*

Respondents' opinions	Non-tax students %	Tax students %	Total %	Birch et al. study %
Totally acceptable	2	8	5	15
Mildly acceptable	5	28	15	31
Mildly unacceptable	64	42	54	33
Totally unacceptable	29	22	26	21
Total	100	100	100	100

Table 5.9 shows that 93% of respondents considered it totally or mildly unacceptable for Jenny to take \$150 per week from the till. Three-quarters of tax respondents considered it to be totally unacceptable, which was considerably higher than non-tax respondents in the first scenario. When the amount taken declined to \$30 per week, the percentage of respondents who considered this action to be totally or mildly unacceptable slightly decreased to 80% (see Table 5.10). Interestingly, in terms of the results of Question 2, non-tax respondents who selected either totally or mildly unacceptable were 29% higher in number than tax respondents.

The Chi-square tests do not reveal a significant difference at the 5% level of confidence between tax education and acceptability rate ($\chi^2 = 6.864$, $df = 3$, $p = 0.076$) for undeclared withdrawals of \$150 per week. When Jenny is stated to take \$30 per week from the till, the Chi-square tests show a significant difference at the 5% level of confidence between the two groups ($\chi^2 = 10.689$, $df = 3$, $p = 0.014$). The Chi-square tests for Questions 1 and 2 in Section 2 suggest that tax education does not play an important role in student attitudes towards the acceptability of large-scale undeclared cash drawings (e.g., \$150 per week), but it does in small-scale undeclared cash withdrawals (e.g., \$30 per week).

The results show that the respondents are more likely to consider undeclared cash withdrawals to be unacceptable than they were 18 years ago. In Birch et al.'s (2003) study, the percentage of respondents who considered Jenny's action in Question 1 to be totally or mildly unacceptable was 66%, which is 27% lower than this study. Similarly, when examining respondents' opinions on undeclared cash withdrawals of \$30 per week, the proportion of those who chose unacceptable in this study was 26% higher than Birch et al.'s (2003) study (54%). Furthermore, the Chi-square test results for the present study are somewhat different from Birch et al.'s (2003) study results. The latter found a statistically

significant difference in tax education in the first scenario, but they found no significant difference between courses in the second scenario.

5.3.1.2 Undeclared Cash Jobs

Questions 3 and 4 in Section 2 ask for respondents' opinions on scenarios involving the acceptability of undeclared cash jobs. The questions present Dave who works as a self-employed painter decorator to earn cash every week, but who does not declare these earnings in his income tax or GST returns. The third scenario (Question 3) involved Dave who was earning \$150 per week cash, while the amount earned changed to \$30 per week in the fourth scenario (Question 4).

Table 5.11

Undeclared Cash Job - \$150 per week

Respondents' opinions	Non-tax students %	Tax students %	Total %	Birch et al. study %
Totally acceptable	0	3	1	15
Mildly acceptable	14	11	13	28
Mildly unacceptable	62	36	50	31
Totally unacceptable	24	50	36	26
Total	100	100	100	100

Table 5.12

Undeclared Cash Job - \$30 per week

Respondents' opinions	Non-tax students %	Tax students %	Total %	Birch et al. study %
Totally acceptable	12	8	10	24
Mildly acceptable	21	14	18	35
Mildly unacceptable	41	19	31	26
Totally unacceptable	26	58	41	15
Total	100	100	100	100

Table 5.11 shows that 86% of respondents considered Dave's action to be totally or mildly unacceptable when the level of cash jobs was \$150 per week. Sixty-two per cent of non-tax respondents selected mildly unacceptable, 26% higher than tax respondents. Half the tax respondents considered Dave's behaviour totally unacceptable in the third scenario, more than double the number of non-tax respondents. When the level of cash jobs was reduced to \$30 per week, the percentage of respondents who considered Dave's action to be totally or mildly unacceptable decreased to 72% (See Table 5.12). Still, more non-tax respondents chose mildly unacceptable, while more tax respondents selected totally unacceptable. In addition, Table 5.12 shows that more non-tax respondents (33%) considered Dave's behaviour acceptable than tax respondents (22%) when the level of cash jobs was \$30 per week.

The Chi-square test results are significantly different at the 5% level of confidence between tax education and acceptability rate ($\chi^2 = 8.062$, $df = 3$, $p = 0.045$) for undeclared cash jobs of \$150 per week. When Dave's cash jobs were at the level of \$30 per week, the Chi-square test shows a significant difference at the 5% level of confidence between the two groups ($\chi^2 = 8.677$, $df = 3$, $p = 0.034$). The Chi-square tests for Questions 3 and 4 in Section 2 suggest that tax education plays an important role in student attitudes towards the acceptability of both large-scale (\$150 per week) and small-scale (\$30 per week) undeclared cash jobs.

Compared to Birch et al.'s (2003) findings, the results of the present study show that the respondents were more likely to consider undeclared cash jobs to be unacceptable. According to Birch et al.'s (2003) survey results, the percentage of respondents who considered Dave's action in Question 3 to be totally or mildly unacceptable was 57%, which is 29% lower than the current study. Likewise, in Birch et al.'s (2003) study, less than half of the respondents considered Dave's behaviour unacceptable when the value of cash jobs was \$30 per week. Furthermore, the Chi-square test results of the present study contrast with the findings of Birch et al. (2003), where the respondents did not find significant differences in either question. However, the outcomes when comparing the responses to Jenny's scenarios (Question 1 and Question 2) with those of Dave's scenarios (Question 3 and Question 4) are similar to those of Birch et al. (2003). Both studies suggest that undeclared cash withdrawals are more unacceptable than undeclared cash jobs.

5.3.1.3 Understated Interest Income

Question 5 in Section 2 asks for respondents' opinions on a scenario dealing with the acceptability of understating interest income. The question provides a scenario where Penny purchased her first home

and borrowed \$100,000 from her grandmother, Cecilia. Penny is paying Cecilia 5% interest (or \$5,000) per annum on loan. Cecilia does not declare this interest income in her tax return.

Table 5.13

Understated Interest Income

Respondents' opinions	Non-tax students %	Tax students %	Total %	Birch et al. study %
Totally acceptable	2	6	4	26
Mildly acceptable	24	22	23	32
Mildly unacceptable	50	39	45	29
Totally unacceptable	24	33	28	13
Total	100	100	100	100

A total of 73% of respondents considered Cecilia’s actions to be totally or mildly unacceptable (see Table 5.13). Among them, non-tax respondents who selected mildly unacceptable were 11% higher than tax respondents. Tax respondents who considered Cecilia’s behaviour totally unacceptable are 9% higher than non-tax respondents. Moreover, 23% of all respondents considered that understated interest income is mildly acceptable.

The Chi-square test reveals no significant difference at the 5% level of confidence between tax education and acceptability rate ($\chi^2 = 1.692$, $df = 3$, $p = 0.639$) regarding the understatement of interest income. This finding shows that the proportion of respondents’ attitudes towards understating interest income is similar regardless of whether they have received tax education.

The results of Birch et al.’s (2003) study is noticeably different from the findings of Question 5 in this study. Birch et al.’s (2003) findings showed that more than half of the respondents considered Cecilia’s actions were acceptable, and that tax education played an important role in respondents’ decisions. It needs to be noted that 26% of respondents in Birch et al.’s (2003) study selected the totally acceptable option. However, this ratio has decreased dramatically in the last 18 years: merely 4% of respondents chose this option in the present study.

5.3.1.4 Over-claiming Deductions

Question 6 in Section 2 asks for respondents' opinions on a scenario involving the acceptability of over-claiming deductions. The question involves Jack, a self-employed plumber, claiming the cost of private expenditure as business expenditure in his GST and income tax returns.

Table 5.14

Over-claiming Deductions

Respondents' opinions	Non-tax students %	Tax students %	Total %	Birch et al. study %
Totally acceptable	7	19	13	17
Mildly acceptable	12	17	14	22
Mildly unacceptable	57	25	42	34
Totally unacceptable	24	39	31	27
Total	100	100	100	100

Table 5.14 shows that 73% of respondents considered Jack's actions to be totally or mildly unacceptable. Non-tax respondents who selected mildly unacceptable are 32% higher than tax respondents. It also needs to be highlighted that tax respondents who considered over-claiming deductions to be totally unacceptable are 15% higher than non-tax respondents. In addition, 36% of tax respondents considered Jack's actions to be acceptable, which is 17% higher than non-tax respondents. According to the results of tax evasion scenarios, such as Questions 3 and 6, tax respondents appear to be more likely to choose extreme options (totally acceptable or totally unacceptable) than non-tax respondents.

The Chi-square test reveals a statistically significant relationship at the 5% level of confidence between tax education and acceptability rate ($\chi^2 = 8.766$, $df = 3$, $p = 0.033$) with respect to over-claiming deductions. Tax education polarised the opinions of respondents. Nearly 40% of tax respondents believed over-claiming deductions is acceptable, while 40% considered it to be totally unacceptable. Correspondingly, 60% of those who have not had tax education chose mildly unacceptable when faced with the over-claiming deductions scenario.

The responses to this question are similar between Birch et al.'s (2003) study and the present study. In both studies, the majority of respondents considered Jack's action to be unacceptable, and tax education played an important role in both studies.

5.3.1.5 Various Actions

Question 7 asked respondents to assess the acceptability of five illegal actions. Each of these actions made the respondents better off by \$500. Question 7 deals with the acceptability of underpayment of \$500 tax by not declaring \$1,200 of income for GST and income tax purposes. It also concerns respondents' opinions on filing a fraudulent insurance claim and receiving a \$500 pay-out. The third sub-part of Question 7 provides a scenario of shoplifting a camera worth \$500. The attitudes towards the theft of \$500 from an employer are also evaluated. The last sub-part is related to welfare fraud involving collecting a \$500 social welfare benefit when not eligible for it.

Table 5.15

Various Actions

Items		Totally acceptable	Mildly acceptable	Mildly unacceptable	Totally unacceptable	Total
Not including \$1200 income for GST and income tax purposes (\$500 tax underpaid)	Non-tax students %	2	7	48	43	100
	Tax students %	0	6	50	44	100
	Total %	1	6	49	44	100
	Birch et al. study %	13	24	38	25	100
Filing a fraudulent insurance claim and receiving a \$500 pay-out	Non-tax students %	2	2	19	76	100
	Tax students %	0	11	22	67	100
	Total %	1	6	21	72	100
	Birch et al. study %	4	5	20	71	100

Shoplifting a camera worth \$500	Non-tax students %	0	2	36	62	100
	Tax students %	0	2	17	81	100
	Total %	0	2	27	71	100
	Birch et al. study %	2	3	3	92	100
Theft of \$500 from an employer	Non-tax students %	0	2	31	67	100
	Tax students %	0	0	28	72	100
	Total %	0	1	40	69	100
	Birch et al. study %	1	1	4	94	100
Collecting a \$500 social welfare benefit when not eligible for it	Non-tax students %	2	2	38	57	100
	Tax students %	0	8	17	75	100
	Total %	1	5	29	65	100
	Birch et al. study %	2	5	20	73	100

Table 5.15 shows that more than 90% of respondents considered these five illegal actions to be unacceptable. The Chi-square tests fail to find a statistically significant relationship between tax education and the acceptability rate of all five actions. Compared to Birch et al.'s (2003) findings, the proportion of respondents who considered tax evasion to be acceptable has considerably decreased. Eighteen years ago, 37% of respondents considered the first action acceptable, while only 8% of respondents selected it as totally or mildly acceptable in this study.

5.3.1.6 Deduction of Business Expenses

Question 8 to Question 10 in Section 2 asks about respondents’ acceptability on a range of tax avoidance or acceptable tax planning scenarios. These questions are adapted from the instrument of Kirchler and Wahl’s (2010) tax avoidance questions. Because their study did not focus on the impact of demographic variables (including tax education) on tax avoidance, it is not possible to compare the results of the present study with their study.

Question 8 in Section 2 asks for respondents’ opinions on a scenario involving the acceptability of the deduction of business expenses. The question involves Zoe, who bought an \$800 laptop, and her company does not currently need it. She claimed the cost of the laptop as business expenditure in her GST and income tax returns. In this scenario, the deduction of the laptop is a form of acceptable tax planning. However, as it relates to timing and potentially bringing forward expenditure to claim a current tax deduction, Zoe’s actions are possibly considered as tax avoidance.

Table 5.16

Deduction of Business Expenses

Respondents’ opinion	Non-tax students %	Tax students %	Total %
Totally acceptable	12	28	19
Mildly acceptable	33	28	31
Mildly unacceptable	36	39	37
Totally unacceptable	19	5	13
Total	100	100	100

Table 5.16 reveals that half of the respondents considered Zoe’s actions to be acceptable, while the other half of the respondents felt her actions to be unacceptable. Tax respondents who chose “totally acceptable” (28%) were more than twice as many as non-tax respondents (12%), while tax respondents who chose “completely unacceptable” (5%) were considerably fewer than non-tax respondents (19%). However, the Chi-square test reveals no significant difference at the 5% level of confidence between the attitudes of tax respondents and non-tax respondents ($\chi^2 = 5.796$, $df = 3$, $p = 0.122$). This result of Question 8 shows that tax education does not have a statistically significant impact on the respondents’ tax avoidance attitudes.

5.3.1.7 *Understanding the possibility of tax deductions*

Question 9 in Section 2 provides a scenario in which Ben attended a course informing him about the current possibilities for claiming tax deductions. Ben’s behaviour expresses his willingness to participate in tax planning, and attending the hypothetical course is a means of understanding acceptable tax planning.

Table 5.17

Understanding the possibility of tax deductions

Respondents’ opinion	Non-tax students %	Tax students %	Total %
Totally acceptable	40	33	37
Mildly acceptable	43	56	49
Mildly unacceptable	10	11	10
Totally unacceptable	7	0	4
Total	100	100	100

Table 5.17 presents that 86% of respondents considered Ben’s action to be totally or mildly acceptable. None of the tax respondents was totally unaccepting of Ben’s behaviour. Also, the Chi-square test fails to show any statistically significant differences between tax education in relation to Ben’s behaviour ($\chi^2 = 4.669$, $df = 3$, $p = 0.198$).

5.3.1.8 *Attitudes towards Tax-saving Behaviours of Clients and Tax Practitioners*

Question 10 in Section 2 asks respondents for their opinions on a hypothetical scenario dealing with the acceptability of saving more tax by hiring a tax accountant. The question involved Jerry discussing his income tax return with his accountant and his accountant giving him some hints as to how he could save more in tax. Question 10-1 asks how respondents view Jerry’s actions, and Question 10-2 asks their perspectives on the actions of Jerry’s accountant. In Question 10, Jerry hired an accountant to conduct better tax planning, while it is Jerry’s accountant’s duty to provide Jerry with the correct advice on the implications of tax planning and structuring arrangements.

Table 5.18*Attitudes towards tax-saving behaviours of clients and tax practitioners*

Respondents' opinions	Jerry's actions			The actions of Jerry's accountant		
	Non-tax students %	Tax students %	Total %	Non-tax students %	Tax students %	Total %
Totally acceptable	62	69	66	57	47	53
Mildly acceptable	38	28	33	29	44	35
Mildly unacceptable	0	3	1	14	9	12
Totally unacceptable	0	0	0	0	0	0
Total	100	100	100	100	100	100

The majority of respondents believed Jerry's actions to be acceptable. When asked about the acceptance of the behaviour of Jerry's accountant, most respondents still considered it to be acceptable. Among those who considered it to be unacceptable, the proportion of non-tax respondents was slightly higher than that of tax respondents. The Chi-square tests revealed no statistically significant difference at the 5% level of confidence between tax education and respondent opinions to Jerry's actions in Question 10. Similarly, when it comes to respondent attitudes towards the behaviour of Jerry's accountant, there was no significant relationship between tax education and respondents' opinions.

5.3.2 Discussion of Findings in Section 2

Questions 1-6 in Section 2 examined respondents' attitudes towards various types of tax evasion by individuals and small businesses. Compared with the results of Birch et al.'s (2003) study, the results of the current study show that students' tax evasion attitudes have somewhat changed in the last 18 years. The proportion of respondents who believed that the actions in these tax evasion scenarios are unacceptable is higher in the present study than in Birch et al.'s (2003) study.

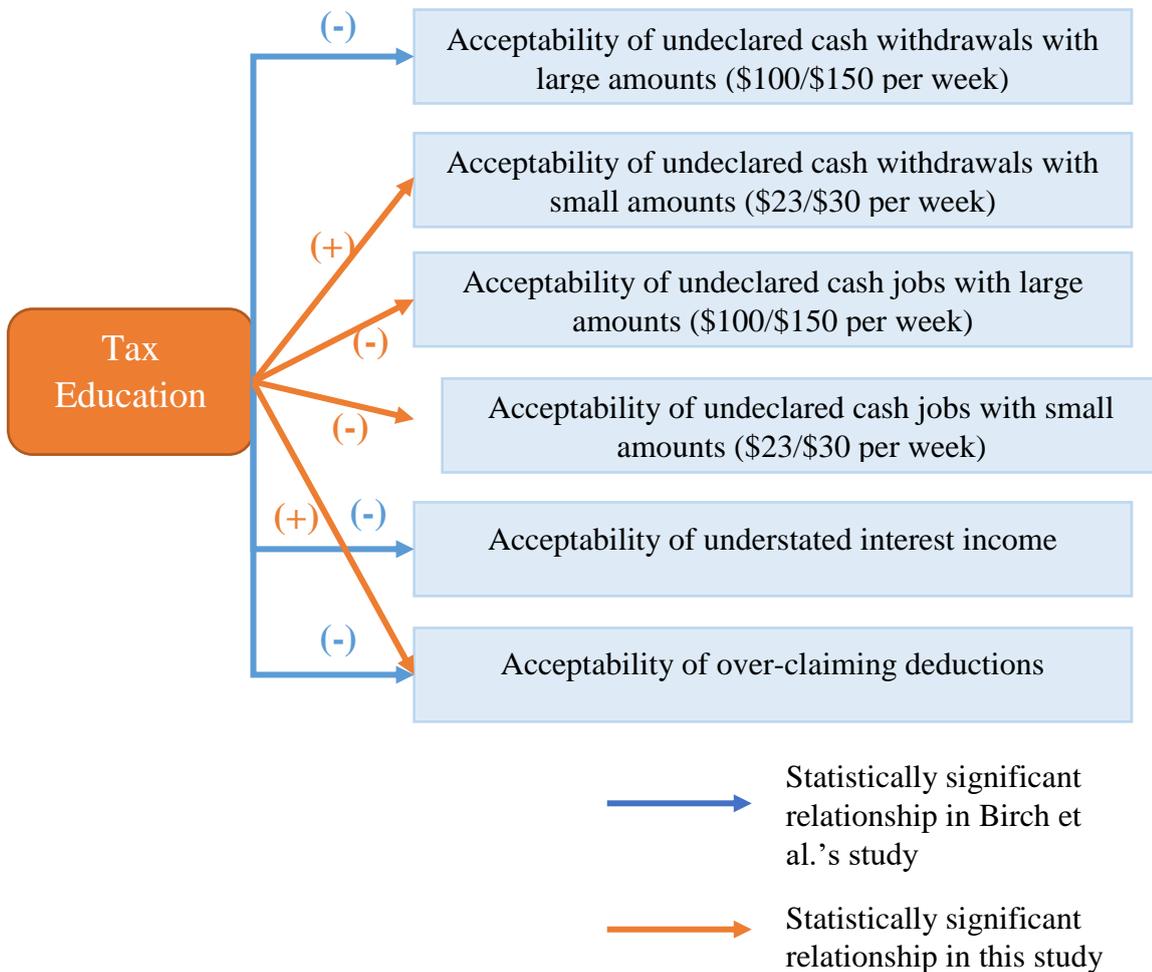
The Chi-square results show that tax and non-tax students have statistically different attitudes on four tax evasion questions (see Figure 5.1). The survey outcome shows that tax students had a higher acceptance than non-tax students of over-claiming deductions and undeclared cash drawings of small amounts. This result is supported by Chang (1984), who found that receiving more tax knowledge is positively associated with taxpayer non-compliance. In contrast, tax respondents are less accepting than

non-tax respondents of undeclared cash jobs. This may be because it is difficult for non-tax students to distinguish between a hobby and a business²⁰ based on their tax knowledge. If Dave were making money from hobby work, he would not need to pay taxes on his income. However, Dave regularly earns income from painting, which should be regarded as running a business. No matter how much money he has, he must pay taxes on his income. For those non-tax respondents, making \$30 or \$150 a week may be a small amount of money, so some of them thought that not paying taxes is acceptable. Although some tax respondents may also feel that it is understandable that cash income of \$30 or \$150 is not taxed, about 80% of them knew that not taxing cash income from a business should be regarded as tax evasion. In addition, tax respondents were more likely than non-tax respondents to choose extreme options (totally acceptable or totally unacceptable). For example, with respect to undeclared cash jobs of large amounts (e.g., \$150 per week), tax respondents were more likely to consider them as totally unacceptable (50%), in comparison with non-tax respondents (24%).

²⁰ The NZ Inland Revenue department explains the differences between a hobby and a business, and how to define them: <https://www.business.govt.nz/news/hobby-or-business/>. In this questionnaire, Dave's action should be regarded as running a business.

Figure 5.1

The Impact of Tax Education on Student Attitudes towards Tax Evasion Behaviour



Note. (+) obtaining tax education increases the acceptance of certain tax evasion behaviour;

(-) obtaining tax education decreases the acceptance of certain tax evasion behaviour.

As shown in Figure 5.1, the impact of tax education on specific tax evasion issues found in this study is different from that of Birch et al. (2003)²¹. They found that tax education has a negative impact on student attitudes towards three tax evasion cases: undeclared cash withdrawals of large amounts, understated interest income, and over-claiming deductions. In other words, Birch et al. (2003) concluded

²¹ It should be noted that Birch et al. (2003) recruited participants from three different classes: Introductory Accounting, Second Year Taxation, and Continuing Education. Among them, only the Second Year Taxation class includes a specific tax context. Hence, in order to compare the impact of tax education in the two studies, the present study focuses on checking whether the tax evasion attitudes of the students in the Second Year Taxation class in Birch et al. (2003) is significantly different from the other two classes.

that receiving tax education can improve students' tax compliance attitudes. Nevertheless, the present study finds a mixed result on the relationship between tax education and tax evasion.

The results of the present study for various actions (Question 7) are similar to those of Birch et al. (2003). Respondents generally considered that the tax evasion behaviour in Question 7 is more unacceptable than the scenarios in the early questions (Question 1-6) by observing the results. This may be due to some respondents' insufficient tax knowledge to identify whether the behaviour in the scenarios counts as tax evasion.

Based on the tax avoidance question in the Kirchler and Wahl (2010) questionnaire, Questions 8-10 examine student attitudes towards tax avoidance and acceptable tax planning. The scenario described in Question 8 of deducting business expenses at inappropriate times can be considered as tax avoidance. Interestingly, half of the respondents believed that this tax avoidance behaviour was acceptable, while the other half of the respondents felt that such behaviour was unacceptable. Although the results of the two extreme options (totally acceptable and totally unacceptable) show that tax respondents are more accepting of this tax avoidance behaviour than non-tax respondents, tax education does not show a statistically significant influence on students' tax avoidance attitudes.

Furthermore, most of the respondents were accepting of the hypothetical scenarios in Question 9. The result of the Chi-square tests reveals that tax education does not play a statistically significant role in Question 9 with regard to acceptable tax planning. Question 10 examines student attitudes towards the relationship between tax advisors and their clients. Kirchler and Wahl's (2010) questionnaire tested how likely respondents were to seek out a tax advisor to help obtain hints about saving tax. Nevertheless, the present study provides a scenario where Jerry is discussing his income tax return with his accountant, and his accountant gives him some hints as to how he could save more tax. Most of the respondents thought that the behaviour of Jerry and his accountant were acceptable. Although no significant differences were found, more non-tax respondents than tax respondents believed that the behaviour of Jerry's accountant was mildly unacceptable. This may suggest that non-tax students, who represent general taxpayers, believe that tax consultants should not exploit loopholes in tax laws. This outcome is consistent with Tan's (1999) conclusion that most NZ taxpayers prefer conservative advice to aggressive advice.

The questions in this section explore the respondents' views on certain hypothetical scenarios. The results showed that non-tax respondents mostly considered that tax evasion and tax avoidance is unacceptable. The tax respondents' acceptance of tax avoidance issues was higher than that of tax evasion issues. Both groups of respondents showed a high acceptance of acceptable tax planning

questions. However, it needs to be highlighted that the survey results in this section cannot directly reveal whether the respondents knew the difference between tax evasion, tax avoidance, and acceptable tax planning, especially the difference between the first two. In order to enhance the honesty of the interviewees, the two terms “tax evasion” and “tax avoidance” were not mentioned in the survey to prevent these emotive terms from causing a potentially adverse response. However, this also prevented the researcher from investigating whether respondents could distinguish between these types of behaviours. Therefore, in follow-up interviews, the researcher directly asked the interviewees whether they understood the difference between tax evasion, tax avoidance, and acceptable tax planning.

5.3.3 Results of Section 3

5.3.3.1 Perceptions of Changes in the Understatement of Income

Question 1 in Section 3 asks respondents whether they felt that the amount of taxable income under-reported by small businesses and individuals had changed compared with five years ago.

Table 5.19

Perceptions of Changes in the Understatement of Income

Respondents' opinions	Non-tax students %	Tax students %	Total %	Birch et al. study %
Increased significantly	2	4	3	13
Increased a little	33	61	47	24
Remained about the same	33	19	26	24
Decreased a little	14	8	11	6
Decreased significantly	9	9	8	1
Do not know	9	3	5	32
Total	100	100	100	100

Table 5.19 shows that 50% of respondents considered that tax evasion by small businesses and individuals had increased compared with five years ago. Among them, 65% of tax respondents believed that the under-reporting of income by small businesses and individuals had increased, which is 30%

higher than the rate of non-tax respondents (35%). In addition, 19% of total respondents thought that the level had decreased, while 26% of them felt that such level had remained about the same.

The Chi-square tests reveal that tax education and perceptions of changes in the understatement of income over five years has a statistically significant relationship at the 5% ($\chi^2 = 9.630$, $df = 4$, $p = 0.047$). This result suggests that tax education plays an important role in student attitudes towards the changes in the understatement of income by small businesses and individuals over a five-year period.

The findings of Birch et al.'s (2003) study also showed that more respondents considered that tax evasion by small businesses and individuals had increased (37%) than those who thought the level had decreased (7%). Furthermore, a significant relationship was found between tax education and changes in the level of tax evasion as well. However, only 5% of respondents selected “*Do not know*” in the current study compared to 32% 18 years ago. Surprisingly, fewer non-tax respondents than tax respondents chose “*Do not know*” in the present study.

5.3.3.2 Perceptions of Changes in Society's Attitude to Evasion – “*More Acceptable*”

Question 2 in Section 3 examines respondents' opinions on the statement, “*We are becoming a society in which it is widely acceptable for small businesses and individuals to understate taxable income (for example, by doing cash jobs) and as a result pay less income tax and GST than they are legally obliged to.*”

Table 5.20

Perceptions of Changes in Society's Attitude to Evasion – “More Acceptable”

Respondents' opinions	Non-tax students %	Tax students %	Total %	Birch et al. study %
Strongly agree	5	14	9	22
Mildly agree	52	56	54	60
Mildly disagree	43	30	37	14
Strongly disagree	0	0	0	4
Total	100	100	100	100

Table 5.20 shows that 63% of respondents agreed that NZ society is becoming widely accepting of tax evasion. Fourteen per cent of tax respondents strongly agreed with this statement, which is much higher than non-tax respondents (5%). In comparison, none of the respondents strongly disagreed with this statement.

The Chi-square tests show no statistically significant relationship at the 5% ($\chi^2 = 2.668$, $df = 2$, $p = 0.263$) between tax education and respondents' views on the statement in Question 2 in Section 3. This result suggests that there is no significant difference in student opinion on this statement between the tax group and the non-tax group.

The responses to Question 2 Section 3 are similar to those of Birch et al. (2003), who also found that the majority of respondents (82%) agreed that the NZ society is becoming more accepting of understating taxable income by small businesses and individuals. In addition, tax education was also not a significant variable in this question of their study.

5.3.3.3 Perceptions that Chances of being Caught Understating Income are Low

Question 3 in Section 3 seeks respondents' opinions on the statement that "*The chances of being caught understating taxable income by not returning income from cash jobs or cash sales or claiming private expenses as business deductions are very low.*"

Table 5.21

Perceptions that Chances of being Caught Understating Income are Low

Respondents' opinions	Non-tax students %	Tax students %	Total %	Birch et al. study %
Strongly agree	43	33	39	31
Mildly agree	33	50	41	51
Mildly disagree	22	11	16	15
Strongly disagree	2	6	4	3
Total	100	100	100	100

Table 5.21 shows that 80% of respondents agreed that the chances of being caught understating income are low. Forty-three per cent of non-tax respondents strongly agreed with this statement, while 50% of tax respondents mildly agreed with the statement.

The Chi-square tests fail to find any statistically significant relationship between tax education and Question 3 in Section 3 ($\chi^2 = 3.561$, $df = 3$, $p = 0.313$). Both frequency and Chi-square test results for these questions are similar to Birch et al.'s (2003) findings.

5.3.3.4 Number of People Known to be Understating Income

Question 4 in Section 3 asks respondents how many people they knew who had omitted income from their tax returns.

Table 5.22

Number of People Known to be Understating Income

Respondents' opinions	Non-tax students %	Tax students %	Total %	Birch et al. study %
0 people	7	25	16	28
1 - 3 people	43	42	42	36
4 - 6 people	38	19	28	16
7 - 9 people	9	6	8	3
10+ people	3	8	6	17
Total	100	100	100	100

The responses in Table 5.22 show that around 84% of respondents knew at least one person who had understated their taxable income. It is interesting to note that more tax respondents (25%) selected “0 people” than non-tax respondents (7%). However, the proportion of tax respondents (8%) who chose “10+ people” was also unexpectedly high.

The Chi-square test exposes a significant difference at the 5% level of confidence between tax education and the number of people known by respondents who had understated their taxable income ($\chi^2 = 10.274$, $df = 4$, $p = 0.036$). This finding echoes the polarisation of results brought about by tax education. The

options selected by tax respondents may be related to the sensitivity of tax non-compliance behaviour of the people around them.

Birch et al. (2003) also found that a clear majority of respondents (72%) knew one or more people who had omitted income from their tax returns. In their study, around 40% of respondents knew of 1-3 people understating income, while the present study finds that 40% of respondents knew of 4-6 people who failed to declare some taxable income. Moreover, Birch et al. (2003) did not find a significant relationship between tax education and this question.

5.3.3.5 Tax Evasion Behaviour by Respondents

Questions 5 and 6 in Section 3 asks respondents questions about their own tax evasion behaviour, or where they may have facilitated the tax evasion behaviour of others. Question 5 asks whether the respondents still hire people who ask for cash even if they know those people will not include the cash in their taxable income. This question replicates Birch et al.'s (2003) study but adds the "N/A" option in case the respondents had never hired anyone before or used credit cards or online banking to pay for the person they hired. Question 6 asks respondents whether they have received cash for jobs or made cash sales, and knowingly not declared the income for GST or income tax purposes. This question also replicates Birch et al.'s (2003) study, and it adds the "N/A" option in case the respondents had never receive cash for work or made cash sales before.

Table 5.23

Tax Evasion Behaviour by Respondents - 1

In the past five years, have you paid cash to reduce the price you pay or have you paid anyone you hired (such as a childminder), knowing that they were not returning the money as income to tax?

Respondents' opinions	Non-tax students %	Tax students %	Total %	Birch et al. study %
Yes	21	30	25	27
No	55	59	57	73
N/A	24	11	18	0
Total	100	100	100	100

Table 5.24*Tax Evasion Behaviour by Respondents - 2*

In the past five years, have you received cash for jobs or made cash sales, and knowingly not declared the income for GST or income tax purposes?

Respondents' opinions	Non-tax students %	Tax students %	Total %	Birch et al. study %
Yes	21	36	28	46
No	38	33	36	34
N/A	41	31	36	0
Total	100	100	100	100

Tables 5.23 and 5.24 show that the majority of respondents answered either “*No*” or “*N/A*” in these two questions. However, it is interesting to see that more tax respondents chose “*Yes*” than non-tax respondents in the two questions. Table 5.23 reveals that 30% of tax respondents had paid cash to regular hired people to reduce the price, 9% higher than non-tax respondents. Similarly, Table 5.24 shows that the percentage of tax respondents (36%) who had received cash for jobs or sales and not declared it for income tax purposes in the five years preceding the current study is higher than that of non-tax respondents (21%). In addition, the Chi-square tests failed to find a statistically significant relationship between tax education and these two tax evasion actions.

In this study, the proportion of those who evaded tax in Question 5 and 6 is lower than the findings of Birch et al.’s (2003) study. One possible explanation is the widespread use of credit cards or electronic funds transfer at point of sale (EFTPOS) machines, which prevents people from using cash to evade taxes.

5.3.3.6 Interest in Tax-saving Knowledge

Question 7 in Section 3 is adapted from Kirchler and Wahl (2010) and asks respondents how likely they would be to take a detailed look at the tax laws to find a potential tax saving for themselves.

Table 5.25*Interest in Tax-saving Knowledge*

Respondents' opinion	Non-tax students %	Tax students %	Total %
Very Likely	7	25	15
Mildly Likely	23	61	41
Mildly Unlikely	60	14	39
Very Unlikely	10	0	5
Total	100	100	100

Table 5.25 shows that most tax respondents (86%) would check tax laws to search for potential tax savings, while most non-tax respondents (70%) would not do this. It is interesting to note that none of the tax respondents selected “very unlikely”. This result suggests that they are interested in the tax-saving topic and have the confidence to understand and utilise this knowledge as tax students. Furthermore, the Chi-square test reveals a statistically significant relationship at the 5% level between tax education and their interests in tax knowledge ($\chi^2 = 27.390$, $df = 3$, $p = 0.000$).

5.3.3.7 Comments on the Questionnaire

Comments on the questionnaire were not mandatory, but some respondents expressed interesting opinions. For example:

I honestly have absolutely no idea how tax works or what needs to be taxed. In no part of my education has it ever been brought up or explained. I have never searched it up because it seems overwhelmingly complex, and I partially feel it should be the tax collectors/governments job to bring awareness of the workings.

(Non-tax respondent)

I like how it compared saving tax from cash jobs to theft as in many points of view taxation in itself is theft (involuntary sacrifice of personal belongings). So from this point of view,

by not paying the right amount of tax, you are essentially stopping someone stealing from you.

(Tax respondent)

I think in specific circumstances, I would have a different outlook. For example, if a professional childminder under-reported their cash earnings to lower income taxes, I would find that unacceptable. However, if a 16-year-old didn't report their cash earnings for a job and they did it once a week, I wouldn't feel as uncomfortable about that.

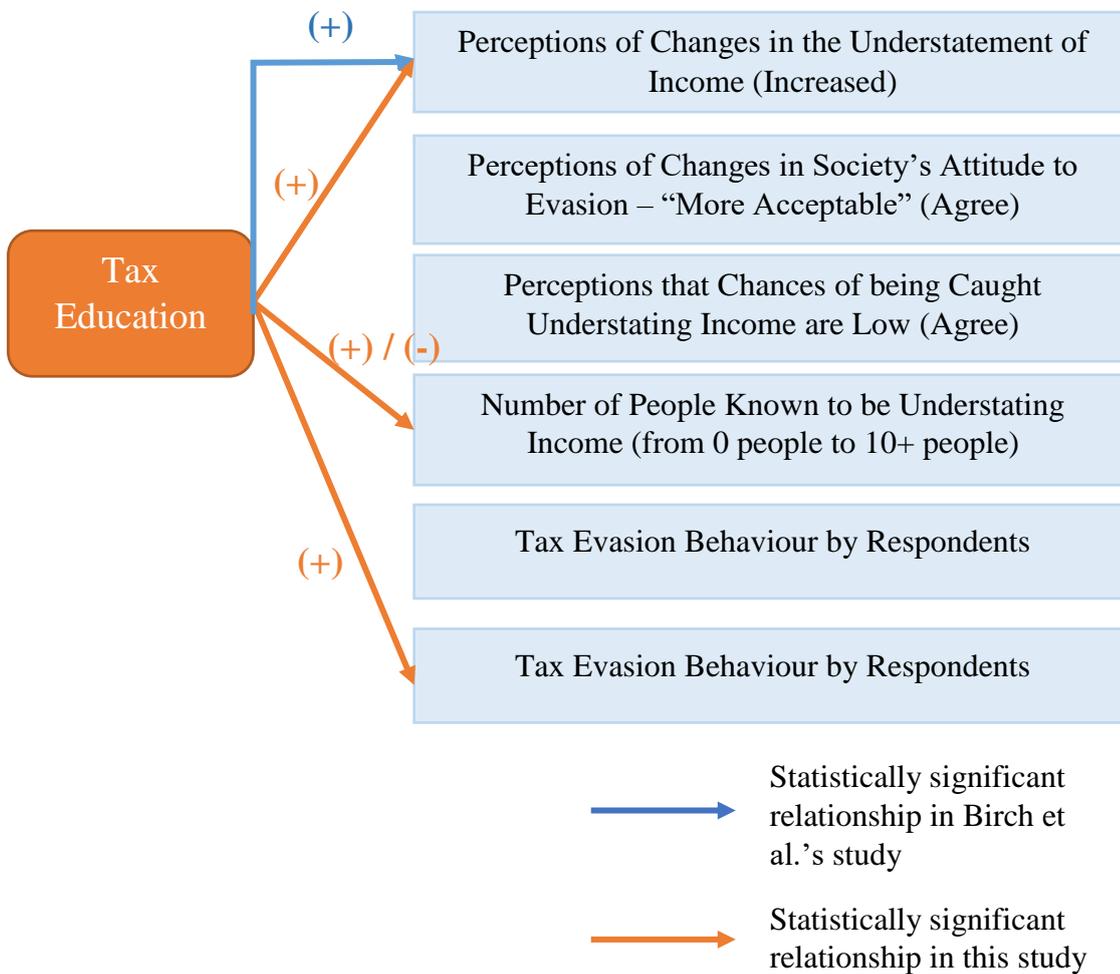
(Non-tax respondent)

5.3.4 Discussion of Findings in Section 3

The questionnaire (Section 3) examines the respondents' perceptions of tax evasion in society. It needs to be noted that the outcomes from this section cannot represent reality in society. Instead, the data assess student perspectives on certain issues. Concerning the impact of tax education on perceived tax evasion, Birch et al. (2003) found a significant relationship between tax education and the perceptions of changes in the understatement of income. The Chi-square tests in the current study reveal that tax and non-tax students have statistically different attitudes on three questions (see Figure 5.2).

Figure 5.2

The Impact of Tax Education on Respondents' Tax Evasion Perceptions in New Zealand



Note: (+) positive association between two buttons;

(-) negative association between two buttons.

The findings indicate that most tax students thought tax evasion has increased compared with five years ago, while most non-tax students believed the proportion of tax evasion has remained the same or has decreased in the last five years. These results are similar to Birch et al. (2003) that receiving tax education has an association with perceptions of changing in the understatement of income. This may be due to tax respondents being more concerned about tax issues than before taking tax classes and realising that there are many approaches to understating income. It was unexpected that more than half of the respondents felt understating income behaviour has increased over the five years preceding the study. One possible explanation for the result is the accessibility of different types of electronic media.

Nowadays, besides traditional newspapers and radio, people receive news through real-time updated information on various mobile phone applications and web pages. Also, the increasing attention of the NZ media to tax non-compliance cases may be another reason for the change in student attitudes (Marriott, 2017). Reports are intended to make people aware of the harm tax non-compliant behaviours bring to society in enhancing tax compliance. For example, due to the serious consequences of tax evasion, the IRD has continuously warned taxpayers of its serious stance on tax evasion on its website and publications. However, it may also make people think that tax evasion is common and increasing in NZ.

Furthermore, compared with non-tax students, more tax students were unaware of any tax evaders or knew more than ten tax evaders. One possible reason for knowing many evaders is that, as mentioned before, tax respondents are more concerned with, and sensitive to, tax evasion actions around them.

This study also points out a statistically significant relationship between tax education and respondents' interests in perusing tax laws to find potential tax-saving opportunities for themselves. This outcome shows that, although many tax students enrol in tax courses in order to achieve academic and career goals (such as to become members of a professional organisation, e.g., CAANZ/CPA Australia, in the future), their motivation for tax education may also be due to their interest in tax topics. In turn, the tax education they have received may improve their perceived behavioural control. They believe they are capable of understanding the tax laws and finding potential tax savings.

The three comments about taxation selected from the questionnaire may represent the opinions of a number of people. The first comment from a non-tax respondent shows that tax is complicated for people who have not received tax education. The second comment from the tax respondent can reflect his/her thinking on taxation. On the one hand, this respondent believes that saving tax from cash work is a kind of theft. However, according to second student commentator's answer, because levying tax itself can be regarded as a kind of theft, paying less tax prevents the government from stealing a taxpayer's money. The third comment from a non-tax respondent presents that people's attitudes towards tax non-compliance somewhat depend on many variables, and this respondent focuses on age and work frequency.

5.4 The Impact of Other Demographic Variables

Although demographic variables other than tax education are not the focus of this study, these variables also impact on student attitudes towards tax evasion (Jackson & Milliron, 1986; Richardson & Sawyer, 2001). For example, Birch et al. (2003) examined how each demographic variable affects student

attitudes towards tax evasion. They identified significant relationships between student views on certain tax evasion issues and their age, ethnicity, income level, the number of years of work experience, and filing experience. Furthermore, Section 3.3.2 reviews the findings in prior literature on how education interacts with other demographic variables to affect taxpayer compliance. However, it needs to be noted that the interaction effects between tax education and other interdependent variables have not been explored in previous research. Therefore, this study employs two-way ANOVA to assess how other interdependent variables interact with tax education on students' tax evasion perspectives.

5.4.1 Chi-square testing

5.4.1.1 Age

The Chi-square tests reveal a significant difference at the 5% level of confidence between age and two dependent variables. The results show that 60% of 18-25 year old respondents considered that understating interest income is unacceptable, while 87% of 25-29 year old respondents hold this view ($\chi^2 = 22.954$, $df = 9$, $p = 0.006$). Also, as the respondents get older, they seem to know more people who are understating their income. Among the 18-25 year old respondents, 27% knew 4-6 people who under-reported their income. This ratio reaches to 50% and 60% among respondents aged 25-29 and 30-39 respectively ($\chi^2 = 20.201$, $df = 9$, $p = 0.017$).

5.4.1.2 Number of Times Tax Information Checked

The Chi-square tests reveal a significant difference at the 5% level of confidence between how many times taxpayers check their tax information and the number of people known by respondents who had understated their taxable income ($\chi^2 = 10.274$, $df = 4$, $p = 0.036$). This result shows that respondents who have never checked their tax information knew fewer non-compliant taxpayers than those who have checked two times or more.

Moreover, it is interesting to note that Birch et al. (2003) found a significant difference at the 5% level of confidence between tax evasion behaviour by respondents with many demographic variables, including *class, age, ethnicity, income, and work experience*. However, this study does not find a significant relationship between respondents' demographic variables and their tax evasion behaviour. This may be because, although many respondents have part-time or full-time jobs, their employers always deduct their tax at source, and they only check their tax information through myIR. Moreover, another possible explanation is that the prevalence of online shopping and the increase in the frequency of credit cards or EFTPOS use have reduced the chances of respondents engaging in tax evasion.

5.4.2 Two-way ANOVA testing

The two-way ANOVA performed in this study allows the researcher to explore how tax education interacts with other demographic variables to affect student attitudes towards tax evasion. As mentioned in Section 4.7.6, when the p -values of the ANOVA results are less than 0.05, there is an interaction effect between tax education and other interdependent variables. However, the Statistical Package for the Social Sciences (SPSS) results show that all p -values are more than 0.05. In other words, this study fails to find any interaction effect between tax education and other variables.

5.4.3 Discussion of the Impact of Other Demographic Variables

The Chi-square testing is first used to examine whether other demographic variables significantly affect student attitudes towards tax evasion. Among seven interdependent variables, the chi-square results present that *gender*, *ethnicity*, *employment status*, *income level*, and *the number of years work experience* did not find a significant relationship with student attitudes towards tax non-compliance behaviour.

Regarding the impact of respondents' *age*, the Chi-square results show that respondents were less likely to think tax evasion is acceptable as they get older. This outcome is consistent with Gupta and McGee (2010) and Marriott (2017), who also recruited participants from New Zealand (NZ) and found that age is positively associated with tax compliance. In addition, the survey results also show a significant statistical relationship between *age*, *the frequency of tax information checks*, and the number of people involved in tax evasion known to the respondents. This study finds that respondents in the above 25 age groups knew more people who are understating their taxable income in comparison to those in the under 25 age group. Respondents who have never checked their tax information knew fewer non-compliant taxpayers than those who check twice or more. However, in Birch et al.'s (2003) study, the number of tax evaders that respondents knew had a significant relationship with ethnicity and income level, rather than age and the frequency of tax information checks.

In addition, this study employs a two-way ANOVA to explore whether tax education interacts with other interdependent variables to influence student opinions on tax evasion. As a result, no interaction effect is found in this study. A possible explanation of this outcome is the small number of participants. After removing outliers, the two-way ANOVA calculation of this study has four to eight groups. For example, tax education has two groups: respondents with tax education and respondents without tax education. Also, gender has female and male groups. In this case, there are four groups in the two-way ANOVA calculation. In the same way, to analyse other demographic variables and tax education

variables, this study has at most eight groups. Then, this study uses G*Power to analyse the ideal sample size²². As a result, the ideal sample size is between 128 and 179. However, due to time constraints and the sensitivity of tax topics, the number of respondents in this study is lower than the ideal number for two-way ANOVA.

5.5 Summary

This chapter first presents the results of the survey questionnaire. It is important to point out that the response rate of the non-tax group (11%) in the current study is low, while the response rate of the tax group (30%) only reaches the average level of survey response (Richardson & Sawyer, 2001). The response rate of the tax group is relatively high because the lecturers mentioned this survey at least three times in class, and the researcher made a brief presentation in the class. In addition, in order to collect sufficient questionnaires from the tax group, it took four weeks to conduct the survey in the tax course (ACCT358), which is two weeks longer than the non-tax group.

The impact of tax education on student attitudes towards tax evasion is evaluated using the Chi-square test technique by applying the SPSS software. Questions 1-6 in Section 2 of the questionnaire provide scenarios for examining respondents' opinions on different aspects of tax non-compliance. The findings show that most respondents do not accept the actions in the context. Tax students revealed a higher acceptance than non-tax students of over-claiming deductions and undeclared cash drawings of a small amount. However, more non-tax students than tax students thought undeclared cash jobs of a small amount to be acceptable. Furthermore, this study also finds that tax respondents are more likely than non-tax respondents to choose extreme options (totally acceptable or totally unacceptable). This finding suggests that tax respondents are more confident on tax-related issues.

This chapter also discusses the impact of tax education on questions adapted from Kirchler and Wahl's (2010) questionnaire related to tax avoidance and acceptable tax planning. The results suggest that, statistically, tax education does not significantly impact on respondents' tax avoidance and acceptable tax planning attitudes. However, more tax respondents believed that the behaviour in the hypothetical tax avoidance scenario (Question 8 of Section 2) is totally acceptable, and more non-tax respondents felt this behaviour is totally unacceptable. Also, a majority of respondents considered the tax planning behaviours in Questions 9-10 of Section 2 to be acceptable. The discussion part also emphasises that

²² As a general guideline of G*Power, the researcher put effect size as medium ($f = .25$), confidential level = .05, power = .80, and numerator $df = (\text{number of groups for variable A}-1) * (\text{number of groups for variable B}-1)$. For more information about how to use G*Power to calculate ideal sample size, please read: https://www.academia.edu/20508667/GPower_Manual

the findings in Section 2 cannot show whether the tax and non-tax respondents could clearly distinguish between tax evasion and tax avoidance actions. Hence, respondents' understanding of the tax non-compliance topics is explored in the follow-up interview.

The outcomes of Section 3 in the questionnaire suggest that, compared with non-tax respondents, tax respondents may be more aware of tax evasion by people around them and in society. More tax respondents believed that the proportion of tax evasion has increased in the past five years, and more tax respondents knew more than ten tax evaders. In addition, the results of the question adapted from Kirchler and Wahl (2010) suggest that tax respondents were more likely to take a detailed look at the tax laws to find potential tax savings.

Furthermore, this study compares the results of the replication part with Birch et al.'s (2003) study. As a result, students are generally more likely to comply with tax laws than they were 18 years ago. However, tax education has had a mixed impact on student perceptions of tax evasion in the present study, while tax education had a positive impact on student compliance in Birch et al.'s (2003) findings. In addition, to understand the relationship between tax education and student attitudes towards tax non-compliance, the impacts of other demographic variables are also discussed in this chapter. The outcomes show that age, and the number of times tax information has been checked, are significantly associated with student views on certain aspects of tax non-compliance. Nevertheless, this study finds that none of the demographic variables interacts with tax education to influence student attitudes towards tax evasion.

Following the mixed methods approach adopted, the follow-up interviews explore in more depth the possible reasons behind the survey questionnaire findings. The findings and discussion of the follow-up interviews will be provided in the next chapter.

Chapter 6: Findings of Interviews

6.1 Introduction

This chapter presents the findings from the follow-up interviews. Interviewees' opinions relating to three main factors of the Theory of Planned Behaviour (TPB) have been explored in the interviews. The questions asked are largely based on the interview guide. However, due to the contingent nature of semi-structured interviews, not all questions in the guide are necessarily covered for every interviewee, but additional areas are probed where appropriate. In addition, the key findings are discussed in this chapter.

6.2 Face-to-face Interview findings

6.2.1 Attitude towards Behaviours

This section probes interviewees' attitudes towards tax non-compliance behaviours, tax education and certain tax-related behaviour. This series of questions (See Table 4.2) aims to examine whether tax education leads to different attitudes or understanding between tax and non-tax interviewees.

6.2.1.1 Attitudes Related to Tax Compliance

When asked whether interviewees' views on taxation are positive or negative, they all believed that paying tax is necessary. However, some interviewees displayed a negative attitude towards taxation. For example:

It depends on the country. I come from [South America] ... So in [my hometown], I see it negatively. Here in New Zealand, I [it as] positive, and I want to pay here.

(Non-tax Interviewee A)

Generally, I think everyone has a negative opinion on taxation. Learning taxation is just a way you pay less tax.

(Tax Interviewee X)

With respect to the positive impacts of tax, interviewees typically mentioned public education, pensions, healthcare, and a range of public infrastructure benefits (such as roads, public transports, and libraries). However, some interviewees also criticised the design of the tax system and the consumption of tax revenue. Interviewee A from a South American country pointed out that they were dissatisfied with

their country's tax authority. Interviewee A said: "In [my country], you pay your taxes, and you also have to save your own money... you don't see [tax] invested back in society."

Regarding NZ's existing tax system and public services benefited by taxation, the interviewees believed that some areas can still be improved. For example:

The benefit [from tax] is more like a hit or miss because some people may think that the government is spending their money well, but some people may think that the money is spent incorrectly. In my opinion, I think that the government should always look at what current events or crisis, and they should look into those areas... For example, mental health, which is quite an issue in New Zealand. The government haven't really done a lot in that sector, to my knowledge.

(Tax Interviewee Y)

I think free fees for university was a good thing because it did encourage people to stay in school, we'll try out make you go further [with your] education after high school. But obviously, there's pros and cons, but I'm wondering if some people just came to university for the experience of the first year, and they left. And really, it's not ethical to look at it from that point of view. It's not very good execution of taxpayer money.

(Tax Interviewee Z)

In addition to the attitudes towards taxation, interviewees were also asked about their attitudes towards tax evasion and tax avoidance. They were first asked what behaviours constitute tax evasion and tax avoidance in terms of their understanding. Interestingly, although non-tax interviewees had not received any tax education, they had a certain level of understanding of these two behaviours, based on their experience or general knowledge. In contrast, tax interviewees tended to discuss specific cases when they expressed their understanding of tax evasion and tax avoidance. For example:

I think misreporting your earnings would be tax evasion, if you had a fish and chips shop, and you'd take out \$100 from the till every day to make your income less so you pay less income tax, then that would be tax evasion... That would be tax avoidance if we've got a wealth tax, and then you had your money off in some offshore accounts, where you put your money, and you should pay tax on that.

(Non-tax Interviewee C)

Tax avoidance is the case of Westpac Bank, for example. They try to avoid tax, and they only pay very little corporate tax instead of 28 per cent.

(Tax Interviewee X)

A good example is [the] Penny and Hooper case, which [occurred] in 2011... In that case, the tax arrangement is tax avoidance.

(Tax Interviewee Y)

When discussing their attitudes towards tax evasion and tax avoidance, all interviewees acknowledged that tax evasion is negative, but they had various opinions on tax avoidance. For example, some interviewees believed that tax avoidance is the result of loopholes in the tax regulations, which is the responsibility of the government to correct. Thus, they believed that it is the governments' responsibility to reduce tax avoidance in society rather than individual responsibility. For example:

I still obviously think tax evasion is bad because it's illegal, and it negatively benefits society. With tax avoidance, it's still sort of bad, but I wouldn't look at someone and go, "You do tax avoidance, you're bad; I don't like you." I think they're playing by the rulebook, and it's okay what they're doing. I think if it was to change it, the government has to change it, not the individual changing their habits, so I'm still okay with tax avoidance because it is technically legal, although ethically, it's not so great because society's missing out.

(Non-tax Interviewee C)

Non-tax Interviewee C was then asked views on tax planning. C said, "Tax planning should be totally acceptable by tax law." C believed that tax avoidance is not acceptable at the ethical level, while acceptable tax planning can be accepted at the ethical level. It can be seen that, although Interviewee C has not received tax education, C was generally correct about the difference between tax avoidance and acceptable tax planning. However, C felt it was difficult to give specific scenarios about these two behaviours based on their understanding.

Another non-tax Interviewee B believed that "Tax evasion and avoidance are both bad... I don't really think one's worse than the other." B also thought that acceptable tax planning is no harm to society, but thought that tax avoidance and tax planning have no relationship. On contrast, Interviewee A felt that both tax avoidance and tax planning are acceptable, and A did not "see [any] differences between them."

When the tax interviewees were asked about their views on tax avoidance and acceptable tax mitigation, Interviewee Z knew the difference between these two concepts. But Z believed that “[tax avoidance and acceptable tax planning] are not something I will do... I feel do these things just waste my time.” Furthermore, both X and Y stated that certain schemes had been acceptable tax planning before they were recognised as tax avoidance by the government. For example, Y said, “Before 2011, Penny and Hooper case wasn’t tax avoidance because most tax practitioners used it often and set it as [acceptable] tax planning.” After realising that how to view tax mitigation mainly depends on the government’s decision, X believed that “if you get a call [from the IRD], then you should pay what you need to pay. If you do not get the call [from the IRD], then it should be ok.” Interview Y tended to be more cautious about the blurred zone between tax avoidance and acceptable tax planning. For example:

If I do become a tax practitioner and advisor to a particular tax structure in the future, I won’t have a crystal ball to know a particular area is going to be tax planning or avoidance in the future. So I could take some cautious approach to it – maybe guide clients more carefully.

(Tax Interviewee Y)

Interviewee responses show that tax education has enriched the interviewees’ tax knowledge, especially in the distinction between tax avoidance and tax planning. However, due to the uncertainty in the definition of tax avoidance and acceptable tax planning, tax interviewees also felt it difficult to determine the nature of the specific tax arrangements.

6.2.1.2 Attitudes Related to Tax Education

Tax education is also discussed during the follow-up interviews by asking different questions to tax interviewees and non-tax interviewees. Non-tax interviewees were asked whether they would join a course that teaches people how to exploit loopholes in tax regulations in order to claim lower taxes. For those who wanted to join this course, their main goal was to save money.

Interviewee C mentioned the unfairness between the rich and the “little guys” when explaining the reason for participating in the hypothetical course. The rich can afford good accountants and pay less tax, while the little guys earn less but do not know how to make a tax plan. Interviewee C believed that this course could help little people be less poor. For example:

If you give little guys a course and teach them how to move their money around so that they pay the least amount of pay as possible, then the poor don't pay as much tax... So, they would start to become a little bit less poor.

(Non-tax Interviewee C)

Regarding interviewees' expectations on the content of the hypothetical tax course, the interviewees' focuses are normally on dealing with assets, investments or how to pay income tax. In addition, Interviewee C's attitude towards whether to participate in this course is interesting. C said, "I possibly would join this course ...I think you shouldn't because I think this course would mean that there would be less overall tax being collected by the government." C's response reflects that some taxpayers want to save money on taxes, but they also realise that if tax revenue is reduced, it is the taxpayers who will ultimately suffer. Non-tax Interviewee B did not plan to participate in this hypothetical tax course because B felt that "I don't think I'll ever end up running a business or something."

Before they received tax education, the tax interviewees had little, or even no, knowledge about tax evasion and tax avoidance. For example:

No, I don't know them. I thought they are the same, and they are equally serious.

(Tax Interviewee X)

Only know the difference on illegality.

(Tax Interviewee Y)

Taking a tax course has benefited these tax interviewees with their tax knowledge. They felt that they had learned more about tax evasion and tax avoidance through analysing cases. However, regarding the impact of tax education on their attitudes towards tax compliant or non-compliant behaviour, the tax interviewees generally did not feel their attitudes had changed. For instance:

I don't think my attitude has changed. Before I took this course, I thought it was my social responsibility to pay taxes correctly. Taking this course only allowed me to clarify how to pay taxes correctly.

(Tax Interviewee Y)

It's made me more aware, but it hasn't really changed my attitude. I feel like I can now make a bit more of an informed decision about where I stand and where I see things as

positive or negative. So I definitely feel like a more educated, but my opinions [are] still pretty much the same.

(Tax Interviewee Z)

Tax Interviewee X thought that the tax course shows that there are loopholes in the tax system that can be exploited.

At the end of the day, we are trying to understand the system more, and we can know what the current loopholes are and [how]to use them. We know the loopholes need to be closed, but the loopholes are still available, then we can use the loopholes.

(Tax Interviewee X)

The negative influence of tax education on tax Interviewee X may be because X has a negative perspective on taxation. As mentioned in Section 6.2.1.1, Interviewee X said, “Tax knowledge is misused... Learning taxation is just a way you pay less tax.” When asked whether this response is also the reason why he took a tax course, X said: “Yes.”

In order to further understand the influence of tax education, the issue was also raised of whether or not receiving tax education is beneficial to other aspects of their life apart from their career. Tax interviewees all believed that tax education is useful for their future life, helping them with financial planning. In addition, tax interviewees were asked whether they would give tax advice to their friends or parents based on their knowledge. In consideration of accountability, in addition to Interviewee Y, the other two tax interviewees felt that they were not the right people to provide advice. For example:

You know the knowledge, but you probably don’t want to help [your friends]. Because if you help them, you are no longer acting as a friend, but acting as an advisor, which means you are liable for the actions.

(Tax Interviewee X)

I would say no. If we have a discussion about it, I could share my point of view – use what I’ve learned. But I wouldn’t give advice because I don’t think I’m the right place to. I don’t feel it’s my expertise at this point in time.

(Tax Interviewee Z)

When asking interviewees to express their opinion freely on tax education, some interviewees believed that “tax education should be spread to high school,” which should make students more likely to be “compliant taxpayers” in the future. For example, tax Interviewee Y, who took an accounting course in high school, said: “I understand why I need to pay tax from the class, and what benefits the society have through tax. I think [tax-related courses in high school] should give students some scenarios, and let them know what is not good.”

6.2.1.3 Attitudes Related to Certain Behaviour

Some instances of tax non-compliance are caused by cash transactions, which are difficult to record and track. Hence, this section first assesses the interviewees’ attitudes toward the tax non-compliance behaviours caused by cash payments.

In order to explore comments on possible tax non-compliance caused by cash transactions, the researcher asked, “What do you think of cash payments?” and expected an open-ended answer. Non-tax interviewees generally mixed up what kind of behaviour should be included in tax non-compliance. For example, non-tax interviewees regarded the earning of undeclared cash through hobby work as tax non-compliance. However, income earned through hobbies is not taxed income. Interestingly, although they viewed this kind of behaviour as tax non-compliance, they did not think that it would affect the overall tax revenue and cause unfairness to the tax system. This finding is consistent with survey results that some non-tax respondents felt that undeclared cash from jobs is acceptable. For example:

I think if it’s on a big scale, it’s a problem. But if it’s just happening on a really small scale, I think it’s kind of normal, and I don’t really see it as should be punished.

(Non-tax Interviewee B)

For those tax interviewees, although they knew that undeclared cash in business activities should be considered as tax non-compliance, they seem to have a high acceptance of this sort of behaviour when the amount is not large. This finding is different from the survey outcome, which indicated that most tax interviewees believed that undeclared cash from work is unacceptable. For example:

You go to the Sunday Market in Riccarton ... people go to stalls and want to pay cash, and it might not be disclosure. And sometimes, like a small business, who just want to survive, they may not pay taxes of their income in the market. It’s actually a business, not a hobby... Literally, they should pay tax. However, if they pay tax, the profit they get will be very small.

(Tax Interviewee Y)

Since all of the interviewees mentioned that they think it is acceptable not to pay taxes on small amounts of cash, the researcher further probed the understanding of small amounts of cash. For these interviewees, income below \$100 or \$200 per week is usually counted as a small amount. For instance:

More than \$200 is large, and less than \$200 is small.

(Non-tax Interviewee A)

I think maybe over \$10,000 a year would be unacceptable. [\$192 per week]

(Non-tax Interviewee C)

Less than \$5000 - \$6000 a year. [\$96 - 115 per week]

(Tax Interviewee X)

The undeclared nature of the cash jobs also occurred in the questionnaire, and it appears that the respondents have a slightly different attitude towards the scenarios in the questionnaire. In the findings of the survey, 86% of respondents felt that undeclared cash behaviour was unacceptable when the level of cash jobs was \$150 per week.

The survey findings suggest that students are more likely to view undeclared cash drawings and undeclared cash jobs as unacceptable behaviours than 18 years ago (see Section 5.3.1). However, when asked about the perceptions of change in the understatement of income in the questionnaire, around 50 per cent of interviewees believe that this kind of tax non-compliance has increased a little.

In order to explain the contradictory results, the researcher asked the interviewees about their opinions on changes in the understatement of income in the last five years. The researcher found that the interviewees not only considered the impact of consumption habits (using credit cards or EFTPOS or cash in purchasing), but also the impact of the Covid-19 pandemic. On the one hand, they believed that non-compliance has decreased in recent years since people tend to pay by credit card or EFTPOS, especially during the Covid pandemic²³. At the same time, online shopping has become the choice of most people during the lockdown period. On the other hand, they felt that non-compliance may increase for some taxpayers or businesses with lower incomes. Some interviewees realised that the Covid pandemic meant that some people had less income than before, leading individuals or companies to

²³ During the pandemic, people were encouraged by businesses to use PayWave to reduce the spread of the virus.

understate their income. Nevertheless, interviewees believed that they did not know the actual situation, so they did not clearly express their attitudes towards the trend of non-compliance in the understatement of income over the past five years. For example:

I think, during the lockdown, people were more likely to pay by cards because there are fewer people touching the EFTPOS machines. But after that... people [started] paying equally with some cash and card... maybe they have been like a little bit of an increase in employers giving just cash, because obviously, with lockdowns and stuff, they aren't earning as much money, so they would try to save money and other areas to recoup the cost.

(Non-tax Interviewee C)

In addition to exploring interviewees' attitudes toward cash-related tax non-compliance, the researcher also asked tax interviewees about their understanding of the work of tax consultants. The interviewees were asked whether they agreed with the statement that "helping clients avoid tax is part of the work of tax professionals." The three tax interviewees' answers are different. It needs to be noted that helping clients save money and doing the right thing are not necessarily in conflict.

To [a] great extent, yes... from tax professionals' view, it probably more saves money than to do the right thing.

(Tax Interviewee X)

I disagree with this statement. It's more important for the company to pay tax because it meets the obligations of corporate social responsibility, for example. I think that it's not ethical, and it's not meeting their social obligations for society as a whole to not pay tax.

(Tax Interviewee Y)

As far as the tax professionals are concerned, they want to get a business. That's how they might get the business is by being seen to help someone reduce your expenses... But I don't think you would have to be pretty reckless to try and really get over managed to tax to the point where it's really obvious. I feel like that's a bit unethical on their behalf as being a professional... If it could be reduced a little bit and still be completed within the law is great.

(Tax Interviewee Z)

6.2.2 Subjective Norms

This section assesses whether interviewees' attitudes would be affected by their important referents. The responses from Section 6.2.1 show that, although non-tax students have not received any formal tax education before, they still have tax knowledge and can give examples of their important referents' experiences. Therefore, this section explores interviewees' attitudes when they see their important referents not complying with their tax obligations, as well as whether they will lose the respect of their important referents.

In order to assess the interviewees' normative beliefs, they were asked whether they would do a similar thing if their important referents were not complying with the tax laws. All interviewees believed they would not engage in similar behaviours. But at the same time, some indicated that they would also not interfere in their referents' decisions. For example:

I would probably tell them that I don't agree with what they're doing, but I wouldn't see it as my place to do anything else about it.

(Non-tax Interviewee B)

No, I would not join them. They do what they want to do if I believe they are wrong. Because you have your own sense of principles, you should follow your principles rather than blindly follow what other people are doing.

(Tax Interviewee X)

When the interviewees' motivations for not participating in tax non-compliance were explored further, their responses show that they considered the harm to society and the risk of non-compliant tax. For instance:

Because [not complying with the tax laws] would be illegal and not ethically acceptable as it would mean there would be less tax money for the government to go out and spend.

(Non-tax Interviewee C)

It won't be safe to disclose. I know the government does an audit with very low per cent, but it's better to be compliant than not compliant.

(Tax Interviewee Y)

Moreover, the interviewees are asked whether they would lose respect for their important referents who do not pay taxes correctly. The majority of them believed they would lose their respect slightly, but this also depends on whether their referents do so deliberately and the amount of tax they under-report. For example, non-tax Interviewee B said, “I would probably lose respect for [important referents] if they’re doing it intentionally and on a significant scale, because I feel like they’re taking money away from people who are less fortunate than them.” It is interesting to note that tax interviewees generally thought that tax non-compliance is a sensitive topic and they would not ask their referents about it. Even if they talked about it incidentally, they would express the view that they do not care about what their referents have done. For instance:

I would slightly lose my respect... But it’s highly unlikely that I [would] ask them the question, ‘Did you pay tax?’

(Tax Interviewee Y)

I don’t think they’ll let me know, and if they did, I’ll probably turn around[and] tell them that I don’t really care.

(Tax Interviewee Z)

6.2.3 Perceived Behaviour Control

This section explores how interviewees evaluate their ability to show their perceived behavioural control (PBC). Ajzen’s (2005) indicated that interviewee PBC can directly affect their intentions and indirectly affect their behaviour. Therefore, this section focuses on examining interviewee PBC.

The first question was related to perceived control factors and asked the interviewees whether they think they will have a tendency to under-report income in the future considering their present ability. The majority of the interviewees believed that they would not under-report income. One reason for their decision is that their current ability is insufficient to support them under-reporting, which means they think they have low-level control. Another reason is that some of them have high tax ethics, for instance, tax Interviewee Y even said, “I’m highly unlikely to underpay tax, and I may overpay tax.” However, some interviewees also think that when they do some research on under-reporting, they will know how to understate their income. For example, non-tax Interviewee C believed that “if [they were] to research

more into the subject, [they] might get a basic idea of how to do it.” The results imply that although the interview guide tried to explore every single aspect of PBC that affects interviewees’ intentions, the interviewees always also consider other aspects (subjective norms and attitudes towards the behaviour). The interaction between different variables is inevitable in interviews.

The researcher also explored the interviewees’ perspectives on the auditing possibility, which is another perceived control factor. Most of them felt the possibility of being audited is low, but some also considered the large amount of non-compliant behaviour and their student loans would increase the likelihood of being audited. For example:

If I was to commit non-compliance, I would say I would be pretty likely to be caught. However, this would only be in circumstances where the magnitude of my non-compliance is large. If the non-compliance was small, like doing a week of cash payment jobs for manual labour, I am very confident I would not be caught.

(Non-tax Interviewee C)

At this moment, I have student allowances, so I guess that already increases my likelihood of being caught, because the government [is] already involved in my finances.

(Tax Interviewee Z)

6.3 Discussion

6.3.1 Results regarding Attitude towards Behaviours

Based on the interview results, all interviewees recognised the necessity of levying taxes and understanding how taxation benefits society and themselves, regardless of whether they have received tax education before. However, some of them were also aware of the problems in the design and implementation of the tax system. The experience of people around non-tax interviewees provided them with knowledge of taxation. From the examples they gave, non-tax interviewees have a relatively accurate understanding of tax evasion and tax avoidance. Although all interviewees believed that tax evasion is negative, interviewees' attitudes to tax avoidance are different. Some of them thought the loopholes in the tax regulations is the fault of the government. In contrast, others believed taxpayers need to take responsibility for society by paying the correct amount of tax.

When exploring the perspectives of non-tax interviewees on tax avoidance and acceptable tax planning, non-tax interviewees find it difficult to distinguish between these two behaviours based on their tax

knowledge. Interviewee C can recognise the difference between these two behaviours from the perspective of tax ethics has exceeded the researcher's expectations. Maybe due to insufficient ability to distinguish between tax avoidance and tax planning, three non-tax interviewees had different attitudes towards the relationship between the two behaviours. In addition, some tax interviewees believed that the line between tax avoidance and tax planning is blurred and depends mainly on the government's decision. This uncertainty may make them more cautious when making tax arrangements in the future. The findings show that the purpose of tax avoidance regulations has been achieved to some extent, reducing the possibility of general taxpayers or tax practitioners creatively comply with the tax laws²⁴.

The researcher also asked tax interviewees directly what they thought about the role of tax education. Three tax interviewees all felt that their tax knowledge had increased after taking the tax course. They did not know the difference between tax evasion and tax avoidance before enrolling in the tax course or only had the basic knowledge of these two concepts. After taking the course, they had gained more knowledge about the tax laws and cases with respect to tax evasion and tax avoidance. In addition, tax interviewees believed that the knowledge they have received could help them in many aspects of life apart from their careers. Nevertheless, most tax interviewees felt that they were not currently capable and qualified to provide any tax-related advice to their friends or family members.

Moreover, the interview findings show that the impact of tax education on students' attitudes towards tax evasion and tax avoidance is limited. Two tax interviewees believed that taking the tax course had not changed their attitudes toward tax evasion and tax avoidance. Another interviewee felt that the tax knowledge they had acquired made them aware of loopholes in the tax laws. However, what loopholes could be exploited still needed to be further studied. This outcome is consistent with the findings of Tan and Chin-Fatt (2000), who also used students from an introductory taxation course in New Zealand as participants. They reached a similar conclusion that an increase in tax knowledge did not have a significant impact on tax compliance attitudes.

When interviewees were asked about their views on tax non-compliance related to cash payments, tax interviewees understood this issue better. Their knowledge of taxation allowed them to judge what behaviour constitutes tax non-compliance, but this did not lead them to have a different attitude from non-tax interviewees on undeclared cash issues. Both tax and non-tax interviewees recognised the negative effects of undeclared cash issues, but they felt that getting \$100 - \$200 per week in cash, undeclared, may not cause a significant loss in tax revenue. Furthermore, when asked about the changes in the under-reporting of income in the last five years, the interviewees discussed different situations

²⁴The details about "creative compliance" have been outlined in Section 2.2.2

based on changes in consumption habits and conditions during the Covid-19 pandemic. However, the interviewees were not confident in estimating the trend of undeclared income in the past five years. Tax interviewees' opinions on the job description of tax advisors suggest what they will do as tax consultants in the future. The three interviewees in this study had different views on this issue, and it is difficult to see the impact of tax education on them.

6.3.2 Results about Subjective Norms and Perceived Behavioural Control

The results of the interviews did not show any significant relationship between tax education and the interviewees' subjective norms. Also, the interview findings reveal that the subjective norms have limited impact on interviewees' intentions to comply or not to comply with taxation obligations. Almost all the interviewees believed that they would not be influenced by their referents who did not comply with their taxation obligations. This result is consistent with the findings of Armitage and Conner (2001), who undertook a meta-analysis review and provided evidence that the relationship between subjective norms and intention is weak. However, other studies, including Bobek and Hatfield (2003), Smart (2012), and Trivedi et al. (2005), concluded that social pressures from important referents are effective in affecting intentions to comply or not comply with individual tax obligations. Therefore, the relationship between subjective norms and the intention of taxpayer compliance requires further research with a larger sample size.

Similarly, this study does not reveal the impact of tax education on interviewees' PBC. No relationship between PBC and interviewees' tax compliance intention was found either. This suggests that the question of whether interviewees perceived they had the ability to under-report taxation did not have a significant relationship with their tax compliance intention. This outcome is consistent with Trivedi et al. (2005), who concluded, using student samples, that PBC does not have any impact on tax compliance. Smart (2012) assessed how PBC affects tax the compliance of general taxpayers and those with tax knowledge. She found that PBC has a significant impact on the compliance of the general taxpayer sample, but it has no significant impact on tax compliance on the sample with tax knowledge.

6.4 Summary

This chapter presents the findings from the face-to-face interviews with three non-tax interviewees and three tax interviewees. The questions discussed in the interviews revolve around the components of the Theory of Planned Behaviour (TPB) model: attitude towards the behaviour, subjective norms and PBC. In addition, this chapter analyses the key interview findings to explore the impact of tax education on students' attitudes toward tax evasion and tax avoidance.

The interview results indicate that tax education positively affects interviewees' tax knowledge positively, but has a limited effect on their attitudes. Although non-tax interviewees also have a certain understanding of tax evasion and tax avoidance, their knowledge is normally based on their important referents or their own experience. In contrast, tax interviewees were more likely to mention the tax laws and cases of tax evasion and tax avoidance. All interviewees have a negative attitude towards tax evasion, while their attitudes towards tax avoidance are different. However, their attitudes to tax avoidance have no association with whether they have participated in tax courses or not. When the relationship between tax avoidance and acceptable tax planning was investigated in the interviews, tax interviewees understood the difference between these two concepts better than non-tax interviewees. Nevertheless, the blurring of the boundaries between these two concepts has also led some tax interviewees to express that they would make tax arrangements more cautiously in the future.

Moreover, the interview findings do not show that tax education impacts on interviewees' subjective norms and PBC. In a hypothetical situation, when interviewees knew the people around them who did not comply with taxation, they believed that they would not follow their referents' behaviour and that they might even lose respect slightly for those referents. However, they also pointed out that they would not actively mention tax-related topics to their referents in most cases. Although the interviewees were aware that the probability of being audited for tax purposes in New Zealand was low, they still thought that they were not likely to under-reporting taxes currently and were less likely to do so in the future. It needs to be emphasised that due to the small number of interviewees in this follow-up interview, the findings are only an exploration of students' attitudes towards tax non-compliance. The next chapter brings together the findings and discussions from the survey questionnaire and the follow-up interviews, in order to reflect upon the objectives of the study.

Chapter 7: Conclusions, Limitations, Contributions and Future Directions

7.1 Conclusions

As discussed in Chapter 1, the objective of this study was to explore the impact of tax education on students' attitudes toward tax evasion and tax avoidance by partly replicating and also by extending Birch et al.'s (2003) study. In order to achieve this purpose, the investigation was based on the following four research questions:

- RQ1: How does tax education affect students' attitudes towards tax evasion in New Zealand?
- RQ2: How does tax education affect students' attitudes towards tax avoidance in New Zealand?
- RQ3: How have students' views of tax evasion behaviour changed in the past 18 years?
- RQ4: How do other demographic variables interact with tax education to influence students' views of tax non-compliance?

In response to RQ1, the survey results indicated that the impact of tax education on student attitudes towards tax evasion is mixed. Compared with non-tax students, tax students showed a higher acceptance of over-claiming deductions and undeclared cash withdrawals by small amounts, but they had a lower acceptance of undeclared cash from jobs. In addition, more tax students believed that tax evasion in society has increased compared to five years ago. However, the results of the follow-up interviews did not show an impact of tax education on the interviewee attitudes towards tax evasion, and all interviewees believed that tax evasion is unacceptable. This may be due to the researcher and interviewees not conducting in-depth discussions on different tax evasion behaviours in the follow-up interviews. Nevertheless, some findings in the follow-up interviews suggested the impact of taxation knowledge on students. For example, interviewees who had not received tax education mistakenly believed that the non-taxation of hobby work income is tax evasion. On the contrary, tax interviewees knew that the income tax treatments for a hobby and for a business are different. Also, they were aware of, and commented on, problems with the design of the tax system and the consumption of tax revenue..

As an extension of Birch et al. (2003), this study also examined the tax avoidance attitudes of students (RQ2). The tax avoidance-related questions in the questionnaire were adapted from Kirchler and Wahl (2010), and the results revealed that there was no statistically significant difference between the attitudes of the two groups of respondents towards the tax avoidance scenarios. However, in comparison with non-tax respondents, more tax respondents believed that hypothetical tax avoidance behaviour is totally acceptable in the survey results. The interview findings showed that the interviewees had different views on tax avoidance. Some interviewees believed that tax avoidance behaviour is understandable because

improving the laws to reduce tax avoidance is the responsibility of the government, not the taxpayers. In contrast, some interviewees felt that taxpayers should take social responsibility and should not engage in tax avoidance schemes. Nevertheless, the interview results did not reflect the impact of tax education on the respondents' attitudes towards tax avoidance in the survey.

Due to the blurred line between tax avoidance and acceptable tax planning, the survey and interviews also explored the understanding of tax and non-tax students and their attitudes towards these two concepts. The survey results showed that most respondents, regardless of whether they have received tax education or not, believed that the tax planning behaviours in the scenarios are acceptable. The interview findings revealed that it is difficult for non-tax interviewees to distinguish between tax avoidance and acceptable tax planning behaviours, and they had different opinions on these two behaviours. Tax interviewees suggested through specific cases that the determination of tax avoidance principally depends on the courts' decisions, and their current tax knowledge cannot enable them to distinguish clearly between tax avoidance and acceptable tax planning.

In addition, three tax interviewees believed that taking tax courses would help them develop their tax knowledge. However, their attitudes towards tax evasion and tax avoidance have not changed. Although their tax knowledge has increased, they felt they were not currently capable of providing any tax-related advice to their friends and families. Moreover, the outcome of the interviews did not reveal any relationship between tax education and subjective norms or perceived behavioural control (PBC). All interviewees believed that whether or not they will comply with the tax law has not been affected by the behaviour of their referents. Even if they had received tax education, the interviewees still felt that their current PBC ability is low and did not think they could underreport taxes.

In order to examine the third research question, this study employed two-way ANOVA to test whether tax education interacts with other interdependent variables to affect students' attitudes towards tax evasion. However, the ANOVA results showed that no interaction effect was found from the responses between tax education and other demographic variables. This outcome may be because of the small survey sample size.

This study also replicated Birch et al.'s (2003) method, using Chi-square testing to assess the impact of other demographic factors on students' attitudes (RQ4). The results showed that age and the number of times tax information checks are made may impact on respondents' attitudes towards tax evasion. The difference from the current study is that Birch et al. (2003) also found an impact from ethnicity, income, and work experience on students' tax evasion opinions. This may be because Birch et al.'s (2003) study

used participants from Continuing Education courses, who are likely to be more mature in age, and have a higher income and more work experience.

Birch et al. (2003) investigated the impact of tax education on students' opinions regarding tax evasion, and they concluded that tax education positively affects student tax compliance. In contrast, this study concludes that tax education has a mixed impact on students' tax evasion attitudes. One possible reason is the difference in participant samples in the two studies. The students from Second Year Taxation selected by Birch et al. (2003) had access to basic taxation knowledge, while the tax respondents selected for the present study had already studied topics related to tax evasion. As students gain in-depth knowledge of tax evasion, their views may change. Furthermore, this study shows that overall respondents' tax compliance has improved compared to 18 years ago. However, more than half of the respondents believed that under-reporting income has increased in the five years preceding the study. One possible explanation is that with the development of information and electronic technology, people have more channels of information, which may make it easier for them to be aware of tax evasion-related cases. In addition, some interviewees believed that the negative impact of Covid-19 on the economy might also cause many individuals or businesses to under-report their income.

7.2 Limitations and Future Research

7.2.1 Sample Scope and Size

One of the major constraints of this study is its sample scope because of the time limitations faced by the researcher.²⁵ The respondents in this study were recruited from the University of Canterbury (UC), but they do not represent the wider New Zealand student population. Although Birch et al.'s (2003) study also used students from UC, it would have been helpful to survey students from other universities in New Zealand. Investigating across tertiary institutions would collect more data and enable the research outcome to be more representative of New Zealand tertiary students. However, the tax courses provided by different tertiary institutions to third-year students vary in content and timing. Considering the research time constraints, this study ultimately did not select students from other universities as respondents. Future research may consider using a longer research period to recruit respondents from multiple New Zealand tertiary education institutions.

²⁵ The research project was approved by the University of Canterbury Human Ethics Committee (HEC) in February 2021, and the thesis was required to be submitted in August 2021. At the same time, taking into account the differences in curriculum arrangements, tax students from different universities may receive tax evasion and tax avoidance-related classes in different semesters. Therefore, the data collection period required to recruit students from other universities would be outside the period for submission of the Master's thesis.

In addition, one interviewee in this study mentioned the benefits of high school tax education. However, recruiting respondents under 18 requires the researcher to have current relevant professional registration (such as from the New Zealand Teaching Council) or a current children's worker safety check from the NZ Police.²⁶ Therefore, this study only recruited students over 18 years of age as participants. However, investigating high school students' attitudes towards tax non-compliance could be an approach for researchers who are qualified and have the time to study this group in the future.

Since only students from UC were recruited, the tax and non-tax samples of this study were small. Notwithstanding, the response rate from the tax group was adequate (30%): 36 tax respondents finally participated in the survey due to the small population of the overall tax course (121 students). In contrast, the low response rate (11 per cent) in the non-tax sample needs to be noted. Although tax respondents came from only one class, many classes could be chosen to recruit non-tax respondents. Thus, in order to recruit a similar number of non-tax students as from the tax class (42 respondents in the end), the researcher sampled three non-tax courses in a short survey period.²⁷ The low response rate from the non-tax group may be because non-tax students are not interested in tax-related topics. In addition, although the researcher did not intend to do so, all three non-tax courses were from the College of Engineering. This makes the findings regarding non-tax respondents limited and they cannot be representative of non-tax students from other educational (non-engineering based) backgrounds. Therefore, future research should recruit more non-tax respondents from different backgrounds in order to represent the New Zealand tertiary students more closely.

Similarly, for qualitative research the sample is small. Only six survey respondents were willing to participate in an interview, with three tax interviewees and three non-tax interviewees each. Although Bell et al. (2018) stated that representativeness in the qualitative approach is less important than in the quantitative approach, the number of interviewees of this study was insufficient to give the researcher an in-depth understanding of the impact of tax education. First, the interviewees' views may not be consistent with the survey results. Second, respondents may have different opinions on the same issue within the tax group or non-tax group. Although the views of these six interviewees were not representative enough to explain the survey results fully, their views provided different perspectives for discussing the issues and assisted the researcher in exploring the impact of tax education on students' attitudes towards tax evasion and tax avoidance. Using the self-selection method made the number of the qualitative sample largely dependent on the willingness of the survey respondents to be involved.

²⁶ For further details regarding the HEC's requirements for research involving youth or children as participants, see <https://www.canterbury.ac.nz/study/ethics/>

²⁷ The different means to recruit respondents from tax and non-tax courses have been discussed in Section 4.6.2.

However, in future research, researchers could consider expanding the scope of the quantitative survey while extending the time to collect more interview data. Moreover, few studies use a single qualitative approach to study the role of tax education, and future research could fill this gap.

7.2.2 Questionnaire Design

The questionnaire design of this study also has limitations, which may be one of the reasons for the low response rate. The questionnaire contained 25 questions and required the respondents to answer each question one by one. Completing the questionnaire took approximate 10-15 minutes, according to the comments of the respondents in the pilot tests. Although Revilla and Ochoa (2017) found that the ideal web survey length is 10 minutes on average, and the maximum is 20 minutes, they also drew attention to large differences in the perfect online survey length, as considered by respondents. This means that some respondents may withdraw from the study because they think there are too many questions to answer. If the respondents opted out of the online questionnaire before the last question was submitted, their answers would not be recorded. In addition, the questionnaire requires respondents to answer all questions without skipping, which might also cause some respondents to withdraw from the survey part way through.

Another possible explanation of why students may feel the questionnaire to be relatively long is the development of commercial surveys. In recent years, many organisations have sent emails to their customers to ask them to fill out questionnaires and give feedback on services and products. These commercial questionnaires can usually be completed within 5 minutes. The increase in the number of short questionnaires may result in individuals feeling bored, losing interest or patience to fill out longer questionnaires. Although the length of this academic questionnaire was moderate, when students knew that it takes 10-15 minutes to complete the questionnaire from the information sheet, they might have decided not to participate. Future research could reduce the number of questions based on the research objectives in order to shorten the time for completing the questionnaire. At the same time, future research could give respondents greater flexibility, allowing them to skip some questions that they are unwilling or unable to answer.

The content of the questionnaire involved replicating the demographic and tax evasion questions of Birch et al.'s (2003) questionnaire as well as four tax avoidance and acceptable tax planning questions based on Kirchler and Wahl's (2010) questionnaire. In order to reduce the sensitivity of the questions, the terms tax evasion and tax avoidance did not appear in the questionnaire. However, this means that the researcher could not directly recognise the respondent's judgment on whether the behaviours in the scenarios amounted to tax evasion or tax avoidance. Also, the number of questions were too few to

examine their tax avoidance views in depth. The researcher had adapted realistic New Zealand tax avoidance cases into scenarios in pilot tests, but almost all respondents commented that the questions were too long and difficult to understand. Therefore, only the questions from the tax avoidance part of Kirchler and Wahl's (2010) questionnaire were utilised in the final questionnaire.

7.2.3 Reliability of Results

Another limitation is that the present study could not consider the attitudes of those who did not participate in the study, but the high non-response rate may lead to bias in responses. Those students in the sample who declined to participate in the study might have taken this approach because of time constraints, lack of interest in the topic, or some other unknown reasons (Bell et al., 2018). In order to assess whether or not the opinions of those who do not respond to the survey are different from those who respond, Armstrong and Overton (1977) proposed using late respondents as substitutes for non-respondents. In terms of this study, the late respondents refer to those who participated in the survey after receiving a reminder message on UC's Learn platform. However, as this study sent three reminder messages to tax students and one to non-tax students, it was difficult to determine who are the late respondents (and the potential multiple groups of late respondents are too small to analyse).

Furthermore, survey respondents and interviewees in follow-up interviews might not be totally honest in their replies because of social desirability bias. For example, in the interviews, the interviewees might respond with answers that they felt meet the expectations of the researcher. In addition, McDonald (2000) and Bell et al. (2018) pointed out that participants may attempt to portray a favourable image by choosing answers in the questionnaire that are perceived more in line with socially desirable positions. Due to the questionnaire length, the researcher did not add questions to test social desirability bias.²⁸ However, the term "tax evasion" and "tax avoidance" were not mentioned in the survey in order to avoid the potentially negative response of such emotive terms (Birch et al., 2003). Also, the information sheet informed both survey respondents and interviewees that their honesty would be greatly appreciated and emphasised the anonymity of the survey and confidentiality of the interviews. Another limitation of the reliability of results is that respondents may misinterpret the questions. To reduce this risk, this study utilised a pilot test to ensure that the questions were easy to understand.

²⁸ Crowne and Marlowe (1960) developed the Marlowe-Crowne Social Desirability Scale (MCSD), which has 33 questions, to examine the existence of social desirability bias. However, as the MCSD scale was not designed for the tax context as well as considering the length of the questionnaire, the present study did not use the MCSD scale to test the deviation of social expectations.

7.3 Contributions to knowledge

One of the significant contributions of this thesis is an addition to the limited tax compliance literature on the impact of tax education. As mentioned earlier, the majority of the prior literature has focused on respondents' levels of general education while ignoring specific tax education. This study explored the impact of tertiary tax education by examining the perspectives of students. Furthermore, it uses a mixed methods approach, including both quantitative and qualitative methodology. The mixed methods approach allows the limitations of one method to be compensated for by another and provides a more comprehensive response to the research questions (McKerchar, 2010). This study first uses a survey approach to provide a baseline of student attitudes from different educational backgrounds. Then the follow-up interviews were conducted to explore students' tax non-compliance attitudes in greater depth. Although it is hard to generalise the results due to the small sample size, this study provides a reference for further research of the relationship between tax education and students' tax compliance attitudes in New Zealand.

In addition, student views on tax evasion and tax avoidance are examined in this research. Even in some previous studies on tax education, the scholars have focused on how tax education affects respondents' attitudes towards tax evasion. However, Alm (1988) recognised that tax avoidance is a substitute for tax evasion, and people's attitudes towards it are likely to affect their tax non-compliance. Therefore, it is also important to study the impact of taxation education on students' tax avoidance attitudes.

This study suggests that tax education has a mixed impact on student attitudes towards different tax evasion behaviours. However, tax education does not reveal a significant relationship with students' attitudes towards tax avoidance and acceptable tax planning behaviours. In addition, as mentioned in the interview results, tax interviewees believed that receiving tax education had not changed their attitudes towards tax evasion and tax avoidance. Nevertheless, their tax knowledge had improved, and they could distinguish more readily between tax evasion and tax avoidance. Compared with non-tax interviewees, tax interviewees could also distinguish between the concepts of tax avoidance and acceptable tax planning, but they felt that the determination of tax avoidance cases is mainly based on the decisions of the courts.

Scholars often overlook the importance of replicating existing studies, and this study fills this gap (Jackson & Milliron, 1986; Richardson & Sawyer, 2001). Through using a similar questionnaire and comparing the results between two studies, this research reveals the changes in students' attitudes toward tax evasion over the last 18 years. Birch et al. (2003) concluded that tax education negatively

affected students' tax evasion attitudes. However, this study finds that tax education has a mixed influence on students' attitudes towards different types of tax evasion behaviours. In addition, compared with Birch et al.'s (2003) research, the proportion of respondents who thought tax evasion is unacceptable has increased in this study. However, more respondents believed that the number of individuals or small businesses underreporting their taxable income has increased in the five years preceding this study. Although it is difficult to make a convincing explanation for these changes based on the findings of the interviews in this research, this provides a possible study idea for future research.

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Appendices

Appendix 1: University of Canterbury Human Ethics Committee Approval Letter



HUMAN ETHICS COMMITTEE

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

Ref: HEC 2020/150

12 February 2021

Ye Zhang
Accounting and Information Systems
UNIVERSITY OF CANTERBURY

Dear Ye

The Human Ethics Committee advises that your research proposal "Understanding How Tax Education Affects Students' Attitudes Towards Tax Non-compliance in New Zealand" has been considered and approved.

Please note that this approval is subject to the incorporation of the amendments you have provided in your emails of 1st and 6th February 2021.

Best wishes for your project.

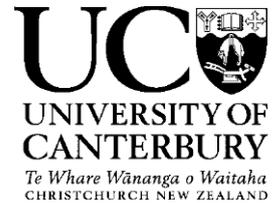
Yours sincerely

A handwritten signature in black ink, appearing to be 'D. Sutherland'.

Dr Dean Sutherland
Chair
University of Canterbury Human Ethics Committee

Appendix 2: Samples of the Information Sheets and Consent forms to the Research

Appendix 2.1: Information Sheet and Consent form to the Questionnaire Survey



Department: Accounting and Information Systems

Telephone: [REDACTED]

Email: ye.zhang@pg.canterbury.ac.nz

15/02/2021

HEC Ref: HEC 2020/150

Understanding how tax education affects students' attitudes towards tax non-compliance in New Zealand

Information Sheet for students -- Survey

My name is Ye Zhang, and I am a Master of Commerce student at the University of Canterbury (UC). I am inviting you to participate in a research project that I am undertaking entitled "Understanding how tax education affects students' attitudes towards tax non-compliance in New Zealand." This research aims to understand if tax education (at university) will affect students' attitudes towards tax non-compliance in New Zealand. Similar research was conducted in 2003 by Birch, Peters, and Sawyer investigating students from UC. As a replication and expansion of their study, this research will also consider if students' attitudes towards tax non-compliance have changed in the last 17 years.

You have been approached to take part in this study because you are a third-year student from UC. I have contacted the course coordinator and obtained their permission to put the survey link on the Learn page.

If you choose to take part in this study, you will fill out an online questionnaire anonymously. It may take up to 15 minutes to complete the questionnaire online with a laptop or tablet using Qualtrics. Apart from my supervisors and myself, no one will see the questionnaire results, and the results will not be related to your grades. Therefore, please fill out this questionnaire honestly and thoughtfully.

The questionnaire involves examining your attitudes towards tax non-compliance. However, the questionnaire only requires you to evaluate whether the behaviour of others is acceptable. Please note that there are no right or wrong answers to the questions, and I am interested in your perceptions and knowledge.

As a follow-up to this investigation, you will be asked to join an interview if you are interested in this topic. This one-on-one interview will explore more deeply your attitudes towards tax non-compliance and the role of education in it. If you are willing to participate in the interview, please click 'Yes' in the last section.

Participation is voluntary, and you have the right to withdraw at any stage without penalty before submitting. In the process of filling out the questionnaire, you can choose to withdraw by simply closing the browser at any time. If you withdraw, all data you have entered up to that point will be deleted and not used for subsequent analysis. However, once you submit the questionnaire, it cannot be withdrawn because the data is anonymous.

When the project results are published in my thesis, the data collected in this survey will be completely anonymous and confidential. To ensure anonymity, you will not be asked to provide your name, email address, or anything else that will link you personally to the data you submit. If you choose to offer to attend an interview or would like to receive a summary of the study results, you will be taken to a separate, unconnected page to provide your contact detail for this purpose. Only my supervisors and I have the right to view the collected data. All data will be stored in password-protected files, and on my laptop, which will also be password-protected. In addition, to prevent data loss, all data will be updated to my personal network drive provided by UC to store files for my personal use. This data will be securely protected and destroyed five years after the completion of my research. My thesis is a public document and will be available through the UC Library.

If you agree to participate in this survey, please click the button below. The resulting analysis will be completed in May 2021. If you would like to check the summary of results of the project, you can view the results through the link after May 2021: [link of results](#)

The project is being carried out as a requirement for the Master of Commerce degree by Ye Zhang under the supervision of Associate Professor Andrew Maples and Professor Adrian Sawyer, who can be contacted at andrew.maples@canterbury.ac.nz and adrian.sawyer@canterbury.ac.nz. They will be pleased to discuss any concerns you may have about participation in the project.

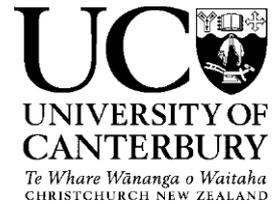
This project has been reviewed and approved by the University of Canterbury Human Ethics Committee, and participants should address any complaints to The Chair, Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz).

If you agree to participate in the study, please click the appropriate button below.

(Consent button)

I have read and understood the study information, and I consent to participate.

I do not consent to participate in the study.



Department: Accounting and Information Systems

Telephone: [REDACTED]

Email: ye.zhang@pg.canterbury.ac.nz

15/02/2021

HEC Ref: HEC 2020/150

Understanding how tax education affects students' attitudes towards tax non-compliance in New Zealand

Information Sheet for students -- Interview

My name is Ye Zhang, and I am a Master of Commerce student at the University of Canterbury (UC). I am inviting you to participate in a research project that I am undertaking entitled "Understanding how tax education affects students' attitudes towards tax non-compliance in New Zealand". This research aims to understand if tax education at university will affect students' attitudes towards tax non-compliance in New Zealand. In order to both explore students' attitudes and understand the role played by education, this study will utilise one-on-one interviews.

You have been approached to participate in this study because you agreed to a follow-up interview in the survey and voluntarily provided contact information.

If you choose to take part in this study, your involvement in this project will require you to participate in a one-to-one interview. Participation in the research will be confidential, which means that no one but me will know your name and other personal information. Additionally, the interview content will not be seen by anyone other than my supervisors and myself. Therefore, please respond to the questions honestly and thoughtfully. The interview should take about 15-20 minutes and be held on the UC campus.

This interview will involve examining your attitude towards tax education and tax non-compliance. However, the questions will only require you to share your opinion, and there are no right and wrong responses. The interview will be recorded to ensure the content is correctly documented. You will receive the transcription of the interview in two weeks following the interview. You have the right to amend the transcription by using track changes.

Participation is voluntary, you have the right to withdraw at any stage and decline to answer any question without penalty. You may ask for your raw data to be returned to you or destroyed at any point. If you withdraw, I will remove the information relating to you. However, once the raw data analysis starts after May 2021, it will become increasingly difficult to remove the influence of your data on the results.

The project results may be published, but you may be assured of the complete confidentiality of data gathered in this investigation: your identity will not be made public. To ensure anonymity and confidentiality, a code will be assigned to you on the consent form. Hence, when I share the interview transcription with my supervisors, they will only see your code rather than your name. All data will be stored in password-protected files. And on my laptop, which will also be password-protected. In addition, to prevent data loss, all data will be updated to my personal network drive provided by UC to store files for my personal use. These data will be securely protected and destroyed five years after the completion of my research. My thesis is a public document and will be available through the UC Library.

Please indicate to the researcher on the consent form if you would like to receive a copy of the summary of the project results.

The project is being carried out as a requirement for the Master of Commerce by Ye Zhang under the supervision of Associate Professor Andrew Maples and Professor Adrian Sawyer, who can be contacted at andrew.maples@canterbury.ac.nz and adrian.sawyer@canterbury.ac.nz, respectively. They will be pleased to discuss any concerns you may have about participation in the project.

This project has been reviewed and approved by the University of Canterbury Human Ethics Committee, and participants should address any complaints to The Chair, Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz).

If you agree to participate in the study, please complete the consent form and sign your name on it.

Department: Accounting and Information Systems

Telephone: [REDACTED]

Email: ye.zhang@pg.canterbury.ac.nz

15/02/2021

HEC Ref: HEC 2020/150

Understanding how tax education affects students' attitudes towards tax non-compliance in New Zealand

Consent form for students -- Interview

Include a statement regarding each of the following:

- 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 penalty. Withdrawal of participation will also include the withdrawal of any information I have provided should this remain practically achievable.
- I understand that any information or opinions I provide will be kept confidential to the researcher and her supervisors and that any published or reported results will not identify the participants. 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, and will be destroyed after five years.
- I understand that the interview will be audio-recorded with an electronic device.
- I understand that I can contact the researcher Ye Zhang via yzh399@uclive.ac.nz or her supervisors, Associate Professor Andrew Maples andrew.maples@canterbury.ac.nz, and Professor Adrian Sawyer adrian.sawyer@canterbury.ac.nz for further information. If I have any complaints, I can contact the Chair of the University of Canterbury Human Ethics Committee, Private Bag 4800, Christchurch (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 the report of findings, if applicable*):

Please give this form to Ye Zhang

Appendix 3: Sample of Email to Course Co-ordinators

Appendix 3.1: Email of application for survey

Dear [academic name],

This is Ye Zhang, a student undertaking a Master of Commerce (Taxation) in the Accounting and Information Systems Department. I am seeking your help and approval to survey your students in ACCT358. My research topic is "Understanding how tax education affects students' attitudes towards tax non-compliance in New Zealand." There are four objectives of my study, as follows:

RQ1: How does tax education affect students' attitudes towards tax avoidance in New Zealand?

RQ2: How does tax education affect students' attitudes towards tax evasion in New Zealand?

RQ3: How have students' views of tax evasion behaviour changed in the past 17 years?

RQ4: How do other demographic variables interact with education to influence students' views of tax non-compliance?

This study plans to recruit students from both tax and non-tax courses as participants for a survey and interviews to achieve these objectives. After reviewing the course outline of students in [target course], they have (or never) been exposed to tax education from university courses. Thus, I would like to invite students from [target course] to complete the online survey. In order to ensure the voluntary nature of the study and present their anonymity, I will use Qualtrics to conduct an online survey. Therefore, if you approve that I recruit the students from [target course] as research participants, could you please put the questionnaire's link for students on the Learn page for your course? Also, I would really appreciate it if you could mention this survey in class.

In addition, two points will be highlighted to students at the start of the questionnaire: (i) the questionnaire is filled out voluntarily and anonymously by students; and (ii) with your consent, the questionnaire results will have no influence on their grades. All questionnaire data will be collected in two weeks. In addition, a week after sending the first questionnaire link, a follow-up reminder may be posted to students via Learn. For your information, I have provided the first message and the follow-up reminder in this email.

Furthermore, at the end of the questionnaire, a separate page asks whether students are interested in participating in a follow-up voluntary and confidential interview. Through the interview, I hope better to understand the reasons for their attitudes towards tax non-compliance. Students need to provide their personal information on that separate page, but I cannot link the questionnaire results to their personal information. In this way, the confidentiality of the interview is also guaranteed. This is the link to my survey: https://canterbury.qualtrics.com/jfe/form/SV_1Stq5kpnDC6SWVf.

Please feel free to open the link: no answers will be recorded before clicking "Submit". The Human Ethics Committee has approved the research, and this is my HEC reference: HEC 2020/150. In addition, I have attached a brief introduction to my study, including the main targets and methodology. Also, I have attached the information sheet for the survey. If you require any further information, please do not hesitate to let me know. Additionally, if you would like to meet to know more about this research, please let me know.

Kind regards,

Ye Zhang

Appendix 3.2: The First Message and the Follow-up Reminder to students

First message:

Kia Ora,

This is Ye Zhang, a Master of Commerce student currently doing research about how tax education affects students' attitudes towards tax non-compliance. This research aims to understand if tax education (at university) will affect students' attitudes towards tax non-compliance in New Zealand. The questionnaire examines your attitudes towards tax non-compliance. However, it only requires you to evaluate whether the behaviour of others is acceptable. It needs to be highlighted that the questionnaire is filled out voluntarily and anonymously, and the results of the questionnaire will have nothing to do with your grades.

Now is your chance to fill out this questionnaire, which has a number of tax non-compliance behaviour scenarios. Please answer honestly every question according to your own judgment. There is no right or wrong answer. This questionnaire is short and will take 10-15 minutes to complete, including reading the information sheet. This questionnaire is to be filled out voluntarily and anonymously, and the results of the questionnaire will have nothing to do with your grades.

If you are interested in this topic, I am pleased to invite you to participate in a follow-up voluntary and confidential interview. Through the interview, I hope better to understand the reasons for your attitudes towards tax non-compliance. Please fill in your personal information on the page that has a different link from the main questionnaire. If you have any questions, please feel free to contact me via ye.zhang@pg.canterbury.ac.nz. Here is the link to the information sheet, the consent form, and the questionnaire: http://canterbury.qualtrics.com/jfe/form/SV_1Stq5kpnDC6SWVf

Best wishes!

Ye Zhang

Follow-up reminder

Kia Ora,

This is Ye Zhang, and this is a friendly reminder to fill out the questionnaire on how tax education affects students' attitudes towards tax non-compliance. I would love the chance to hear from you. This research aims to understand if tax education (at university) will affect students' attitudes towards tax non-compliance in New Zealand. The questionnaire involves examining your attitudes towards tax non-compliance. However, the questionnaire only requires you to evaluate whether the behaviour of others is acceptable. It needs to be highlighted that the questionnaire is filled out voluntarily and anonymously, and the results of the questionnaire will have nothing to do with your grades.

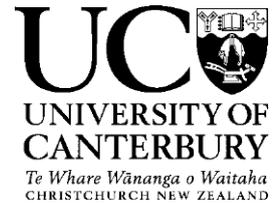
The questionnaire will take less than 15 minutes to complete, and it will help me better understand the impact of tax education. If you are interested in this topic, I am pleased to invite you to participate in a follow-up voluntary and confidential interview. Through the interview, I hope better to understand the reasons for your attitudes towards tax non-compliance. Please fill in your personal information on the page that has a different link from the main questionnaire. If you have any questions, please feel free to contact me via ye.zhang@pg.canterbury.ac.nz. Here is the link to the information sheet, the consent form, and the questionnaire: http://canterbury.qualtrics.com/jfe/form/SV_1Stq5kpnDC6SWVf

Best wishes!

Ye Zhang

Appendix 4: Samples of Research Design

Appendix 4.1: Sample of Questionnaire Survey



→ *Information Sheet and Consent Button of Survey*

Screener:

Which year group are you in?

- First year
- Second year
- Third year
- Fourth year
- Postgraduate

Condition: Third year To: Q1

Condition: First year /Postgraduate To: Quit

Section 1:

Q 1. Have you ever enrolled in any university courses (including summer school) related to finance, economics or accounting?

- Yes
- No

Condition: Yes To: Q2

Condition: No To: Q3

Q 2. Are you currently enrolled in ACCT 358 Advanced Taxation?

- Yes
- No

Q 3. Which age group are you in?

- Under 18
- 18-25
- 25-29
- 30-39
- 40-49
- 50+

Condition: Under 18 To: Quit

Condition: other options To: Q4

Q 4. What gender are you?

- Female
- Male
- Other (Please specify)
- Prefer not to disclose

Q 5. Which ethnic group do you belong to?

- NZ European
- Māori
- Pacific Islander
- Australian
- Chinese
- Malaysian
- Other (Please specify)

Q 6. Are you

- Currently not in paid employment/business (e.g., full-time parent or student)
- A full-time wage or salary earner
- A part-time wage or salary earner
- Self-employed with no employees (either full-time or part-time)
- Self-employed with employees (either full-time or part-time)
- Other (Please specify)

Q 7. What is your current income level? (per year)

- No formal income
- Under \$14,000
- Between \$14,001 and \$48,000
- Between \$48,001 and \$70,000
- \$70,000 or more

Q 8. How many years work experience (part-time and/or full-time) do you have?

- None
- 1-4
- 5-9
- 10-19
- 20+

Q 9. How many times have you checked your personal tax information on the Inland Revenue's website in New Zealand in the last 12 months?

- Never
- Once
- 2-5 times
- More than 5 times

Section 2²⁹:

(TE) Q 1. Jenny is the owner of a hairdressing business, situated in a small New Zealand city. She has two full-time employees, and an annual turnover of \$150,000. Since she started her business five years ago, Jenny has taken \$150 cash from the till every week, which she has not included in her income tax or GST returns. In your view, are Jenny's actions:

- Totally acceptable
- Mildly acceptable

²⁹ In this section, the TE mark means the question examines students' attitudes towards tax evasion, while TA&TP means the question examines students' attitudes towards tax avoidance or tax planning.

- Mildly unacceptable
 - Totally unacceptable
- (TE) Q 2. What would be your view if Jenny only took occasional amounts of cash from the till – in total about \$30 per week over the last year?
- Totally acceptable
 - Mildly acceptable
 - Mildly unacceptable
 - Totally unacceptable
- (TE) Q 3. Dave is a self-employed painter decorator. He does jobs for people for cash every week and does not include the cash in his GST or income tax returns. Last year, such cash jobs totalled \$7,800. In your view are Dave's actions:
- Totally acceptable
 - Mildly acceptable
 - Mildly unacceptable
 - Totally unacceptable
- (TE) Q 4. What would be your view if Dave's cash jobs in the last year totalled \$30 per week?
- Totally acceptable
 - Mildly acceptable
 - Mildly unacceptable
 - Totally unacceptable
- (TE) Q 5. When Penny purchased her first home, her grandmother, Cecilia, lent her \$100,000 to help pay for the house. Penny is paying Cecilia 5% interest on the loan, or \$5,000 interest a year. Cecilia is not including the interest in her income tax return. Cecilia's 2019 taxable income was \$50,000. In your view, are Cecilia's actions:
- Totally acceptable
 - Mildly acceptable
 - Mildly unacceptable
 - Totally unacceptable
- (TE) Q 6. Jack is a self-employed plumber. He renovated the bathroom in his own home, and claimed the cost of a new toilet, shower cubicle, taps, vanity and bath as business expenditure. That is, he claimed a GST refund on these purchases, and claimed the cost (excluding GST) as a deduction for income tax purposes. In your view are Jack's actions:
- Totally acceptable
 - Mildly acceptable
 - Mildly unacceptable
 - Totally unacceptable

(TE) Q 7. What is your view on each of the following actions? (Please tick the appropriate box in each row)

	Totally Acceptable	Mildly Acceptable	Mildly Unacceptable	Totally Unacceptable
Not including \$1,200 of income for GST and income tax purposes (\$500 tax underpaid)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Filing a fraudulent insurance claim and receiving a \$500 pay out	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shoplifting a camera worth \$500	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Theft of \$500 from an employer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Collecting a \$500 social welfare benefit when not eligible for it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(TA&TP) Q 8. Zoe bought a \$800 laptop that she does not currently need for her company, so as to decrease the figure on which her tax calculation is based. In your view are Zoe's actions:

- Totally acceptable
- Mildly acceptable
- Mildly unacceptable
- Totally unacceptable

(TA&TP) Q 9. Ben attends a course which informs him about the current possibilities for claiming tax deductions. All content in the course complies with the tax law. In your view are Ben's actions:

- Totally acceptable
- Mildly acceptable
- Mildly unacceptable
- Totally unacceptable

(TA&TP) Q 10. Jerry discusses how to save more tax with his tax accountant who gives him some hints as to how he could save more in tax. In your view, are:

	Totally Acceptable	Mildly Acceptable	Mildly Unacceptable	Totally Unacceptable
Jerry's actions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jerry's accountant's actions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Section 3:

Q 1. Compared with five years ago, do you feel that the understatement of taxable income by small businesses and individuals (for example, by doing cash jobs or claiming deductions that they are not entitled to) has:

- Increased significantly
- Increased a little
- Remained about the same
- Decreased a little
- Decreased significantly
- Do not know

Q 2. "We are becoming a society in which it is widely acceptable for small businesses and individuals to understate taxable income (for example, by doing cash jobs) and as a result pay less income tax and GST than they are legally obliged to."

- Strongly agree
- Mildly agree
- Mildly disagree
- Strongly disagree

Q 3. "The chances of being caught understating taxable income by not declaring income from cash jobs or cash sales, or claiming private expenses as business deductions are very low":

- Strongly agree
- Mildly agree
- Mildly disagree
- Strongly disagree

Q 4. How many people do you know who have omitted income from their income tax returns? For instance, you suspect they have done cash jobs or made sales for cash, and not included that income in their income tax returns, or simply failed to include some taxable income?

- 0 people
- 1-3 people
- 4-6 people
- 7-9 people
- 10+ people

Q 5. In the past five years, have you paid cash to reduce the price you pay or have you paid anyone you hired (such as a childminder), knowing that they were not returning the money as income to tax?

- Yes
- No
- N/A

Q 6. In the past five years, have you received cash for jobs or made cash sales, and knowingly not declared the income for GST or income tax purposes?

- Yes
- No
- N/A

Q 7. How likely would you be to take a detailed look at the tax laws yourself to search for potential tax savings??

- Very likely
- Mildly likely
- Mildly unlikely
- Very unlikely

Q 9. Would you like to make any further comments?

Section 4:

→ ***Information Sheet and Consent Form of Interview***

Q 1. Would you like to join a follow-up interview?

- Yes
- No

Condition: Yes To: [Separate link \[Interview Sign UP\]](#)

Condition: No To: sheet

Sheet:



What is tax evasion?

- Tax evasion is the illegal **manipulation** of one's affairs with the intention of escaping tax.

What is tax avoidance?

- Tax avoidance describes the **rearrangement** of a person's affairs, within the law, in order to reduce tax liability.

 Tax Evasion	 Tax Avoidance
Not Paying All of One's Taxes	Minimizing of Taxes
Illegal	Legal
Employ Illegitimate Means, such as: <ol style="list-style-type: none"> 1) underreporting income 2) inflating deductions without proof 3) hiding or not reporting cash transactions 4) hiding money in offshore accounts 	Avoid Taxes with Legal Methods, such as: <ol style="list-style-type: none"> 1) transferring a tax liability to another taxpayer 2) setting up a tax deferral plan to delay tax until a later date
Undertake After Determining Tax Liability	Undertake Before Determining Tax Liability
Reduces the Tax Revenue of the Tax Authorities	Reduces the Tax Revenue of the Tax Authorities

Appendix 4.2: Sample of Interview Sign Up



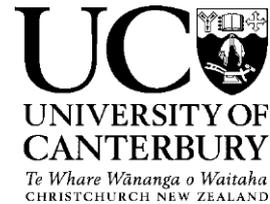
Please enter your contact details below, I will make contact with you as soon as possible

Email address:

Mobile number:

→ *Sheet*

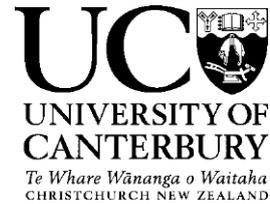
Appendix 4.3: Sample of Interview guide for Non-tax Students



1. What do you think about taxation? For example, do you think it impacts positively on society because taxation can increase national income and improve infrastructure? Alternatively, do you think that taxation has a relatively significant negative effect, as it takes money from taxpayers and reduces their money for other things? Do you have your own views on taxation? Please explain.
 - Positive:
 - a. How do you think the government uses taxation to benefit people? Which benefits are enjoyed by your friends and family or yourself?
 - b. Does this mean that you have a low tolerance for tax non-compliance? For you, what kind of behaviour is tax non-compliance?
 - Negative:
 - a. What do you think is the negative impact of taxation? Can you explain why you think it has a greater negative impact?
 - b. Does this mean that you think some tax non-compliance behaviour is excusable? Could you give examples of what tax non-compliance behaviour you think should not be punished?
2. What do you think of courses that teach people about further possibilities for making claims against tax? Would you be interested in participating in such a course?
 - Interested in
 - a. What would you expect to learn from the course?
 - b. Why would you think it is useful?
 - Not interested
 - a. You are not interested because you think this course content is unreasonable or the content is of no use to you personally?
3. What do you think of undeclared cash payments? Will cash payments that are not declared affect taxation?
 - Affect
 - a. What effect do you think it will cause? (What size cash payment is 'large scale' to you? Where is the border between large and small?)
 - b. Do you think people's consumption habits have changed in the past five years? For example, do they use credit cards more?
 - c. In your opinion, has the use of cash for tax non-compliance by merchants, which means products or services are not taxed, decreased or increased in the past five years?
 - No affect (This might reflect that those students who have not participated in tax courses are not aware of the impact of cash payments on taxation. Or that they think business owners are honestly paying taxes on cash payments)

4. At the end of the questionnaire, you have been shown the difference between tax evasion and tax avoidance. What do you think of these two types of tax non-compliance? Do you know what tax planning is?
 - Know tax planning. what do you think the difference between tax planning and tax avoidance? Could you give some examples?
5. If possible, would you be interested in learning more about taxation in the university?
 - Interested
 - a. Through what channels? Workshop/presentation/elective course
6. Do you think your important referents would themselves comply? Will you want to behave similarly to your important referents? What is your motivation?
7. What will you think of your important referents? Will they lose your respect if they do not comply? What is your motivation in maintaining respect for your referents (when they do not comply)?
8. Based on your ability, do you think you have a chance to underreport income in the future? If you think you are capable of underreporting income, how often will you do it? If you successfully commit non-compliance, how likely do you think you will be found and punished by the tax authority?

Appendix 4.4: Sample of Interview guide for Tax Students



1. What do you think about taxation? For example, do you think it impacts positively on society because taxation can increase national income and improve infrastructure? Alternatively, do you think that taxation has a relatively significant negative effect as it takes money from taxpayers and reduces their money for other things? Do you have your own views on taxation? Please explain.
 - Positive:
 - a. How do you think the government uses taxation to benefit people? What benefits are enjoyed by your friends and family or yourself?
 - b. Does this mean that you have a low tolerance for tax non-compliance? In your view, what kind of behaviour constitutes tax non-compliance?
 - Negative:
 - a. What do you think is the negative impact of taxation? Can you explain why you think it has a greater negative impact?
 - b. Does this mean that you think some tax non-compliance behaviour is excusable? Could you give examples of what tax non-compliance behaviour you think should not be punished?
2. Did you know clearly the difference between tax evasion and tax avoidance before you filled out the questionnaire? How do you view tax avoidance?
 - Yes
 - a. Did you know the difference between these two terms from the tax course or from other channels?
 - b. How do you view tax avoidance?
 - c. What is your opinion about tax planning and tax avoidance?
3. Some people think that helping clients avoid tax is part of the work of tax professionals. Do you agree with this statement?
4. What do you think of cash payments? Will cash payments that are not declared affect taxation?
 - Affect
 - a. What effect do you think they will cause? (What size cash payment is 'large scale' to you? Where is the border between large and small?)
 - b. Do you think people's consumption habits have changed in the past five years? For example, do they use credit cards more?
 - c. In your opinion, has the use of cash payments for tax non-compliance by merchants, which means products or services are not taxed, decreased or increased in the past five years?

- No effect (they may tend to believe business owners are honestly paying taxes on cash)
- 5. In addition to benefits to your career, do you think learning taxation is helpful to other aspects of your life? For example, giving tax advice to people around you and helping your friends or family to check their tax return forms.
- 9. Do you think your important referents would themselves comply? Will you want to behave similarly to your important referents? What is your motivation?
- 10. What will you think of your important referents? Will they lose your respect if they do not comply? What is your motivation in maintaining respect for your referents (when they do not comply)?
- 6. Based on your ability, do you think you have a chance to underreport income in the future? If you think you are capable of underreporting income, how often do you think you might do it? If you successfully commit non-compliance, how likely is it that you might be found out and punished by the tax authority?