

Running head: Young people's understanding of youth justice in NZ

Young People's Knowledge and Understanding of the Youth Justice System in New Zealand:  
A Community Sample

By

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### Abstract

New Zealand (NZ) has a separate youth justice system that is designed to be responsive towards the developmental needs of young people that have engaged in antisocial behaviour. It is therefore essential that young people are 'Fit to Stand Trial' when legal proceedings are brought against them. A young person can be found legally unfit on the basis of 'mental impairment', and whilst this is undefined it largely overlooks the impact a young person's developmental level may have on their engagement with court processes. No research has examined young people's understanding of the justice system in NZ. However, international research has demonstrated that those 13 years and younger are almost exclusively found unfit to stand trial due to their developmental level, whereas those 16 years and older tend to be found fit to stand trial. The legal capabilities of those aged 14 to 15 years are difficult to predict given the extensive developmental changes occurring around that age. The current research aimed to address three research questions: 1) is there a relationship between age and fitness to stand trial, 2) is there a relationship between IQ and fitness to stand trial, and 3) how does NZ research compare to international literature. Participants aged 13 to 18 were recruited from six schools around NZ ( $n = 89$ ). They were interviewed using a semi-structured interview tool that was designed for this study to assess young people's understanding of the justice process and fitness-related abilities. A brief measure of participant IQ was also taken. It was found that fitness-related abilities, such as knowledge and understanding, were positively associated with age and IQ, such that older participants and those with higher IQ scores performed better on this semi-structured interview. Attending a high decile school, and being female was also predictive of better performance. These findings indicate that developmental level—as indicated by age and IQ—impacts young people's understanding and participation in the justice system. Therefore, the current legislative response to young people who offend does not sufficiently recognise the impact of a young person's developmental capabilities.



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## **Chapter One: Introduction**

### **Young People and the Justice System**

Responding appropriately to young people who break the law has long been subject to interdisciplinary debate. We do not expect children to be criminals, nor do we wish to treat them as criminals; a dilemma that continues to challenge youth justice systems internationally (Steinberg, 2009). Recent statistics in New Zealand (NZ) show that children and young people accounted for 2% (1,785) of all people who appeared in court in the last fiscal year (Ministry of Justice, 2018b). The majority of these young people were dealt with through diversion techniques without a formal conviction, however 36% of those young people received a Youth Court order or were convicted and sentenced in an adult court (Ministry of Justice, 2018b). This latter cohort of young people are at greatest risk of long-term involvement with the justice system. It is therefore important there are clear policies outlining how best to work with young people. The following thesis begins an examination of best practise and how normal adolescent development may be impacting young people's meaningful participation in the court process.

This introduction will discuss in the following order, 1) past themes in the treatment of youth justice internationally, 2) an examination of youth justice in New Zealand, 3) normal patterns of adolescent offending, 4) developmental immaturity and adolescent antisocial behaviour, specifically looking at cognitive, psychosocial, peer influence and neuropsychological contributions, 5) the history of, and issues with Competency to Stand Trial (CST) internationally, 6) measurement of CST, and 7) Fitness to Stand Trial (FST) research and practise in New Zealand. Finally, 8) the current study will be introduced.

### **The international history of youth justice**

This section briefly reviews the international psychological and legal literature highlighting the significant change in focus, from what was originally a more rehabilitative response, to a punitive-based, tough on crime approach to young people that engage in

antisocial behaviour. The literature clearly demonstrates there is a lack of consensus about what policies are best practise and satisfies the requirements of both deterring young people from antisocial and offending behaviour and responding to those that do enter the justice system, in an age-appropriate manner that recognises human development. Responses to antisocial behaviour by youth can see the young person either defined as an offender to justify holding them accountable for their crimes, or the crime is redefined as less serious to justify the lesser repercussions for the young person (Steinberg, 2009; Zimring, 1998). Society has been challenged to determine a rationale and ethical balance between the normative nature of justice and human development. Regardless of the favoured approach, the debate over how best to respond to young people coming into contact with the justice system endures.

Almost overnight the response to a young person's offence can change considerably, dependant on their birthday and the age at which that country or state considers them to be an adult (Steinberg, 2009). Legal and societal responses to a young person's offending shift from the supposed rehabilitative focus of youth and juvenile courts, to the more punitive and retribution focused adult courts (Farrington, Loeber, & Howell, 2012). This rapid change in response has received increasing attention and contributes to the widely debated intersection of psychology and law; posing the question – are criminal justice systems failing to sufficiently accommodate for the developmental capabilities of the young people?

Prior to the twenty-first century, reducing the seriousness of the offence and emphasising a rehabilitative approach to youth justice dominated in the western world. That is, the principal characteristic of a young person derived from law was their powerlessness and inability to form criminal intent (Lynch, 2016). Offences were redefined as antisocial actions and dealt with in a separate court system designed to be responsive to the immature development of young people through the legitimate goals of rehabilitation (Steinberg, 2009; Viljoen & Roesch, 2005).

This approach changed as sharp increases in crime rates in the 1960s prompted evaluations of rehabilitative programmes which concluded “nothing worked” (Martinson, 1974). Later, in the 1990s, there was an explosion in the official rates of recorded youth perpetrated crimes (Maroney, 2009), and popular opinion subsequently shifted from therapeutic to punitive-based, tough on crime, approach's to youth offending. Internationally this triggered significant changes to policies and procedures for dealing with young people, a movement that has since been referred to as the ‘criminalisation’ of youth justice (Howell, Feld, & Mears, 2012). At the same time there was an increase in the number of young people being preferentially dealt with by adult rather than youth courts (Steinberg, 2009; Viljoen & Roesch, 2005) as society increasingly believed adult crime compelled an adult punishment (Modecki, 2008), and that the threat of adult sanctions would have a deterring effect (Redding & Fuller, 2004). Subsequently, policy changes were observed across the western world.

These changes occurred despite a growing body of research demonstrating they were not best practise. The impact of adult sanctions on young people, including arrest, conviction and adult prison sentences, was shown to play a role in increasing recidivism and jeopardising the mental health and development of young people (Fagan, 2008; Howell et al., 2012; Steinberg, 2009). Furthermore, adolescents transferred to the adult system were shown not only to be more likely to reoffend, but reoffend more quickly, at higher rates, and commit more serious offences than adolescents dealt with by youth justice systems (Fagan & Zimring, 2000). Thus, the criminalisation of youth occurred across the western world, despite growing evidence to the contrary.

The absence of clear and consistent approaches, that demonstrate evidence-based practise, have led scholars to observe that “what is done in corrections would be grounds for malpractice in medicine” (Latessa, Cullen, & Gendreau, 2002, p. 43). The change in focus from rehabilitation to punitive responses highlights issues that occur when disciplines fail to

synchronise; such that the law and developmental research moved in opposite directions (Maroney, 2009). In this instance, imposing more punitive sanctions played a key role in compromising the well-being and development of young people due to their harmful effects (Steinberg, 2009).

### **The history of youth justice in New Zealand**

Youth justice in New Zealand (NZ) has demonstrated both rehabilitative and punitive based approaches, similar to those outlined above, at various times, whilst also developing its own unique approach to youth justice. This next section summarises the history of youth justice in NZ, and discusses the influences of key legislation that has resulted in the current response to adolescents in the youth justice system. Furthermore, the obligations and responsibilities that current legislation holds the youth justice system to will be discussed.

The Juvenile Offenders Act in 1906 was the first statutory recognition in NZ that young people were a distinct cohort to be dealt with by a separate justice system (Lynch, 2016). However, discernible change only came about with the establishment of the Child Welfare Act in 1925 that established a separate agency responsible for the supervision, care and protection of young offenders (Morris, 2004). However, this Act has received much retrospective criticism for some of its more punitive approaches and was amended in 1960 in a progressive attempt to better focus on the care and protection of young people, that gained momentum and contributed to the socio-political factors that drove subsequent reform (Lynch, 2016; Morris, 2004).

The current operation of the New Zealand Youth Justice System (NZYJS) is considered unique within the western world as it was intended to operate from a foundation of rehabilitative principles. The most significant contributions came from the Children and Young Persons Act 1974; a legal attempt to adhere to a model that addressed a young person's rehabilitative rather than punitive needs (Lynch, 2016). This was spurred on by neo-liberalism and Māori nationalism movements that contributed to the shaping of The Children,

Young Persons, and Their Families Act 1989, which was renamed in 2018 as the Oranga Tamariki Act 1989. This lengthy piece of legislation took the position that care and protection were the focal point when dealing with youth (Lynch, 2016). This was one of the first Acts in the western world that set out, in statutory form, a comprehensive set of guiding principles which govern how young people are managed by the youth justice system in NZ (Maxwell & Morris, 2010). This was recognised as a unique and radical approach to youth offending, and captured the attention of the world (Morris, 2004). The statutory principals of this Act have remained largely unchanged in the subsequent decades.

The Children and Young Person Act 1974 resulted in the notable separation of NZ from the rest of the western world as it surpassed overseas developments by attempting to involve families and communities in decisions about youth who offend (Morris, 2004). Thus, as NZ moved towards a more restorative approach this contrasted the growing punitive focus of the rest of the western world. One key difference was the incorporation of rights and needs of indigenous people as specific strategies and procedure were established, orientated around incorporating the young person's culture into the youth justice process (Maxwell & Morris, 2010). This was an acknowledgment of the fact that Māori and Pacifica people were, and still are, overrepresented at all stages of the criminal justice system in NZ, currently making up 60% of the offending population whilst only making up just over 20% of the total NZ population (Department of Corrections, 2017). This is not to say western approaches were rejected in favour of indigenous methods, rather there was an attempt to integrate the two (Maxwell & Morris, 2010).

The Oranga Tamariki Act 1989, s208 stipulates that young people who commit offences should be “held accountable, and encouraged to accept responsibility for their behaviour”, yet they also need to be dealt with in a manner that acknowledges their needs and encourages them to develop in “responsible, beneficial, and socially acceptable ways” (Lynch, 2016, p. 29). To achieve this, key principals were set out as follows: 1) diversion

techniques to keep young people out of the formal court system, 2) accountability to encourage young people to right the wrong they have done, 3) enhancing wellbeing and strengthening families by making available appropriate services, 4) family involvement in the young person's decisions, 5) cultural appropriateness by offering methods of resolution in accordance with the culture a young person identifies with, 6) victim involvement in the decision process, 7) consensus decision making so that everyone is in agreeance with the outcome, and 8) due process to emphasise the protection of the young person's rights (Maxwell & Morris, 2010).

Furthermore, of equal importance, the legislation clearly outlines, as one of the guiding principles, that it is the "duty of court and counsel to explain proceedings" (Oranga Tamariki Act 1989, s10). This further stipulates that the court should 1) explain in a manner and in language that can be understood by the young person, 2) satisfy itself that the young person understands the proceedings, and 3) when the court makes an order the court must ensure the information is presented in a manner and in language that can be understood by the young person (Oranga Tamariki Act 1989, s10). Therefore, there is a clear onus of responsibility placed on the court to ensure that all young people who appear in court can meaningful participate in the process, and that due process is upheld.

### **The normative nature of adolescent antisocial behaviour**

The following section will outline normal and widely validated patterns of adolescent offending that are important to consider in youth justice policies, such as the ones outlined in the previous section. Longitudinal research that emerged in the 1990s demonstrated that those 15 to 19 years offended at disproportionality high rates (Moffitt, 1993). Rates of offending were shown to increase from late childhood, peak during late adolescence, and then markedly decrease during adulthood, demonstrating a trend of natural desistance (Farrington et al., 2012; Moffitt, 1993; Reyna & Farley, 2006). Moffitt (1993) termed this trajectory 'adolescent-limited' and demonstrated that approximately 70% of the population followed

this pattern where antisocial behaviour is limited to the teenage and early adult years. This trajectory is supported by research on young people's sensation-seeking and risk-taking behaviours, future orientation, attitudes towards authority, peer-orientation, self-concept and decision making; all of which highlight distinct differences between young people and adults (Maroney, 2009).

Given that the majority of young people naturally desist from offending behaviour as they enter adulthood it is essential that any criminal justice system responds to them in a way that facilitates this natural process (Moffitt, 1993). Furthermore, Moffitt (1993) coined the term, and discusses the implications of 'snares'; characteristics of the individual, criminal justice process or societal sanctions that ensnare a young person into a long-term persistent deviant lifestyle. Examples of such snares include having a criminal record, inconsistent work histories, teenage parenthood, drug and alcohol addiction and any time spent incarcerated during adolescence that would minimise opportunities for higher education, lucrative jobs and prosocial relationships as an adult (Moffitt, 1993). These potential snares can draw a young person into a criminal lifestyle that interferes with the normative desistance from antisocial behaviour. Therefore, it is the duty of criminal justice to minimise these snares, where possible. To better understand the mechanisms that facilitate this adolescent limited offending trajectory, the following section will explore cognitive, psychosocial and neurological research that describe what occurs during adolescent development.

### **The concept of developmental immaturity**

Internationally and in NZ, policies and procedures that adhere to best practise, in accordance to current research on adolescent development and its role in youth justice, are inconsistent. The following section discusses research and best practise guidelines in relation to adolescent development, that should influence justice system responses to young people.

The law recognises characteristics of an offender that are considered aggravating or mitigating factors for criminal culpability; that is, they increase or decrease perceived

culpability. Culpability refers to blameworthiness and level of deserved punishment (Howell et al., 2012), such that a crime of impulse is considered less severe than one of premeditation, as is one committed under coercive pressure from others (Steinberg, 2009). Underdeveloped cognitive, psychological and neurological systems in adolescents have shown to have multiple impacts on their decision-making abilities in regard to criminal and antisocial behaviour (Grisso et al., 2003; Stepanyan, Sidhu, & Bath, 2016). As these systems develop with age and experience, so does the young person's autonomy in developing reasoning and decision-making. Therefore, their developmental level should be carefully considered as a mitigating factor when assessing the culpability of adolescents (Modecki, 2008).

Steinberg and Scott (2003) described the 'diminished culpability' model, which outlines the relationship between development, as indicated by neuroscience research, and the level of accountability a young person should be held to when they engage in antisocial behaviour. This has been endorsed to some degree, and often completely, by virtually every scholar, advocate, and defender who has sought to expand the influence of neuroscience within youth justice (Maroney, 2009). The diminished culpability model outlines specific claims about adolescent development that fall at every possible point along the life course of an adolescent offender (Steinberg & Scott, 2003). This information should inform an understanding that characteristics, such as impulsiveness, lack of foresight and susceptibility to peer influence in adolescents, are essential to consider in the context of the youth justice system. This is particularly relevant when drawing comparisons to an adult who can better control his or her behaviour and anticipate future consequences (Steinberg, 2009; Steinberg & Scott, 2003). Moreover, assessments of culpability should be informed by developmental research as it indicates timetables for developmental phenomena such as foresight, self-control and susceptibility to peer pressure (Steinberg, 2009), all of which play a role in adolescent offending. Thus, when considering developmental immaturity as an umbrella term for the phenomena described above, it should serve as a mitigating factor, and be addressed



with sanctions that avoid life-changing penalties, snares, and instead emphasise positive opportunities for change (Grisso et al., 2003; Howell et al., 2012).

The following two paragraphs discuss the relevant cognitive literature to the undoubtable complex process of decision-making in young people. Decision-making in young people cannot be viewed through a one-dimensional framework, but rather as a complex interaction of reasoning—the processing of information—and judgment—weighing up the consequences of decisions (Grisso, 2000). The cognitive capacities that play a key role in decision-making of *understanding* (comprehending information and making a relative decision) and *reasoning* (the ability to use information logically to make a choice) are perhaps two of the most important that are considered in the assessment of criminal culpability (Bonnie, 1992; Steinberg, 2009). Development in these capacities occurs between 11-16 years, and individuals become more capable of abstract, multidimensional, deliberate and hypothetical thinking (Kuhn, 2009). Whilst these reasoning and understanding processing skills show marked improvement during adolescence (Kambam & Thompson, 2009), decision-making capacities continue to be influenced by a range of high-order cognitive functions that are necessary for a full understanding of legal procedures but do not fully develop until mid to late 20s.

Adolescents are capable of multidimensional and abstract thinking by approximately 16 years, and better able to consider the possible implications of a decision or action in a given scenario (Kambam & Thompson, 2009). At a basic level, they can extract relevant information, apply information in a specific setting, and integrate these pieces to make a decision (Parker & Fischhoff, 2005). However, what markedly distinguishes adolescents from adults in the practise of rational decision making is the heightened susceptibility of adolescents to situational and contextual factors. That is, a wealth of research has shown significant differences in decision-making when adolescents are in the heat of the moment, in the presence of peers, and in unfamiliar situations to name a few (Reyna & Farley, 2006).

Whilst cognitive capacities approximate those of adults by roughly 16 years, there are still clear differences in judgments as the influence of psychosocial factors is particularly salient in young people (Modecki, 2008; Steinberg, 2009).

The role of these psychosocial factors and their particularly salient influence on the ability of young people to make rational and informed decisions will be explored in the following paragraphs. Psychosocial development in adolescents is widely recognised as the combination of social, emotional and cognitive processes that negatively impact decision-making capacities (Steinberg, 2009). Key age differences in psychosocial functioning, of particular relevance to the current discussion, will be discussed in the following order, *peer influence*, *future orientation*, *risk-taking* and *reward sensitivity* (Steinberg, 2009).

A plethora of research has demonstrated that resistance to *peer influence* increases between adolescence and adulthood as individuals develop in their capacity for autonomous decision-making and start to form an independent sense of self (Steinberg, 2009). The direct and indirect effects of peer influence on adolescent judgement, in regard to antisocial behaviour, have been clearly demonstrated. That is, adolescent decisions may be a direct response to channels of peer pressure such as coercion, whereas a desire for approval and fear of rejection may affect choices through indirect peer pressure (Steinberg, 2009). The increasing salience of peers during adolescence is a noteworthy influence if you think back to the adolescent-limited trajectory of offending described earlier. That is, antisocial and offending behaviour debuts during, and desists after adolescence (Moffitt, 1993; Reyna & Farley, 2006), a pattern that is mirrored by the curvilinear trend of susceptibility to peer influence and pressure during adolescence (Kambam & Thompson, 2009).

Adolescent judgments have also been shown to be influenced by *future orientation*, the capacity and inclination to project events into the future (Steinberg, 2009). Research has widely validated the finding that young people are less future orientated than adults, as judged by a range of measures that include time perspective, planning and anticipation of

future consequences (Kambam & Thompson, 2009). It is during adolescence that individuals develop the capacity to better consider future consequences and planning accordingly (Steinberg, 2009; Steinberg et al., 2009). Short-term consequences tend to be awarded greater salience to young people as their goals often orientate around maximising immediate pleasure at the expense of long-term consequences (Reyna & Farley, 2006). For example, a young person may agree to a charge because she or he wants to be released quickly from custody and return home. They may not consider the long-term consequences of not denying the charge, and the possible benefits of having a defended hearing with the possibility of having the charge not proven. Similarly, a young person who faces strong evidence for the damaging of property may refuse to deny the charge—which may be the best legal option in that scenario—as doing so would not appear ‘cool’ in front of their friends (Steinberg et al., 2008).

To understand adolescent risk-taking behaviours, Steinberg et al. (2008) proposed a conceptual framework that details the interaction of two brain networks, the socio-emotional and the cognitive-control networks which respond more immediately to social and emotional stimuli, and long-term executive functioning respectively. This framework recommends that it is changes in the socio-emotional system, as a result of puberty, that leads to increased reward seeking and risk-taking behaviours that are observed during adolescence (Kambam & Thompson, 2009). The later decline in risk-taking behaviour, that occurs as adolescents move into adulthood, is considered a consequence of the continued development of the cognitive-control system, that surpasses heightened influence of the social-emotional system. This framework is consistent with findings of age-related structural and functional changes in the prefrontal cortex and improved coordinating of emotion and cognition due to improved neural connectivity (e.g., myelination and pruning; Steinberg, 2009). This aligns with, and supports research that has established an adolescent-limited offending trajectory and the pattern of natural desistance from offence-related behaviour (Moffitt, 1993).

Whilst developmental psychologists have comprehensively described factors which contribute to the developmental immaturity of young people, the concept of developmental immaturity was obstructed by the weight of research that showed logical-reasoning abilities in adolescents' were comparable to adults by 16 years (Cauffman & Steinberg, 2001; Howell et al., 2012; Scott & Steinberg, 2008). However, the emerging influence of neuroscience provided a new way of examining adolescent decision-making. Subsequently, new perspectives on the neural underpinnings of adolescent brain development have received increasing recognition and contributed to the realisation that the brain continues to develop beyond adolescence and through to the late 20s (Howell et al., 2012; Steinberg, 2009). This research has contributed to the increasing attention the concept of developmental immaturity has received for its relevance for youth involved in the justice system (Kambam & Thompson, 2009).

Emerging research has demonstrated heightened risk-taking related judgments occur during adolescence, supporting the existence of the socio-emotional and the cognitive-control networks, which respond more immediately to social and emotional stimuli, and long-term executive functioning respectively (Howell et al., 2012; Steinberg, 2009). The frontal lobe — the part of the brain that manages impulse control, long-term planning, risk and reward calibration, and insight— continues to develop through adolescence and beyond (Smith, 2007). Neuropsychological research has made apparent that this continued development is supported by ongoing myelination, white matter increase and synaptic pruning, all of which are important changes in brain functioning that develop an individual's capacity for reasoning and decision-making (Farrington et al., 2012; Maroney, 2009).

Interdisciplinary research continues to conclude that adolescent development is particularly fluid for teenagers 16 and 17 years of age, as the psychological functions of social judgment, autonomy, control, and rationality do not stabilise until early adulthood (Fagan & Piquero, 2007). These factors have all been extensively linked to adolescent

engagement in criminal behaviour and support the notion that, whilst they may appear adult like in many ways, their ability to regulate their behaviour is still developing (Steinberg, 2009). Given that, during court proceedings, certain competencies are required to be in place in order to fully participate in the court process, an accurate understanding about how and when relevant capacities develop is essential to helping determine whether an individual can meaningfully participate in the court proceedings (Steinberg, 2009). Having now outlined key themes from the wealth of interdisciplinary research on adolescent development, the following section will apply those themes to Competence to Stand Trial literature.

### **The International History of Competency to Stand Trial (CST)**

This section will examine the history and key pieces of legislation that contribute to current understanding and application of Competence to Stand Trial<sup>1</sup> (CST). CST is a legally determined construct that refers to a criminal defendants capacity to participate in legal proceedings related to an alleged offence or offences (Mossman et al., 2007). The idea that a defendant's competence or incompetence determines whether criminal proceedings should go ahead is taken as essential to the ethical foundations of administering criminal justice (Bonnie, 1992; Steinberg, 2009). Thus, it is inherently unethical to subject an individual to legal proceedings when they lack competence, as this would compromise a fair and unbiased assessment of both culpability and accountability (Steinberg, 2009; Stepanyan et al., 2016), as would the conviction of an incompetent defendant be a violation of their right to due process (Brown, Haun, Zapf, & Aiken, 2018). Therefore, subjecting any individual to a trial when they lack rational understanding and the ability to meaningfully participate in the proceedings "offends the moral dignity of the process because it treats the defendant not as an accountable person, but as an object of the state's effort to carry out its promises" (Bonnie, 1992, p. 925).

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<sup>1</sup> This does not strictly refer to only legal proceeding that are 'trials.' It refers to a wide range of legal proceedings in which an individual would need to be competent to meaningfully participate in the court process.

Historically, legal proceedings have offered a range of explanations for why CST is necessary, and when and how it should be implemented. The American legal system demonstrates the greatest history of a legal inclusion of CST. During the 1900s CST was used in America as an umbrella term that covered assessments at all stages from immediately after arrest, through to those that occurred on the eve of trial and were designed to indicate the likely impact of stress on the individuals abilities to participate in the following court proceedings (Bonnie, 1992). It was this broad use of the term that initiated discussions and investigation into the nature and constructs of CST.

Several pivotal cases occurred in the latter half of the 20<sup>th</sup> century which saw American law focus on individuals' level of factual and rational understanding of legal proceedings and their capacity to communicate with counsel (*Drope v. Missouri*, 1975; *Dusky v. United States*, 1960). Furthermore, the ability to adequately reason about legal decisions, such as what plea to enter, have been upheld in the United States as an essential component of CST (*Godinez v. Moran*, 1993). These cases set a foundation that has been influential in CST definitions internationally. Subsequently, three broad abilities are generally considered essential requirements of CST; (a) a factual understanding of the proceedings, (b) a rational understanding of the proceedings, and (c) the ability to assist counsel (Steinberg, 2009). Factual understanding focuses on the defendants understanding of the charges and the relevant plea options, such as pleading guilty or not guilty; whereas rational understanding refers to the defendants ability to comprehend relevant legal actions, such as comprehending the long-term effects of being charged with an offence and how this may impact other aspects of an individual's life (Steinberg, 2009; Viljoen, Zapf, & Roesch, 2007). The requirement of the ability to assist counsel can be broken down to refer to both the ability to receive and communicate information, abilities that are most commonly hindered by deficits in attention, memory and concentration; capacities that are in the midst

of developing during adolescence (Steinberg, 2009). Following is a discussion of the application of CST to adolescent populations internationally.

### **The history of CST and young people**

Despite clear historical importance being placed on CST within the adult criminal justice system, it had little influence or application within youth justice systems until more recently (Viljoen, McLachlan, Wingrove, & Penner, 2010). The increasing focus on youth CST occurred in response to a foundational shift in youth justice (Viljoen et al., 2010). Traditionally, youth justice systems were intended to reflect a rehabilitative approach, rendering assessments of, and a certain level of competence unnecessary (Steinberg, 2009; Viljoen et al., 2010; Viljoen & Roesch, 2005). However, amid increased public concern over youth violence, the punitive focus of adult courts has been increasingly applied to adolescent populations such that youth courts have delivered increasingly severe penalties (Viljoen et al., 2010). Furthermore, CST criteria had traditionally focused on the defendant's mental disorder or intellectual disability. However, the issue is more complex for adolescent populations as similar problems manifest often as a result of their age and the developmental differences that accompany that, rather than solely due to mental or psychological illness (Stepanyan et al., 2016).

The same developmental characteristics that diminish criminal culpability adversely affect their competence. CST evaluations for young people are based on their ability to understand the charges and basic elements of the judicial system (understanding), appreciate ones situation as a defendant in a criminal prosecution (appreciation), and communicate pertinent information and case facts to counsel (reasoning; Bonnie & Grisso, 2000). Many young offenders, particularly those under 16 years are confronted with the complexities of criminal court and are unable to meet this standard of competence (Grisso et al., 2003; Scott & Grisso, 2004; Scott & Steinberg, 2008). The central argument of developmental psychologists is that developmental immaturity—as outlined in earlier paragraphs as

cognitive, psychosocial and neuropsychological factors—adversely affects their ability to understand legal proceedings, retrieve information, communicate with and assist counsel, and make rational decisions in a similar way to severe mental illness or intellectual disability (Grisso, 1997; Howell et al., 2012; Redding & Fuller, 2004; Scott & Grisso, 2004).

Research examining adolescent CST, and similar capacities, have steadily emerged since the late 20<sup>th</sup> century. Savitsky and Karras (1984) published the first study investigating adolescent CST, examining differences between youth and adult populations on scores of a CST test and found the expected result that age was significantly correlated to scores on the measure. Subsequent results have consistently demonstrated that adolescents do not possess the cognitive ability, developmental maturity and the level of judgment required for meeting the standard of competency (Farrington et al., 2012).

The MacArthur Foundation Research Network on Adolescent Development and Juvenile Justice stimulated research interest in this area when they undertook a large-scale study to address the lack of comprehensive research. Grisso et al. (2003) examined approximately 1400 individuals between the ages of 11 and 24 years. Half of the sample was in the custody of the justice system, whereas the other half had never been detained. The aim was to empirically examine the relationship between developmental immaturity and the ability of young people to meaningfully participate in their own trials (Grisso et al., 2003; Steinberg, 2009) by measuring competence abilities of understanding, reasoning and appreciation (Colwell et al., 2005).

On average, young people between 11 to 13 years demonstrated significantly poorer abilities of reasoning, recognition of information relevant to their defence and poorer understanding of court processes when compared to slightly older adolescents (Grisso et al., 2003; Viljoen & Roesch, 2005; Viljoen et al., 2007). Significant improvement was demonstrated by the 14 to 15 year age groups compared to the 11 to 13 year age group, however they still performed significantly more poorly than the 16 and older age groups



(Grisso et al., 2003; Viljoen et al., 2007). Approximately one-third of adolescents 11-13 years demonstrated marked deficits in their understanding of legal processes and their ability to reason about legal decisions; one-fifth of 14 to 15 years old's possessed the same deficits (Grisso et al., 2003; Viljoen & Roesch, 2005; Viljoen et al., 2007).

These results varied little by gender, ethnicity, if they were from a detained or community sample, and self-reported mental health issues (Colwell et al., 2005). Intelligence level appeared to demonstrate predictive associations with competence-related impairments, as young people with an IQ score under 85 were significantly more likely to be 'significantly impaired' in capacities relevant to competence (Colwell et al., 2005; Grisso et al., 2003). These results show high rates of incompetence are found in youth populations and rates of incompetence align with age and developmental trajectories (Savitsky & Karras, 1984). The key findings of this research have been replicated and supported by subsequent research in this area (e.g. Bath, Reba-Harrelson, Peace, Shen, & Liu, 2015; Christy, Douglas, Otto, & Petrila, 2004; Colwell et al., 2005; Fagan & Piquero, 2007; Ficke, Hart, & Deardorff, 2006; Redding & Fuller, 2004; Viljoen & Roesch, 2005; Viljoen et al., 2007).

Early studies increasingly substantiated the concept of youths having impairments in legally relevant abilities, due to age and developmental immaturity alone. Research that has focused on using samples of detained youth have continued to support this concept as findings show that close to 35% of those 11 to 13 years and 22% of those 14 to 15 years were impaired in their ability to reason and understand trial related matters (Ficke, Hart, & Deardorff, 2006). Furthermore, young people aged 11 to 13 years demonstrated significantly impaired ability to focus on the long-term consequences of their decisions related to a trial (Larson & Grisso, 2011). Recent research conducted by Bath, Reba-Harrelson, Peace, Shen, and Liu (2015) supported previous findings when exploring the relationship between age, mental health diagnoses and mental health treatment in a sample of youths involved in mental health court. They found that young people 15 years and under were significantly more likely

to be found incompetent than older adolescents due to developmental limitations, regardless of diagnosis or treatment for psychopathology (Bath et al., 2015).

Modecki (2008) identified that, while social sciences had focused predominantly on empirical research regarding CST and adolescent decision-making, there was a gap in research that made comparisons with adult judgments. Modecki (2008) examined age-based differences on judgments between adolescent, college student, young adult and adult samples. Overall, adolescents demonstrated less responsibility and perspective than the older samples when it came to decision-making (Modecki, 2008), results that are both similar to, and support the findings of previous significant research examining this issue (Cauuffman & Steinberg, 2001). Therefore, research has increasingly demonstrated that adolescent development needs greater consideration in legal assessments of competency.

### **The assessment of CST in young people**

This section explores the methods and tools used to assess adolescent CST, and some of the issues associated with clinicians (typically a psychologist or psychiatrist) use of those tools. Competence related referrals for young people have rapidly increased internationally over the past two decades, accompanied by unique assessment complications (Redding, 2000). Tools for psychological assessment started to be developed in the 1990s in an attempt to quantify and measure CST-related abilities (Ficke et al., 2006; Woolard & Harvell, 2005). Structured interviews with standardised instructions for scoring and interpretation are the most widely used because of key advantages: 1) a structured interview ensures relevant topics are consistently covered, 2) defendants who are reluctant to discuss their personal situation may respond better to hypothetical inquires and scenarios, and 3) standardised scoring systems make possible comparisons between the performance of an individual defendant and previously evaluated defendants (Mossman et al., 2007). There still also remain a small number of semi-structured interview tools developed to examine CST in youth populations.

The MacArthur Competence Assessment Tool-Criminal Adjudication (MacCat-CA) was the semi-structured interview tool used in the landmark study by Grisso et al. (2003) discussed above. It was developed late in the 1990s in response to the widely commented on limitations of other tools (Ficke et al., 2006), and subsequently became one of the more widely used competence assessment tools in the field (Woolard & Harvell, 2005). The MacCat-CA is rooted in theory with standardised administration and strong psychometric properties that assesses competency by investigating the individuals understanding, reasoning and appreciation abilities (Ficke et al., 2006). This is assessed through the use of vignettes of hypothetical crimes followed by structured questions that tap into understanding, reasoning and appreciation (Woolard & Harvell, 2005). Whilst the MacCAT-CA was normed on adult defendants it has still received widespread use with adolescent samples, and demonstrated similar results to previous research, such that 40% of those 15 to 16 years displayed substantial difficulties in legal reasoning and court knowledge (Ficke et al., 2006).

Despite its widespread use with adolescent populations, evident in the literature are concerns over judgments made solely on the basis of scores on the MacCAT-CA (and similar tools), highlighting that additional factors need to be taken into account when evaluating the CST of a young person (Ficke et al., 2006; Mossman et al., 2007; Viljoen, Slaney, & Grisso, 2009). The two main areas of concern are, firstly, the reliability of the tool as it is neither developed for, or normed on an adolescents population; a consideration that is key to best practise in forensic assessment (Heilbrun, Rogers, & Otto, 2004, p. 141). Secondly, that scores on the MacCAT-CA do not sufficiently consider the explosion of developmental changes that occur during adolescence as outlined above (Viljoen et al., 2009), and therefore may not actually be measuring the construct of 'competence' with adolescents, such that it does with adults (Sanborn, 2009). These concerns make evident that there is a need for tools that have been developed and normed on adolescent populations, specifically for the purpose of assessing CST.

Inconsistent evaluations of CST by clinicians also pose a threat to the fair treatment of young people, above and beyond their developmental capabilities. Clinical involvement in adult evaluations of CST have long been established, and the subject of extensive study (Christy, Douglas, Otto, & Pettila, 2004); however, due to the recency of clinical work with adolescents, research supporting the efficacy of CST evaluations with adolescents is sparse (Christy et al., 2004). The integrity of such clinical evaluations are largely dependent on normative professional practises, social and political pressures and the quality of the clinical assessment tool and its delivery to the young person (Christy et al., 2004). Ryba, Cooper, and Zapf (2003) sent surveys to 357 psychologists listed as self-identified experts in the evaluations of minors in the juvenile justice system in the United States. Results demonstrated that over 85% of respondents identified that they believed it was essential for assessments to cover current mental status, understanding of charges, ability to communicate with counsel, general trial related competence, presence of psychopathology and understanding of trial process (Ryba et al., 2003). Interestingly, the tests most frequently used by this sample of psychologists were intelligence tests (Ryba et al., 2003), and therefore could not speak to many of the 'essential' areas identified by those same psychologists. This highlighted early on the limitations in the practise of CST evaluations by psychologists.

Christy et al. (2004) extended this research by critically examining aspects of over 1,300 juvenile competency evaluations performed. Their findings demonstrated that overall evaluations were not comprehensive, did not take into account important legal information, nor accurately describe the young person or accurately describe their capacities (Christy et al., 2004). Furthermore, using similar methodology, Viljoen et al. (2010) found that defence attorneys doubted the competence of approximately 10% of juvenile defendants in their caseload at the time they were surveyed. In only approximately half of cases where an attorney had concerns regarding competency did they request an evaluation (Viljoen et al., 2010). In the other half of cases they instead preferred to make the effort to address the issue

through such strategies as teaching young people about key concepts necessary for their impending legal proceedings (Viljoen et al., 2010). The proceeding sections have provided an overview and discussion of the international CST literature, however, now it is necessary to consider trial-related abilities in the context of NZ, and the current study.

### **Fitness to Stand Trial (FST) and Young People in NZ**

This section will examine the current application of Fitness to Stand Trial (FST) to young people in NZ, discuss findings from the small pool of available literature in this area with a NZ sample, and the limitations of that research. Fitness and competence to stand trial are comparable legal concepts. To be consistent with the terminology and NZ literature, from here on out it will be referred to as FST<sup>2</sup>.

The standard for FST in NZ is set out in the Criminal Procedures (Mentally Impaired Persons) Act or CPMIP Act 2003, s4. This piece of legislation clearly outlines that ‘a defendant's mental impairment can render him or her unable to plea, unable to understand proceedings, or unable to instruct counsel meaningfully for the purpose of mounting a defence’ (Criminal Procedure (Mentally Impaired Persons) Act 2003, s4). Under the CPMIP Act, the key term ‘mental impairment’ is not defined, yet it is predominately recognised to include mental disorder, intellectual disability or cognitive deficit that would impact trial-related competencies (Tan, Friedman, Armstrong, Fitzgerald, & Neumann, 2017). Given concerns are increasingly raised that highlight young people's still developing social and emotional competencies and the effect these have on decision-making capacities, it is increasingly argued that developmental immaturity should be afforded salience when evaluating youth competency (Bath et al., 2015; Grisso et al., 2003).

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<sup>2</sup> The youth justice system in NZ does not have ‘trials’ for young people, only in the adult justice system would a young person be subject to a trial. However, FST should be considered as necessary for a range of legal proceedings that an individual would need to have sufficient capabilities (fitness) to meaningfully participate.

Armstrong and Friedman (2016) sought to characterise the descriptive characteristics of the youth population referred for forensic assessment in NZ's largest city (Auckland). Their findings highlighted that the sample was predominantly male, with an overrepresentation of Māori and Pasifika peoples, high rates of substance use and a range of psychiatric diagnoses. These population characteristics are not dissimilar to the criminal justice population of NZ as a whole (Ministry of Justice, 2018a). They also noted that over the one-year period only 12% (14 cases) of youth who were evaluated for fitness were opined to be unfit by experts. Of those 14 cases where young people were opined to be unfit, lack of understanding of court processes was most frequently cited (71%), followed by communication issues (50%) and an inability to plead to charges (21%). Interestingly they found that one-fifth of those considered unfit by experts did not receive formal diagnosis of any mental disorder, rather they were considered unfit due to deficiencies in trial related abilities resulting from a combination of cognitive limitations and developmental immaturity. This indicates that whilst it is not currently outlined in the legislation, there is some level of pre-existing recognition by professionals for the relationship between young people's developmental level and FST.

The most recent study examining fitness to stand trial in New Zealand sought to capture a cross-sectional view of how the Youth Court addressed fitness to stand trial by using data from 2010 to 2015 to identify court outcomes for young people where evaluations of fitness had occurred (Tan et al., 2017). Analyses of the sample demographics were highly similar to the two previous studies in that the sample was predominantly male (89%), again Māori and Pasifika were over-represented (69% and 25% retrospectively), and there were high rates of psychiatric diagnosis, for example, 69% of the sample had comorbid diagnoses. Interestingly, they found that developmental immaturity did not have a significant bearing on evaluator opinions or court findings of fitness, and was flagged as a vulnerability factor for

unfitness in only two cases. Furthermore, while evaluators assessed 29% of youth defendants from the sample as likely to be found unfit, ultimately the court only found 9% to be unfit.

As previously mentioned, findings of the three aforementioned studies are considered preliminary, which is largely due to significant methodological issues that limit their generalisability. Just to point out a few key issues, the samples used were obtained solely from the Auckland and Northland regions which limits the generalisability to the rest of NZ, and highlights that to date, youth from regions south of Auckland remain unstudied. Reports were obtained from only one service, which may introduce organisation biases as different services and report writers may differ in their approach to fitness evaluations for youth. Data from evaluations by both psychologists and psychiatrists were included which opens up the possibility for multidisciplinary differences. Furthermore, all studies are retrospective; therefore, the quality and standardisation of interviews cannot be commented on. These limitations are acknowledged by the authors to some degree, but they do highlight the very limited evidence base when working with a NZ population. Clearly missing in the literature is a thorough and substantiated examination of the role of developmental immaturity in fitness evaluations in NZ. More importantly, base rates of developmental immaturity that would meaningfully affect a young person's fitness are yet to be established in NZ, as is research looking at developmental immaturity in a sample that does not largely consist of individuals with pre-established issues with mental health and/or intellectual difficulties.

### **The Current Study**

The research that has been discussed clearly outlines discrepancies between developmental research, specifically what we know about adolescent development, and the legal treatment and assessment of young people going to court. Furthermore, international research is not necessarily generalisable to New Zealand given the unique population, cultural and demographic characteristics, as well as the unique NZ youth justice system.

Given that the research that has been conducted, to date, in New Zealand is in its infancy, highlighted is a clear gap in literature examining this issue with a NZ sample

Three key questions have been identified as essential to research with a New Zealand sample and will be addressed in the following research: 1) is there a relationship between age and Fitness to Stand Trial in adolescents; 2) is there a relationship between IQ and Fitness to Stand Trial in adolescents; and 3) how does this NZ research compare to the international literature. To address these questions, the current research investigated adolescent FST in a community sample of New Zealand young people to begin to establish base rates of FST in the general NZ youth population. This was done by piloting a semi-structured interview specifically designed for this purpose and context, on participants recruited from schools around NZ. First, it was hypothesised that there would be a relationship between participant age and FST, such that as one increases so does the other. Second, it was hypothesised there would be a relationship between participant IQ scores and FST, such that as one increases so does the other.



## Chapter Two: Method

### Design

This study piloted a semi-structured interview tool designed to assess young people's understanding of youth justice and court processes in New Zealand. The variables that were considered alongside performance on the interview tool were participants age, IQ, gender and the decile of the school they attended.

### Participants

Participants were drawn from a general adolescent community sample (13-18 years,  $M = 15.34$ ,  $SD = 1.76$ ,  $n = 89$ ). They were recruited from six high schools around New Zealand from a range of deciles. Consent was obtained from 107 participants and 91 participants went on to participate in the study, of which data from 89 participants was used. There were 16 participants that gave consent but did not participate: one participant went into childbirth prior to their arranged interview, ten could not be interviewed due to their poor school attendance, three because they left school prior to the arranged interview time, and two could not be interviewed due to interview clashes with extracurricular activities. Data from two participants were later excluded as they did not complete the full interview process. Females represented 63% of the sample ( $n = 56$ ), and males 37% of the sample ( $n = 33$ ). Participants identified primarily as New Zealand (NZ) European ( $n = 49$ ), followed by NZ Māori ( $n = 25$ ) and Pasifika ( $n = 7$ ). See Table 1 for a breakdown of demographic characteristics.

Table 1.

*Participant Demographic Information*

	13 years		14 years		15 years		16 years		17 years		18 years		Total	
	<i>n</i>	(%)	<i>n</i>	(%)	<i>n</i>	(%)	<i>n</i>	(%)	<i>n</i>	(%)	<i>n</i>	(%)	<i>n</i>	(%)
Gender														
Male	8	(24.3)	7	(21.2)	7	(21.2)	4	(12.1)	5	(15.2)	2	(6)	33	(37)
Female	12	(21.4)	6	(10.7)	7	(12.5)	8	(14.2)	13	(23.3)	10	(17.9)	56	(63)
Ethnicity														
NZ European	13	(14.7)	7	(7.9)	9	(10.2)	4	(4.5)	9	(10.2)	7	(4.5)	49	(55)
NZ Māori	3	(3.4)	2	(2.2)	3	(3.4)	6	(6.7)	7	(7.9)	4	(0)	25	(28.1)
Pasifika	2	(2.2)	1	(1.1)	1	(1.1)	2	(2.2)	1	(1.1)	0	(0)	7	(7.9)
Other	2	(2.2)	2	(2.2)	0	(0)	0	(0)	0	(0)	0	(1.1)	4	(4.5)
Not disclosed	0	(0)	1	(1.1)	1	(1.1)	0	(0)	1	(1.1)	1	(1.1)	4	(4.5)
Total	20	(22.5)	13	(14.6)	14	(15.7)	12	(13.5)	18	(20.2)	12	(13.5)	89	(100)

## Measures

### Independent Variables

Four independent variables (IV) were examined. The first IV was participant age (years), examined as a continuous variable. The second IV was participant IQ score as measured by The Kaufman Brief Intelligence Test, Second Edition (KBIT-2; Kaufman & Kaufman, 2004). The third IV was participant gender; male or female. The fourth IV was school decile which was separated into two groups; low decile (two decile 3 schools, one decile 4), or high decile (one decile 9 school, two decile 10)<sup>3</sup>.

### Dependant Variables

The dependant variable (DV) was participants' scores on the *Fitness to Stand Trial Semi-Structured Interview Tool* (FST-SSIT; Fortune & Dean, 2018). This interview was designed to assess young people's fitness-related abilities within the New Zealand context. It assesses young people's fitness across five domains; 1) General knowledge, 2) Understanding of consequences, 3) Communication with counsel, 4) Reasoning and decision-making, and 5) a Re-test section. Each of the five sections are described in detail below.

Inter-rater reliability was assessed for this tool by comparing the scores of two independent coders. Approximately 56% of the interviews ( $n = 50$ ) were coded by a second rater and Cohen's Kappa was used to determine the level of agreement between the coding. There was very high overall level of agreement between the two coders for interview Total scores,  $k = .971$ , 95% CI [.98, .97],  $p < .001$ . The inter-rater reliability for each of the individual sections was calculate, the General knowledge section was  $k = .964$ , 95% CI [.98, .95],  $p < .00$ , the Understanding of consequences sections was  $k = .988$ , 95% CI [.98, .99],  $p < .001$ , the Communication with counsel section was  $k = .968$ , 95% CI [.95, .99],  $p < .00$ , the

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<sup>3</sup> School decile refers to the extent to which a school's students live in low (or high) socio-economic communities. This is based on census data that measures occupation, income, parents on benefit, education and household crowding from households with school-aged children in any given school's catchment area. Decile ratings are recalculated every five years with data from each new census (Ministry of Education, 2018)

Reasoning and decision-making section was  $k = .948$ , 95% CI [.93, .97],  $p < .00$ , and the Re-test section was  $k = .963$ , 95% CI [.94, .99],  $p < .001$ .

### **General knowledge section**

The first section of this interview assessed for *general knowledge* and had 18 questions pertaining to the wider criminal justice and youth justice system in New Zealand. Two examples of questions in this section are ‘what is the role of a youth advocate?’ and ‘why do we have a criminal justice system?’ If participants responded with “I don’t know” (or similar) to a question, the interviewer would prompt them by saying “give it your best guess” or “do you have any ideas what it could be?” If participants gave a partial answer the interviewer prompted them by saying “can you tell me more about that?” Participants were scored a 0 (*no or incorrect understanding*), 1 (*partial understanding*), or a 2 (*sufficient and accurate understanding*) for each of the 18 questions in the general knowledge section. Participants could score a maximum of 38 points (2 points for questions 1 – 17, and 4 points for question 18 as it is broken into ‘a’ and ‘b’).

### **Understanding of consequences section**

The second section of the interview assessed for *understanding of consequences* and had 17 questions pertaining to possible outcomes from Youth Court and the criminal justice system in New Zealand. Two examples of questions in this section are ‘what kind of offence do you think you would have to commit to get a supervision with residence order?’ and ‘what do you think it means to be sent to a district or high court?’ Questions 1-12 of this section followed the same format as the previous section, the interviewer asked the questions, the participant answered, and the interviewer prompted for “a best guess” or “anything else you could think of to add to that” when participants gave no or a partial answer respectively. Participants were scored on each question with a 0, 1, or 2. Questions 13-17 of this section were multichoice, where for each of these questions the interviewer read aloud a scenario and the participant was given three possible outcomes/consequences and asked which they

thought was the *most likely* consequence. When participants could not decide they were prompted “if you had to pick one?”. Questions 13-17 of this section were scored either a 0 (*incorrect*) or 2 (*correct*). Participants could get a maximum 34 points (2 points per question) in this section.

### **Communication with counsel section**

The third section of this interview assessed for participants ability to *communicate with their youth advocate* (lawyer) and how they perceived the relationship between a young person and their counsel. This section had five questions, each of which was broken into two parts. The interviewer read a scenario to the participant describing a youth committing a crime and facing criminal proceedings. For part 1 of each question the participant was presented with two facts and asked to choose which was the *most important* fact in that context to tell their Youth Advocate. When participants were unable to decide they were prompted “if you had to pick one”. Participants were scored either a 0 (*incorrect*) or 2 (*correct*).

For part 2 of each of the 5 questions, participants were asked for the reason why they chose that fact out of the two possibilities and were prompted “is there anything else you can add to that?”. Participant answers were coded 0 (*no reason or incorrect reason for that situation/lack of understanding*), 1 (*partial reason/understanding or the morally correct<sup>4</sup> reason/action which is not the best legal reason/action in that situation*), or a 2 (*sufficient reason/understanding that is the best legal course of action*). This section was designed to examine the extent to which participants recognised what information was important to communicate to their youth advocate, and that their advocate needed the most important

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<sup>4</sup> The FST-SSIT is designed to guide clinicians understanding of a young person's legal and fitness-related capabilities, therefore they were scored according to what was the best legal choice or outcome in that situation, which is not necessarily the same as the best moral outcome. For example, the best legal choice would be to deny a charge for a crime you committed if your youth advocate/lawyer recommended you do so and was confident the charge would not be proven. However, as you committed the crime the moral course of action would be to own up and accept the charge. Therefore, legally correct responses were scored a 2, and morally correct responses were scored a 1.

information to provide advice and potentially mount a meaningful defence on their behalf.

Participants could get a maximum 20 points (4 points per question) in this section.

### **Reasoning and decision-making section**

The fourth section of the interview had five questions, each of which was broken down into multiple parts. These questions assessed for participants *reasoning and decision-making* capabilities as it presented participants with hypothetical choices that were similar to choices that young may face if they were to become involved with the criminal justice system. For each of the five questions in this section the interviewer read a scenario to the interviewee that described a young person's involvement in an offence-related situation, and the advice that was given to them by their youth advocate. The interviewee was then required to make the choice they thought best as if they were the young person in that scenario and were asked for their reason for making that choice. Participants were prompted to "have a best guess" when they were unable to answer, or with "anything else you could add to that?" when they gave only a partial answer. Participants were scored a 0 (*no reason or incorrect reason for that situation/lack of understanding*), 1 (*partial reason/understanding or the morally correct reason/action which is not the best legal reason/action in that situation*), or a 2 (*sufficient reason/understanding that is the best legal course of action*). They could score a maximum of 22 points in this section.

### **Re-test section**

The fifth section of this interview was the Re-test section to determine if young people had retained information after being taught about specific key concepts related to the New Zealand Youth Justice System earlier in the interview. Nine target questions from the General knowledge (5 questions) and Understanding of consequences (4 questions) sections were selected and when participants got any of the nine questions wrong, they were provided with a definition.

In the Re-test section, the interviewer selected three questions the participant got wrong and re-tested them on that question to assess how well they retained the information they were taught. At this point I will note that all participants got at least three of the nine target questions wrong throughout the interview. Participants were scored a 0 (*no or incorrect understanding*), 1 (*partial understanding*), or a 2 (*sufficient and accurate understanding*) for their answers to the three questions according to the coding schedule. They were not prompted for greater information in this section and could score a maximum of 6 points (2 per question).

### **Total scores**

The participants Total scores were calculated by aggregating their scores on the first four sections of the interview (General knowledge, Understanding of consequences, Communication and Reasoning and decision-making), and could range from 0 -116. Scores in the individual sections were also noted. Scores in the General knowledge section ranged from 0 – 38, Understanding of consequences ranged from 0 – 34, Communication with counsel ranged from 0 – 20, Reasoning and decision-making ranged from 0 – 24. Total score was used as an overall measure of participant knowledge and understanding of youth justice in NZ. Re-test scores were not included in the Total score and were analysed separately, these could range from 0 – 6.

### **IQ measure**

Participant intelligence was measured using the Kaufman Brief Intelligence Test – Second edition that produces an IQ standard score that covers two distinct areas of intellectual functioning; verbal and non-verbal intelligence (KBIT-2: Kaufman & Kaufman, 2004). Verbal intelligence is measured through two subtests. First, an array of pictures are presented to the participant and they are asked to pick the one that best depicts a single word that is said by the examiner; this is designed to measure vocabulary and general information (e.g. science, geography) from around the world (Kaufman & Kaufman, 2004). Second,

riddles, which are designed as a measure of verbal comprehension and reasoning, are read out loud by the examiner and the participant answers with one word; an example is 'what melts, burns and is made of wax?' (Kaufman & Kaufman, 2004). Non-verbal intelligence is measured through a single test which involves solving various matrices that use a range of visual stimuli (Kaufman & Kaufman, 2004). Scores of both subsets are aggregated together to give an overall measure of intelligence.

This tool has been validated for use on ages 4 through 90, has good supporting evidence for score reliability, and takes 15 to 25 minutes to administer (Bain & Jaspers, 2010). This tool was developed for, and normed on an international sample, therefore its applicability and use with a NZ population is approached with caution. The KBIT-2 has been demonstrated to correlate highly with other well-known cognitive tests including the Wechsler Abbreviated Scale of Intelligence (WASI), Wechsler Intelligence Scale for Children (WISC) and the Wechsler Adult Intelligence Scale (WAIS), all of which correlated at .81 or above with the KBIT-2 (Kaufman & Kaufman, 2004).

### **Ethical approval**

Ethical approval was given for this project by the School of Psychology Human Ethics Committee under delegated authority of Victoria University of Wellington Human Ethics Committee.

### **Consent**

Written consent was obtained from participants 16 years and older (Appendix A), whereas written parental consent and participant assent was obtained from those 15 years and younger through an information and consent pamphlet (Appendix B). Verbal consent was obtained again from each participant before commencing the interviews and between the competency tool and the IQ test.



## Procedure

Participants were recruited for the current study by contacting secondary schools from across New Zealand. Schools that expressed interest when initially contacted were sent information pamphlets that explained the research in greater detail (Appendix C). A contact person was then established at each school that agreed to participate, and researchers coordinated with that person to establish contact with students and set up suitable interview times. At five of the six schools involved the researcher sent consent forms to the designated contact person who in turn distributed them to interested students in ways that suited them best. At the sixth school the researcher was invited to speak directly to classes and distribute consent forms to students that way.

Interviews were held during class time in private, well-lit rooms on the school grounds. The number of interviews per day, and the times of those interviews were organised with the school to best fit their class schedule and minimise disruptions. Participants were all interviewed in the same format. First, to ensure cultural safety was upheld throughout the interview process, all participants were offered the opportunity to open (and close) the interview with a *karakia* or a *waiata*, a customary Māori prayer and song to invoke spiritual guidance and protection. Furthermore, all participants were offered the opportunity to open, close or contribute to the format and manner of the interview in any way that was culturally appropriate to themselves, and made them feel more comfortable. Following this, participants were interviewed using the FST-SSIT which took between 16 – 40 minutes with an average length of 24.36 minutes,  $SD = 4.33$ . These interviews were audio recorded and participant responses were also written down. Following this, a measure of IQ was taken using the KBIT-2 (Kaufman & Kaufman, 2004). All interviews were conducted by a single researcher to maximise continuity. The interviewer had previous training and experience in clinical interviewing. The primary interviewer also received training on delivering the KBIT-2 to ensure this was standardised.

Following the completion of each interview, participants were given a debriefing pamphlet that contained additional information about the background and purpose of the study, and how to contact the researchers for any future queries or concerns (Appendix D). All participants were given a movie voucher as a koha in recognition of their time and contribution to the research project. The researcher consulted with each school and gave a presentation or provided a poster detailing the results of the research in order to disseminate the findings back to staff and students.

### **Data Preparation and Analyses**

All data was entered into IBM SPSS Statistics version 24 to perform all analyses. Samples size was adequate as it surpassed the minimum number of 84, necessary to perform a multiple linear regression with .80 power, and medium population effect size and four independent variables (Cohen, 1992). The data was assessed as suitable for linear regression analyses as it was tested, and met the assumptions of normality, linearity, homoscedasticity and multicollinearity (Field, 2013, p. 133).

Five linear regressions were conducted to look at the effects of age, IQ, gender (male or female) and decile (high or low) on 1) General knowledge score, 2) Understanding of consequences score, 3) Communication with counsel score, and 4) Reasoning and decision-making score, and 5) Total interview score. A one sample t-test was used to examine the Re-test section for a change in mean score before and after participants received teaching for any of the nine target questions that they initially got incorrect.

### **Reliability analyses**

Cronbach's alpha was used to measure internal consistency in the General knowledge and Understanding of consequences section to indicate the relatedness of items in each of these sections. The General knowledge section of this interview was found to have acceptable reliability (18 items;  $\alpha = .753$ ), as did the Understanding of consequences section (22 items;  $\alpha = .737$ ). As Cronbach's alpha was assessed as acceptable for both sections, this meant we

could be confident that all the questions in the General knowledge and Understanding of consequences sections measured what they were designed to measure.

Cronbach's alpha was not calculated for the Communication with counsel and Reasoning and decision-making sections as these sections did not use solely discrete questions types, therefore Cronbach's alpha would be an inappropriate measure of internal consistency for these section (Field, 2013, p. 674). A table of mean scores and confidence intervals (CIs) for the questions in the Communication with counsel and Reasoning and decision-making sections can be found in Appendix E.

### **Interaction effects**

A univariate analysis of variance between-subjects' effects was conducted to test for any interaction effects between participants Total scores on the FST-SSIT and age, IQ, decile, and gender. There were no significant interactions between participant IQ and gender,  $F(1,73) = .023, p < .978$ , IQ and decile,  $F(1,73) = 2.119, p < .127$ , IQ and age,  $F(3,65) = .497, p < .978$ , gender and age,  $F(1,70) = .959, p < .449$ , gender and decile,  $F(1,74) = .831, p < .365$ , age and decile,  $F(1,83) = .921, p < .886$ . A univariate analysis of between-subjects' effects was also conducted between participants scores in the sections (General knowledge, Understanding of consequences, Communication with counsel, Reasoning and decision-making). There were no significant results, see Appendix F.

### Chapter Three: Results

This study had two hypotheses. First, there would be a positive relationship between participant age and FST, as measured by the FST-SSIT. Second, there would be a positive relationship between participant scores of IQ and FST, as measured by the FST-SSIT. In addressing these hypotheses, the results section will be presented in the order as follows. First, findings from the five linear regression analyses that were run and examined the effects of age, IQ, gender, and decile on 1) General knowledge score, 2) Understanding of consequences score, 3) Communication with counsel, 4) Reasoning and decision-making, and 5) Total interview score section are presented. Post hoc analyses will be presented alongside regression analyses. Lastly, changes in participants scores in the Re-test questions before and after the teaching component are reported through a paired sample t-test.

#### Performance on the FST-SSIT

##### General knowledge section

The first multiple linear regression model was run with general knowledge as the dependant variable (DV) and age, IQ, gender and decile as the independent variables (IVs). A significant regression equation was found ( $F(4, 84) = 16.714, p < .000$ ), with an  $R^2$  of .443. Participants' predicted general knowledge is equal to  $-8.859 + .855 (\text{age}) + 3.746 (\text{decile}) + 1.406 (\text{gender}) + .126 (\text{IQ})$ . These results demonstrated that the variables of age, IQ and decile each made a significant and unique contribution to this model predicting participants scores in the General knowledge section. That is, being older, having a higher IQ score and attending a higher decile school were all predictive of scoring higher in the General knowledge section. This model accounted for and explained 44% of the variance in how participants scored in the General knowledge section. This is a respectable result for human research, as humans are by their very nature hard to predict. Gender was not significant in this model; therefore, participants scores did not significantly differ according to their gender. These results are displayed in Table 2.

The relationship between scores on the General knowledge section of the interview, and mean score for those in each age bracket are displayed in Figure 1. As can be seen in Figure 1, there are no statistically significant differences between the means of each age group as demonstrated by the overlap of confidence intervals (CIs). Figure 2 displays the relationship between participant aggregated scores of IQ—below average, average and above average—and their scores in the General knowledge section of the FST-SSIT. There was no statistically significant difference between the means of the below average, average and above average IQ groups as demonstrated by the overlap in CIs. It is important to note here, three participants scored in the lower extreme IQ range, however they were aggregated into the below average group as they were so few in number. This is true of all following analyses.

Table 2.

*Summary of Multiple Linear Regression for Participants' Scores in the General Knowledge Section*

Variable	<i>B</i>	<i>SE B</i>	$\beta$
Constant	8.859	4.768	
Age	.855	.250	.286***
Decile	3.746	.902	.356***
Gender	1.406	.926	.130
IQ	.126	.032	.344***
$R^2$			.443
$F$			16.714

\*\*\* $p < 0.001$ , \*\* $p < 0.01$ , \* $p < 0.05$

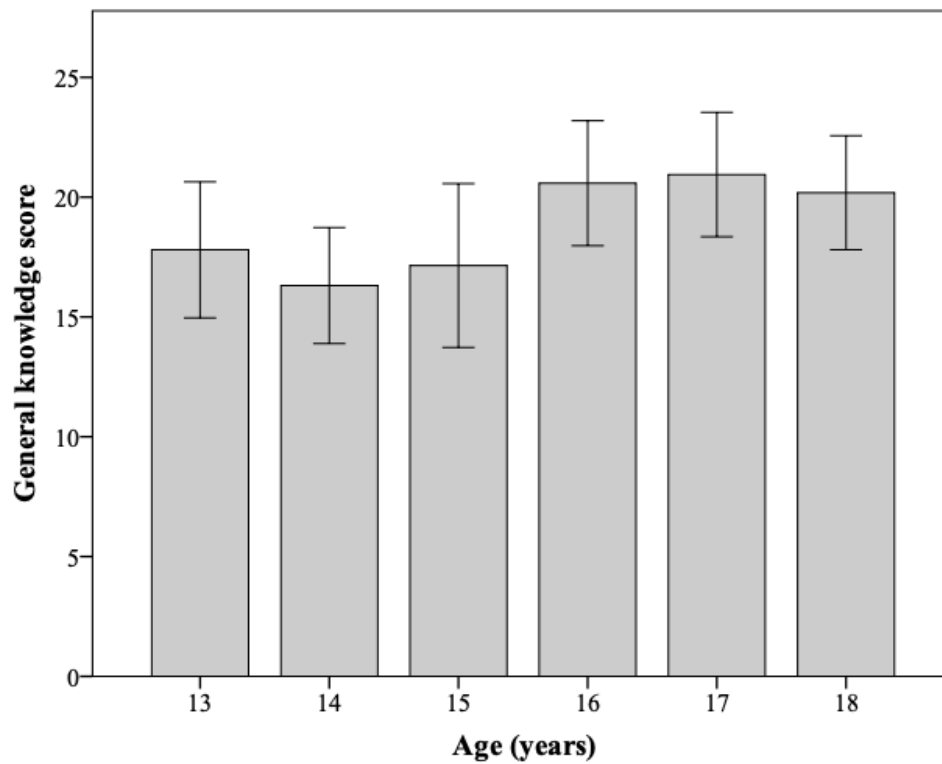


Figure 1. Mean increase in scores on the General knowledge section with age (years)

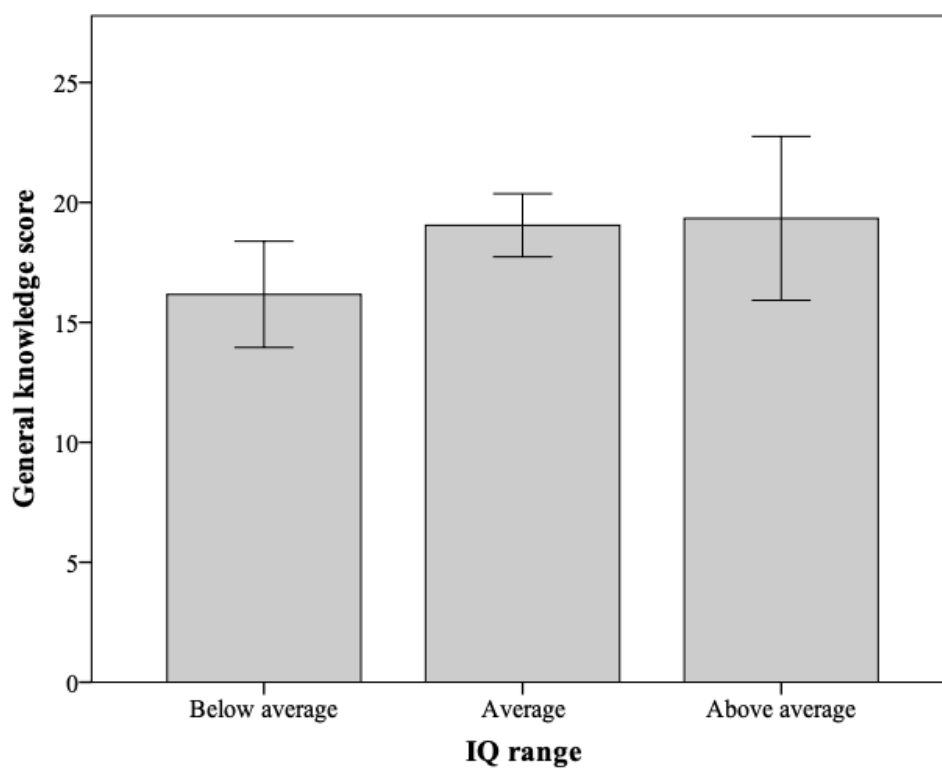


Figure 2. Mean increase in scores on the General knowledge section with aggregated IQ score

### Understanding of consequences section

The second multiple linear regression model was run with Understanding of consequences as the DV and age, IQ, gender and decile as the IVs. A significant regression equation was found ( $F(4, 84) = 11.137, p < .000$ ), with an  $R^2$  of .347. Participants' predicted understanding of consequences is equal to  $-9.527 + 1.130 (\text{age}) + 1.004 (\text{decile}) + 1.511 (\text{gender}) + .095 (\text{IQ})$ . These results demonstrated that age and IQ each made a significant and unique contribution to this model predicting participants scores in the Understanding of consequences section. That is, older participants, and those with higher IQ scores performed better in the Understanding of consequences section. This model accounted for and explained 35% of the variance in how participants scored in the Understanding of consequences section; a respectable result for human research. Gender and decile did not significantly contribute to the model, therefore participants Understanding of consequences scores did not significantly differ according to their gender or according to the decile rating of the high school they attended. These results are displayed in Table 3.

The relationship between scores on the Understanding of consequences section, and mean score for those in each age bracket are displayed in Figure 3. As shown in Figure 3, it appeared that there may have been two distinct groups between those aged 13, 14 and 15, and those aged 16, 17 and 18. To investigate this, ages were aggregated into two groups of young (under 16) and old (16 and over) and a post hoc analysis of an independent samples t-test was conducted to compare the means of the two groups. There was a significant difference between the two groups of young ( $M = 16.02, SD = 4.09$ ) and old ( $M = 20.83, SD = 4.24$ );  $t(87) = 5.352, p = .000$ . Therefore, we can be confident there is a significant difference in scores in the Understanding of consequences section between participants in the younger and older age groups.

Figure 4 displays the relationship between participant aggregated IQ scores—below average, average and above average—and their scores in the Understanding of consequences

section of the FST-SSIT. There appeared to be a difference between the below average and above average IQ groups, as the CIs did not appear to overlap. Therefore, a post hoc analysis of an independent samples t-test was conducted to compare mean scores on the Understanding of consequences section between the below average and above average groups. There was a significant difference in scores for the below average IQ group ( $M = 16.11$ ,  $SD = 4.1$ ) and the above average IQ group ( $M = 22.11$ ,  $SD = 3.79$ );  $t(25) = -3.671$ ,  $p = .001$ . Therefore, we can be confident that there is a significant difference in scores in the Understanding of consequences section between those that scored in the below average and above average IQ groups. There was no significant difference between the average IQ group and either the below average or above average IQ group as an overlap was evident in CIs.

Table 3.

*Summary of Multiple Linear Regression for Participants' Scores in the Understanding of Consequences Section*

Variable	<i>B</i>	<i>SE B</i>	$\beta$	
Constant	-9.527	4.713		
Age	1.130	.247	.414***	
Decile	1.004	.892	.104	
Gender	1.511	.916	.153	
IQ	.095	.031	.284**	
$R^2$				.347
$F$				11.137

\*\*\* $p < 0.001$ , \*\* $p < 0.01$ , \* $p < 0.05$



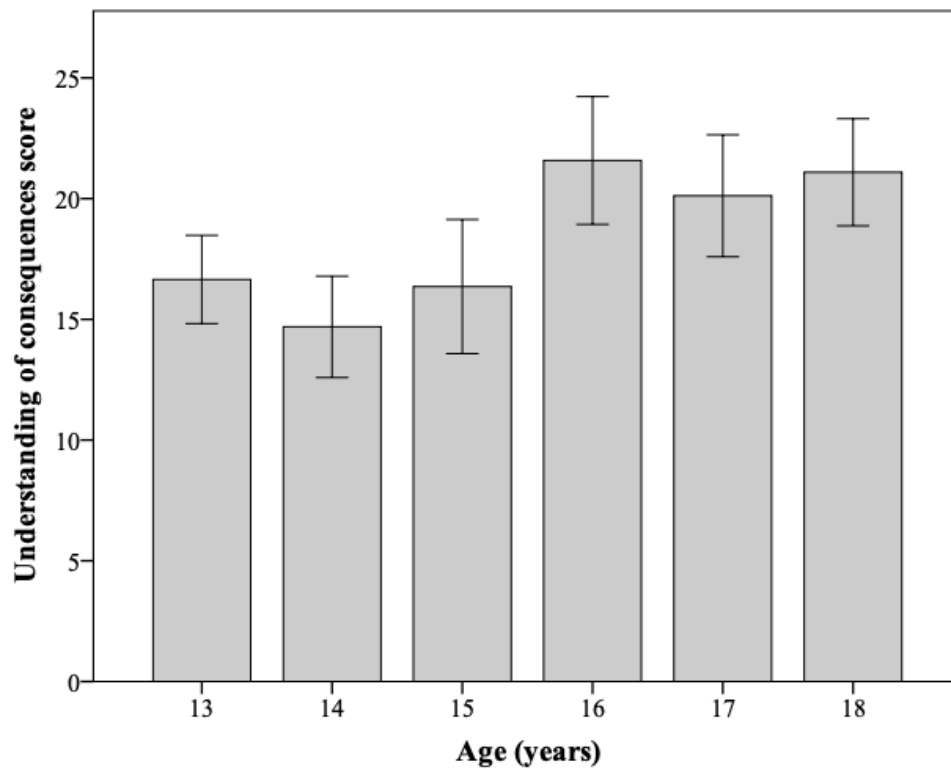


Figure 3. Mean increase in scores on the Understanding of consequences section with age (years)

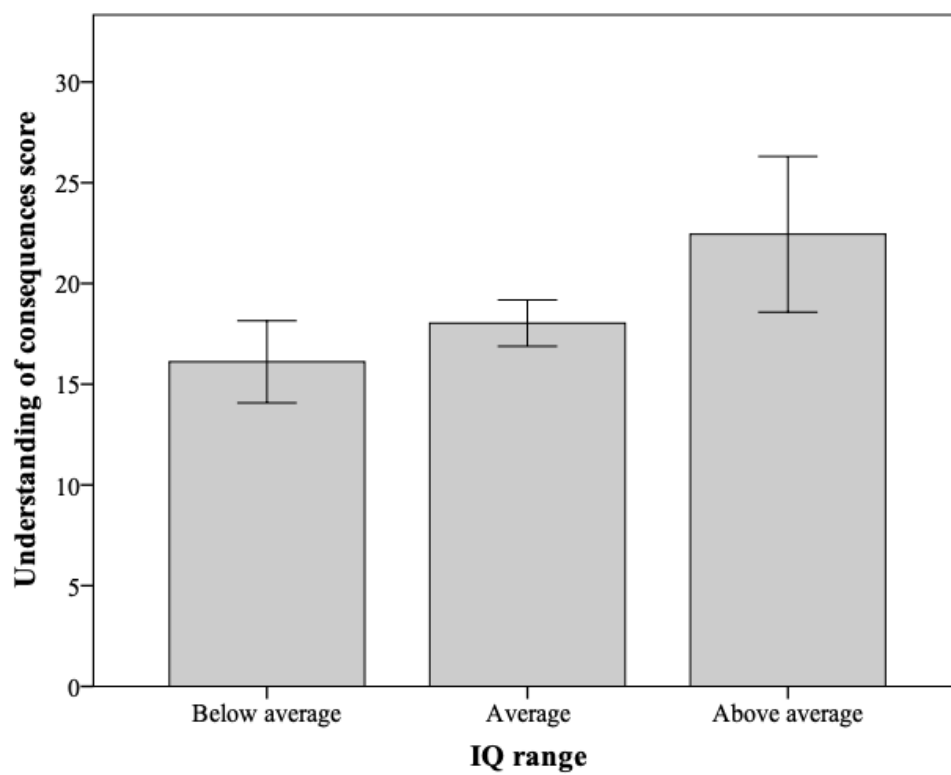


Figure 4. Mean increase in scores on the Understanding of consequences section with aggregated IQ score

### **Communication with counsel section**

The third multiple linear regression model was run with Communication with counsel as the DV and age, IQ, gender and decile as the IVs. A significant regression equation was found ( $F(4, 84) = 44.784, p < .012$ ), with an  $R^2$  of .140. Participants' predicted ability to communicate with counsel is equal to  $-1.992 + .505 (\text{age}) + .626 (\text{decile}) + .042 (\text{gender}) + .069 (\text{IQ})$ . These results demonstrated that age and IQ each made a significant and unique contribution to this model predicting participants scores in the Communication with counsel section. That is, older participants, and those with higher IQ scores performed better on the Communication with counsel section. This model accounted for and explained 14% of the variance in how participants scored in the Communication with counsel section. Gender and decile did not significant contribute to the model. These results are displayed in Table 4.

The relationship between scores on the Communication with counsel section of the interview, and mean score for those in each age bracket are displayed in Figure 5. As shown in Figure 5, there are no statistically significant differences between the means of each age group as demonstrated by the overlap of CIs. Figure 6 displays the relationship between participant aggregated scores of IQ—below average, average and above average—and their scores in the Communication with counsel section of the FST-SSIT. There was no statistically significant difference between the means of the below average, average and above average IQ groups as demonstrated by the overlap in CIs.

Table 4.

*Summary of Multiple Linear Regression for Participants' Scores in the Communication with Counsel Section*

Variable	<i>B</i>	<i>SE B</i>	$\beta$
Constant	-1.992	4.291	
Age	.505	.225	.233*
Decile	.626	.812	.082
Gender	.042	.834	.005
IQ	.069	.028	.261*
$R^2$			.140
$F$			3.431

\*\*\* $p < 0.001$ , \*\* $p < 0.01$ , \* $p < 0.05$

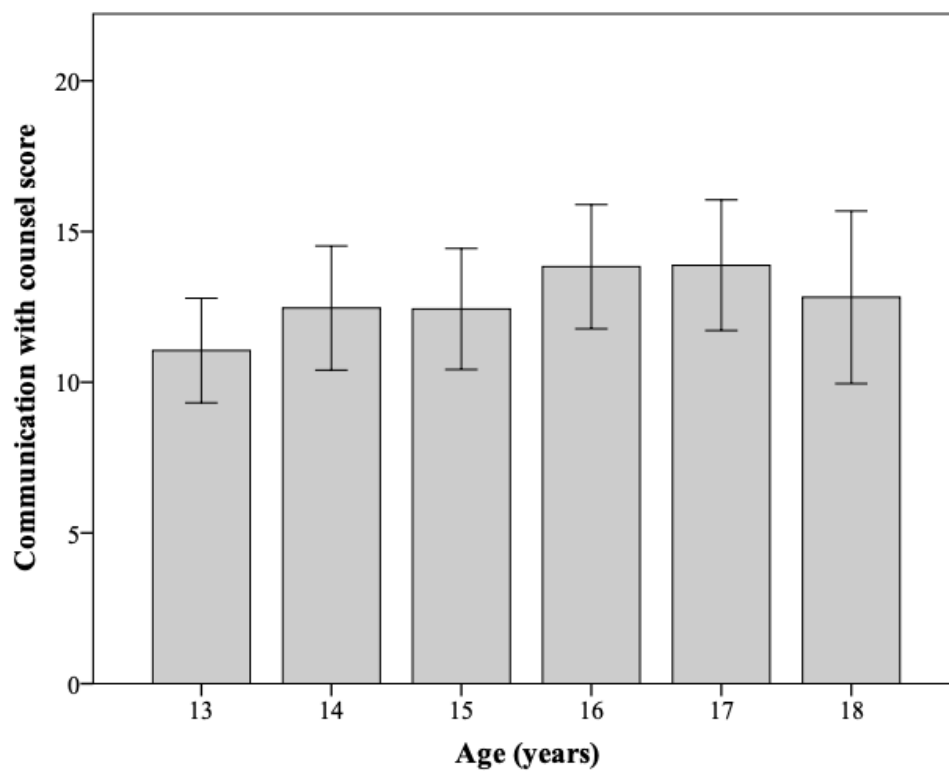


Figure 5. Mean increase in scores on the Communication with counsel section with age (years)

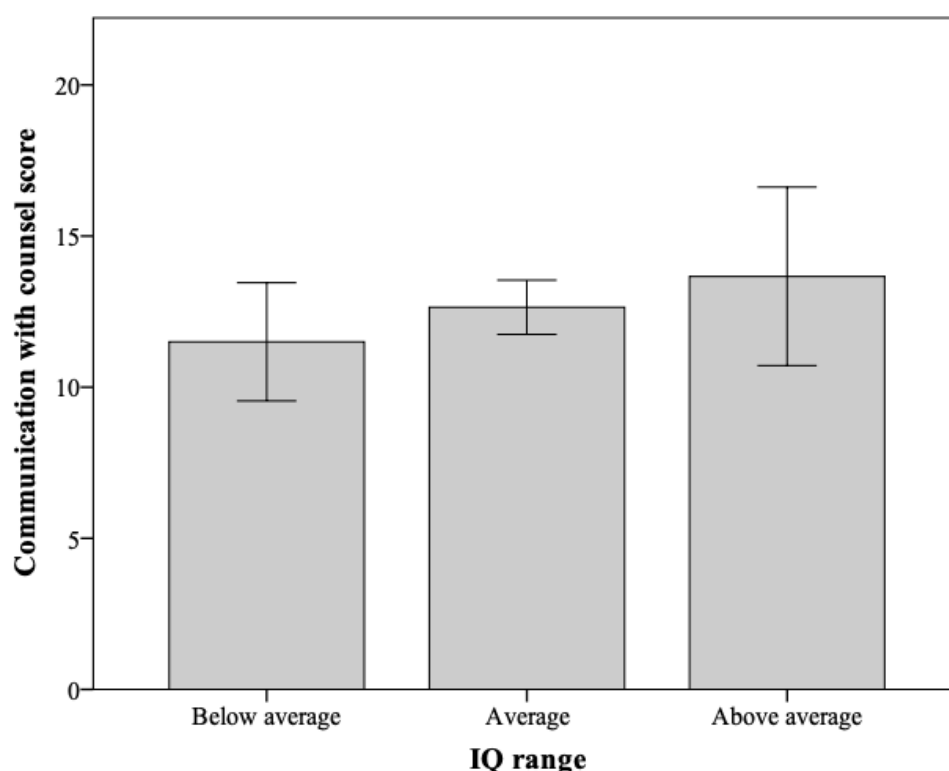


Figure 6. Mean increase in scores on the Communication with counsel section with aggregated IQ score

### Reasoning and decision-making section

The fourth multiple linear regression model was run with Reasoning and decision-making as the DV and age, IQ, gender and decile as the IVs. A significant regression equation was found ( $F(4, 84) = 7.747, p < .000$ ), with an  $R^2$  of .269. Participants' predicted Reasoning and decision-making scores were equal to  $4.750 + .127 (\text{age}) + 1.494 (\text{decile}) + 1.828 (\text{gender}) + .103 (\text{IQ})$ . These results demonstrated that IQ and gender each made a unique and significant contribution to this model predicting participants' scores in the Reasoning and decision-making section. That is, having a higher IQ score and being female were predictive of a higher score in this section. This model accounted for and explained 27% of the variance in how participants scored in the Reasoning and decision-making section. Age and decile did not significantly contribute to this model. These results are displayed in Table 5.

The relationship between scores on the Reasoning and decision-making section of the interview, and mean score for those in each age bracket are displayed in Figure 7. As shown in Figure 7, there are no statistically significant differences between the means of each age group as demonstrated by the overlap of CIs. Figure 8 displays the relationship between participant aggregated IQ score—below average, average and above average—and their scores in the Reasoning and decision-making section of this semi-structured interview tool. There appeared to be a significant difference between the above average and the average IQ groups, and the above average group and the below average IQ groups, as the CIs did not appear to overlap. Therefore, a post hoc analysis of an independent samples t-test was conducted to compare scores in the Reasoning and decision-making sections according to IQ. Firstly, there was a significant difference in scores for the below average IQ group ( $M = 13.11$ ,  $SD = 3.38$ ) and above average IQ group ( $M = 17.67$ ,  $SD = 1.66$ );  $t(25) = -3.79$ ,  $p = .001$ . Secondly, there was a significant difference in scores for the average IQ group ( $M = 14.34$ ,  $SD = 4.37$ ) and the above average IQ group ( $M = 17.67$ ,  $SD = 1.66$ );  $t(69) = -2.25$ ,  $p = .028$ . Therefore, we can be confident that there is a significant difference in scores in the Reasoning and decision-making section between the above average and both the average and below average IQ groups. There was no significant difference between the average and below average IQ groups as an overlap was evident in CIs.

Table 5.

*Summary of Multiple Linear Regression for Participants' Scores in the Reasoning and Decision-Making Section*

Variable	<i>B</i>	<i>SE B</i>	$\beta$
Constant	4.750	4.398	
Age	-.127	.231	-.053
Decile	1.494	.832	.176
Gender	1.828	.855	.210*
IQ	.103	.029	.348***
$R^2$			.269
$F$			7.747

\*\*\* $p < 0.001$ , \*\* $p < 0.01$ , \* $p < 0.05$

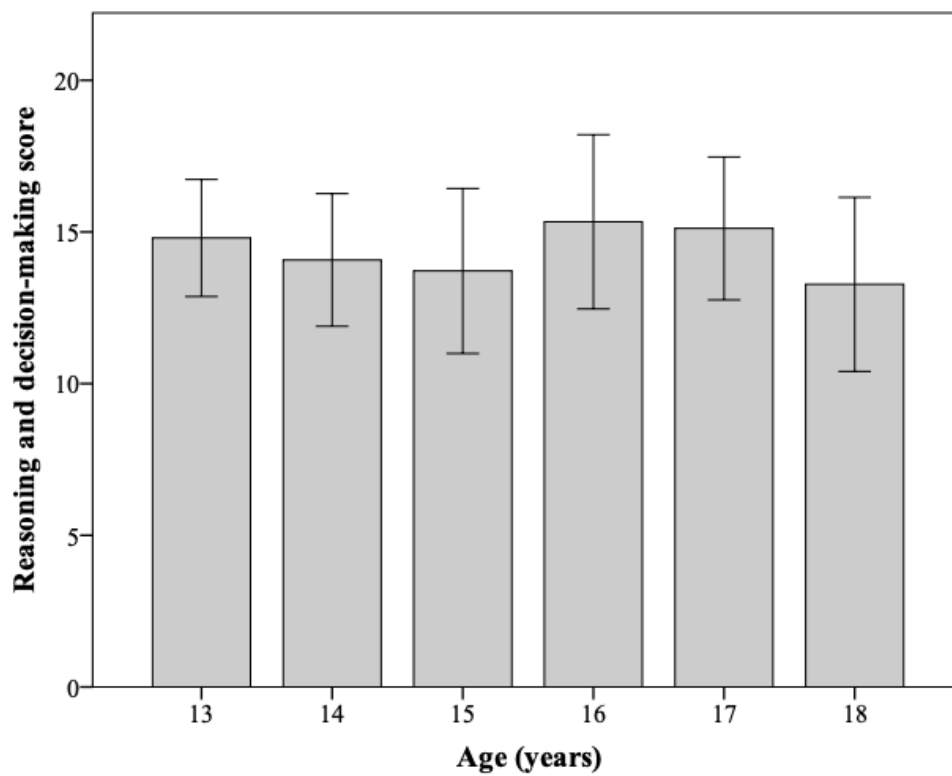


Figure 7. Mean increase in scores on the Reasoning and decision-making section with age (years)

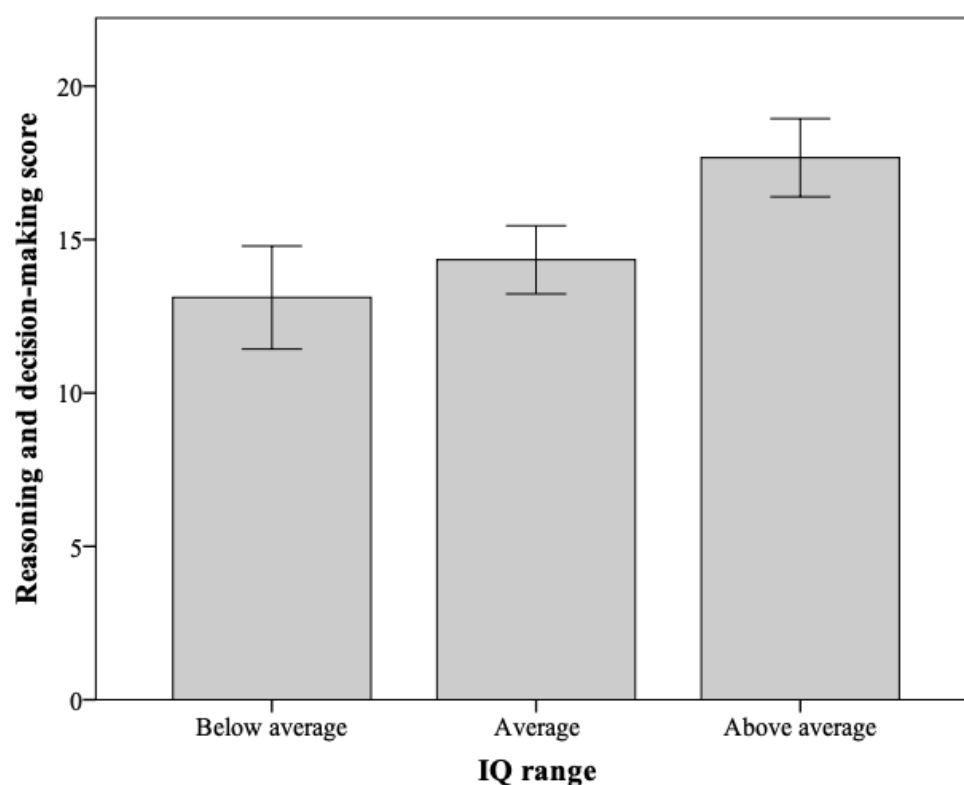


Figure 8. Mean increase in scores on the Reasoning and decision-making section with aggregated IQ score

### Total score

The fifth and final multiple linear regression model was run with Total score as the DV and age, IQ, gender and decile as the IVs. A significant regression equation was found ( $F(4, 84) = 20.345, p < .000$ ), with an  $R^2$  of .468. Participants' predicted Total score is equal to  $-15.627 + 2.364 (\text{age}) + 6.869 (\text{decile}) + 4.787 (\text{gender}) + .394 (\text{IQ})$ . These results demonstrated that all four regression variables of age, gender, decile and IQ each made a unique and significant contribution to the model predicting participants Total scores in the interview. That is being older, having a higher score of IQ, being female and attending a higher decile school were predictive of a higher Total score on the interview. Overall this model accounted for 47% of the variance in Total score, as predicted by age, gender, decile and IQ. This is a respectable result for human research, as humans are hard to predict, and

this supports the utility of this tool in helping clinicians assess a young person's fitness-related abilities. These results are displayed in Table 6.

The relationship between Total scores and mean score for each age bracket are displayed in Figure 9. It appeared that there may have been two distinct groups between those aged 13, 14 and 15, and those aged 16, 17 and 18. To investigate this, ages were aggregated into two groups of young (under 16) and old (16 and over) and a post hoc analysis of an independent samples t-test was conducted to compare the means of the two groups. There was a significant difference between the two groups of young ( $M = 59.34$ ,  $SD = 12.53$ ) and old ( $M = 69.7$ ,  $SD = 11.61$ );  $t(87) = 3.97$ ,  $p = .000$ . Therefore, we can be confident there is a significant difference in Total score between participants that were younger than 16 and those that were 16 years and older.

Figure 10 displays the relationship between participant aggregated IQ scores—below average, average and above average—and their Total scores. There appeared to be a significant difference between the below average and the average IQ groups, and the below average and above average IQ groups, as the CIs did not appear to overlap. Therefore, a post hoc analysis of an independent samples t-test was conducted to compare Total scores according to IQ. Firstly, there was a significant difference in scores for the below average IQ group ( $M = 54$ ,  $SD = 13.39$ ) and average IQ group ( $M = 64.74$ ,  $SD = 12.15$ );  $t(78) = -3.23$ ,  $p = .002$ . Secondly, there was a significant difference in scores for the below average IQ group ( $M = 54$ ,  $SD = 13.39$ ) and the above average IQ group ( $M = 73.67$ ,  $SD = 13.67$ );  $t(25) = -3.6$ ,  $p = .002$ . Therefore, we can be confident there is a significant difference in Total scores between the below average and both the average and above average IQ groups. There was no significant difference between the average and above average IQ groups as an overlap was evident in CIs.



Table 6.

*Summary of Multiple Linear Regression for Participants' Total Scores*

Variable	<i>B</i>	<i>SE B</i>	<i>sβ</i>
Constant	-15.627	11.493	
Age	2.364	.603	.313***
Decile	6.869	2.175	.258**
Gender	4.787	2.233	.175*
IQ	.394	.076	.425***
<i>R</i> <sup>2</sup>			.468
<i>F</i>			20.345

\*\*\* $p < 0.001$ , \*\* $p < 0.01$ , \* $p < 0.05$

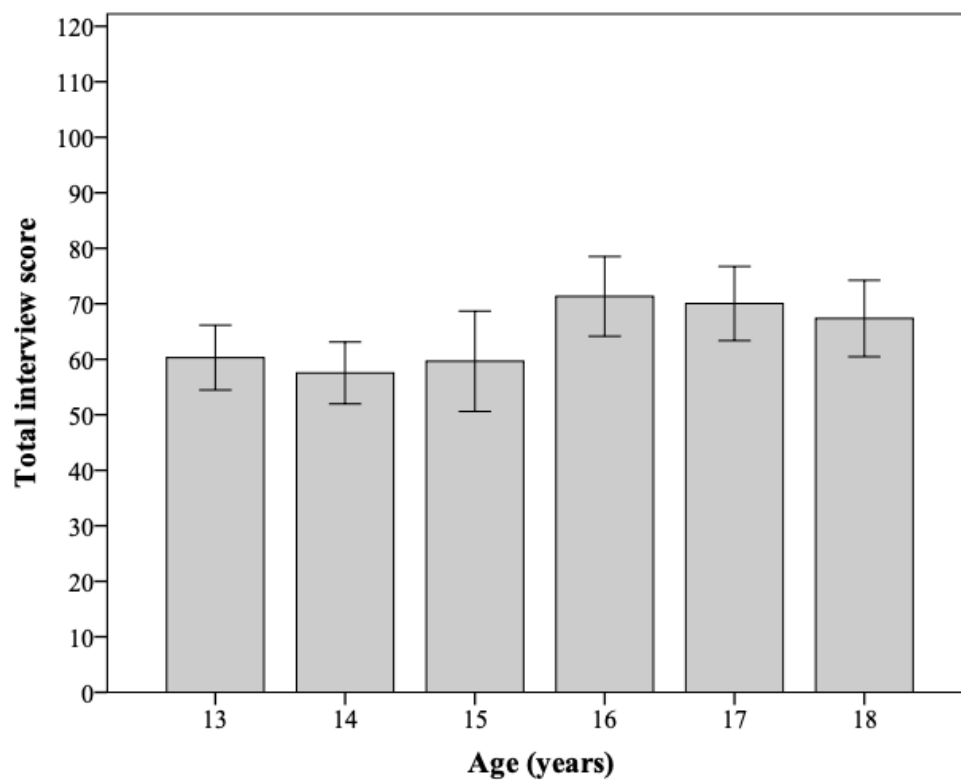


Figure 9. Mean increase in Total score with age (years)

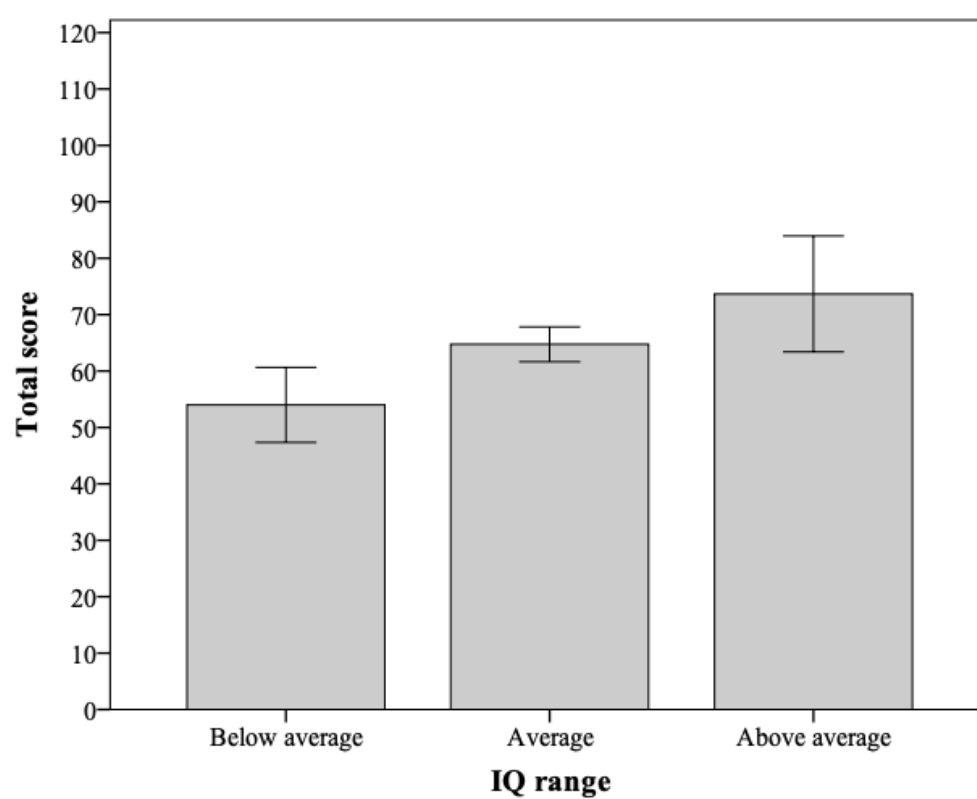


Figure 10. Mean increase in Total score with aggregated IQ score

### Re-Test Section: Information Taught and Retained

A one sample t-test was conducted to compare participants scores on the Re-test questions at the start of the interview, before being taught what they mean, and at the end, after being taught what they mean. There were significant differences on each of the questions before and after teaching, see Table 7. This tells us that participants gave more comprehensive answers and demonstrated increased knowledge across all nine of the target questions, after participants initially got that question wrong, and were taught the correct answer.

Table 7.

*Paired Sample T-Test Results Comparing Scores Before and After Teaching on Nine Target Questions*

Variable	<i>M</i>	<i>SD</i>	<i>SD M</i>	95% CI	<i>t</i>	<i>df</i>
Q1	.663	.878	.093	[.478, .848]	7.120	88
Q2	.292	.710	.075	[.142, .442]	3.880	88
Q3	.708	.956	.101	[.507, .909]	6.986	88
Q4	.506	.785	.083	[.340, .671]	6.075	88
Q5	.258	.631	.067	[.125, .391]	3.863	88
Q6	.551	.853	.090	[.371, .730]	6.089	88
Q7	.393	.763	.081	[.233, .554]	4.862	88
Q8	.416	.736	.078	[.261, .571]	5.332	88
Q9	.494	.827	.088	[.320, .669]	5.637	88

## **Chapter Four: Discussion**

This discussion will explore the key themes that were evident in the findings of this study. These findings will then be discussed in relation to this study's hypotheses, followed by a comparison to previous literature in this area; both internationally and nationally. The implications for policy and the law, and practise in NZ will follow. Lastly, this study's limitations will be considered, followed by some suggestions for future research. The following discussion is based on the results of a pilot study which was the first study to examine this issue in NZ.

Analyses (linear regressions) were run to examine the effect of age, gender, decile and IQ (IVs) on young people's level of knowledge and understanding on Fitness to Stand Trial (FST) related abilities as assessed by the FST-SSIT and its sections (General knowledge, Understanding of consequences, Communication with counsel, Reasoning and decision-making). Key results showed IQ was the only variable to be significant predictor on all five domains of interest, such that having a higher IQ score was predictive of scoring higher on all sections and on the Total score. Age was significant in four of the five domains of interest; all except the Reasoning and decision-making, such that older participants scored higher than their younger peers. Gender was a significant predictor of performance in the Reasoning and decision-making and Total score sections, such that being female was associated with scoring higher. Lastly, decile was predictive of performance in the General knowledge and Total score sections, such that going to a higher decile school was predictive of higher scores.

Results from the Re-test section of the FST-SSIT found that participants significantly improved their answers to all nine of the target questions, after they were taught what concept the question was referring to. That is, participants would get re-tested on three of the nine target questions they initially got wrong and were then taught the correct answer. There was a significant improvement in the amount of information retained after receiving the teaching, this was true for all nine target questions. This suggests there is scope to improve young

people's general knowledge through teaching, a finding that could have highly practical implications and is discussed later in more depth.

### **Hypothesis One: Fitness to Stand Trial-Related Abilities will Increase with Age**

Hypothesis one predicted there would be a significant relationship between participant age and FST (as measured by the FST-SSIT), such that as one increased so would the other. Overall, this hypothesis was supported as age was a significant predictor of participants scores in four of the five regression models; General knowledge, Understanding of consequences, Communicating with counsel and Total score. Age was not significant in the Reasoning and decision-making section. However, for the Total score—which comprises all sections including Reasoning and decision-making—age was a significant predictor to the  $p = .000$  level. This indicates that the relationship between age and overall scores on the FST-SSIT were highly unlikely to be due to chance and validates the argument that there is a clear relationship between the two variables.

Furthermore, Figure 9 demonstrates a clear pattern of increasing mean Total scores per age group which further supports this hypothesis. This pattern is replicated within the first three individual sections of the FST-SSIT (General knowledge, Understanding of consequences, Communication with counsel). Furthermore, post hoc analysis revealed that in the Understanding of consequences section and participant Total score there were two significantly different groups when age brackets were aggregated into young (under 16 years) and old (16 years and older) groups. Therefore, we can be confident that fitness-related abilities increase with age, and that participants 16 years and older perform significantly better than younger participants in the fitness-related abilities, as measured by the FST-SSIT. This demonstrates that age is a valid and useful starting point to be considered by clinicians and legal professionals when raising concerns about a young person's fitness and conducting fitness assessments.

It is worth noting that whilst performance in fitness-related abilities increased with age, the total possible score on this interview is 116 and all Total scores across all ages were between 48 and 91 points, the majority clustering around 60 points. This demonstrates that, overall, participants only scored just over half as well as they could have, therefore overall performance is not high. Here I will reiterate that this tool was designed to be used by clinicians, as a guiding measure, in conjunction with other forms of assessment and clinical expertise to help inform decisions. It was not designed to be used as the sole source of information in a decision of fitness. However, as participants are only scoring approximately half as well as they possibly could be, it is important to acknowledge that perhaps the interview in its current form requires a greater level of legal knowledge and understanding than should be expected, or that overall base rates for understanding and fitness-related abilities in the NZ general adolescent population are low. Given the current research is a pilot study and largely exploratory, it was not within the scope of the current project to investigate, however it is an avenue for future research.

### **Hypothesis Two: Fitness to Stand Trial-Related Abilities will Increase with IQ**

Hypothesis two predicted there would be a relationship between participant IQ and FST (as measured by the FST-SSIT), such that as one increased so would the other. This hypothesis was supported as IQ was a significant predictor in all five regressions that examined General knowledge, Understanding of consequences, Communication with counsel, Reasoning and decision-making, and Total score. IQ was the only variable that was significant across all five models and was significant to the  $p = .000$  level when examining its impact on predicting participant Total score. This highlights that this finding it is highly unlikely to be due to chance, and that IQ is in fact highly predictive of young people's performance on the FST-SSIT.

Figure 10 demonstrates a clear increase in mean Total scores for each of the IQ groups (below average, average and above average). Post hoc analysis revealed there was a

statistically significant difference, such that those in the below average IQ group scored significantly lower than those in both the average, and above average IQ groups.

Furthermore, significant differences were found for scores between below average and above average IQ groups on the Understanding of consequences section. There was a significant difference between the above average IQ group and both the average and below average IQ groups in the Reasoning and decision-making section. Therefore, we can be confident that IQ is strongly predictive of a young person's level of fitness-related capabilities. As with age, IQ is a useful starting point for clinicians and legal professionals to take into account when considering raising concerns about a young person's person fitness.

### **Comparison of Findings with International Literature**

The following section will address the third research question of this study and discuss how the current study findings compare to the existing international literature in this area. Findings will be discussed in the following order of topics; IQ, age, developmental immaturity, demographics and the Re-test section. At this point I will briefly remind you that, internationally, the purpose of CST and FST evaluations for young people are to assess a young person's ability to understand the charges against them, appreciate their situation as a defendant, and communicate pertinent information with their counsel (Bonnie & Grisso, 2000). With this in mind, a discussion of the literature follows.

#### **IQ**

IQ has been widely used as an indicator of cognitive abilities and developmental timetables that impact understand of legal processes and fitness-related capabilities. Previous research has clearly shown that lower levels of cognitive abilities, as measured by a range of intelligence tests and cognitive screening tools, are predictive of deficits in fitness-related abilities (Bath et al., 2015; Brookbanks, 2018; Grisso et al., 2003; Viljoen & Roesch, 2005; Viljoen et al., 2007). The current research provides strong support for these finding as IQ was the only variable that was significantly predictive of Total scores, and scores on all section of

the FST-SSIT (General knowledge, Understanding of consequences, Communication with counsel, and Reasoning and decision-making). Furthermore, the below average IQ group performed significantly more poorly, than both the average and above average IQ groups in interview Total scores. There were also significant differences between the IQ groups and performance in the individual sections of the FST-SSIT. Therefore, we can be confident that IQ predicts trial-related capabilities, as has been found in previous international research.

### **Age**

The landmark study by Grisso et al. (2003) established the first significant estimate of base rates of legal understanding that significantly impacted trial abilities in adolescent populations. Grisso et al. (2003) demonstrated that approximately one-third of adolescents 11 to 13 years and one-fifth of those aged 14 to 15 years demonstrated marked deficits in trial-related capabilities of knowledge and understanding of legal processes. The estimates have since been replicated by studies that showed legal and trial-related abilities increased with age (Farrington et al., 2012; Steinberg, 2009; Viljoen, Klaver, Roesch, & behavior, 2005; Viljoen & Roesch, 2005; Viljoen et al., 2007; Woolard, Harvell, Graham, & Law, 2008). Furthermore, this has been supported by an explosion of research that outlines the impact of rapid development that occurs between 13 to 16 years on improving legal knowledge and capabilities (Bath & Gerring, 2014; Brookbanks, 2018; Christy et al., 2004; Fagan & Piquero, 2007; Forde, 2018; Howell et al., 2012; Kuhn, 2009; Steinberg, 2009; Stepanyan et al., 2016).

Findings of the current study, in regard to the relationship between age and legal capabilities, support previous international research. Total interview score, and the sections of General knowledge, Understanding of consequences and Communication with counsel, scores all increased significantly with age. The current study cannot however suggest what portion of each age group have significant legal impairments, as previous research has done, as there are no established clinical cut-offs as part of the current study's design. However, as



evident in Figure 9, and through post hoc analysis, there were two statistically significant groups, those aged 13 to 15 and those aged 16 to 18 years. The pattern was also found to be significant in the Understanding of consequences section, and was observed to a lesser degree in the General knowledge and Communication with counsel sections with the mean score for those aged 13 to 15 years being lower than that of older participants. The presence of two distinct groups, is greatly supported by other research that has also found that by 16 years trial-related abilities become almost indistinguishable from those of adults (Grisso, 2000; Kuhn, 2009; Steinberg, 2009). Therefore, it is expected that young people under the age of 16 would perform more poorly, demonstrating lower levels of fitness-related abilities, and supports the arguments that deficits in legal knowledge and understanding are more pronounced in younger adolescents potentially negatively impacting their ability to meaningfully participate in the court process.

### **Age and IQ**

Previous research compared measures of cognitive capacity with age, on tools designed to assess trial-related abilities, such as the MacCAT-CA, and found a similar pattern such that performance on these tools increased with age and cognitive ability (Steinberg et al., 2009). This finding is partially supported by the current research as both age and IQ were significantly predictive of Total score, and in the General knowledge, Understanding of consequences and Communication with counsel sections. However, age was not predictive in the Reasoning and decision-making section, whereas IQ was. This indicates that cognitive capabilities are in some instances a stronger predictor of legal understanding and fitness-related abilities than age. For example, Viljoen and Roesch (2005) found cognitive capabilities were the strongest predictor of level of understanding and reasoning in a legal context. This study supports previous international literature that demonstrates age and IQ, proxies for developmental level, are predictive of fitness-related abilities in young people. Therefore, this provides useful information about developmental timetables that can inform

clinicians' enquiries into the fitness-related abilities of the young people they work with that have become involved in the justice system.

### **Developmental immaturity**

The current study considers age and IQ as proxies for developmental maturity; given both were significant in predicting young people's legal comprehension and abilities through their scores on the FST-SSIT, this study supports the existence and impact of developmental maturity on trial-related capabilities. As outlined in the introduction, developmental (im)maturity is an umbrella term that encompasses the incomplete neurological, social, emotional and cognitive systems development of young people, relative to adults. The developmental timetables of the systems listed above directly informs, to name a few, young people's autonomy for reasoning and understanding, foresight, self-control, consideration of future consequences and resistance to peer influence (Kuhn, 2009; Modecki, 2008; Steinberg, 2009; Steinberg & Scott, 2003). Furthermore, it has been increasingly argued these factors, which play a role in adolescents offending and subsequent participation in court processes, should be considered mitigating factors and addressed through means that decrease the long-term negative effects that often accompany involvement with the justice system (Howell et al., 2012; Kambam & Thompson, 2009; Steinberg, 2009). The current study supports this argument as developmental maturity level impacted young people's knowledge, understanding, reasoning and decision-making with regard to the youth justice system in NZ.

Grisso et al. (2003) noted the importance of examining scores in the understanding and reasoning sections, as impairments in these sections—beyond broader general knowledge—highlight particular concerns for competency. This maps onto the developmental literature as, whilst by 16 years a range of cognitive abilities (e.g., reasoning and understanding) largely equate to that of adults, psychosocial factors, including peer influence, future orientation, risk-taking and reward sensitivity, make it difficult for young people to exercise those reasoning and understanding abilities (Feld, 2017; Steinberg, 2009).

Therefore, it is important to consider more than just age when examining difficulties in legal and trial-related abilities that young people experience during adolescents as they are highly susceptible to psychosocial influences, that are less relevant to adults.

There has been some criticism of the concept of developmental immaturity, notably Sanborn (2009), who pointed out that many of the studies that raised concerns about young people possessing trial related abilities, actually found the majority to display adult like abilities. Whilst he argues against a blanket declaration of incompetence for adolescents, his review makes clear that those 14 years and under are disadvantaged in trial related capabilities (Sanborn, 2009). This aligns with the current study as participants 13 and 14 years tended to have the lowest scores across all participants, and those 15 years and younger performed significantly more poorly than older participants across the entire interview. Therefore, the notion that young people 14 years and younger have increased risk of deficits in trial and legally relevant abilities is irrefutable. However, I argue that, contrary to Sanborn (2009), the presence of developmental immaturity and significant deficits in legal knowledge and understanding extends beyond those 14 years and younger. For example, in the Reasoning and decision-making section of the current study, age was not predictive of how participants scored, whereas IQ was highly predictive, as was gender. This indicates that whilst age acts as an indicator of legal capabilities, complex developmental timetables make it unwise to assume that all young people are at the expected level of competence, or fitness, for their age. Whilst the current study does not have an adult NZ sample to draw comparisons with, these findings clearly raise concerns about the performance on fitness-related abilities of adolescent in NZ.

### **Demographic characteristics**

The current study found performance on aspects of the FST-SSIT differed according to gender, and the decile of the school the participant attended. This contrasts previous studies that have found estimates of deficits in trial-related capabilities to be robust across

gender, ethnicity and socioeconomic status (Bath & Gerring, 2014; Colwell et al., 2005; Grisso et al., 2003; Howell et al., 2012). The current study found that attending a higher decile school (above decile 5) was predictive of better performance in the General knowledge section, and Total score for the FST-SSIT. I will flag here that significant findings regarding school decile should be interpreted with caution as decile does not directly measure a participant's SES, rather it indicates the extent the school's students live in, for example, low or high SES communities. However, it is an interesting finding that General knowledge was the only section significantly predicted by decile. Perhaps decile, and by extension SES-related factors, impacts general knowledge of justice system concepts more so than other trial-related abilities, such as understanding of consequences, communication with counsel and reasoning and decision-making.

Based on my experience of the data collection process, a possible explanation that may partially explain why scores in the General knowledge section differed according to school decile, whereas other section did not, is that young people attending higher decile schools, were perhaps more likely to have family and other familiar adults that work and are involved with the justice system (e.g. police, lawyers). Therefore, they may have increased opportunity to engage in conversations about, gain knowledge and be exposed to legal concepts. In support of this hypothesised explanation, when asked the question 'why do we have a criminal justice system?' one participant who attended a high decile school, replied "is it so people don't have to sort it out by themselves and make it like a worse problem, because there are rules enforced by the police, so justice and the law is always there to protect you . . . my dad works at the community law centre so I know a bit about this stuff." This response was one of the more informative answers to this question, a more frequent answer reads "to um keep everyone safe and stuff." This notion is broadly supported by research that has established links between high SES environments, that act as a protective factor for antisocial behaviour (Dennison, 2016; Kim, Gilman, Hill, & Hawkins, 2016). By extension, I suggest

that high SES environments could also serve as a protective factor for deficits in fitness-related abilities.

The current study also found that gender, in this instance being female, was associated with better performance in the Reasoning and decision-making section, and Total score for the FST-SSIT. This differs from previous research which has found that level of knowledge and understanding to be robust across gender (Bath & Gerring, 2014; Colwell et al., 2005; Grisso et al., 2003; Howell et al., 2012). However, these results should be interpreted with caution as the overall sample was 35% male and 65% female; a reflection of the students that returned consent forms to participate. It is possible that these gender differences would be less pronounced if this study was replicated with a gender balanced sample. However, it is possible that differences in the Reasoning and decision-making section are linked to differing developmental timetables between males and females, as meta-analysis results have demonstrated adolescent females to be more risk-averse than males (Defoe, Dubas, Figner, & van Aken, 2015). This may be evident in the differing choices, and subsequent performance on the scenarios presented throughout the Reasoning and decision-making section.

### **Re-test section**

The practicality of teaching young people about legal concepts to increase knowledge and fitness-related abilities has not been widely explored. Viljoen et al. (2010) identified, in a sample of defence attorneys, that when they had concerns about a young person's competence, in approximately half the cases they choose to educate the young person on important legal concepts rather than refer them for a formal evaluation. Similarly, in Queensland Australia, pragmatic and tactical reasons, such as lengthy delays in legal proceedings, were self-reported by professionals as common reasons for choosing not to refer young people for assessment, opting to work on educating them instead (Watt, O'Leay, & O'Toole, 2017). Furthermore, Viljoen and Roesch (2005) found that more time spent with attorneys was a strong predictor of increased legal capabilities and was true even of

defendants with poor cognitive abilities, and young adolescents. These findings are interesting as, whilst there have been few empirical examinations of the relationship between teaching legal concepts and fitness-related abilities, clinicians and legal professionals have identified that working with young people to increase their knowledge and understanding is a beneficial practise.

The current research supports the utility of these practises as the teaching and retest component showed that young people were able to retain the information they were taught. This does not necessarily suggest that teaching young people these concepts will increase their overall level of fitness. It may have an effect on general knowledge, which is just one component of fitness, but be less effective with understanding, reasoning and decision-making abilities which are other crucial elements of fitness. However, it does warrant further exploration as it shows promise as a simple technique that could have real and measurable benefits in practise.

### **Comparison of Findings with NZ FST Research**

The following section will discuss how the findings of this research contribute to the wider NZ FST literature base. The methodology used by previous research on adolescent FST is difficult to compare to the current research. Previous research retrospectively analysed court reports on fitness evaluations and commented on the correlation between certain clinical factors with an unfit (or fit) outcome. These were clinical samples that primarily consisted of individuals who had been diagnosed with some form of psychopathology or cognitive impairment, and had at least current involvement with the justice system (Armstrong & Friedman, 2016; Tan et al., 2017). The current project adds to the NZ literature as it focused on the assessment of a young person's fitness-related abilities, such as their knowledge and understanding of legal processes, with a community sample. Therefore, indicating what level of fitness-related abilities are, on average, expected within an adolescent population and in accordance to developmental level, regardless of the presence of

psychopathology. Furthermore, the current study utilised a methodology that had not previously been used to assess fitness-related abilities in NZ (FST-SSIT).

In contrast to the current study, and the majority of international research, Armstrong and Friedman (2016) found no link between age and likelihood of being found unfit, however it was noted this may be due to small sample size of people 14 years and younger, and perhaps an interaction with the high prevalence of psychopathology. Tan et al. (2017) found that the likelihood of being found unfit did not vary across ethnic group, level of education engagement and sociodemographic factors. This contrasts the results of the current study which found attending a lower decile school was predictive of poorer performance in General knowledge, and Total score on the FST-SSIT, one important aspect of fitness. However, these previous studies had the dichotomous issue of examining evaluation outcomes that decided fit or unfit with clinical samples. The FST-SSIT has no clinical cut off as, in practise, clinicians have to consider knowledge, understanding and other capacities in light of the current charges within a particular context. For example, facing a charge of theft in Youth Court would require a different consideration of fitness than a young person facing a murder charge in High Court. Fitness to stand trial is a highly contextualised inquiry. Therefore, the FST-SSIT is designed to guide clinical judgement in the context of each individual case. Within the context of the current study, using a community sample, the access to wider assessment information was not available or relevant. Therefore, it is difficult to conclusively comment on differences between the current research and the previous studies; rather, the current study builds on previous research in NZ and adds new information to the wider literature base.

### **Implications for Policy and Legislation in NZ**

This next section will discuss the current study's findings in the context of international standards, and the implications this has for NZ policy and legislation. In September 1990 NZ recognised and adopted the United Nation Convention on the Rights of

Children (UNCRC), which outlined international standards that NZ undertook to incorporate in its own legislation and policy. Article 37 of the UNCRC outlines that it is the right of every child or young person to participate in criminal proceedings against them, and that all young people should be capable of forming views and expressing them as a key element of participating in the proceedings (UNCRC, 2 September 1990). Article 40.2 outlines, in great detail, that children and young people are entitled to the right to due process, in regard to their views, and with respect to their age and maturity. Furthermore, specific protections that include the right to be informed properly and access appropriate legal assistance throughout the legal process are included.

The influence of the UNCRC throughout the Oranga Tamariki Act 1989, NZ's key legislation on youth justice, is evident. This Act stipulates that it is the duty of the court and counsel to explain proceedings in a manner and language that young people can understand, be satisfied that young person understands the proceedings, and ensure, when the court makes an order, that the young person understands that orders nature, language and purpose (Oranga Tamariki Act 1989, s10). Therefore, this legislation is designed to promote the meaningful engagement of young people in court processes, in accordance with the UNCRC. However, given the relationship between age, IQ and fitness-related abilities, as found by this study, this raises concerns that this legislation does not sufficiently uphold the fundamental elements of the UNCRC in practise; primarily, that young people are not sufficiently receiving the due process they are entitled to in respect to their 'age and maturity'. The standard for FST described in the Criminal Procedure (Mentally Impaired Persons) Act 2003, s4 does not clearly afford legal salience to a young people's developmental immaturity and the effect this has on fitness-related abilities. I will now explore separately what this means for two vulnerable age groups; 14 to 15 years, and 13 years and under who come into contact with the justice system.



As discussed, the study supports international literature that has demonstrated increases in age and IQ, proxies for developmental maturity, are predictive of increases in fitness-related abilities. As described in the introduction, young people aged 14 to 15 years are in the midst of rapid development that occurs in the cognitive, neurophysiological and psychosocial systems around this age (Steinberg, 2009). Consider the closely linked and widely validated work of Moffitt (1993), that outlined the age-crime-curve and adolescent limited offending trajectory. This model highlights that the majority of young people will engage in antisocial behaviour, starting at approximately 13 years, peaking at approximately age 19, with 70% of all young people engaging in antisocial behaviour during this period (Moffitt, 1993). From late adolescence onwards the majority will naturally desist as development progresses and the benefits of prosocial behaviour outweighs antisocial behaviour (Moffitt, 1993). Furthermore, Moffitt (1993) described 'snares', that which ensnares a young person into a long-term antisocial lifestyle where they would otherwise have naturally desisted. For example, consider a 14-year-old facing serious violence charges in the District Court, where no fitness evaluation has been requested as they had no known psychopathology. Yet their youthful age and low developmental level impacts their engagement and understanding of the legal process such that they accept the charges immediately, against the advice of their youth advocate, so they can go home immediately without entering into a lengthy hearing process. They have not considered the long-term consequences of accepting the charge, this could create difficulties, such as gaining employment, and the young person begins to reoffend as this becomes the only opportunity they can see to gain money. Had the young's persons development level, and its impact on their FST, been comprehensively explored, perhaps a more developmentally appropriate justice response would have been enacted that gave the young person more options, and they may not have been ensnared into a reoffending pattern.

The majority of adolescents will naturally desist from antisocial behaviour. Therefore, it is the ethical responsibility of the justice system to minimise the unnecessary ensnaring of a young person. Cumulative justice system involvement during adolescence, as well as involvement with the adult rather than youth courts, from an earlier age, are independently associated with greater levels of institutionalisation and poorer physical and mental health during adulthood, amongst other things (Barnert et al., 2017). To better uphold this ethical responsibility, legislation and policy in NZ could better incorporate the consideration and assessment of the difficulties a young person's developmental level may cause to their meaningful engagement in court processes.

Now consider a child younger than 13 facing legal proceedings. There are three instances when proceedings can be lawfully commenced against a child younger than 13 years in NZ. First, this can occur when a child is 10 years or older and commits murder or manslaughter; second, when a child aged 12 years or older commits an offence of which the maximum jail term is 14 years or life imprisonment; and lastly, when a child 12 years or above is a previous offender, and the current offence has a maximum penalty of at least 10 years imprisonment (Oranga Tamariki Act 1989, s272). Considering the issue of murder or manslaughter, these particular crimes are considered too serious to be dealt with by the Youth Court, and young people facing these proceedings would do so in the High Court, where they would be tried as adults (Criminal Procedure Act 2011). However, international research has outlined that those 13 years and younger are at heightened risk of having trial-related impairments, in accordance with developmental timetables, such that the literature base considers this age group almost always incompetent or unfit to stand trial due to developmental level (Bath & Gerring, 2014; Bonnie & Grisso, 2000; Bryant, Matthews, & Wilhelmsen, 2015; Feld, 2017; Grisso et al., 2003; Larson & Grisso, 2011; Redding & Fuller, 2004; Steinberg & Scott, 2003; Viljoen & Roesch, 2005).

Two contrasting arguments become evident. Young people, as young as 10 years old can be held legally accountable for crimes that are considered most severe by society and serve sentences that reflect the severity of the crime. This directly contrasts developmental literature that demonstrates these young people, who are in greatest need of support to mount a meaningful defence, have the lowest capacity to do so. This violates their rights to due process as outlined in international standards including the UNCRC, and NZ's key legislation, the Oranga Tamariki Act 1989. It is argued that not all aspects of the Oranga Tamariki Act live up to its developmentally responsive foundation, as this violates the rights of young people under the age of 13 who enter into formal court proceedings. In accordance with developmental timetables and literature base, the age of fitness (and competency) needs to be at least 13 years, but flexible, in recognition that increases in developmental abilities continue through adolescence into the 20s (Steinberg, 2009). This demonstrates a legislative failure to ensure young people's meaningful participation in the court process. This argument has been upheld internationally as a number of judgments made at the European Court of Human Rights (ECHR) ruled that it was the failure of the State to ensure children participated meaningfully in criminal proceedings, that led to a violation of their rights and due process (Forde, 2018). Whilst NZ has legislation designed to protect children from harmful proceedings, this study suggests that when considering fitness, the existing policies do not adequately meet the intended goal of protecting children and young people in NZ.

### **Implications for Practise in NZ**

The implications of this research for the practise of fitness evaluations in young people will now be considered. The lack of inclusion of developmental factors in the definition and consideration of fitness will be discussed, followed by suggestions of ways to better promote the inclusion of developmental issues in fitness evaluations in the future. The practical benefits of using the FST-SSIT will also be explored, as will a brief discussion of

some of the issues with justice system language and terminology that was uncovered by the current study.

Increasingly, concerns have been raised about the frequency at which legal professionals request fitness evaluations. Research has shown that, on average, when legal professionals have concerns about a young person's fitness or competence, they only request formal evaluations in approximately 50% of cases (Viljoen et al., 2010; Watt et al., 2017). Furthermore, attorneys were shown to be significantly less likely to raise their concerns when the young person's legal deficit was perceived to be due to developmental immaturity alone, rather than intellectual disability or mental illness (Viljoen et al., 2010). Whilst there is a lack of research examining the practise of requesting (and not requesting) fitness evaluation of young people in NZ, international research has highlighted that a clear and extensive set of guidelines to better inform the practise of requesting fitness evaluations is necessary.

It has become evident that clinicians and legal professionals in NZ are beginning to recognise developmental factors as possible indicators of deficits in fitness-related abilities. To promote further increases in this practise, there are several feasible pathways that will now be discussed. First, the adoption of formalised legal concepts that recognise developmental immaturity as a 'mental impairment' that warrants an evaluation of fitness. Research has shown that formal laws shapes court process, and confers the appropriateness of due process to protect young people (Bryant et al., 2015). Furthermore, research on court decision-making demonstrates that formalised laws outlining appropriate practises, in this case fitness evaluations on the basis of developmental level, increase the likelihood that professionals are willing to implement that practise (Bryant et al., 2015).

However, it seems unlikely that NZ will waiver from the vague definition of 'mental impairment' that is put forth in the Criminal Procedure (Mentally Impaired Persons) Act 2003, s4. This is left purposely vague, as it allows for a more nuanced understanding and enquiry of impairment in that particular context (Brookbanks, 2018, p. 133). NZ places a

strong emphasis on case law, and this has defined 'mental impairment' thus far, in the face of the Court of Appeals unwillingness to accept that more inclusive concept of mental impairment could sufficiently address the issue of both rationality and cognition in fitness (Brookbanks, 2018, p. 133). This demonstrates that the path for developmental immaturity to become more accepted under the umbrella of mental impairment is most feasibly to be established through case law. Several strong cases that achieve verdicts of unfitness, on the basis of developmental level, will pave the way for a more inclusive practise of fitness evaluations that recognise adolescent development. Furthermore, a strong foundation of case law would give clinicians more confidence to pursue evaluations of unfitness on the basis of developmental level, as they would have legal precedent off which to base their argument. The following paragraphs will now discuss, in the context of this study's findings, how the practise of requesting and conducting fitness evaluations can be improved.

Previous research in NZ has recommended that the courts should attempt to use a screening tool to improve detection of defendants who may be at elevated risk of deficits in fitness-related abilities (Sakdalan & Egan, 2014). The current study demonstrates a step towards addressing this recommendation as the FST-SSIT has demonstrated promising utility in assessing fitness-related abilities, albeit only with a community sample thus far. Given NZ does not have a tool normed on adolescents or a NZ sample for the purpose of assessing fitness-related abilities, the FST-SSIT has a range of practical and measurable benefits. This is particularly important as there are clear concerns in the literature that the use of tools that are normed on adults and used with adolescents is inappropriate (Sanborn, 2009; Viljoen et al., 2009).

The FST-SSIT, whilst in its infancy, presents several opportunities for improvements to the process of fitness evaluations in NZ. First, this tool can be used to help guide clinician's assessment of the legal knowledge and understanding of young people they work with, as a supplement to their other means of investigation. Second, it would help consolidate

clinician ratings, as the interview would guide clinicians to a similar understanding of the young person's fitness-related abilities, and they could easily see where their opinions differed, and engage in further discussion or investigation where necessary. Third, teaching clinicians how to use this tool presents an opportunity to provide education about adolescent development and how that may affect fitness-related abilities. Fourth, it raises awareness for the role of development, and gives clinicians substantiated means to push for further assessment. These strategies for improvement are supported by Bryant et al. (2015) who found officials who were better socialised and exposed to competency evaluations had a more sophisticated understanding of the strategies that were available when working with young people. Lastly, the FST-SSIT would help consolidate interdisciplinary differences in fitness evaluations as judges, lawyers, psychologists and psychiatrists can all be involved at various stages in the process of fitness evaluations. This can be problematic, as amongst other things, different disciplines may hold different understanding and definitions of fitness. Therefore, utilising the FST-SSIT in practise as a standardised measure may help alleviate interdisciplinary differences. These are just five of the obvious avenues for improvement that the FST-SSIT would contribute. However, it is clear that its use would have measurable and practical benefits that would improve the practise of evaluating fitness in NZ young people.

The last implication for practise that I will discuss outlines the difficulties in understanding and accurately using justice system language and terminology that young people demonstrated during the interviewing phase of this research. Of the 89 young people that were interviewed, without guessing, one participant accurately described a Family Group Conference (FGC), as did one participant accurately describe a Youth Justice Residence. Seven participants mentioned the death penalty as a possible consequence in NZ, which has not been used since 1957 and has been abolished altogether since 1989. In Youth Court, the plea terms *guilty* and *not guilty* are not used as they are in the District and High courts, rather a young person can *deny* (similar to not guilty) or *not deny* (similar to guilty) the charge.

When asked what deny and not deny meant, the participants that got this question wrong or did not know were taught the correct answer, as this was one of the nine target questions. After being taught what these terms meant, and when asked to apply them in a hypothetical scenario at a later point in the interview, 13 participants still got them confused and the wrong way around. One participant commented, “this is so confusing, man if I went to youth court, I would probably accidentally plead guilty and not even know it”. Additionally, the majority of participants did not know the role of a Youth Advocate (lawyer for a young person in Youth Court), nor did they know the differences between the Youth, District or High Court, and not one participant knew or accurately guessed the role of a Lay Advocate. I have briefly described just a few of the issues with justice system terminology that became evident throughout this research. A more in-depth discussion is beyond the scope of this thesis, however, these deficits in knowledge have practical implications for clinicians and legal professionals when working with young people in NZ.

### **Limitations**

The nature of this research is exploratory. It is a pilot study and the first in NZ to examine young people's legal understanding and fitness-related abilities with a community sample. Therefore, several limitations need to be acknowledged. First, the sample is not perfectly balanced on gender as there were more females than males (63%:37%). Whilst there are both females and males in each age group, there is not an even split. Additionally, there are more students from lower decile than higher decile schools (56%:43%), and the ratio of gender and age is not perfectly comparable between higher and lower decile groups. This sample dynamic reflects the participants that returned consent forms to their schools and went on to participate in this research project.

Furthermore, this study piloted the FST-SSIT for the first time and throughout this process several limitations of the tool that required future improvement have been identified. Primarily, there are several questions and scenarios that were identified as needing rewording

and/or the language changed and simplified to become more suitable for adolescents of all ages and all developmental levels. These changes should be addressed as part of future research projects.

### **Future Research**

This study has yielded a range of fruitful options for future research. One possibility would be to replicate this project with a sample of adolescents that have past or current involvement with the youth justice system. This would allow for a comparison with the current study's community sample, and a useful discussion of the differences and similarities of the level of knowledge and understanding young people hold about the youth justice system in NZ. International research has found similarities between community and detained samples levels of knowledge and understanding (Ficke et al., 2006; Grisso et al., 2003). However, these results are not necessarily generalisable to a NZ population, as NZ has unique demographic and cultural characteristics, therefore it would be informative to examine this issue with a NZ sample. Another useful area for future research would be to replicate this research with a community sample of adults. This would allow for more informed conclusions to be drawn about the differences in knowledge and understanding between adolescents and adults.

It would also be of interest to further investigate the utility of the teaching component and Re-test section of the FST-SSIT. There are a number of ways this could happen. Exploring the use of different time intervals and a greater time delay between teaching concepts and re-testing the information would inform a greater understanding of how well the information is retained. Also, it would be useful to explore different methods of teaching these concepts on a wider scale than strictly between a clinical or legal professional and the young person. For example, one participant commented when asked why they thought we had a criminal justice system, "well I know that it involves like the court and stuff but that's all I know about it, it's not really discussed in school or anything". This highlights a need for



greater education around legal and justice system concepts, and that the school system could be a valid context to explore doing this.

## **Conclusions**

Young people who come into contact with the justice system are faced with a minefield of complex rules, jargon and decisions that create barriers to their engagement in justice system processes. This research sought to explore young people's knowledge and understanding of the justice system, focusing on the impact of developmental level. It is the first research of its kind to explore this issue in NZ, with a community sample of NZ adolescents. A relationship between young people's developmental level, as indicated by age and IQ, and their fitness-related abilities such as knowledge and understanding was evident. That is, participants with higher levels of IQ performed significantly better than participants with lower IQ on the FST-SSIT. Older participants also performed significantly better than younger participants. Particularly noteworthy is the finding that, when participants were aggregated into two age groups of young (under 16 years) and old (16 years and older), participants in the older age group performed significantly better than participants in the younger group. These findings support international literature that has found that by approximately age 16, young people's fitness-related abilities equate adults on the basis of developmental level (Grisso et al., 2003; Viljoen et al., 2007). An additional interesting finding of this research was that being female and attending a higher decile school was predictive of better performance.

This research highlighted the importance of recognising the relationship between developmental level and a young person's fitness-related abilities. Furthermore, it is likely that some of the current policies and practices in NZ do not sufficiently account for this, and therefore, young people may not be sufficiently benefiting from their right to due process. This is evident in policies such as bringing proceedings against young people between the ages of 10 to 13 who have committed serious crimes, yet at that age, the nature of such

proceedings likely surpasses their developmental level to meaningfully engage in the justice process. Therefore, clinicians and legal professionals need better education around, and more tools at their disposal to assess, the fitness-related abilities in young people. The FST-SSIT has demonstrated promising utility as a tool that could help guide clinicians to better understand the fitness-related abilities of young people. Therefore, this research is a promising step towards developing a NZ specific literature base that will better inform evidence-based practise and policies for working with young people that come into contact with the justice system in NZ.

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## Appendices

### Appendix A: Consent and Information Pamphlet (16 Years and Older)

Front view

Information and consent: 16yrs+

#### Demographic Information

If you consent to your child participating in this research please fill out the details below and return to the school. Thank you.

Name: \_\_\_\_\_

Gender: \_\_\_\_\_

Date of Birth: \_\_\_\_\_

Ethnicity (list all):

Any information relating to difficulties related to learning. For example, Dyslexia or ADHD (this is **not** a compulsory question)

#### Why is this research important?

If young people lack competence (i.e. knowledge) because of their developmental level they may find it hard to participate in a range of legal and court processes. In New Zealand there has been very little research that explores this issue. New Zealand has a youth justice system that was designed to focus on the developmental needs of young people and children. However, it is unclear whether or not this system is effective at meeting these young people's developmental needs.

#### Who are we?

We are a team of researchers from the School of Psychology, Victoria University of Wellington.

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This research has been approved by the School of Psychology Human Ethics Committee under delegated authority of Victoria University of Wellington's Human Ethics Committee.



### *Young People's Understanding of the Justice System in New Zealand*

#### What is this research about?

Research shows that during adolescence many young people come into contact with the justice system. Importantly, international research has shown that young people generally know very little about law and justice policies and procedures that are aimed at young people. This level of knowledge varies greatly between young people. This study will look at the level of knowledge of important, relevant legal process among a group of New Zealand young people, aged 12 to 18 years to see how the results compare to what has been found by researchers in other countries.

## Back view

**The value of participation?**

During the interview process participants will be introduced to, and be able to learn about, important information regarding the youth court process and the key roles of those involved in New Zealand's youth justice system (e.g., judges, lawyers). Each participant will receive a \$15 voucher to compensate them for their time.

**What if we change our minds?**

That is fine. Students who return signed forms will be asked again at the start of the interview if they want to continue. Only those who give verbal agreement to continue with the interview will do so. The student can ask to stop at any point up until the end of the interview.

**What will happen to the information collected?**

Participation will remain confidential; the names of participants will never be used in a research publication or presentation; however, anonymised quotes may be included. Consent forms will be kept securely for a minimum of five years after publication, then destroyed. Audio recordings of the interviews will be transcribed and destroyed. The transcripts, and an electronic databased, with no identifying information, will be held securely for an indefinite period by the PI. Results, including anonymised quotations, may be used in publications and/or presentations. Finally, the data may be used in future related research, and may be shared with other competent researchers upon request and subsequent approval of the PI.

**What is involved?**

Interviews will take place at school between the student and a member of the research team. These are likely to last between 45 minutes and 1 hour and will take place in a private area. These interviews will usually occur during class time, which will be arranged with your school to minimise any disruption.

The interview will involve a series of questions about key areas of knowledge such as, what is the role of a judge? There will be hypothetical scenarios presented during the interview. For example, a story about a fictional (made up) defendant will be described and students will be asked to choose what they think is the best course of action for the fictional defendant. The interview will be recorded to assist with transcribing the student's answers. Students **will not** be asked about their own experience of the youth justice system.

Two other measures will be used during this interview. First, a brief measure of IQ/cognitive ability will be given to the student. The second is a measure of emotion regulation that asks about identifying emotions/feelings. This part will not be audio recorded and individual student feedback on performance will not be provided.

*Confidentiality will only be breached if required to do so by law\*\*.*

Information and consent: 16yrs+

**Statement of Consent**

*If you wish to take part in the proposed study please read the following carefully*

1. I have read the information concerning the proposed study and I am aware of the type of information that is required.
2. I understand participation in this study is voluntary and that participants can withdraw at any time, up until the end of their interview session.
3. I understand that the information provided is confidential and, without any names, may be stored long term and shared with other competent researchers.
4. I have had a chance to ask questions about the research and have those questions answered to our satisfaction.

**I agree to take part in this study:**

**Participant signature**

---

## Appendix B: Consent and Information Pamphlet (Under 16 Years)

Front view

### Demographic Information

If you consent to your child participating in this research please fill out the details below and return to the school. Thank you.

Child's Name:

---

Child's Gender:

---

Date of Birth: \_\_\_\_\_

Child's Ethnicity (list all):

Parent's/Guardian's name:

---

Any information relating to difficulties related to learning. For example, Dyslexia or ADHD (this is **not** a compulsory question)

### Why is this research important?

If young people lack competence (i.e. knowledge) because of their developmental level they may find it hard to participate in a range of legal and court processes. In New Zealand there has been very little research that explores this issue. New Zealand has a youth justice system that was designed to focus on the developmental needs of young people and children. However, it is unclear whether or not this system is effective at meeting these young people's developmental needs.

### Who are we?

We are a team of researchers from the School of Psychology, Victoria University of Wellington.

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This research has been approved by the School of Psychology Human Ethics Committee under delegated authority of Victoria University of Wellington's Human Ethics Committee.

Information and consent/assent: under 16yrs



## *Young People's Understanding of the Justice System in New Zealand*

### What is this research about?

Research shows that during adolescence many young people come into contact with the justice system. Importantly, international research has shown that young people generally know very little about law and justice policies and procedures that are aimed at young people. This level of knowledge varies greatly between young people. This study will look at the level of knowledge of important, relevant legal process among a group of New Zealand young people, aged 12 to 18 years to see how the results compare to what has been found by researchers in other countries.



## Back view

**The value of participation?**

During the interview process participants will be introduced to, and be able to learn about, important information regarding the youth court process and the key roles of those involved in New Zealand's youth justice system (e.g., judges, lawyers). Each participant will receive a \$15 voucher to compensate them for their time.

**What if we change our minds?**

That is fine. Students who return signed forms will be asked again at the start of the interview if they want to continue. Only those who give verbal agreement to continue with the interview will do so. The student can ask to stop at any point up until the end of the interview.

**What will happen to the information collected?**

Participation will remain confidential; the names of participants will never be used in a research publication or presentation; however, anonymised quotes may be included. Consent forms will be kept securely for a minimum of five years after publication, then destroyed. Audio recordings of the interviews will be transcribed and destroyed. The transcripts, and an electronic databased, with no identifying information, will be held securely for an indefinite period by the PI. Results, including anonymised quotations, may be used in publications and/or presentations. Finally, the data may be used in future related research, and may be shared with other competent researchers upon request and subsequent approval of the PI.

**What is involved?**

Interviews will take place at school between the student and a member of the research team. These are likely to last between 45 minutes and 1 hour and will take place in a private area. These interviews will usually occur during class time, which will be arranged with your school to minimise any disruption.

The interview will involve a series of questions about key areas of knowledge such as, what is the role of a judge? There will be hypothetical scenarios presented during the interview. For example, a story about a fictional (made up) defendant will be described and students will be asked to choose what they think is the best course of action for the fictional defendant. The interview will be recorded to assist with transcribing the student's answers. Students **will not** be asked about their own experience of the youth justice system.

Two other measures will be used during this interview. First, a brief measure of IQ/cognitive ability will be given to the student. The second is a measure of emotion regulation that asks about identifying emotions/feelings. This part will not be audio recorded and individual student feedback on performance will not be provided. *Confidentiality will only be breached if required to do so by law\*\*.*

Information and consent/assent: under 16yrs

**Statement of Consent**

*If you wish to take part in the proposed study please read the following carefully*

1. We have read the information concerning the proposed study and we are aware of the type of information that is required.
2. We understand participation in this study is voluntary and that participants can withdraw at any time, up until the end of their interview session.
3. We understand that the information provided is confidential and, without any names, may be stored long term and shared with other competent researchers.
4. We have had a chance to ask questions about the research and have those questions answered to our satisfaction.

**I agree for my child to take part in this study:**

**Parent/ Guardian's Signature**

\_\_\_\_\_

**Participant Signature (young person under 16yrs):**

\_\_\_\_\_

## Appendix C: Information Pamphlet for Schools

Front view

### Information Pamphlet - Schools

#### Why is this research important?

If young people are not knowledgeable or competent, due to their developmental level, their ability to effectively participate in the legal process may be compromised. No research, to date, has explored this issue of competence in New Zealand. NZ has a unique youth justice system that was designed with the developmental needs of young people and children in mind; however, it remains unclear whether or not the system is effective.

#### What is the benefit of your participation?

During the interview students will be introduced to, and taught important information regarding the youth justice process, thus introducing them to important concepts regarding NZ's youth justice system.

#### Where to find the overall study results?

A summary of the findings of the research and its implications will be provided. The manner in which this is presented will be suited to the format preferred by your school. Two likely mediums could include posters or short presentation. Summarised results will also be available to all participants and their families via Dr Fortune's website <http://youthfpsy.com/>

#### Who are we?

We are a team of researchers from the School of Psychology at Victoria University of Wellington.

##### Principle Investigator (PI):

Dr Clare-Ann Fortune

Email: [Clare-Ann.Fortune@vuw.ac.nz](mailto:Clare-Ann.Fortune@vuw.ac.nz)

Phone: (04) 463 5788

##### Forensic Psychology Masters student:

Phillippa Dean

Email: [Pip.Dean@vuw.ac.nz](mailto:Pip.Dean@vuw.ac.nz)

If you have any questions or comments regarding this research project please contact the research team.

This research has been approved by the School of Psychology Human Ethics Committee under delegated authority of Victoria University of Wellington's Human Ethics Committee. If you have any queries regarding ethics, the Chair of the HEC, Associate Professor Susan Corbett can be contacted:

[Susan.Corbett@vuw.ac.nz](mailto:Susan.Corbett@vuw.ac.nz)



## Young People's Understanding of the Justice System in New Zealand

#### What is this research about?

The adolescent years are often associated with a spike in antisocial and offending behaviour, which results in large numbers of young people coming into contact with the justice system. Importantly, international research shows that not all young people have the same level of knowledge, understanding and reasoning abilities (referred to as competence) because of developmental differences in social, emotional, and cognitive abilities. For example, research shows that under 13 year olds generally do not have enough knowledge to be considered 'competent' to go to youth court. This study will look at level of competence (knowledge and understanding in relation to the NZ justice system) of a group of NZ school aged children aged (12 to 18 years).



## Back view

## Information Pamphlet - Schools

**What is involved?**

If you agree to being a part of the research you will be given copies of the parent/child information pamphlet to give to the students to take home. Students who return the signed statement of consent will be interviewed at school, at a time agreed by the school, in a quiet and private space. It is anticipated the interview will take 45-60 minutes to complete. They will be interviewed using a (semi) structured interview developed for the study. The interview will explore their knowledge (e.g., what is an FGC?), understanding (e.g., what is the role of the judge) and reasoning (e.g., weighing up the effects of different courses of action) about the youth justice process in NZ. Additionally, brief assessments of IQ and emotion regulation will be administered to each participant.

**Consent**

Written consent will be sought from parents/caregivers and assent from students under 16 years of age. Students aged 16+ years will be able to give consent themselves. Additionally, at the start of each interview students will again be asked if they want to continue and reminded they are free to withdraw at any point up until the end of the interview.

**What if students change their minds?**

That is fine. Students who return signed statements of consent will be asked at the outset of the interview for their verbal consent. Only those who give verbal agreement to continue will do so, even if they have returned a signed statement of consent. They are also free to withdraw at any point up until the end of the interview.

**What will happen to the information that we collect?**

Participation will remain confidential. The names of participants will never be used in any research outputs, e.g., publications. Anonymised quotes may be included in research outputs such as publications and presentations.

Consent forms will be kept securely for a minimum of five years after publication, then destroyed. Audio recordings of the interviews will be transcribed and destroyed. The transcripts, and an electronic database, with no identifying information, will be held long term by the PI. Finally, the anonymised electronic database may be used in future research, and may be shared with other competent researchers upon request and subsequent approval of the PI.

**Overview**

- Schools are asked to assist with recruiting participants and providing a quiet and private place for interviews.
- Semi structured interviews will take between 45-60 minutes. Participants will be thanked for their participation with a voucher (worth approximately \$15).
- A morning tea will be provided for the staff of participating schools at the end of data collection as a sign of appreciation.
- Participation by students in this study is **voluntary**. They have the option to withdraw from the research and any time up until the end of the interview session.
- The information participant's give is confidential. This information, without any identifying details, may be stored long term and shared with other competent researchers.
- Small phrases or quotes from participants may be used in research publications and/or presentations without identifying detail.
- Schools will be offered an electronic copy of the final thesis and receive a summary of the research in form of their choosing (e.g., poster, short written summary).

## Appendix D: Debrief Information Pamphlet

Front view

### Debrief sheet

#### Who is the research team?

We are researchers from the School of Psychology, Victoria University of Wellington

#### Principle Investigator:

Dr Clare-Ann Fortune  
Senior Lecturer in Clinical Forensic Psychology

[Clare-Ann.Fortune@vuw.ac.nz](mailto:Clare-Ann.Fortune@vuw.ac.nz)

Phone: (04) 463 5788

#### Forensic Psychology Master's Thesis Student:

Phillippa Dean

[Pip.Dean@vuw.ac.nz](mailto:Pip.Dean@vuw.ac.nz)

Please feel free to contact us with any questions or feedback about this project.

This research has been approved by the School of Psychology Human Ethics Committee under delegated authority of Victoria University of Wellington's Human Ethics Committee. If you have any queries regarding ethics, the Chair of the HEC, Associate Professor Susan Corbett can be contacted:

[Susan.Corbett@vuw.ac.nz](mailto:Susan.Corbett@vuw.ac.nz)

## *Young People's Understanding of the Justice System in New Zealand*



Thank you for taking part in this research.

We are aiming to explore the relationship between young peoples understanding of the justice system and their ability to take part in legal processes.

We want to find out if there is a relationship between things such as age, IQ and emotion control, and overall understanding.



Back view

### Debrief sheet

#### **What we know now:**

Overseas research has shown that during adolescence there is an observable spike in the number of young people who have contact with the justice system. We also know that not all young people have the same level of knowledge, understanding, and reasoning abilities (known as competence) due to developmental differences in social, cognitive, and emotional skills. For example, research has shown that those under 13 years are usually in-competent while those 16 years and older are usually competent.

This study will look at the level of competence among a group of New Zealand school children aged 12 to 18 years. This study is the first of its kind to be conducted in New Zealand.

#### **What more do we need to know:**

Examining the relationship between developmental differences and competency will help us better identify young people involved in a legal system who are at risk of being less able to engage in a meaningful way. Also if the New Zealand research reflects overseas findings, this could lead to an improvement in resources available to young people in NZ.

Discussion about how young people's developmental needs are met in the justice system.

#### **What will happen to the information collected?**

Just a reminder that participant confidentiality will be maintained. This means the names of participants will never be used in any research outputs e.g., reports. However, anonymised quotes may be included in research publications and/or presentations.

Consent forms will be kept securely for a minimum of five years after publication, then destroyed. The audio recording transcripts, and an electronic databased, with no identifying information, will be held long term. Finally, the anonymised electronic database may be used in future research, and may be shared with other competent researchers upon request and subsequent approval of the Principal Investigator.

#### **Need to talk?**

If any of the content of the interviews has caused you to feel distressed in any way, talk to someone you trust or call:

Youthline: 0800 37 66 33, Free txt 234 or talk@youthline.co.nz

#### **For more information:**

<https://www.govt.nz/browse/law-crime-and-justice/courts/how-the-youth-justice-system-works/>

#### **Overall study results**

A summary of the overall results of this New Zealand study will be made available on Dr Clare-Ann Fortune's website in early 2019.

<http://youthfpsy.com/>

Additionally, schools and other relevant organisations will be presented with a summary of the research in a way that suits them, such as through a poster, summary report, and/or a short presentation.

**Thank you again for participating in this research. We could not do it without your help.**

### Appendix E: Mean and CIs for Communication with Counsel, and Reasoning and Decision-Making Sections

Communication with counsel		<i>M</i> Score	95% CI
Question 1	Part A	1.62	[0.83, 2.41]
	Part B	1.3	[0.52, 2.08]
Question 2	Part A	1.66	[0.91, 2.41]
	Part B	1.12	[0.45, 1.79]
Question 3	Part A	1.87	[1.37, 2.37]
	Part B	0.82	[0.14, 1.50]
Question 4	Part A	1.24	[0.26, 2.22]
	Part B	0.84	[0.06, 1.62]
Question 5	Part A	1.21	[0.23, 2.19]
	Part B	1.05	[0.41, 1.69]
Reasoning and decision-making			
Question 1	Part A	1.56	[1.00, 2.12]
	Part B	1.34	[0.67, 2.34]
Question 2	Part A	1.15	[0.18, 2.12]
	Part B	1.1	[0.23, 1.97]
Question 3	Part A	1.46	[0.62, 2.30]
	Part B	1.05	[0.30, 1.80]
	Part C	1.52	[0.74, 2.30]
	Part D	1.1	[0.32, 1.88]
Question 4	Part A	1.71	[1.00, 2.42]
	Part B	1.74	[1.09, 2.39]
Question 5	Part A	0.45	[-0.39, 1.29]
	Part B	0.34	[-0.35, 1.03]

**Appendix F: Tests for Interaction Effects within Individual Sections of the FST-SSIT**

Subscales	Equation
General knowledge	
IQ x Gender	$F(5,83) = 1.650, p < .198$
IQ x Decile	$F(5,83) = .782, p < .461$
IQ x Age	$F(5,72) = .766, p < .648$
Gender x Age	$F(5,77) = .704, p < .622$
Gender x Decile	$F(3,85) = 2.910, p < .092$
Decile x Age	$F(5,77) = 1.462, p < .212$
Understanding of consequences	
IQ x Gender	$F(5,83) = 1.205, p < .305$
IQ x Decile	$F(5,83) = 1.769, p < .177$
IQ x Age	$F(5,72) = .719, p < .690$
Gender x Age	$F(5,77) = .761, p < .581$
Gender x Decile	$F(3,85) = .411, p < .523$
Decile x Age	$F(5,77) = 1.615, p < .166$
Communication with counsel	
IQ x Gender	$F(5,83) = .1842, p < .114$
IQ x Decile	$F(5,83) = .447, p < .641$
IQ x Age	$F(5,72) = 1.698, p < .105$
Gender x Age	$F(5,77) = 1.442, p < .219$
Gender x Decile	$F(3,85) = 1.110, p < .295$
Decile x Age	$F(5,77) = 1.095, p < .370$
Reasoning and decision-making	
IQ x Gender	$F(5,83) = .528, p < .592$
IQ x Decile	$F(5,83) = .103, p < .902$
IQ x Age	$F(5,72) = .987, p < .458$
Gender x Age	$F(5,77) = .199, p < .962$
Gender x Decile	$F(3,85) = 2.413, p < .124$
Decile x Age	$F(5,77) = .429, p < .827$