A PSYCHO-LEGAL PROTOCOL FOR ASSESSING TESTAMENTARY CAPACITY AND CAPACITY TO APPOINT AN ENDURING ATTORNEY

A Thesis submitted by

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Abstract

This thesis addresses the issue of assessing testamentary capacity and capacity to appoint an enduring attorney or guardian (EPA), and the criteria by which judgment is made concerning its acceptability. Its concern is largely with legislation in Queensland, and informed by experience in other countries and other jurisdictions. The basic criterion of acceptability is that a person must have capacity to make a Will or appoint an EPA. There is a presumption of capacity; however, this presumption can be rebutted if a person does not meet the relevant legal test of capacity with added empirical evidence about cognitive functioning. This thesis reports basic empirical studies from: focus groups of GPs (n = 13), lawyers (n = 7), and psychologists (n = 7); questionnaire results of medical practitioners (n = 35), legal practitioners (n = 55), and allied health practitioners (n = 45); and clinical research on the legal capacity of persons with memory difficulties (n = 38). The empirical evidence is that when professionals are made aware of the perspectives of other professional groups a consensus is reached. Furthermore, assessors consider factors that contradict the *Guardianship and Administration Act 2000* (Qld) Guiding Principles and may contravene the Convention on the Rights of Persons with Disabilities (UN General Assembly, 2007). Psychometric tests were of more use in buttressing determinations of capacity (sensitive) than identifying participants who lacked capacity (specificity). The conclusions drawn are that additional training is needed for practitioners working in this area, and that certain cognitive tests enhance the confidence with which statements on capacity can be made.

Certification of Thesis

This thesis is entirely the work of Simon J. Zuscak except where otherwise acknowledged. The work is original and has not previously been submitted for any other award, except where acknowledged.

Student and supervisors signatures of endorsement are held at USQ.

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A quiet game of golf with my mentor and friend Professor Ian Coyle soon developed into a thoughtful discussion of how to assess a person's capacity to write a Will. By the back-nine, Ian professed, "you shall complete a PhD on this topic under my tutelage". Here we are, some years later, and I am grateful to Ian's unwavering support and motivation to achieve the current project.

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CHAPTER 1 INTRODUCTION

1.1 Context

In 2010, there were 400,000 Australian people aged 85 years and over. The portion of the population in this age bracket increased 170.6% in the last 20 years compared with a total population growth of only 30.9% over the same period (Australian Bureau of Statistics [ABS], 2010). There was also an increase in the total number of older adults diagnosed with dementia illnesses (Alzheimer's Association, 2014; Australian Institute of Health and Welfare, 2012). The Queensland Higher Courts Civil Database System revealed an increase in the total number of Estate disputes in Queensland District Courts from 100 in the 2007-2008 financial year to 230 in the 2011-2012 financial year (QCivil, 2013). This trend was consistent with evidence from other jurisdictions, which revealed that testamentary capacity is the most frequently litigated form of capacity (American Bar Association – American Psychological Association [ABA-APA], 2008; Nedd, 1998). Consequently, lawyers request specialist opinion on decision making capacity[1] for their clients (ABA-APA, 2008) and this demand is likely to increase over the next two decades (Braun & Moye, 2010).

Rule 8 from the Australian Solicitors Conduct Rules (ASCR, 2012) indicates that "[a] solicitor must follow a client's lawful, proper and competent instructions." The Queensland Law Society (QLS) extends this point,

> "[t]he legal test for capacity varies according to what is involved, for example whether the client wants to make a will or enduring power of attorney or to pursue a court case. It is often difficult for a solicitor to assess whether a client has capacity. In cases of doubt a medical assessment may be needed." (QLS, 2015, para 2).

[1] Competence is a legal term, indicating a court determination. Capacity refers to a professional's estimation of the likelihood that a court would find the patient incompetent on the basis of demonstrated decision making performance (Appelbaum & Grisso, 1988).

Furthermore, the QLS Client Care - Communication and Service (2014) communique reminds practitioners that, "[a]s with specific regulatory obligations, it is important to think of client care not as some defined minimum benchmark, but as a constant journey towards best practice and ever-higher levels of client satisfaction" (p. 3).

In considering when to refer for specialist opinion, lawyers balance the potential negligence of not acting on a client's instructions with taking the time to ensure the client has capacity to act. Failing to ensure the client has capacity was central to the decision in *Legal Services Commissioner v. Ford* (2008). This case highlighted an example where a Queensland lawyer (Ford) was found to have conducted himself unsatisfactorily when considering testamentary capacity and capacity to appoint an Enduring Power of Attorney (EPA) for his client, Mrs Adams. It was argued that Ford ought to have reasonably been aware of his client's reduced mental capacity. In his summary judgement, Justice Fryberg commented:

> In my judgment, Mr Ford, ought to have been particularly alert to the possibility that there might be some question as to Mrs Adams' capacity to do these things. She was, to his knowledge, an elderly person. She was in a nursing home. She was cutting her family out of her Will. She was leaving everything to the person who was facilitating the arrangements (p. 21) …I am satisfied that he failed to make an appropriate written record of all steps taken in assessing Mrs Adams' competence or, toward that end, including all questions and answers (p. 22).

When there are signs of potential incapacity it is ethical best practice to employ accepted protocols of assessment. If an assessor does so they are protected under the law. The judgment of the Superior Courts (UK) in *Sharpe v. Adam* (2006) was a case in point. The Will was found invalid for lack of testamentary capacity; however, the lawyer was protected from liability because she adopted a structured approach to balancing the client's instructions with determining capacity. In Queensland, the liability of tort[2] of a solicitor who fails to give effect to a client's

[2] Tort law applies to the relationships between individuals, and acts to rectify conduct or wrong-doing.

testamentary wishes is established (Mortensen, 2002). "…a medical opinion should be obtained if there are reasons to doubt that the client has the requisite capacity…(p. 62)…the solicitor is no mere scrivener rephrasing the testator's wishes in appropriate legalese" (p. 75).

Taken together, the ASCR (2012) and QLS ethical guidelines, the decisions in *Legal Services Commissioner* and *Sharpe*, and Mortensen's (2002) essay on solicitor's duties highlight the importance of documenting all instructions, involving witnesses, reviewing medical information, referring in the instance of suspected incapacity, and documenting motivating reasons for significant changes in instructions.

1.1.1 Summary.

Despite a burgeoning elderly population, an increase in District and Supreme Court Estate disputes, and an identified need to refer at risk clients for formal assessment, there has been limited research into assessment protocols. Referral and contemporaneous assessment of clients with potential incapacity by professionals with specific training in assessing capacity is imperative to assist the courts in making determinations in the instances of legal challenges (Shulman, Peisah, Jacoby, Heinik, & Finkel, 2009).

1.2 Legal Definitions and Commentary

1.2.1 Probate.

Probate is the official recognition of a valid Will. There are two types of probate granted; Common and Solemn Form. A grant in Common Form is when the Will's Executor is given the power to deal with the assets of the estate (Campbell, 2006). A grant in Solemn Form aims to grant the current Will as being the last valid Will in existence and is not open to revocation unless a later Will is found, or if the Testator[3] married or divorced after the Will was made (thus potentially voiding the more recent Will).

Although probate law varies between states in Australia, there is considerable overlap. To validate a Will, three points need to be satisfied, (a) *testamentary power*

[3] To avoid unnecessary redundancy of language the term Testator is used herein to include Testatrix.

- a Testator must have the right to pass on accumulated wealth and property within the statutes of law, (b) *testamentary capacity* – a Testator must meet criteria relating to the cognitive understanding of propounding a Will, and (c) an absence of *undue influence* - elements of undue influence include susceptibility, opportunity, prior attempts to influence, and the fact a transaction is suspicious in terms of who it benefits (Usdin, 1957). More recently, challenges to Wills have extended to Family Provision applications, which are made under Part IV of the *Succession Act 1981* (Qld), where potential beneficiaries may claim they have been inadequately provided for.

1.2.2 Testamentary capacity.

The concept of testamentary capacity has altered through the years. In 1848 England, mental disease of any kind was sufficient proof of a lack of testamentary capacity. In North America, determinations of capacity considered whether an individual understood the specific decision they were making. In the seminal UK case of *Banks v. Goodfellow* (1870) Lord Chief Justice Cockburn considered and rejected the long-held view that:

> …[T]he mind, though it has various faculties, is one and indivisible; if it is disordered in any one of these faculties, if it labours under any delusion arising from such disorder, though its other faculties may remain undisturbed, it cannot be said to be sound; such a mind is unsound, and testamentary incapacity is the necessary consequence (p. 565).

Mr. Banks had suffered from bizarre delusions of persecution before and after he gave instructions and executed his Will. He held the belief that he was being abused by a man named Featherstone Alexander; even after Mr. Alexander's death. In this case the medical opinion was that Mr. Banks did not have capacity to manage his affairs, despite functional evidence that he was satisfactorily attending to his financial interests. It was at this point that Lord Cockburn appreciated that mental illness was not categorical, but rather there was a spectrum of disorder. He summarised what still exists today as a general principle of capacity: (a) The Testator must appreciate what they are about to do and be aware of its significance. That is, the Testator must give instructions for and sign a document (i.e., a Will) which will give away what he owns at their death; (b) The Testator must be aware, at

least in general terms, of the nature, extent and value of the estate which he is able to give away by his Will. Different jurisdictions apply this rule to differing levels, some even requiring the Testator to detail which assets may not pass by Will (i.e., pensions) and which are not solely owned (Marson, Huthwaite, & Hebert, 2004); (c) The Testator must be aware of those who might reasonably be thought to have a claim on his assets after his death and the basis for and the nature of the claims of those persons. In the English case of *Harwood v. Baker* (1840), Lord Erskine ruled that a Testator must not only name the beneficiaries, but also exclude other relations who may lay claim to his bounty; (d) The Testator must have the mental capacity to rationally evaluate and discriminate between the respective strengths of plaintiffs who could make a claim against his estate. The USA case of *Delafield v. Parish* (1862) further required that the Testator is able to recall, without prompting, the condition of his property, the likely beneficiaries, and details of the nature of Wills in general. Furthermore, the Testator ought to name and understand the role of the Executor (Marson et al., 2004). The presence of delusions and hallucinations do not preclude testamentary capacity so long as the Will is not a product of these delusions (Marson et al., 2004). This is still considered good law and was affirmed by the High Court of Australia in *Bull v. Fulton* (1942). Of course, most Testators do not exhibit the florid, deeply entrenched delusional belief system of Mr. Banks. In the case of more common causes of cognitive impairment Chief Justice Cockburn articulated (at 566):

> It may be here not unimportant to advert to the law relating to unsoundness of mind arising from another cause — namely, from want of intelligence occasioned by defective organization, or by supervening physical infirmity or the decay of advancing age, as distinguished from mental derangement, such defect of intelligence being equally a cause of incapacity. In these cases it is admitted on all hands that though the mental power may be reduced below the ordinary standard, yet if there be sufficient intelligence to understand and appreciate the testamentary act in its different bearings, the power to make a Will remains…

Campbell (2006) noted that the *Banks* case did not require a Testator to consider who was identified as the Executor, nor the specific powers that the Executor does or does not have. Furthermore, the criteria did not describe the extent

to which the Testator needed to understand the precise holdings of his property. There have been significant changes in life since 1870, including an increase in the incidence of dementia, an increased reliance on professionals to manage financial affairs, and the fact that these affairs have become more complex. In NSW, Australia, it is generally accepted that a Testator need not understand all the fine details of the asset holdings, such as specific addresses or asset values, so long as they understand broadly that they own some properties and have some investments and would like to pass these on. Therefore, in addition to the *Banks* guidelines, it must be established that the Testator comprehends that their Will: (a) Is a document that operates after death; (b) can be revoked up until death; (c) revokes prior Wills; (d) appoints an Executor who has duties and powers, and assigns or limits specific powers of the Executor.

Testamentary capacity can be influenced by dementia illnesses, substance use disorders, mood disorders, delusions and other medical conditions (Shulman et al., 2007). Different types of evidence can be employed to challenge testamentary capacity. Such evidence includes: (a) the recall of incidents at the time a Will is made by friends, family, and the solicitor; (b) medical information including observations, clinical notes, medical diagnoses, and results from psychometric assessments; and (c) notes from nursing homes. Medical evidence alone does not answer the legal question of capacity (Campbell, 2006).

In addressing the question of who can assess capacity, Church and Watts (UK; 2007) indicated that specialist opinions may be garnered from a psychiatrist, medical specialists, a clinical psychologist or neuropsychologist. The same view was held by Brietzke (Australia; 2007), "…in practice detailed capacity assessments are usually conducted by geriatricians, psychiatrists, neuropsychologists and psychologists" (p. 19). Furthermore, the Mental Capacity Implementation Programme (UK) similarly purported that "…anyone can assess capacity, including medical professionals, advisers, lawyers, friends, relatives and carers, but the person who assesses should be someone appropriate to the decision or action in question" (Elles & Letts, 2009, p. 16). Similarly, in NSW, the Attorney Generals' Department noted that "a range of people in the community are recognised as having a responsibility to undertake an assessment of a person's capacity...[including] an allied health worker" (NSW Attorney General's Department, 2008, p. 54). This view

was shared by Moye and Marson (USA; 2007) who acknowledged that capacity is a "…generic, everyday issue that permeates different sectors of society. Issues of decision making capacity are germane to a wide range of professional disciplines…" (p. 4). A survey of 119 probate judges in the USA revealed that roughly equal numbers of physicians, psychiatrists and allied mental health professionals were involved in cases involving mental capacity (Spar, Hankin & Stodden, 1995). For undue influence, the number of psychiatrists was lower than the other two categories. Judges found expert testimony to be extremely influential in 51% of capacity cases, and 37.4% of undue influence cases. When referring for specialist assessment, many disciplines may be adequately placed to comment. What is most important is the clinician's understanding and experience in assessing capacity. Furthermore, one must consider the potential for conflicts of interest; the assessor ought to be independent (Stewart, Bartlett, Harwood, 2005). This is especially critical in instances of family conflict, where families can ally and co-opt health professionals (Peisah, Brodaty, & Quadrio, 2006).

1.2.3 Undue influence.

In Australia, challenges of undue influence involve establishing the conduct of a third party or parties has affected the behaviour of the deceased to a point where free agency is usurped. It is much more than influencing or manipulating (Verspaandonk, 2013). Although self-serving intentions of the influencer may be relevant, it is not always the case (such as in *Nicholson v. Knaggs*; *Carey v. Norton*; and *Dickman v. Holley*). Such influences can occur irrespective of capacity; however, the risk is increased in the presence of vulnerabilities, such as cognitive impairment (Singer, 1993).

Establishing voluntariness is essential to determining capacity (USA; Kapp, 2015). An assessment of undue influence focuses on the legal indicia of undue influence by investigating and documenting the existence of risk factors. An assessor needs to consider the presence of a third party who isolates the client from their usual support networks, encourages mistrust in others whilst winning over the client with gifts and acts of kindness, and finally places the client in a position to change their financial arrangements in favour of the potential manipulator. These changes are usually inconsistent with the client's earlier stated values, thus it is prudent to gain a copy of a previous Will. It is an assessor's role to document risk factors, and

worksheets are available to guide assessors (Blum & Feledy, 2002). Furthermore, in addition to the behavioural, medical and legal aspects to the traditional capacity assessment, additional questions ought to be included that deal with the emotional and psychological context of these changes, the rationale for changes, the appreciation of the impact of these changes, and a clear statement on why potential beneficiaries were excluded (Australia; Shulman, Cohen, Kirsh, Hull, & Champine, 2007). Although the assessor systematically documents these factors, the final determination of the presence of undue influence rests with the relevant Court.

1.2.4 Regulated decision making.

In Queensland, the *Guardianship and Administration Act 2000* (Qld) and the *Powers of Attorney Act 1998* (Qld) regulate decision making for adults with impaired capacity. This includes matters relating to personal, financial, health, or special matters (such as participation in research, voting, consent to marry, making a Will, and others). As in testamentary capacity, the principle of decision specific capacity persists. That is to say, a person has capacity so long as they understand the nature and effect of the decision they are making, make the decision freely and voluntarily, and communicate their decision. Importantly, people with capacity have the right to make decisions with which others do not agree; it is not a matter or making a good decision, it is a matter of whether the decision making process is intact. As capacity is functionally defined, it can change across time and decisions. Practitioners need to be aware to not erroneously extrapolate incapacity in one area, to other areas and different decisions (Ganzini, Volicer, Nelson & Derse, 2003). In the ruling of *Scott v. Scott* (2012) the Australian law general principle of decision specific capacity is confirmed (at 197-199):

> *Gibbons v Wright* is cited as the pre-eminent Australian authority on the question of the nature and degree of mental capacity to effect an *inter vivos* transaction. It establishes that different degrees of mental soundness may be required for the validity of different transactions, and that the "standard" is relative to the particular transaction: *Crago v McIntyre* [1976] 1 NSWLR 729 at 739C-F.
>
> The foundation passages appear in the joint judgment of Chief Justice Kitto and Justice Taylor at 91 CLR 437-438:

> The law does not prescribe any fixed standard of sanity as requisite for the validity of all transactions. It requires, in relation to each particular matter or piece of business transacted, that each party shall have such soundness of mind as to be capable of understanding the general nature of what he is doing by his participation. ...
>
> ... [The] mental capacity required by the law in respect of any instrument is relative to the particular transaction which is being effected by means of the instrument, and may be described as the capacity to understand the nature of that transaction when it is explained. As Hodson LJ remarked (in *Estate of Park* [1954] P89 at 136), 'One cannot consider soundness of mind in the air, so to speak, but only in relation to the facts and the subject-matter of the particular case'.
>
> …Ordinarily the nature of the transaction means in this connection the broad operation, the 'general purport' of the instrument; but in some cases it may mean the effect of a wider transaction which the instrument is a means of carrying out. ..."
>
> What follows from this statement of principle is that each case must be considered on its own facts. Care needs to be taken not to over-generalise. There is no rule of general application relating to all powers of attorney without regard to particular facts. Attention must be focussed on all the circumstances of the case, including the identities of the donor and donee of a disputed power of attorney; their relationship; the terms of the instrument; the nature of the business that might be conducted pursuant to the power; the extent to which the donor might be affected in his or her person or property by an exercise of the power; the circumstances in which the instrument came to be prepared for execution, including any particular purpose for which it may ostensibly have been prepared; and the circumstances in which it was executed.

When assessing capacity, there is a presumption of capacity unless contrary information becomes available. The standard of proof to rebut the presumption of capacity is the balance of probabilities. Once the presumption of capacity is rebutted, consequential actions are guided by the 11 Principles of Capacity (*Guardianship and*

Administration Act 2000). These principles can be summarised as: a presumption of capacity; a right to decide; respect for human worth; the importance of valued social roles; social engagement; self-reliance; maximum involvement; least restrictive decision making protocols; maintaining supportive relationships; respecting cultural, linguistic and religious values; and the right to confidentiality. These principles are also reflected in the Convention on the Rights of Persons with Disabilities (UN General Assembly, 2007).

In 2008, the Queensland Law Reform Commission (QLRC) released a discussion paper on Queensland's guardianship legislation. In all Australian states and jurisdictions (except Queensland), definitions of impaired decision making refer to some diagnostic causation. The link between diagnosis, test results and their causative impact on decision making deficits needs to be elucidated (Marson et al., 2004). In the Northern Territory, Tasmania, Victoria, and Western Australia, a person who is unable to make a reasonable judgment qualifies for decision making assistance. The Australian Capital Territory (ACT) and Northern Territory specifically exclude the consideration of factors including eccentricities, personal opinions, sexual orientations, immoral conduct, and the effects of drugs and alcohol. A person's functional ability to decide is all that matters. A potential difficulty with this approach is that to continually apply the presumption of capacity principle would indicate a need for multiple assessments of capacity. It remains unclear if subsequent attempts to make the same decision would again require subsequent assessments, and if so, who would bear the onus of proof in these occasions (QLRC, 2008). The Legal Commission of Ireland states a *common sense* approach to determine whether separate assessments are needed. This presumably relates to balancing the concepts of autonomy and paternalistic maleficence.

Queensland is the only Australian jurisdiction that includes a component regarding voluntariness in decision making capacity. This concept relates to traits of susceptibility and undue influence. The Queensland legislation merges the need for assessments of both competence and voluntariness. The potential for financial abuse by appointed Attorneys is a significant issue socially and legally (Wuth, 2013).

Legally, the requirement for a person to understand the nature and effect of a decision is clearly stated. The cognitive processes involved in decision making are

not so clear and there has been less focus on how to assess decision making than on the substitute decision making protocols (Appelbaum & Grisso 1988). The *Mental Capacity Act UK 2005* states that if a person can understand the relevant information, retain this information (for the time required to decide), and use that information to reach a decision, then they have capacity. The legislation does not elaborate on how much or how complex the presented information needs to be. The Act also emphasises the need to use simple language and involve aids as necessary.

QCAT retrospectively considered the capacity of a principal to appoint an EPA (*Re TGD* 2005). Unfortunately the lawyer "…did not ask the adult questions in relation to the statement of understanding outlined in Section 41 of the *Powers of Attorney Act 1998*, other than those requiring yes/no answers" (at 21). In this case, the results from cognitive testing and clinical observations were considered in ruling the appointment invalid, and therefore a prior appointment was reinstated.

Returning to the NSW case of *Scott*, Justice Lindsay considered the extent to which a person needs to understand the potential future actions of an appointed attorney. For example, consider the case of a principal who is encouraged to appoint an attorney for the purposes of conducting a pre-arranged set of transactions (such as to evict a troublesome family member from a property). In considering the principal's capacity he remarks (At 199):

> …Attention must be focussed on all the circumstances of the case, including the identities of the donor and donee of a disputed power of attorney; their relationship; the terms of the instrument; the nature of the business that might be conducted pursuant to the power; the extent to which the donor might be affected in his or her person or property by an exercise of the power; the circumstances in which the instrument came to be prepared for execution, including any particular purpose for which it may ostensibly have been prepared; and the circumstances in which it was executed.

An unapprised assessor would not normally consider the principal's capacity to make the more complicated actions beyond the appointment and general powers granted; however, the adjunct of formal contemporaneous assessment would make retrospective determinations of capacity more readily achievable. He continues, (at 206):

> … The focus of the Court must be on the **substance of the inquiry** whether the particular subject had, in fact, the requisite capacity - understanding - to effect a particular transaction.[emphasis added]

Justice Lindsay also cites *Ranclaud v. Cabban (1988):*

> …One might ask how a person who was incapable could make a Power of Attorney in the presence of such professional gentlemen. I think the answer is relatively clear. A person only seeing a little bit of the picture and seeing [the Principal] for a short time... may well form the view that it is safe to allow [the Principal] to proceed. It is only when one gets a complete overview of the evidence that one can see just how incapable [the Principal] really is. ... [p 137]."
>
> *In particular, an acknowledgement should be made of the importance of expert medical evidence as a lens through which a myriad of facts can be seen in context, as a guide to correct decision-making and as a safeguard against error. (209)*

Therefore, although one may meet the legal test, ones capacity can still be open to challenge. The principal needs to have the capacity to appreciate the likely decisions to be made at the time. Such circumstance may only be revealed to an assessor at a later date, and therefore may not be subject to the contemporaneous assessment. In these cases the additional expert medical evidence proves invaluable.

1.2.5 Enduring documents.

In Queensland, the *Powers of Attorney Act 1998 (Qld)* deals with two main types of enduring documents: an Enduring Power of Attorney (EPA); and an Advanced Health Directive. For an EPA, a principal designates one or more people to manage their future care relating to financial, healthcare, or personal matters. Advanced Health Directives enable a principal to stipulate directions and preferences, in advance, relating to issues of healthcare. The powers relating to personal and healthcare matters associated with an EPA and the Advanced Health Directive can only come into effect once the principal has lost capacity. The powers of a financial attorney can take effect at different times, including immediately at the time the document is signed. Section 41 and section 42 of the *Powers of Attorney Act*

1998 (Qld) detail the specific legal tests of capacity required to appoint an EPA and establish an Advanced Health Directive. The legal tests relate to the principal's capacity to understand the decision being made. Specific question-sets are available to assess knowledge of Advanced Health Directives; however, the question-sets available for assessing capacity to appoint an EPA (section 41) are indicated but not considered exhaustive (QLRC, 2008). A person can only appoint an EPA if they understand the nature of the document and also, at some level, the likely decisions this person could make on their behalf. For the Advanced Health Directive, the person also needs to consider some of the possible decisions that may arise in the future. These documents must be signed by a witness who can attest to the principal's capacity; however, there is no guarantee that these witnesses are adequately trained to assess capacity (QLRC, 2008).

A higher standard of cognitive functioning is often recommended for decisions that impact on the older person in life, such as appointing an EPA as opposed to giving instructions for a Will. The rationale for this is that the decisions made can affect the person in life, as opposed to taking effect after their death (ABA-APA, 2008). This notion of a decision specific cognitive threshold is also evident in life threatening situations, where the threshold of probable incompetence may be lowered to enable treatment (Appelbaum & Grisso, 1988). In these instances, information gathered from relatives may be sufficient grounds to determine capacity.

1.3 Cognitive Processes in Decision Making

Capacity assessments are often required to appreciate the functional impact of cognitive difficulties, to inform intervention, and to define the parameters of a patient's autonomy (Lai & Karlawish, 2007; Wong, Clare, Gunn & Holland, 1999). Accurate capacity assessments help reduce the potential for adverse events to patients such as financial abuse, self-neglect, or risk of injury or accident. In keeping with the functional definition of capacity, objective evidence about a person's ability to receive, evaluate, and communicate information is more important that a diagnostic classification.

The functional elements of legal decision making are almost entirely cognitive in nature. The cognitive processes implicated in decision making in general include memory, learning, attention, language, and executive functions (Saunders & Summers, 2011). The cognitive processes involved in making a Will and appointing

an EPA seem to include: semantic memory, verbal abstraction, verbal comprehension, historical memory, short-term memory, ability to appreciate value, biographical memory, and executive functions. There is very little research examining the relationship between impairments in these cognitive processes and decision making capacity.

1.3.1 Lucid intervals.

Ascertaining the general aging process from pathological cognitive impairment is a clinical skill that can be complicated by the concept of lucid intervals. Individuals may possess periods of capacity embedded within longer periods of incapacity and documents executed during the periods of lucidity should be upheld. Although entirely possible, some feel that lucid intervals may be more legal loophole than clinical reality (Marson et al., 2004). This highlights the benefit of having a healthcare professional with experience in assessing cognition present at the time of the execution of these enduring documents (Clow & Allen, 2002; Spar, Hankin, Stodden, 1995).

1.4 Assessment Protocols

The following section summarises extant guidelines for approaching and conducting assessments of decision making capacity, culminating in a summary of the common factors.

1.4.1 The American Bar Association and American Psychological Association guidelines.

The American Bar Association, in collaboration with the American Psychological Association (ABA-APA, 2008) published guidelines developed from the collective wisdom of experienced practitioners. They outlined nine steps:

1. *Identify the applicable legal standard*. The legal standards of capacity vary between jurisdictions. An assessor needs to identify the relevant standard prior to conducting the interview.
2. *Identify and evaluate the functional elements.* As most jurisdictions follow a functionally defined standard of capacity, it is important to consider the cognitive, behavioural and emotional elements involved in the specific decision. These factors will vary across decisions.
3. *Determine relevant diagnoses contributing to incapacity.* Review of treatment notes and reports allows an assessor to consider the functional impact of any

relevant diagnoses. Furthermore, collateral information gathered serves to determine the accuracy of information gathered during the interview.

4. *Evaluate cognitive functioning.* Most assessments will involve a cognitive screening test and additional measures of executive functioning, memory, attention, language, processing speed, judgement, and reasoning.
5. *Consider psychiatric and emotional factors.* Assessments of psychiatric factors are important as they may affect judgment and insight, such as in severe depression or psychotic illness. In such cases it may be relevant to recommend treatment interventions prior to a making a final determination of capacity.
6. *Consider individual values.* In considering a person's values and preferences it is important to note whether the current instructions are consistent with previous principles and values. Accessing prior Wills and enduring documents is a good way to identify sudden changes that may be inconsistent with earlier stated values. The assessor would then need to document the reasons for these changes.
7. *Identify any risks.* Consider the potential risks of the decision. Risks are heightened when the consequences of the decision are immediately enforceable. Clients with strong social support networks are generally at decreased risk of negative consequences. Ruchinskas (2003) notes the task of identifying risks is complicated by the lack of information available on the accuracy of risk predictions. Clinicians often make confident predictions despite: (a) rarely getting feedback on the prior accuracy of predictions; (b) being unaware of certain biases, and (c) considering the difficulty inherent in predicting low base rate phenomenon. On the whole, Ruchinskas (2003) argues for a scientifically validated method for making predictions about risk as a necessary step in conducting capacity assessments.
8. *Consider ways to increase capacity.* Some common ways to increase capacity include visual prompts, interpreters, alterations in medication timings and doses, educating the client about the decision they are facing, treating acute or transitory conditions, or waiting for a lucid interval. There are guidelines available to assist assessors when factors of cognitive communication disorder are present (Zuscak, Peisah & Ferguson, 2015).
9. *Make a formal clinical judgment of capacity.* Ultimately the task of the capacity assessment is to assimilate the information and apply the general guiding

principles and applicable legal test. Assessors are encouraged to reach a yes or no binary determination of capacity. If a marginal decision must be given, then information for both sides of the argument should be provided so that a judge has sufficient information to make a final ruling. When considering conflicting results across the test battery, functional assessments carry most weight, followed by cognitive performance, and finally psychiatric, emotional and medical diagnoses.

1.4.2 The American Department of Veteran Affairs guidelines (DVA, 1997).

In contrast to the ABA-APA guidelines (2008), the DVA guidelines favour clinically researched and validated outcomes as opposed to practitioner experience and opinion (Baker, Lichtenberg & Moye, 1998). The guidelines integrate findings from neuropsychology, geriatric psychological assessment, literature and independent reviews. They are written in a way to enable comprehensive assessment by psychologists without specific neuropsychological or geriatric training. There are five basic stages:

1. *Clarify the purpose for referral.* A prospective assessor ought to confirm that a capacity assessment is required and identify a suitable assessor.
2. *Plan for the assessment.* Issues of consent, confidentiality and which assessment measures to use should be considered prior to commencing the assessment.
3. *Conduct the assessment.* A good assessment will include a clinical interview, psychometric assessment, and objective performance-based measures.
4. *Compile a comprehensive report.* A report must answer the referral question.
5. *Acknowledge limitations and make recommendations.* Reports should indicate if there is a need for further assessment or second opinion. This may include an occupational therapist assessment of performance-based activities.

1.4.3 The Regional Capacity Assessment Team (RCAT) model.

The Regional Capacity Assessment Team (RCAT) model, developed by Pachet, Newberry, and Erskine (2007), is a cost-effective and clinically sound model. The team is comprised of a neuropsychologist, a psychological assistant, a social worker, and an occupational therapist. After assessing patient consent, they rule out any reversible conditions and decide if they will continue with the

assessment. For the patients who proceed to formal assessment, a clinician interviews the referral source to clarify triggers for assessment, indicators of incapacity, and at this point may request further investigations to be conducted, such as neuroimaging. The social worker assesses support systems and interviews collateral sources for a history of decision making values. A psychosocial prompt sheet is used to gather relevant information across a range of clinically relevant areas (Newberry & Pachet, 2008). Such areas include: medico-legal context, living situation, social and family history, coping, social supports, religious and cultural factors and risk of abuse. The occupational therapist administers relevant functional standardised assessments, lists possible risk factors, and makes recommendations. The psychological assistant administers a cognitive battery that is either comprehensive or targeted. The assessment usually involves the Behavioral Assessment of Dysexecutive Syndrome (Wilson, Alderman, Burgess, Emslie, & Evans, 1996), the Rey Auditory Verbal Learning Test (Rey, 1964), the Rey Complex Figure Test (Meyers & Meyers, 1995), and the Wisconsin Card Sorting Test (Berg, 1948). The patient then responds to a semi-structured interview (question-set) based on the relevant legislation relating to decision making. In acute settings, the RCAT team may forgo the assessment tools and proceed directly to the question-set interview. After all the information is gathered, each team member independently rates, on a seven-point Likert scale, the patient's level of capacity. Using a consensus-based approach they then make the final recommendation and prepare a brief written report (a maximum two pages) back to the referrer to whom they defer the final decision. The method by which professionals weigh up the information to reach their individual decision is not clearly explicated, nor is the weighting, if any, they place on cognitive test results. A further limitation is that the team do not consider cases of financial or legal capacity.

1.4.4 The Capacity Toolkit.

In 2008 the NSW Attorney General's Department released a set of guidelines for the assessment of decision making capacity. These guidelines were raised out of discussions and feedback over a five year period. The Capacity Toolkit is made up of sections such as: appropriate decision makers, guiding principles, practical tips, legal tests, assisted decision making and further resources. The general process of decision

making involves establishing a trigger, educating the patient, interviewing the patient and making a determination. The Capacity Toolkit also addresses assisted decision making protocols. There are specific sections on testamentary capacity and capacity to appoint an EPA. For testamentary capacity, the Capacity Toolkit defines the legal test as "capacity = nature + effect of the Will at the time it is being made" (p. 138) and follows similarly with a question-set and vignette. The term *nature* is not defined in the document, but seems to relate to an understanding of the general effect of a legal decision. That is, that a Will (a) is a document that can be changed or revoked up until death (provided they have capacity), (b) comes into effect after death, and (c) deals with the distribution of assets.

For Enduring Powers of Attorney, the Capacity Toolkit summarises the legal test as "capacity = nature + effect of the document at the time it is made" (NSW Attorney General's Department, 2008, p. 130). This section is followed by a question-set, which relates to the specific points of the decision to be made, and a case-study vignette to illustrate a typical presentation. The Capacity Toolkit does not make recommendations for cognitive or functional assessments in addition to the semi-structured interview.

1.4.5 The Six-Step Capacity Assessment.

Darzins, Molloy and Strang (2000) developed a six-step process that is sensitive to the legal nature of capacity determinations. These guidelines were developed to assist occupational therapists in healthcare situations, and are predominantly functionally based. The guidelines do not detail how to assess the cognitive processes needed for more complex decisions (such as making a Will). The six steps are summarised below.

1. *Ensure a valid trigger.* An assessor needs to ascertain reasonable grounds of impairment before seeking evidence of incapacity. This may include potential risks due to incapacity, or impaired performance on cognitive screening tests.
2. *Engage the patient.* Assessors must attempt to gain consent or assent prior to the assessment and discuss the possible outcomes of the assessment.
3. *Information gathering.* Further information should be sought about risks, observations, and other available collateral information. Assessors need to fully appreciate the choices and community resources available to the patient. In the

case of testamentary capacity, objective sources should be sought to gather information about the Testator's assets and potential beneficiaries.

4. *Education.* The patient needs to be informed of all their options (including doing nothing) and the foreseeable consequences therein to maximise the opportunity for capacity to be reached.
5. *Checking for understanding, assessing capacity.* This section is less clearly explicated; however, seems to deal with assessing for the presence of delusional constructs or cognitive impairment. There are no suggestions for how to do so.
6. *Act on results.* An assessor is encouraged to seek a lawful decision making substitute to assist the client in making the relevant decision. It is also important to recognise that if the patient is knowingly making a bad decision, that the patient's right to do so is respected, so long as the patient has demonstrated a rational evaluation of the relevant factors; one must distinguish the decision from the process (Appelbaum & Grisso, 1988).

1.4.6 Summary of extant protocols.

The following steps represent an amalgamation of the summarised guidelines:

1. Gain consent or assent to conduct the assessment.
2. Gather background information relating to the decision being made, including specific triggers, potential risks, prior decisions, and patient values. At this stage, an assessor can start to consider if there are ways to increase the patient's capacity, such as through the use of visual aids.
3. Identify the relevant legal test of capacity.
4. Operationalise the functional components in the decision to be made, which may include cognitive and physical processes. The assessor then selects valid and reliable tests that measure these processes.
5. Conduct cognitive and functional assessments.
6. Conduct a legally informed semi-structured interview relevant to the decision being made.
7. Compile a report with a formal recommendation about the patient's capacity.

The skill to effective assessment lies in the assessor's ability to select from the available tools for assessing specific cognitive domains and integrate results with observations, objective collateral information, and performance on the question-set.

It is important to administer general tests of cognitive ability, because these are correlated with specific cognitive abilities and have stronger test properties and theoretical underpinnings. Furthermore, general cognitive measures yield a cognitive profile, which assists in identifying strengths and weaknesses, allowing for recommendations for supported decision making and strategies to enhance capacity (McSherry, 2015; Stavert, 2015). For instance, Kapp observes that, "Many decisionally capable people need the physical assistance of others to execute their wishes. That need should not disqualify those persons from the right to exercise autonomy in decision making" (p. 169). Finally, Royall et al. (2007) support the inclusion of general tests of cognitive capacity to enable a standardised approach across assessors. This would allow for both the meta-analysis of the utility of these cognitive tests and provide important data to be considered when performing retrospective assessments, where only cognitive test results may be available. However, to rely on the results of cognitive tests without drawing explicit reference to the functional impairments vis-à-vis the legal tests is a common pitfall for the unwary expert witness (Gutheil, 2007).

Marson et al. (2004) considered the cognitive processes involved in each step of ascertaining testamentary capacity. They are:

1. *Understanding the nature of a Will:* semantic memory for a glossary of relevant terms, and verbal abilities of abstraction, comprehension and expression.

2. *Knowing the nature and extent of assets:* memory functions including semantic, historical, and short term (such as recent changes to asset holdings), comprehension of value, and the ability to communicate general estimates of value.

3. *Listing the objects of one's bounty:* historical and short term memory (such as the status and history of personal relationships).

4. *Making a determination of how to distribute assets between beneficiaries:* executive functions requiring the Testator to synthesise information and formulate responses. Silberfeld (1994) found that understanding the likely consequences of decisions was the most challenging aspect of the decision making process.

Deciding on which cognitive tests to administer is a complex step. The assessor needs to operationalise the legal definitions, and there is very little research on which tests are valid and reliable insofar as determining capacity is concerned. Sullivan (2004) proposed that capacity assessments should involve a general cognitive ability assessment, followed by a decision specific assessment tool or question-set for the decision facing the patient. The question-set often follows a cognitive assessment and serves to elucidate the specific functional implications of cognitive performance. The Capacity Tool Kit provides legally informed question-sets for testamentary capacity and capacity to appoint an EPA.

1.5 Cognitive Tests

1.5.1 Semi-structured Clinical Interview for Financial Capacity.

Marson and colleagues (2009) sought to develop an individually administered, brief, semi-structured interview to assess financial capacity. They brainstormed the skills and abilities of financial management and created test items relating to eight areas of money management: basic money skills, conceptual knowledge, cash transactions, cheque book management, bank statement management, financial judgment, bill payment, and knowledge of personal assets and estate arrangements. The interview was piloted with participants from an Alzheimer's disease research centre who had undergone medical, neurological, psychiatric, and neuropsychological screening. The screening measures included the Mini-Mental Status Examination (MMSE; Folstein, Folstein, & McHugh, 1975), the Dementia Rating Scale (DRS; Mattis, 1976), and the Clinical Dementia Rating (Morris, 1993). The clinical interview was videotaped and viewed independently by assessors who rated financial capacity as capable, marginally capable, or incapable for each domain. The participant pool was divided into four groups; controls (MMSE 29.3±1.0, DRS 138.7±3.8), mild cognitive impairment (MCI; MMSE 28.2±1.9, DRS 131.3±7.4), mild Alzheimer's disease (mild AD; MMSE 24.0±3.1, DRS 114.0±12.1), and moderate Alzheimer's disease (moderate AD; MMSE 16.4±4.2, DRS 90.7±19.6). Consensus in inter-rater agreement was defined as 80%, which is to say four out of five assessors agreed on the patient's capacity. Inter-rater agreement was greatest for the control group (91%), followed by the MCI group (90%), and then the moderate AD group (84%). Consensus was lowest for the mild AD group (69%). The mild AD group also had the highest number of participants rated as marginally

capable (37%). The limitations of this measure were that the cheque book management items are often obsolete in this population, with fewer than 10% of Alzheimer's disease patients undertaking this activity (Galasko et al., 1997), and that the scale does not relate to the specific decision being faced by a prospective patient. The Estate arrangements sub-domain was only experimental in their research and they didn't include these results in subsequent analyses.

1.5.2 Brief Cognitive Screening Measures.

The relationship between cognitive and functional decline is established (Galasko et al., 1997; Tatemichi et al., 1994). Furthermore, different aspects of the decision making process recruit different cognitive abilities (Gurrera, Moye, Karel, Azar, & Armesto, 2006; Lui, Lam, Luk, Chiu, & Applebaum, 2010). The goal of capacity research is to find the cognitive tests that best predict functional deterioration (Royall et al., 2007). For instance, cognitive ability has been shown to be a better predictor than other often investigated factors, such as regional brain volume, cerebrospinal fluid measurement or other risk factors when predicting decline from mild cognitive impairment to Alzheimer's disease (Gomar et al., 2011). The MMSE is a commonly used cognitive screening measure. It takes 10 to 15 minutes to administer and gives a score out of 30, with lower scores indicating greater impairment. The domains assessed include orientation, registration, attention and calculation (Strauss, Sherman, & Spreen, 2006, p. 104). The test is sensitive to detecting moderate to severe dementia; however, it is of less utility in cases of mild cognitive impairment. Performance in the general population shows a decline from age 55 to 60 years, and again, more aggressively, from age 75 years (Strauss et al., 2006, p. 176). Despite this trend being independent of education level, there is a positive correlation between IQ and MMSE score. Normative data are available across the life span. For an outpatient disorder memory clinic a cut-point of 26 predicts dementia with 93% probability.

Pachet, Astner, and Brown (2010) investigated the utility of the MMSE in predicting capacity. They retrospectively analysed data from 152 RCAT assessments that included patient groups of dementia, psychiatric illness and acquired brain injury. When they analysed the total sample, they found no main effects for education, gender, age or MMSE score; however, when they investigated the dementia group separately, there was a main effect of MMSE score only. MMSE

score was found to have poor sensitivity[4] in determining which patients lacked capacity; however, had good specificity with a cut-off of 19.5 points. This is to say that all patients with a MMSE score of 19 or lower, and some patients with higher MMSE scores were found to lack capacity, indicating the measure was of limited value for higher performers.

Another cognitive screening measure is the Saint Louis University Mental Status Examination (SLUMS; Tariq, Timosa, Chibnall, Perry III, & Morley, 2006). The SLUMS is an individually administered 11-item scale that also yields a total score out of 30. The SLUMS includes some original MMSE items, and new items on attention, calculation, memory recall, naming, digit span, and clock drawing. It takes 5 to 10 minutes to administer. Tariq et al. (2006) compared the SLUMS with the MMSE on sensitivity and specificity in identifying cognitive impairment. The researchers recruited 705 participants (mean age 75.3 years, standard deviation 5.5 years) who underwent a physical examination, laboratory procedures and completed both measures. To analyse their results, the researchers created separate participant groups based on years of educational (high or low), and level of impairment (normal, mild cognitive impairment, and dementia). The impairment groups were based on the Diagnostic and Statistical Manual of Mental Disorders, text revised, fourth edition criteria (DSM-IV-TR, 2000). Results favoured the SLUMS over the MMSE in identifying mild cognitive impairment from normal functioning. Additionally, the study revised the SLUMS cut-off scores to maximise sensitivity and specificity psychometric properties. They proposed the cut-off for mild cognitive impairment and dementia for low education levels to be 23.5 and 19.5 respectively. For the high education equivalent the cut-offs are 25.5 and 21.5, respectively. Item level analysis found four items did not contribute to sensitivity or specificity: the current year, state currently in, identifying a triangle from two distractor shapes, or selecting the largest figure from three options.

Rutman and Silberfeld (1992) investigated the utility of the MMSE and the Cognitive Competency Test (CCT; Wang & Ennis, 1986) in predicting capacity. The

[4] Sensitivity is a measure of a test's ability to correctly classify true positives while specificity relates to the number of true negatives correctly classified.

CCT contains eight subtests: personal information, card arrangement, picture arrangement, memory, practical reading skills, management of finances, verbal reasoning, and route learning and orientation. The researchers interviewed the participants and their carers, reviewed available medical and mental healthcare history, and conducted psychometric assessments (MMSE and CCT). A multidisciplinary panel, including professionals from the fields of law, ethics, and mental health considered 24 individual cases and gave a determination of capacity for each case. There was a general trend of participants with capacity scoring higher on the MMSE and CCT. However, when applying the test stipulated cut-offs (75 for the CCT and 24 for the MMSE) found that some participants who scored below the cut-off actually had capacity (the test lacked specificity). Although the authors did not discuss this finding, when the management of finances subscale is compared with the MMSE total score, there was an observable trend for those who scored lower on both to lack capacity, and those who scored higher on both to have capacity. A further limitation of this study was the fact they assessed participants across a range of domains (including self-care, choice of residence, choice of medical treatment, testamentary, financial, instruct counsel, appoint an EPA and make a gift); however, a finding of incapacity in any area resulted in a final determination of incapacity. This is inconsistent with the principle of domain specific capacity. Finally, the panel ranked each source of information based on its usefulness in determining capacity and found the cognitive test results to be of minimal importance. Given the small sample size, a lack of domain specific determinations and the absence of inferential statistics, it seems no firm conclusions about the utility of cognitive testing could be robustly concluded from this study.

Marson, Cody, Ingram and Harrell (1995a) investigated the relationship between cognitive tests (including the MMSE) and capacity to consent to treatment, using a Vignette method, in participants with Alzheimer's disease. The dependent variable was a component of the relevant legal standard: *ability to provide rational reasons for treatment choice*. Their results found a univariate correlation (*r*) of .55 between MMSE score and capacity. Discriminant Functional analysis revealed word fluency and simple attention to be the best predictors, correctly classifying 93% of cases.

Hooijer, Dinkgreve, Jonker and Lindeboom (1992) compared the Abbreviated Mental Test Score (AMTS; Qureshi & Hodkinson, 1974), the MMSE, the Mental Status Questionnaire (MSQ; Kahn, Goldfarb, Pollack, & Peck, 1960), and the Short Portable Mental Status Questionnaire (SPMSQ; Pfeiffer, 1975) in predicting the presence of dementia. All tests purported to assess orientation, memory and general knowledge. They administered all four tests to a sample of 415 elderly persons. Where test items were similar across tests, they administered the most complex version first and omitted the rest if answered correct (i.e., if patient successfully completed serial 7's, they didn't have to answer serial 3's). The MSQ and SPMSQ tests correlated highly with each other (r = .85); however, the other tests had more modest correlations (r range .37 to .51). None of the tests emerged as superior in identifying participants suffering a dementia illness. They identified the same number of dementia patients, although there were some differences in which cases were acknowledged.

The Addenbrooke's Cognitive Examination, Revised (ACE-R; Mioshi, Dawson, Mitchell, Arnold, & Hodges, 2006) takes approximately 15 minutes to administer and assesses five cognitive domains; attention and orientation, memory, verbal fluency, language and visuo-spatial abilities. A total score is calculated out of 100, with higher scores being indicative of better functioning. A score of 88 out of 100 yields a sensitivity of 94% and a specificity of 89%. This test also has embedded relevant items to yield an MMSE score. To date, this test has not been used in capacity research; however, it does measure verbal recall, simple executive functioning, and short-term memory which have been shown to be sensitive to cognitive decline and changes in capacity (Earnst, Marson, & Harrell, 2000; Gomar et al., 2011; Kim, Karlawish, & Caine, 2002; Marson, Hawkins, McInturff, & Harrell, 1997).

1.5.3 General Tests of Intelligence.

The Wechsler Adult Intelligence Scale, Fourth edition (WAIS-IV; Wechsler, 2008) is used to assess the general thinking and reasoning skills of individuals aged 16-89 years. The Full Scale IQ score provides a general overview of thinking and reasoning skills and is comprised of four indices; verbal comprehension, perceptual reasoning, working memory, and processing speed. The verbal comprehension index provides a measure of how well patients do on tasks that require listening and verbal

responses. The perceptual reasoning index requires a patient to examine and think about things such as designs, pictures, and puzzles and to solve problems without using words. A patient's ability to attend to information, to hold and process it in memory, and to give a response is measured by the working memory index. The last index, processing speed, provides information about the ability to process visual information quickly and efficiently. The WAIS-IV is the gold standard of ability assessment and is widely used as a general measure of intelligence, so extensive population data are available. However, the test does not address specific decision making abilities and takes over an hour to administer.

The Kaufman's Brief Intelligence Test, second edition (KBIT-2; Kaufman & Kaufman, 2004) is a reliable and valid scale used to obtain a quick estimate of intelligence, including an individual's verbal and nonverbal intelligence. The KBIT-2 takes 15 to 30 minutes to administer and yields three scores: Verbal, Nonverbal, and an Overall Score (IQ composite). The KBIT-2 correlates highly with the more comprehensive Wechsler Adult Intelligence Scale-III (WAIS-III; Wechsler, 1997a). For instance, the Verbal Scale correlates highly with the Verbal IQ (R^2 = .66) and Verbal Comprehension Index (R^2 = .67). The Nonverbal Scale of the KBIT-2 correlates highly with the Performance IQ (R^2 = .62) and the Perceptual Organization Index (R^2 = .69) and the KBIT-2 IQ Composite Score correlates highly with the WAIS-III Full Scale IQ (R^2 = .79). The KBIT-2 Verbal Scale contains two item types: Verbal Knowledge and Riddles. The Nonverbal Scale is made up of a matrices subtest. A potential limitation of the KBIT-2 is that the normative data was gathered from a USA sample only, and several items are contextually related to USA history, potentially resulting in underestimating IQ in non-USA respondents.

1.5.4 Common Practices.

To understand current practices in conducing capacity assessments, 52 neuropsychologists responded (25% response rate) to a pen and paper survey (Mullaly et al., 2007). Results indicated that neuropsychologists spent up to a quarter of their professional practice conducting capacity assessments. The majority of assessments related to lifestyle decisions and financial independence. The most common design of an assessment included taking a history, psychometric testing, reviewing relevant case notes, and interviewing the patient. The most commonly used psychometric tests were subtests of the WAIS-IV (75%), specifically digit span,

arithmetic, and block design. Subtests from the Wechsler Memory Scales (WMS; Wechsler, 1997b), such as logical memory and information, were also often used, although research has found these to be very poor predictors of functional impairment (Royall et al., 2007).

When assessing executive function and attention the preferred tests were the Trail Making Test (TMT; Reitan, 1958) and Controlled Oral Word Association Test (COWAT). The COWAT is a verbal fluency test of a person's ability to make verbal associations to the letters C, F, and L, taken from the Multilingual Aphasia Examination (MAE; Benton, Hamsher, & Sivan, 1994). The majority of respondents found decision making capacity assessments to be some of the more challenging aspects of the neuropsychologist role.

1.5.5 Summary.

There are many general cognitive tests available. The MMSE is normed with older populations, quick to administer and has been used in previous research on capacity; however, it lacks sensitivity in cases of mild cognitive impairment, although had a good specificity with a cut-point of 19.5 out of 30. There is also some concern about practice effects when this test is regularly administered to the same patient, which would result in meaningless results. The AMTS, MSQ and SPMSQ were found to be similarly useful as the MMSE; however, they have not been used in research on capacity, and therefore data on sensitivity and specificity is not available. The SLUMS also has not been used in assessments of capacity; however, is a better predictor of mild cognitive impairment than the MMSE. The ACE-R is a more comprehensive general screening test, and yields a MMSE score as well as sub-scores on attention, memory, fluency, language and visuo-spatial abilities. Sullivan (2004) recommended the inclusion of a general cognitive test that is valid, reliable and normed with an older population. The WAIS-IV is a comprehensive assessment tool with psychometric properties and theoretical underpinning. Unfortunately the test takes over an hour to administer, and is generally not used in dementia or capacity research. The KBIT-2 correlates highly with the WAIS-III and is much quicker to administer (at 15 – 30 minutes). There is available normative data for older populations. Taken together it seems the ACE-R and the KBIT-2 would form a time-effective battery and build on existing knowledge of cognitive correlates of capacity.

1.6 Capacity in Other Medico-Legal Domains

1.6.1 Consent to research or treatment.

Considerably more investigations have been undertaken in the domains of consent to research participation and consent to treatment (i.e., Palmer & Savla, 2007). Dunn, Nowrangi, Palmer, Jeste and Saks (2006) reviewed existing instruments across various domains. Comparisons were made across: cognitive processes measured (understanding, appreciating, reasoning, and communicating); administration time; format; reliability; validity; and availability of normative data. The authors identified significant variations in the operational definitions of cognitive processes. For instance, the definition of reasoning varied between giving rational or reasonable responses to demonstrating consequential thinking. The construct of appreciation varied between stating the consequences, acknowledging the presence of a disorder, or the absence of a false belief. The concept of understanding ranged from repeating the interviewer's instructions through to offering detailed evaluations about the information. For consent to participate in research, their analysis uncovered two effective instruments: the MacArthur Competence Assessment Tool for Clinical Research (Appelbaum & Grisso, 2001) and a vignette-based instrument (Schmand, Gouwenberg, Smit, & Jonker, 1999; Sachs, Stocking, Stern, & Cox, 1994).

The vignette-based decision making protocol was first described by Vellinga et al. (2004) to compare carer and physician ratings of patient capacity to consent to treatment. The patients (n = 80) completed the MMSE, a depression questionnaire, tests of independent living and a hypothetical vignette. The vignette involved making a treatment decision about whether to undergo a surgical intervention (endoscopic procedure for anaemia, or surgery for colon cancer). Participants were scored as satisfactory, partially satisfactory, or unsatisfactory based on their responses to questions related to understanding, reasoning and appreciation. Results indicated that physicians found fewer patients to lack capacity (4%) than carers (28%). There was disagreement in about one third of judgements.

These same authors again investigated decision making processes in real or imagined scenarios (Vellinga, Smit, Van Leeuwen, van Tilburg, & Jonker, 2005). They studied patients aged over 65 years with an MMSE above 16 points. There were two patient groups, one group were really facing the decision of an endoscopic

procedure the other group were presented with the hypothetical vignette of facing the procedure. The vignette was read aloud to the patient, with the patient being able to follow a written copy, afterwards the participants answered questions relating to the decision. A capacity score was computed based on factual understanding, evidencing a choice, reasoning, and appreciation of the situation. There were no significant differences between the real or imagined scenarios on demographic variables, MMSE score, or capacity score. However, when the groups were further divided into cognitively impaired or cognitively unimpaired participants using a MMSE cut-off of 23, significant differences were found. In the hypothetical scenario condition, the cognitively impaired participants performed significantly poorer on understanding, reasoning, and appreciation. In the realistic group, a significant difference was only evidenced for the process of understanding. Cognitively impaired individuals were more likely to struggle with a hypothetical scenario as opposed to the realistic decision. This finding suggested that hypothetical situations may not be as useful as realistic scenarios in assessing decision making capacity in elderly patients with cognitive impairment.

A recent study investigated the predictive ability of 27 cognitive tests in classifying capacity to consent to medical treatment using a vignette paradigm (Stormoen, Almkvist, Eriksdotter, Sundström, & Tallberg, 2014). Their sample included patients with Alzheimer's disease (AD), mild cognitive impairment (MCI) and healthy controls (HC). They used a Swedish linguistic instrument for medical decision-making (LIMD) to determine capacity. The cognitive tests included assessment domains of global cognition, linguistic competence, visuospatial functioning, working and episodic memory, executive function, and attentional function. They found that the Reading speed test (Järpsten, 2002) was the best predictor, accounting for 59.29% of the variance.

The role of training to enhance performance on capacity assessments was investigated using a vignette method (Baird, Solcz, Gale-Ross, & Blake, 2009). The study recruited cognitively intact older persons (mean age 73.7 years) to complete the Hopemont Capacity Assessment Instrument (Edelstein, 2000). This instrument assesses decision making capacity in financial and health care areas. Results indicated that training participants in how to best demonstrate capacity when undertaking a decision making assessment did not improve their performance.

Interestingly, participants tended, in general, to give less detailed answers. This was despite training to provide detailed responses. There was a tendency to focus only on the positive reasons behind decisions and to confuse some facts in the scenario.

Marson, Chatterjee, Ingram and Harrell (1996) recruited 29 participants with probable Alzheimer's Disease. They administered a range of neuropsychological tests and assessed consent to treatment using a vignette method. The relationship between neuropsychological functioning and capacity to consent was examined through univariate, stepwise, and logistic regression analyses. Results indicated that understanding the meaning of the treatment situation was the most complex task, with 97% of participants being found incompetent on this variable. Measures of conceptualization from the DRS and confrontation naming (Boston naming) were the best predictors of capacity (R^2 = .81). The conceptualisation subtest of the DRS is comprised of visual and verbal items relating to Identities and Oddities; Similarities; Priming Inductive Reasoning; Differences; and Similarities-Multiple Choice. The Boston Naming Task is a confrontation naming task where participants are asked to name 60 drawn items.

Looking at the issue from a different perspective, Marson, McInturff, Hawkins, Bartolucci and Harrell (1997) interviewed patients with dementia about consenting to treatment. Physicians were shown the interviews and asked to rate the participant's capacity. There was a high level of disagreement (56%) among physicians in determining patient capacity. This study indicated that physician judgement from clinical interview alone is not a reliable standard for determining consent capacity. Marson, Earnst, Jamil, Bartolucci and Harrell (2000) found that educating physicians about the relevant legal standard improved inter-rater agreement.

Pragmatically, there were some observations about using the vignette method. The researchers found it difficult to independently consider the four cognitive processes as the patient's responses tended to include a combination of the processes in one statement. A further difficulty was that patients often reflected on their own experiences and situation, rather than relying solely on information provided within the vignette. One limitation of the study was that, for ethical reasons, participants in the realistic group received the information twice, once from

their actual physician, relating to their specific decision, and again by the research interviewers, for the purpose of the study. To counter these limitations, future research should assess capacity at the same time as actual decisions are being made.

Markson, Kern, Annas and Glantz (1994) asked Massachusetts interns, surgeons, and psychiatrists (N = 823) to comment on capacity to consent to medical treatment. The vignette was based on an actual case where the psychiatrist made an error in applying the legal standard (as found by Appellate Court). The professionals were reminded of the legal test before making their own determination. Results showed that despite education about the legal test, professionals still applied them incorrectly. A common error was to assume incapacity due to a statutory reason (e.g., in the instance of dementia, depression, psychosis or being under an involuntarily treatment order).

1.6.2 Carer assessment.

Another approach to capacity assessments is to ask family members or carers to report on patient capabilities. Although this is a popular choice, it lacks reliability and consistency (Lai & Karlawish, 2007; Stocking et al., 2008). Furthermore, the assessments are open to conflicts of interest and lack the detail required to comprehensively assess a patient's capacity.

The problem with relying on subjective estimates of capacity were considered by Mackenzie and Newby (2008). These authors assessed subjective report, cognitive performance, and functional capacity in deciding where to live following stroke. The study specifically investigated whether the presence of executive dysfunction predicted capacity to decide. They hypothesised that general tests of cognitive capacity, along with patient age, sex, time since stroke, or severity of stroke would not significantly predict a patient’s capacity to decide. Furthermore they predicted that health professionals would not accurately predict the formal assessment outcomes.

The cognitive test battery included: the Remembering Pictures, Naming and Unusual Views from the Middlesex Elderly Assessment of Mental State (MEAMS; Golding, 1989); name and address registration and recall; matrix reasoning and digit span from the Wechsler Adult Intelligence Scale, third edition (WAIS III); verbal fluency (i.e., the FAS test where participants say as many words as they can

beginning with the letters F, A, and S) and Rule Shift from the Behavioural Assessment of Dysexecutive Syndrome (BADS; Wilson et al., 1996). Occupational therapists, physiotherapists and speech and language therapists gave their impressions of each patient's ability to decide where to live and to comment on whether they would routinely refer this patient for formal assessment.

A clinical neuropsychologist, blind to the cognitive results, conducted administered a question-set in accordance with the relevant legal test and made the final determination of capacity. As a reliability check, the semi-structured interview was tape-recorded and subsequently rated by an independent clinical neuropsychologist (inter-rater reliability was 72%).

Results indicated that general cognitive ability, patient age, and dysphasia were not significant predictors of formal capacity determinations (Mackenzie & Newby, 2008). Furthermore, no cognitive test significantly predicted the formal capacity determination. Allied health professionals differed considerably in their opinions of capacity and often missed referring patients for formal assessment. The majority of patients who lacked capacity were not identified by the professionals.

Kuriansky, Gurland and Fleiss (1976) recruited hospitalised psycho-geriatric patients to investigate the relationships between objective, self-report, and carer ratings of functional ability. Objective functional capacity was determined from patient files and results on the Performance Test of Activities of Daily Living Test (PADL). Patients and carers were interviewed about the subjective assessment of the patient's functioning. Results revealed little association between objective and subjective report.

1.6.3 Professional Judgement.

1.6.3.1 Allied Health.

To determine the accuracy of clinical judgement, Ruchinskas (2002) assessed 102 geriatric patients on cognitive tests and mood rating scales. Participants were interviewed by physical and occupational therapists, who were blind to the test results, and asked to rate their impressions of cognitive and mood symptoms. The majority (65%) of patients with impairments were missed (false negative) by the clinicians. Professional judgement alone is a poor measure of a patient's capacity.

1.6.3.2 *Medical Practitioners.*

General Practitioners, trainee psychiatrists, psychiatric nurses and specialist psychiatrists were asked to predict MMSE score from a series of five minute recorded interviews of patients talking about their memory issues (Burns, Karim, Morris, & Byrne, 2010). On average, trainee psychiatrists (52.1% of correct predictions) were the most accurate, with the General Practitioners being the least (correctly classifying only 36.4% of patients). The more experienced professionals were less likely to identify the non-impaired functioning participants[5]. Overall, the classification rate was quite low. Professionals correctly recognised 33.3% - 41.3% of the mildly impaired patients. There was also a general effect of underestimating the patients' cognitive ability. Assumptions about functioning derived from conversation can be misleading and experienced practitioners are more likely to judge impairment where none exists. There is a need to administer cognitive tests when making a determination about cognitive impairment.

1.6.3.3 *Legal Practitioners.*

A survey of the practices of 302 Australian Lawyers who were experienced in assessing capacity (average of 15.7 years of experience) found that 78.1% had requested a specialised opinion on capacity in the past year (Helmes, Lewis, & Allan, 2004). Of concern, only 20.9% of lawyers indicated that they asked their clients directly about reasons behind their decisions. To probe and document the understanding and appreciation of issues has been found to be a deterrent to future challenges of capacity and is integral to protecting a client's rights (Shulman, Cohen & Hull, 2005).

1.7 Summary

The combination of an aging population, an increase in the prevalence of dementia illnesses, and an increase in the complexity of financial and family structures has resulted in a need for scientifically validated protocols to assess decision making capacity. Such a need has been formally recognised by relevant

[5] This same effect exists in other forensic domains, such as detecting deception, where more experienced professionals are often less accurate but more confident (i.e., Ekman & O'Sullivan, 1991).

legislation, such as the *Powers of Attorney Act 1998* (Qld); however, these legislative changes have preceded research into effective and efficient assessment protocols. This is especially true as it relates to testamentary capacity and capacity to appoint an EPA.

While there are guidelines available that detail the general approach to conducting capacity assessments, they neglect detail when it comes to selecting appropriate cognitive assessments. As Kapp recently commented, "the law seldom provides much meaningful guidance to health care and human services providers to assist them regarding the content of capacity evaluation" (p. 164). Even when an assessor administers a commonly used and well validated cognitive test, there is insufficient evidence linking these results to decisional capacity.

The seminal questions that capacity assessment research needs to answer are which cognitive tests (if any) best predict capacity and what testing protocol best adheres to scientifically and legally appropriate standards of evidence. The need for these answers were most succinctly stated by Marson, Hebert and Solomon (2012) when they observed that "…there is currently no body of empirical research that can inform and advance the field…this remains a key knowledge gap in neuropsychological forensic science…(p. 426)." This situation has remained largely unchanged since the 1950s (Royall, 2002). There is a need for a new research paradigm that circumnavigates the limitations of vignette methods and the inaccurate reports of individuals, carers, and professionals alike.

A gap between science and the law has thus opened. How do practitioners actually determine a client's ability to weigh up options and reach a decision? Do they rely on a heuristic of common sense or some implicit assumption that an acceptable explanation is proof of sufficient functioning? Such a notion conflicts with the scientific evidence of professional judgements. Also, consider the instance where "…the impairment or disturbance leads to a patient making a specific decision without understanding or using the information they have been given" (Griffith & Tengnah, 2013, p. 251)? It is undeniable that the additional evidence provided by cognitive functioning tests would surely be of assistance. The reluctance of the law to adapt to the intricacies of human behaviour and evolve with scientific knowledge was commented on by Bagaric and McConville (2005), in trenchant terms:

> Another striking feature about evidence law and the process for resolving legal disputes is that it is one of the few areas of human endeavor that has not

> demonstrably become more sophisticated over the ages. As a result of advances in the biological, social and physical sciences we are now far better at curing illness and disease, building houses and bridges and communicating with each other. Standing outside this 'trend', is the law of evidence. The legal system has been highly successful at ignoring scientific advances in one of its most important activities - resolving disputes. There is no 'evidence' and in fact no reason to think that the legal system is now more effective or efficient at resolving legal disputes than it was 50, 100 or indeed 500 years ago. (p. 12).

In short, there is a dearth of research into the efficacy of commonly used cognitive assessment tools vis-à-vis legally accepted determinations of decision making capacity as it relates to propounding a Will and appointing an EPA. Furthermore, many health care professionals who may be called on to conduct these assessments are unaware of the pertinent legal considerations involved. Similarly, legal professionals lack the expertise to clinically appraise decision making deficits. The conflict that can arise as a result of these lacunae in the knowledge of professionals was pungently expressed by Justice McClellan (2006) when he noted:

> Law and psychology can be uneasy partners. The law has traditionally devised its own rules of human behaviour and created its own norms for interpreting that behaviour. Informed by little more than the appellate court's understanding and often classified under the rubric of "common sense" judges are required to direct jurors in a particular manner on a whole range of subjects, with varying degrees of impact on the outcome of the trial – some more easily identifiable than others. (para. 18)…I doubt whether many psychologists realise the extent to which the law operates upon assumptions which they may question or disagree with. (para. 65).

This is a problem that must be addressed. Leaving resolution of the determination of the cognitive capacity of Testators and those executing Enduring Powers of Attorney to the superior courts in the absence of contemporaneous, scientifically validated, assessment of the cognitive capacity of those executing such seminal legal documents will inevitably result in tying up of scarce legal resources as a direct result of the problems identified herein. This is to say nothing of the prospect of

miscarriages of justice arising as a consequence of absent, invalid or corrupted expert evidence.

1.8 Hypotheses/Aims

The qualitative responses of a range of participants, including GPs, lawyers, and psychologists will be collected to assist in identifying similarities and differences in their perceptions of factors to consider in determining testamentary capacity and capacity to appoint an EPA.

In addition, a sample of professional groups (legal, medical, and allied health) will complete a structured questionnaire which will contain key capacity considerations. Factor analysis of the questionnaire responses will reveal latent factors that relate to the four key concepts in decision making: (a) understanding the basic information about a problem; (b) considering the potential solutions; (c) weighing up the likely consequences of each option; and (d) communicating a clear choice.

Finally, the scores on two psychometric instruments, the Addenbrooke's Cognitive Examination – Revised (Form B) and the Kaufman's Brief Intelligence Test – Version 2, are predicted to be significant and unique predictors of testamentary capacity and capacity to appoint an EPA.

CHAPTER 2 METHOD

2.1 Outline

The research project was comprised of three related stages. Initially, focus groups were conducted with groups of professionals to gather qualitative and quantitative information from professionals. Secondly, a questionnaire was disseminated to check for similarities and differences amongst the opinions of professionals who may be asked to comment on capacity. The final phase incorporated the information gathered from the focus group, the questionnaire respondents, and the literature, to pilot individual capacity assessments. Ethics approval was granted separately for the first two phases (approval number H13REA261) and the final phase (approval number H14REA018) through the University of Southern Queensland Human Research Ethics Committee.

2.2 Focus Groups

2.2.1 Participants.

Three separate focus groups were conducted with groups of professionals to gather opinions and perspectives on what is important when conducting an assessment of capacity. The three separate groups were: GPs (n = 13, 7 male); lawyers (n = 7, 5 male); and psychologists (n = 7, 2 male). The professional participants were recruited from a convenience sample of organisations with an interest in assessing capacity The number of participants in each group was determined by the number of professional staff available to participate, therefore the group sizes were not even. This was of no import to the measurement of group differences. As an incentive, the researcher provided lunch and certificates of attendance that could be used to claim for one hour of professional development.

2.2.2 Materials.

The focus groups were conducted in a private boardroom, furnished with a laptop computer connected to an electronic projector. Participants were supplied the Nominal Group Technique (NGT) Part one (Appendix A) and Part two (Appendix B) forms. Participants were spaced to enable privacy when recording responses.

2.2.3 Procedure.

Email invitations were sent to a number of GP, law and psychology practices in Southport, Queensland. Focus groups were booked with the first workplace of

each discipline to respond. In each case, to limit commercial disruption, the focus group was conducted at the participants' workplace.

The format for the focus groups was derived from Horton's Nominal Group Technique (NGT; 1980) which describes a protocol for eliciting qualitative and quantitative data from participants in a time efficient manner. Initially participants read the Information Form and gave consent (Information Sheet and Consent Form, Appendix C). A ten-minute period was then provided for them to, individually and anonymously, list what they believed to be the six most important considerations in assessing a patient's testamentary capacity and capacity to appoint an EPA. Participants were encouraged to respond based on their own experience or what they thought would be of importance. Once the forms were collected, the responses were grouped based on common features (e.g., *expressed a preference* was grouped with *must be able to communicate a decision*). This resulted in a condensed number of unique considerations. The final list of response options was numbered and displayed on the electronic projector for all participants to see. Participants were then asked to individually and anonymously assign a score of 6 to the most important problem, 5 to the next most important problem and so on down to 1 for the sixth most important problem identified. These forms were then collected and response weightings summed (i.e., scores between 1 and 6 for each item). After the data were collected the researcher gave a presentation on assessing decision making capacity.

2.3 Questionnaire

To ensure the data gathered in the focus groups were representative of larger numbers of each profession, a questionnaire was created from the common considerations identified in the NGT sessions and the literature review.

2.3.1 Participants.

Questionnaires were completed and returned by 35 medical practitioners, 55 legal practitioners, and 45 allied health practitioners[6].

2.3.2 Measures.

A 30-item questionnaire was created which was comprised of the considerations in assessing capacity derived from a literature review and the NGT

[6] The allied health professionals surveyed were mainly psychologists.

data (Appendix D). Respondents were asked to consider their own experiences of assessing capacity. If they did not have direct experience, they were asked respond based on their best understanding of what is important. Items were grouped based on: demographics (3 items), presentation (11 items), understanding (6 items), and assessment factors (10 items). Response options were provided based on a six-point Likert-type interval level scale. There has long been debate as to the optimal number of response options (Cox, 1980). Some claim the optimum number of response options is between four and seven (Lozano, García-Cueto, & Muñiz, 2008). Six response options were used it between four and seven, and being an even number, forces the respondent to make a choice for or against the item, which protects against neutral responders. Fifteen of the items were randomly selected to be reverse scored to protect against systematic response bias. Table 2.1 shows an example of the forward and reverse rated response options. One item was repeated twice in the questionnaire, the repeated item was presented with reversed response options to reduce the effect of acquiescence bias and to enable a check for response consistency.

Table 2.1

Examples of the forward and reverse rated, six-point Likert-type response options for items on the questionnaire

Extremely Unimportant	Very Unimportant	Somewhat Unimportant	Somewhat Important	Very Important	Extremely Important
1	2	3	4	5	6
Extremely Important	Very Important	Somewhat Important	Somewhat Unimportant	Very Unimportant	Extremely Unimportant
6	5	4	3	2	1

2.3.3 Procedure.

A total of 600 questionnaires were sent by Australia Post with an Information form (Appendix E), questionnaire, and a reply paid self-addressed envelope. Mail out is the preferred mode of delivery for GPs (Bonevski, Magin, Horton, Foster & Girgis, 2011). The questionnaires were sent in three waves (200 each time) targeting professionals from South-East Queensland first, and then other regional areas in subsequent waves. Practitioners with an implied interest in testamentary matters (such as succession law experts, older persons' medical practitioners, and neuropsychologists) and those with an existing relationship with the researcher were prioritised in the hope this would boost the response rate. Although a convenience sampling method may not be representative of the total population, the goal of the questionnaire was to ensure a variety of opinions were considered.

2.4 Capacity Assessments

The key considerations gathered from the focus groups and questionnaire were then combined with best-practices in assessing capacity to create a capacity assessment protocol to be piloted with a sample of participants with potential capacity issues.

2.4.1 Participants.

The participants were 38 (20 male) patients recruited from a local memory clinic, with an average age of 74.79 years (*SD* = 8.27 years).

2.4.2 Measures.

2.4.2.1 *MacArthur Competence Assessment Tool for Clinical Research (Appelbaum & Grisso, 2001).*

The MacCAT-CR assesses four cognitive processes (understanding, appreciating, reasoning, and communicating) and has been normed with dementia patients. It provides a structured format for capacity assessment that is adaptable to the particulars of any given research project. The MacCAT-CR takes 15-20 minutes to administer and is considered the gold standard for assessing capacity to participate in research. Administration involves discussing the specific protocol of the study with prospective participants. The MacCAT-CR then leads the researcher through questions that assess understanding, appreciation, reasoning, and choice. The MacCAT-CR derived questionnaire is provided in Appendix F.

2.4.2.2 *Demographic questionnaire.*

A brief questionnaire was developed to gather information regarding sex, age and first language (Appendix G).

2.4.2.3 *Kaufman's brief intelligence test, second edition (KBIT-2; Kaufman & Kaufman, 2004).*

The KBIT-2 is a reliable scale used to obtain a quick estimate of intelligence including an individual's verbal and nonverbal intelligence. The KBIT-2 takes 15 to 30 minutes to administer and yields raw scores on verbal (comprised of verbal knowledge and riddles subtests) and performance (matrices subtest) indices. Full scale, verbal and non-verbal standardised scores can be computed (IQ scores).

2.4.2.4 *Addenbrooke's cognitive examination, revised (ACE-R; Mioshi, et al., 2006).*

The ACE-R takes approximately 15 minutes to administer and assesses five cognitive domains: attention and orientation; memory; verbal fluency; language; and visuo-spatial abilities. This instrument comes in three forms (A, B or C) which vary only in the content details of memory recall items to protect test-retest reliability. There also has been an Australian revision which changes the anterograde, recall and recognition memory items from UK based addresses to Australian addresses. This reduces the potential of cultural based threats to reliability. For this study form B was used to minimise any threat to validity of testing effects, as participants may have recently encountered form A at the memory clinic. Scoring yields a result for each domain, and a total score out of 100, with higher scores being indicative of better functioning. A MMSE subscale score out of 30 can also be derived. A copy of the ACE-R form B is available (Appendix H).

2.4.2.5 *Decision specific question-set.*

A question-set was taken from the suggested questions in the Capacity Toolkit (NSW Attorney General's Department, 2008) for assessing testamentary Capacity (p. 140) and capacity to Appoint an EPA (p. 79) and is available in Appendix I. The questions form a structured interview that guide an assessor through a decision specific set of questions relating to making a Will and appointing an Enduring Attorney. This includes a focus on (a) understanding information, (b)

appreciating how this information is relevant, (c) considering potential options and the consequences of these, and (d) expressing a clear choice.

2.4.2.6 *Voluntariness Questionnaire.*

A set of questions were derived from the Blum and Feledy (2002) Undue Influence Worksheets (Appendix J). The questions are based on the IDEAL model of undue influence targeting the influences of Isolation, Dependence, Emotional Manipulation, Acquiescence, and Loss.

2.4.2.7 *Post-study interview.*

Three questions were asked at the conclusion of the interview to ensure that the participant did not perceive any pressure to make changes to their affairs as a result of participating in the research. A copy of the interview questions is provided in Appendix K. If participants stated a wish to amend their affairs, they were encouraged to consult appropriately with their relevant advisors.

2.4.3 Procedure.

Participants were tested individually in a single 90 minute session. They were offered a choice of either attending the investigator's office or having the interviews conducted at their own homes. Interviews were conducted one-on-one. The tasks were administered in the order shown in Table 2.2. Performance on the decision specific question-set, Voluntariness Questionnaire and post-study interview were all videotaped to allow for a check of inter-rater reliability. Prior to these tasks, where available, the interviewer viewed the participant's Will and EPA document to confirm the information given in the interview. Where these documents were not available, the participant described their legal situation.

Table 2.2

Order of administration of tasks and measures

Order	Task	Appendix
1	Information Sheet and Consent form	C
2	MacArthur Competence Assessment Tool for Clinical Research	F
3	Demographic questionnaire	G
4	Kaufman's Brief Intelligence Test, second edition	Copyrighted
5	Addenbrooke's Cognitive Examination, Revised (version B)	H
6	Decision specific question-set	I
7	Voluntariness Questionnaire	J
8	Post study interview	L

CHAPTER 3 RESULTS

3.1 Focus Groups

A comprehensive list of considerations generated from the three separate focus groups (GPs, lawyers and psychologists) is provided in Appendix L. From this full list of ideas, common themes were grouped together by the researcher that resulted in a condensed list of unique considerations (detailed in Table 3.1). Despite differences in the number of participants in each focus group, each professional group generated a similar number of unique considerations. The focus group interviews elicited a variety of information that enabled further analysis.

Table 3.1

A condensed list of ideas generated during the focus groups with GPs, lawyers, and psychologists.

Profession	Key considerations raised in the NGT
GPs	1. Is the patient over 18 years 2. Are instructions given freely 3. Do they understand the information, do they understand English 4. Do they retain the information 5. Do they weigh the information to reach a decision, and appreciate the ramifications of their decision 6. Must be able to communicate a decision 7. Does the proposed power of attorney have capacity to act in this role 8. Have you provided adequate time to discuss the relevant issues 9. Is there a trigger or reason to conduct the assessment now 10. Results on cognitive tests, such as MMSE (i.e., >24/30), psychological assessment, or general intellectual functioning 11. Have they obtained legal advice 12. Have they been assessed for testamentary capacity (when considering capacity to appoint an EPA) 13. Details about the patient's family circumstances 14. Physical conditions, relevant medical history, what stage or level of disease is involved (e.g., Advanced services early dementia) 15. Ethnicity, cultural factors 16. Family or carer perspective 17. That the patient knows who will be involved in assessing capacity 18. Do they have a condition that fluctuates 19. Can they physically read the relevant information
Lawyers	1. Details about the client appearance 2. When an illness is observable, a assessor needs to refer for specialist assessment 3. Does the client understand the purpose of instructions 4. Age of client 5. Number of times the Will/EPA has been amended

Profession	Key considerations raised in the NGT
Lawyers	6. Medical diagnoses, conditions, status, disability, infirmity, dementia 7. Effect of any medications 8. Influence of anyone attending with client, any special influence 9. Client demeanour 10. Client's ability to articulate with clarity, without repetition, the issues relevant to the giving of instructions 11. Ability to understand, comprehend the general nature, purpose and significance of the concepts 12. The nature and effect of instructions being given without assistance 13. Logicality of instructions being given 14. Recollection of recently discussed issues 15. Consistency of instructions on subsequent visits 16. Cognitive awareness, soundness of mind, fragility, whether the client appeared confused 17. Knowledge of property owned 18. Understand who ought to be considered in making a Will (i.e., potential beneficiaries) 19. Ability to communicate their intentions
Psychologists	1. Presence of dementia or intellectual impairment 2. Client's cognitive ability as measured on a psychometric test such as the MMSE, intelligence test or similar 3. The presence of major psychiatric illness – i.e., psychosis 4. The impact of a health or psychiatric illness 5. Whether the client understands the process and likely consequences of what they are doing 6. The presence of undue influence, or a power imbalance (family, religious organisation, or other) 7. The presence of a terminal illness 8. The impact of any medications, drugs/alcohol or other treatments on decision making 9. Whether the client needs to be amending these documents

Profession	Key considerations raised in the NGT
	10. Whether the client can understand the information, including what these documents are 11. Ability to communicate their decision
Psychologists	12. The client's general emotional stability and overall psychological state, e.g., Global Assessment of Functioning (GAF) 13. Assess the client's relationship history and dynamics 14. The resolution of any other presenting problems 15. That the clinician approaches the assessment from a presumption of capacity 16. Collateral data from other health professionals 17. What is in the client's best interest 18. Why these documents are being amended

The next step was to derive quantitative data from the group's collective ideas. Professionals were asked to anonymously vote for the top six ideas from the group's condensed list. These votes were then tallied and results are revealed in Table 3.2. There were similarities across the groups in what they found to be important, such as: *understanding information*; however, there were more differences between the groups on what they thought was important. There was very little overlap between the professions in what they rated as the six most important considerations in determining capacity. The focus group interviews elicited a range of considerations and the NGT provided clarification as to the most essential components of assessing capacity from a variety of professional perspectives.

Table 3.2

Results from voting on the top six capacity assessment principles from each group (GPs, lawyers, and psychologists)

Profession	Rank	Consideration
GP	1	Understand information and language
	2	Results from cognitive tests (e.g., MMSE score, IQ)
	3	Ability to communicate a decision
	4	Understand and weigh the consequences
	5	Capacity of proposed attorney
	6	Over 18 years of age
Law	1	Comprehend the general nature, purpose and significance of the concepts
	2	Presence of medical diagnosis
	3	Ability to articulate instructions without repetitions
	4	Whether the client appeared to be of sound mind
	5	Logicality of instructions
	6	Client demeanour
Psychology	1	Presence of undue influence
	2	Comprehend process and likely consequences
	3	Presence of dementia or intellectual impairment
	4	Client's best interest
	5	Understands information (e.g., what is a Will/EPA)
	6	Impact of medical/psychiatric illness

3.2 Questionnaire

A 30-item questionnaire was developed by integrating the review of the literature and the results from the focus groups. This questionnaire was completed by 35 medical practitioners, 55 legal practitioners, and 45 allied health practitioners. What follows is an analysis and commentary of these results.

3.2.1 Quantitative Analysis.

Table 3.3 classifies respondents into relevant professional sub-groups. The majority of respondents were succession law specialists (19%), generalist psychologists (18%), and GPs (16%). Eighteen percent of respondents indicated no specialist group membership. A considerable diversity of professional opinions were represented.

Table 3.3

Specialty or endorsement of respondents, by profession

Profession	Sub-specialty/Endorsement	Frequency
Medical (*n* = 35)	GP	22
	Psychiatry	6
	Geriatrician	4
	RN	2
	No speciality	1
Legal (*n* = 55)	Succession	26
	Family Law	3
	Criminal	1
	Equity and Trusts	1
	Business law	1
	No speciality	23
Allied Health (*n* = 45)	General psychologist	24
	Clinical Psychologist	10
	Organisational Psychologist	3
	Counsellor	3
	Social worker	2
	Neuropsychologist	1
	Forensic psychologist	1
	OT	1

Respondents were asked to indicate how often they commented on a client's capacity (see Figure 3.1). The majority (92 people) of respondents reported commenting on a client's capacity at least once a year. The spread was fairly even across other response frequencies. Fifteen percent (20 people) of respondents reported being asked to comment on capacity weekly or more often.

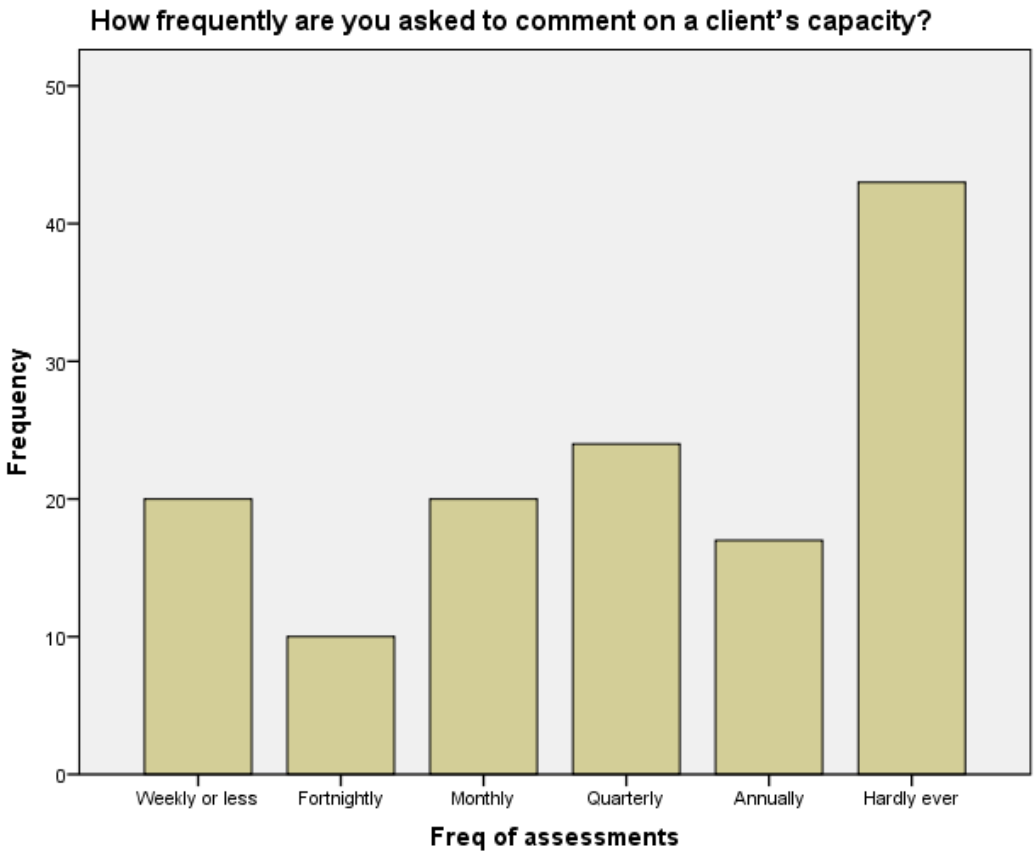

Figure 3.1. How frequently respondents are asked to comment on capacity. The majority (92 people) of respondents reported commenting on a client's capacity at least once a year.

Figures 3.2 and 3.3 classify how often respondents referred clients for specialist assessment in the instance of physical disability and mental illness respectively. There is a clear trend of respondents being more likely to refer for specialist opinion in the instance of mental illness than physical disability. Indeed, 13.3% of respondents always refer when they suspect the presence of a mental illness as opposed to 5.9% in the case of physical disability. Cases of mental illness are more likely to prompt referrals to specialists.

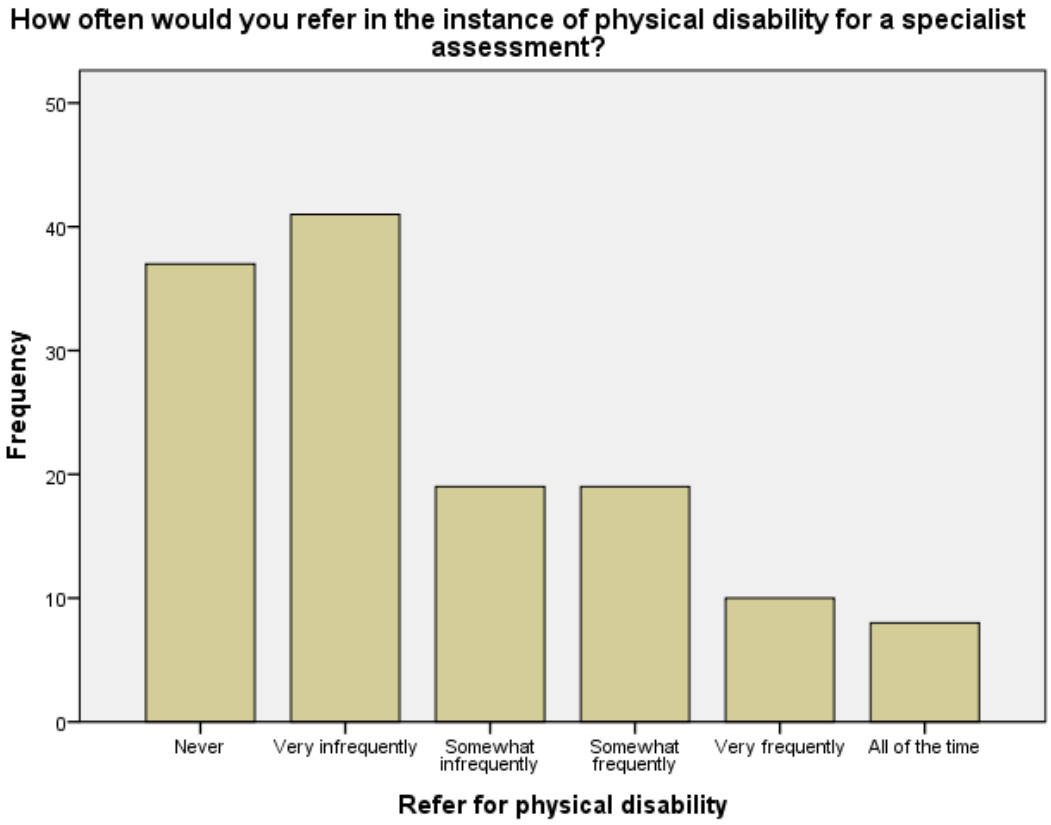

Figure 3.2. How frequently respondents refer clients for a specialist assessment of capacity in the instance of physical disability. 5.9% of respondents always refer when they suspect the presence of physical disability.

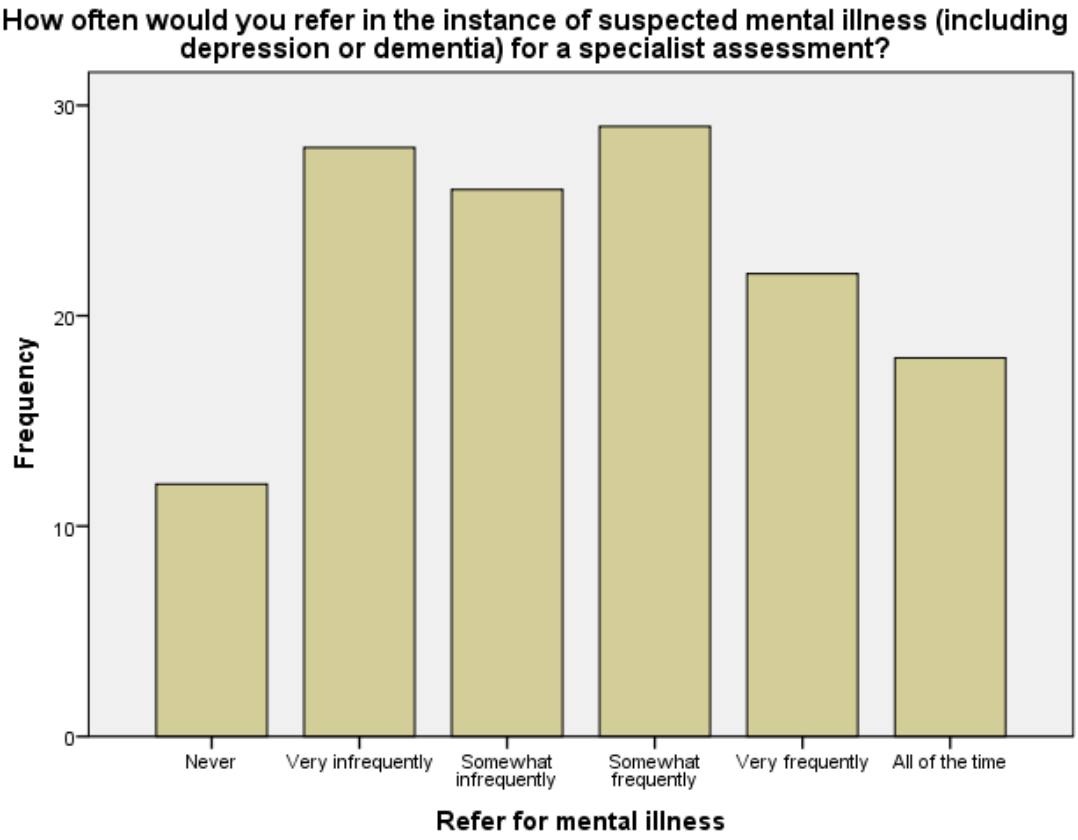

Figure 3.3. How frequently respondents refer clients for a specialist assessment of capacity in the instance of suspected mental illness. 13.3% of respondents always refer when they suspect the presence of mental illness.

Table 3.4 details the means and standard deviations for responses on each item of the questionnaire. The number of respondents for each question varied slightly as a function of missing data (skipped items). The following three questions had the highest mean response, indicating that they were considered more important in assessing capacity: *that a person* k*nows what a Will and an Enduring Power of Attorney are; that the named attorney is of sound mind;* and *that the person knows when they can change their instructions*. The three considerations with the greatest differences in responses, as measured by the greatest standard deviation, were: *that the person is facing an important decision; that the person considers who will benefit from their Will;* and *the presence of a medical condition (including dementia)*. There was a large range in responses on all items, which indicated there was disagreement between respondents in how important different considerations were in assessing capacity.

Table 3.4

Item responses, means and standard deviations for key capacity considerations for all respondents (N = 135)

	Question	*N*	Mean	*SD*
How important are the following presenting factors?	4.[a] The client is currently facing an important decision	135	4.61	1.35
	5. Age	135	4.16	1.13
	6. Demeanour and appearance	135	4.11	1.12
	7. Medical conditions (including a dementia illness)	135	5.04	1.33
	8. Effect of medications	135	4.69	1.27
	9. Mental illness or emotional instability	135	4.95	1.3
	10. Whether a client's condition fluctuates over time	135	4.59	1.3
	11. Results from past assessments and collateral information	134	4.71	1.1
	12. How often the client has changed their mind	135	4.44	1.03
	13. The influence of anyone attending with the client	135	4.92	1.11
	14. Whether the presumption of capacity has been rebutted	132	4.92	1.15
How important is the client's knowledge of:	15. Why they are being assessed	135	4.99	1.18
	16. What a Will and an Enduring Power of Attorney are	134	5.21	1.27
	17. The value of their assets	134	4.33	1.23
	18. Who will benefit from their Will	134	4.88	1.34
	19. When their instructions take effect	134	5.04	1.1
	20. When they can change their instructions	134	5.07	1.06

	Question	*N*	Mean	*SD*
How important are the following assessment factors:	21. Ability to communicate clearly	134	5.02	0.8
	22. Answering questions consistently	134	5.02	0.85
	23. Remembering answers to previous questions	134	4.81	0.97
	24. Results on a measure of mental state (e.g., Mini-Mental Status Examination)	131	4.47	1.11
	25. Ability to weigh information to make a decision	133	4.94	1.15
	26. The named Enduring Power of Attorney is of sound mind	134	5.1	1.32
	27. The client's relationship history	135	4.27	1.11
	28. The perspective of a family member or carer	134	4.19	0.78
	30.[b] The client is making a sensible decision	134	4.2	1.28

[a]The question numbers start at 4 because the first 3 questions use a non-interval response options. [b]Item 29 was removed, as it was the repeated item (consistency-check item).

3.2.2 Qualitative comments.

The final item of the questionnaire invited additional comment from respondents to the question, “Is there anything else that you think is important in determining capacity?”. The additional considerations were grouped based on thematic analysis and sorted by professional designation. Fifty-four respondents (40%) added a total of 92 qualitative comments. The themes, professions and verbatim responses are provided in Table 3.5. The most prevalent comments related to the topics of: undue influence; who should assess; medical factors; the client’s ability to understand and appreciate the decision being faced; and the importance of respecting the client’s right to decide. All three professional groups added qualitative comments on each of these prevalent concerns, except for medical practitioners, who did not comment on the client’s right to decide. Each profession felt they were best placed to assess capacity.

Table 3.5

Qualitative responses to the final questionnaire item, "Is there anything else that you think is important in determining capacity?". Responses have been grouped thematically and ordered by profession. Verbatim responses are also provided.

Topic area	Profession	Verbatim answers to: Is there anything else that you think is important in determining capacity?
Capacity is an important topic	Legal	Your timing is impeccable. The letter arrived on the same day that I spent in mediation in the Supreme Court with my law firm and others, being sued personally over an issue that relates to capacity precisely. Good luck with your research. P.S. On the basis of the above, this firm will not act in any future matter where capacity is remotely in question, happy to discuss.
Capacity is an important topic	Legal	The whole issue is of paramount importance to a practicing solicitor.
Relevant research	Allied Health	Sandy McAfee, a clinical psychologist working in Scotland carried out some work determining the importance of assisting elderly and possibly demented clients concerning their competence in making informed decisions relating to EPA or similar.
Who should assess?	Medical	Consider the morals, if any, of involved legal experts.

Topic area	Profession	Verbatim answers to: Is there anything else that you think is important in determining capacity?
Who should assess?	Legal	I have found after many years in practice that the client is best assessed by a solicitor in an environment which the client is comfortable (such as his or her own home) rather than in a solicitor's office or doctor's room.
Who should assess?	Legal	Capacity for lawyers is a legal question and not a medical question.
Who should assess?	Legal	Medical evidence is important but not normally part of the process.
Who should assess?	Legal	Obviously medical reports are problematic as quality and approach by medical practitioners is variable. Usually I don't seek reports as you don't know if they will be helpful. In law the principle is "You don't ask a question you don't already know the answer to".
Who should assess?	Legal	Determining capacity is a question for the court.
Who should assess?	Legal	The solicitor's role is to gather evidence and act on cogent instructions. Once you have concluded you are getting cogent instructions you might request a report to sure up what you have already concluded. You run the risk though that the medical practitioner might not have the same opinion as you.

Topic area	Profession	Verbatim answers to: Is there anything else that you think is important in determining capacity?
Who should assess?	Legal	Whilst I always do my best, it worries me that one day I will be in court, hopefully as a witness, giving an opinion on something I have no particular training for. Although after doing Wills for over 30 years I have a lot of experiences which put me in good stead.
Who should assess?	Legal	Medical certificate from specialists.
Who should assess?	Legal	If there is any doubt whatsoever, a specialist report is extremely important, cannot rest only on a GP report.
Who should assess?	Legal	If in doubt, ask for a doctor's certificate as to capacity.
Who should assess?	Allied Health	That a neuropsychologist makes the decision and provides assessment.
Who should assess?	Allied Health	There is a difference if the relationship is counselling and the process is to assist a client in working through a decision making process for there Will, or assessing their capacity to make a Will.
Trigger	Allied Health	Why the assessment is considered necessary.
Trigger	Allied Health	That the client wants to.

Topic area	Profession	Verbatim answers to: Is there anything else that you think is important in determining capacity?
Contemporaneous assessment	Legal	Capacity must be established in order to validate the Will or EPA when the Testator or Principal executes the document.
Client presentation	Legal	Approach each client with an open mind, avoid pre-judgments.
Client presentation	Legal	General demeanour.
Client presentation	Legal	Observing a client's non-verbal communication such as body language.
Client presentation	Allied Health	Reliability in attendance to sessions.
Client presentation	Allied Health	Need to consider the client's idiosyncrasies.
Capacity is decision specific	Medical	Capacity, as far as I am aware, or the determination of having capacity, only lasts for the time is given. It is not assessing someone's choices for quality, logic or fairness, it is just determining whether they are in a place mentally and medically to be able to make their own decisions.

Topic area	Profession	Verbatim answers to: Is there anything else that you think is important in determining capacity?
Capacity is decision specific	Medical	Dementia does not preclude capacity.
Capacity is decision specific	Legal	All based on the level of complexity of the legal task at hand, for instance, a very complex Will requires a greater level of capacity and vice versa.
Capacity is decision specific	Legal	The standards for determining capacity are dependent on the level of difficulty of the document being executed, or the task being performed.
Capacity is decision specific	Allied Health	Stage of dementia is critical, some people still have capacity.
Be aware of the relevant legal test	Legal	Public Guardian guidelines definition in Guardianship and Administration Act.
Be aware of the relevant legal test	Legal	For Wills, always conduct a Banks v Goodfellow test, EPA, similar test.
Patient empathy	Medical	The impact of test scores on the person and its ramifications.
Client history	Legal	Personal knowledge of the client and history of dealing with him or her, is very important to gauge change.

Topic area	Profession	Verbatim answers to: Is there anything else that you think is important in determining capacity?
Client history	Allied Health	Compliance with stakeholders.
Medical factors	Medical	Ability to identify people.
Medical factors	Medical	History of whether the patient is on any mind altering medications, for example narcotic analgesia, or mood altering medications, for example tricyclic antidepressants, anti-epileptics, anti-Parkinsonian, neuroleptic medications.
Medical factors	Legal	The client's Medicare history indicating the names of doctors.
Medical factors	Legal	What medications the client is taking.
Medical factors	Legal	The client's capacity may also vary according to the time of day, particularly if capacity is affected by medication.
Medical factors	Allied Health	Whether the client is on an involuntary treatment order.
Medical factors	Allied Health	Whether client is psychotic.
Medical factors	Allied Health	Effects of medication on sound decision making in client.
Cultural context	Medical	Cultural context.
Cultural context	Allied Health	Cultural impact for ethnic communities.

Topic area	Profession	Verbatim answers to: Is there anything else that you think is important in determining capacity?
Cultural context	Allied Health	Cultural beliefs.
Collateral information	Allied Health	One of the most important considerations is using collateral information, the more the better.
Collateral information	Allied Health	Results from a single assessment or informant can be biased.
Collateral information	Allied Health	Reliability of witnesses?
Cognitive testing	Allied Health	Important to assess client's functional reading and reading comprehension skills, plus cognitive assessment.
Cognitive testing	Allied Health	Complete assessment tools to provide objective data.
Capacity augmentation strategies	Medical	Whether suitable instruments are in place to assist, i.e., in aphasia to enable patients with a relatively sound mind to communicate their ideas and choices.
Capacity augmentation strategies	Allied Health	Environmental factors need to be supportive and inviting to facilitate stress reduction.

Topic area	Profession	Verbatim answers to: Is there anything else that you think is important in determining capacity?
Understanding	Medical	Ability to understand the consequences of his own decisions.
Understanding	Legal	Ability to understand what a Will is.
Understanding	Legal	Ability to understand.
Understanding	Legal	Knowledge of the meaning of the decisions being made.
Understanding	Legal	That they understand the nature of the documents they are signing.
Understanding	Allied Health	Does the client understand who is doing the assessment?
Appreciation	Medical	The person can indicate the consequences of decisions.
Appreciation	Legal	What affect their decision has.
Appreciation	Legal	Ability to rationalize.
Appreciation	Legal	I would add the caveat that, provided a client can discriminate the pros and cons of a decision showing they have the ability to reflect upon our discussions and register risks and benefits, they should be able to make that decision.
Appreciation	Legal	Knowledge of the effect of the decisions being made.
Appreciation	Legal	That they understand the effect of the documents they are signing.

Topic area	Profession	Verbatim answers to: Is there anything else that you think is important in determining capacity?
Appreciation	Allied Health	Emotional reasoning.
Appreciation	Allied Health	Emotional reasoning.
Communication	Legal	That they can give clear instructions.
Communication	Allied Health	Language skills.
Communication	Allied Health	Need to consider client's language skills.
Communication	Allied Health	Is an interpreter needed?
Right to decide	Legal	Capacity does not equate with another person's perception of what is apparent and eccentric, a person may still have capacity even though no one would agree with what they are doing.
Right to decide	Legal	It is only somewhat important that the decision is sensible as although I might consider the decision imprudent, if they have capacity it is ultimately their decision.
Right to decide	Legal	Accept individuality and even capriciousness, respect the individual.
Right to decide	Allied Health	Sensible is an arbitrary notion.
Right to decide	Allied Health	If the client has been assessed of sound mind, it is not up to me to judge if it is sensible or fair.

Topic area	Profession	Verbatim answers to: Is there anything else that you think is important in determining capacity?
Right to decide	Allied Health	Client's wishes should be upheld even if they have been influenced by someone in the recent past, as it is honouring their wishes as they are able to make them. For instance, no coercion from their change of heart, as if that is what they are able to hold on to, then that is sufficient. It is their Will to do with as they desire, in my opinion.
Undue Influence	Medical	That on the balance of probabilities there is no evidence of wrongdoing by those parties seeking assessment.
Undue Influence	Medical	Vested interests by other parties and likely results of determining incapacity.
Undue Influence	Medical	Body language in the presence of close relative or carer.
Undue Influence	Medical	The influence of a family member who stands to benefit from the determination of capacity is often used to sway the decision of the doctor.
Undue Influence	Medical	The motives of the puppet masters who are trying for a certain outcome in Wills or powers of attorney.
Undue Influence	Legal	Ascertain about undue influence.
Undue Influence	Legal	No coercion.
Undue Influence	Legal	That they have made their own independent decision in making the Will.
Undue Influence	Legal	That they have made their own independent decision in making the Will, EPA, or other document.

Topic area	Profession	Verbatim answers to: Is there anything else that you think is important in determining capacity?
Undue Influence	Legal	Overbearing family members or other attendees are asked to leave the room.
Undue Influence	Allied Health	Not being coerced by another party.
Undue Influence	Allied Health	What the intention is of the parties encouraging the individual to create the Will or EPA.
Undue Influence	Allied Health	Who has asked for assessment? Who brings person having capacity assessment to appointment?
Undue Influence	Allied Health	Reliability of witnesses? Secondary gains? Whose voice in the family is not being heard? Identify agendas of stakeholders including your own.
Acknowledge your limitations	Allied Health	Your assessment cannot be perfect. Code of ethics for assessments said, “Do no harm”. Always a best possible advice based on the limitations of the interview and material provided.

3.2.3 Factor analysis.

Principal axis parallel analysis is a statistical technique that provides important information about the number of factors to retain in factor analysis. The process is best described by Schmitt (2011, p. 309)

> Parallel analysis uses a series of randomly generated data sets that "parallel" factors of the original data set in terms of sample size and number of variables (Horn, 1965). The rationale being that if real nonrandom factors exist then eigenvalues generated from the real data will be larger than the randomly generated eigenvalues. In general, simulation research has indicated that PA is the best empirical method for determining the number of factors in FA and PCA (Dinno, 2009) and has been recommended as the method of choice by journal editors (Thompson & Daniel, 1996) and others (e.g., Hayton et al., 2004; Henson & Roberts, 2006).

The analysis was computed with SPSS Version 23 using syntax sourced from O'Connor[7] (*n.d.*). Ten respondents were automatically excluded from the analysis due to missing data. Results suggested the presence of four or five distinct factors. Four factors had an Eigenvalue above 1, and five factors had Eigenvalues that met or exceeded the 95% random data Eigenvalue. The factors and Eigenvalues are presented in Table 3.6.

[7] The syntax was sourced from the referenced location; however, the original author is unknown.

Table 3.6

Root position and Eigenvalue data for the top five factors extracted through principal axis parallel analysis

Root	Raw data Eigenvalue	95% percentile random data Eigenvalue
1	6.90	1.37
2	3.48	1.15
3	1.14	0.99
4	1.05	0.89
5	0.80	0.80

N = 125, 26 variables.

Determining the exact number of factors to retain is a complex task. It was unclear from the parallel analysis whether a four or five factor model was more suitable. Therefore, the four and five factor solutions were further explored through maximum likelihood factor analysis. This allowed for analysis of the relationships between the 26 questionnaire items. The total variance explained by the top four and five factors are presented in Table 3.7. As is typical of factor analysis, additional factors added diminishing levels of variance explained.

Table 3.7

Eigenvalues and variance explained for the top five factors

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	7.22	27.78	27.78	6.45	24.82	24.82	5.65
2	3.94	15.17	42.94	3.37	12.96	37.78	3.18
3	1.67	6.41	49.36	1.19	4.59	42.37	5.58
4	1.48	5.70	55.06	1.11	4.27	46.65	2.52
5	1.28	4.91	59.97	1.06	4.08	50.73	2.11

The pattern matrix for the four factor solution is shown in Table 3.8. This solution had one item that cross-loaded on factors 1 and 3 (*ability to weigh information to make a decision*). Four items loaded less than 0.3 on any factor, and as such were not considered in the factor solution. These items were: a*ge; perspective of a family member or carer; whether the client is making a sensible decision;* and *the client's relationship history*.

Table 3.8

Pattern matrix of the four factor solution

Item	Factor 1	Factor 2	Factor 3	Factor 4
19. When takes effect	1.00			
20. When can change	0.83			
18. Beneficiaries	0.75			
25. Weigh information	0.55		0.32	
17. Value of assets	0.42			
24. MMSE score	0.38			
5. Age				
21. Clear communication		0.89		
22. Consistency		0.82		
23. Memory for questions		0.71		
26. Attorney is of sound mind		0.37		
28. Family/carer perspective				
30. Sensible				
27. Relationship history				
16. What a Will/EPA are			0.74	
13. Undue influence			0.70	
9. Mental illness			0.61	
7. Medical conditions			0.53	
15. Reason for assessment			0.52	
6. Demeanour/appearance			0.44	
12. Changing mind			0.41	
4. Facing important decision			0.35	
11. Prior assessments				0.76
10. Fluctuates?				0.75
8. Medications				0.56
14. Presumption rebutted				0.47

The five factor pattern matrix is also displayed (see Table 3.9). This solution used every item and there were three instances of cross-loading for factors 1 and 3 (*Ability to weigh information to make a decision; whether they know the value of their assets;* and *the importance of results on a measure of mental state*). There is emerging support for a five factor solution as each factor is comprised of at least four individual items.

Table 3.9

Pattern matrix of the five factor solution

Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
19. When takes effect	1.00				
20. When can change	0.82				
18. Beneficiaries	0.75				
25. Weigh information	0.52		0.34		
17. Value of assets	0.40		0.31		
24. MMSE score	0.33		0.31		
21. Clear communication		0.90			
22. Consistency		0.83			
23. Memory for questions		0.67			
26. Attorney is of sound mind		0.31			
9. Mental illness			0.72		
13. Undue influence			0.70		
16. What a Will/EPA are			0.67		
7. Medical conditions			0.54		
15. Reason for assessment			0.51		
6. Demeanour/appearance			0.46		
12. Changing mind			0.45		
4. Facing important decision			0.38		
11. Prior assessments				0.76	
10. Fluctuates?				0.75	
8. Medications				0.53	
14. Presumption rebutted				0.45	
30. Sensible					0.75
28. Family/carer perspective					0.62
27. Relationship history					0.47
5. Age					0.34

The next consideration in determining the best factor solution was to examine the response pattern variability on each factor. To do this, composite scores were calculated and plotted on histograms. All factors contained small groups of outliers that were up to four standard deviations below the mean. The group of outlying responders was further investigated. They were found to be distributed across each professional group, which confirmed that it was not a particular sub-specialty who systematically approached these assessments differently. The individual questionnaires of these respondents were then re-examined to cross-check for data entry errors, response biases, or inconsistent responding. There were no data input errors; however, there were instances of inconsistent responding. Response consistency was computed by comparing responses to items 21 and 29, which were the same item (*Ability to communicate clearly*); however, the repeated item had a reversed Likert scale. A new variable was computed, *consistency,* and a histogram of these results is displayed in Figure 3.4. There were five respondents with a discrepancy of 4 or 5 points between the initial and repeated item. This is a significant and unusual discrepancy given the Likert scale had a range of 1 to 6 (reproduced in Table 3.10). These respondents were referred to as *inconsistent* responders.

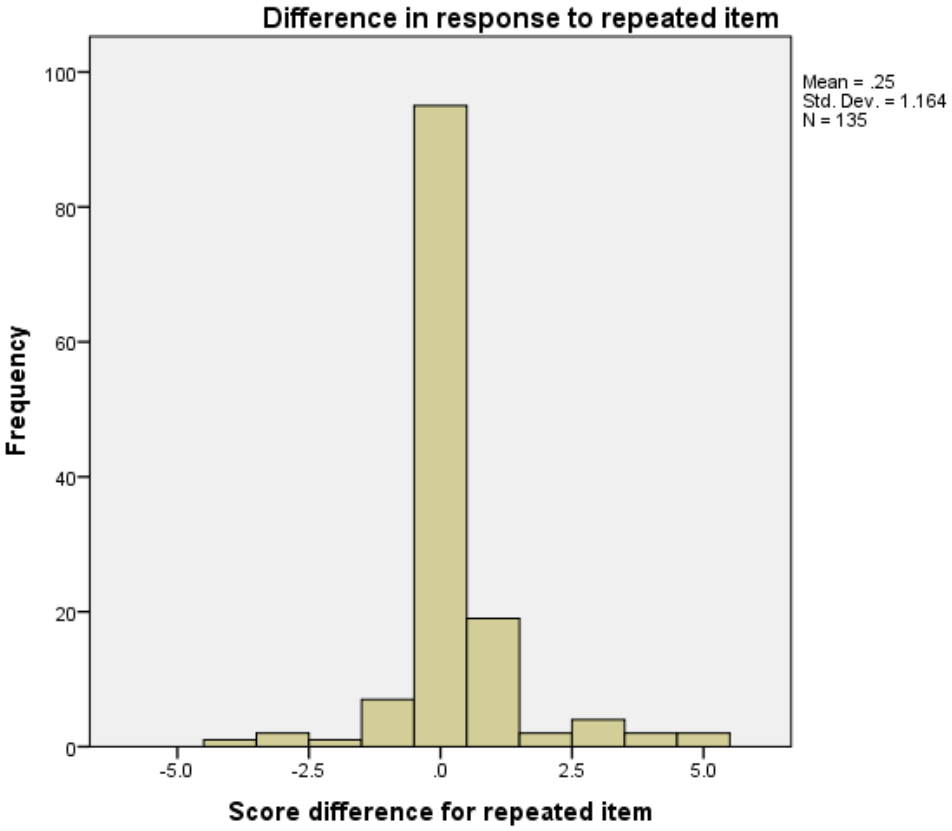

*Figure 3.4. H*istogram of response consistency between the initial and repeated item from the questionnaire. This histogram shows inconsistent respondents on the reverse scored repeat item.

Table 3.10

Response options for items on the questionnaire

Extremely Unimportant	Very Unimportant	Somewhat Unimportant	Somewhat Important	Very Important	Extremely Important
1	2	3	4	5	6

The impact of removing the inconsistent responders was investigated. The histograms of the factor composite scores were compared with and without the inconsistent responders. Figures 3.5, 3.7, 3.9, 3.11 and 3.13 show the composite score distribution for all respondents (N = 125), and Figures 3.6, 3.8, 3.10, 3.12 and 3.14 show the same composite factor distributions with the inconsistent responders removed (N = 120). The inconsistent responders were removed on a theoretical basis (to boost reliability) as opposed to statistically targeting and truncating the outliers. Although some outliers were identified and removed through this process, other outliers remained.

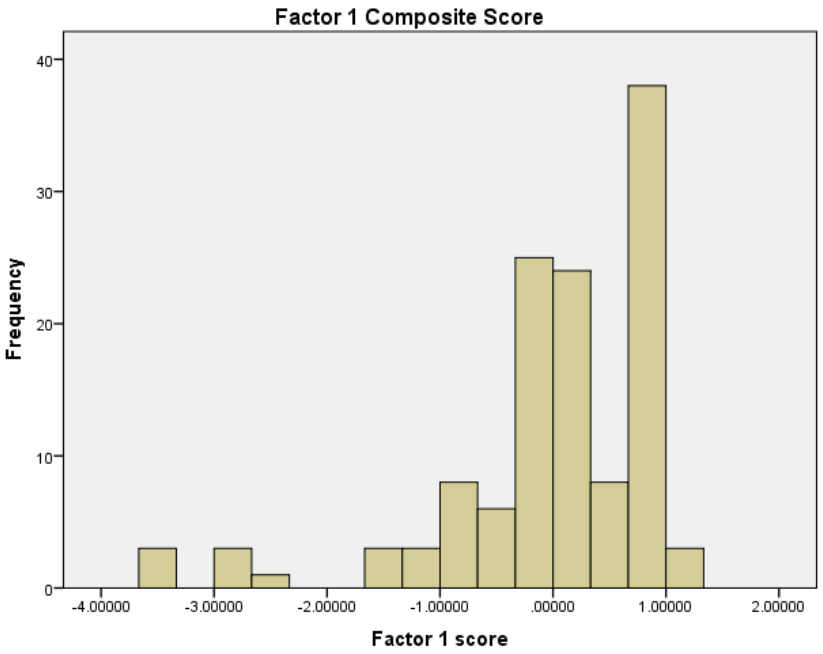

Figure 3.5. Factor one composite score distribution for all respondents (N = 125). There are outliers to the left of the graph.

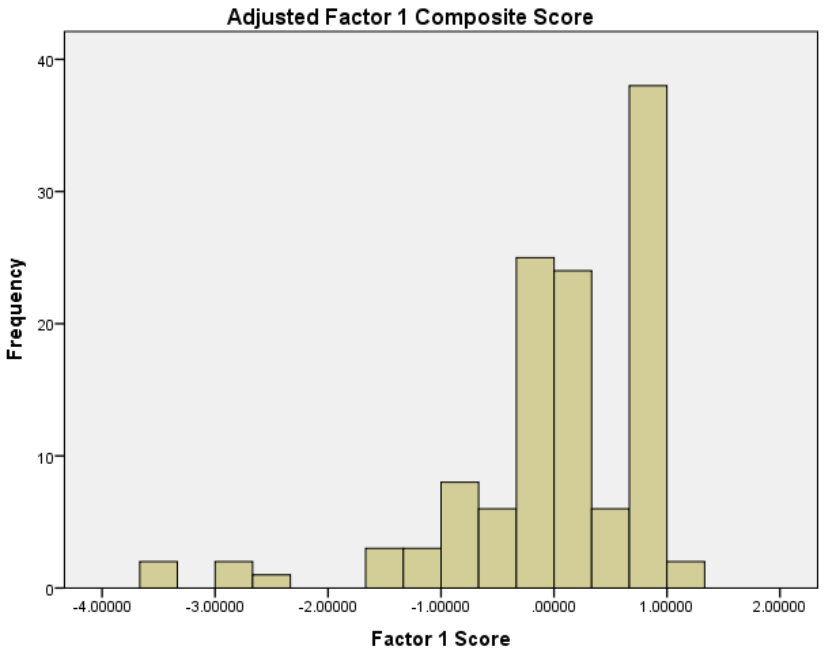

Figure 3.6. Factor one composite score distribution for consistent responders only (N = 120). There are fewer outliers to the left of the graph.

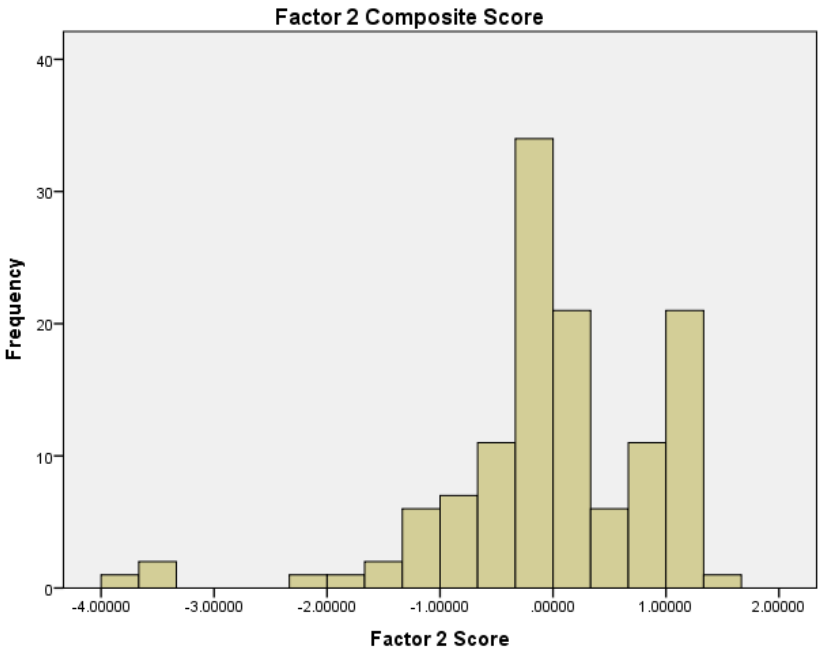

Figure 3.7. Factor two composite score distribution for all respondents (N = 125). There are outliers to the left of the graph.

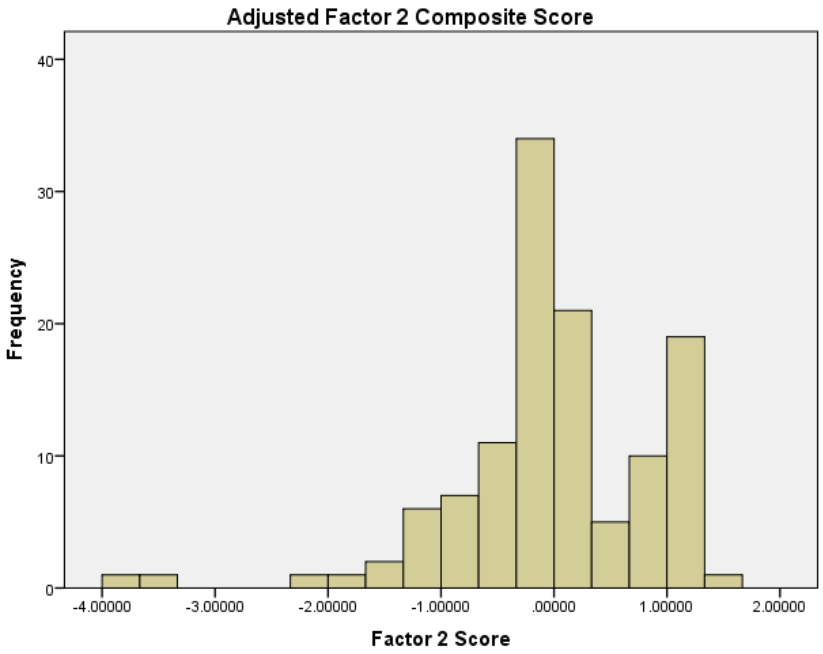

Figure 3.8. Factor two composite score distribution for consistent responders only (N = 120). There is one fewer outlier to the left of the graph.

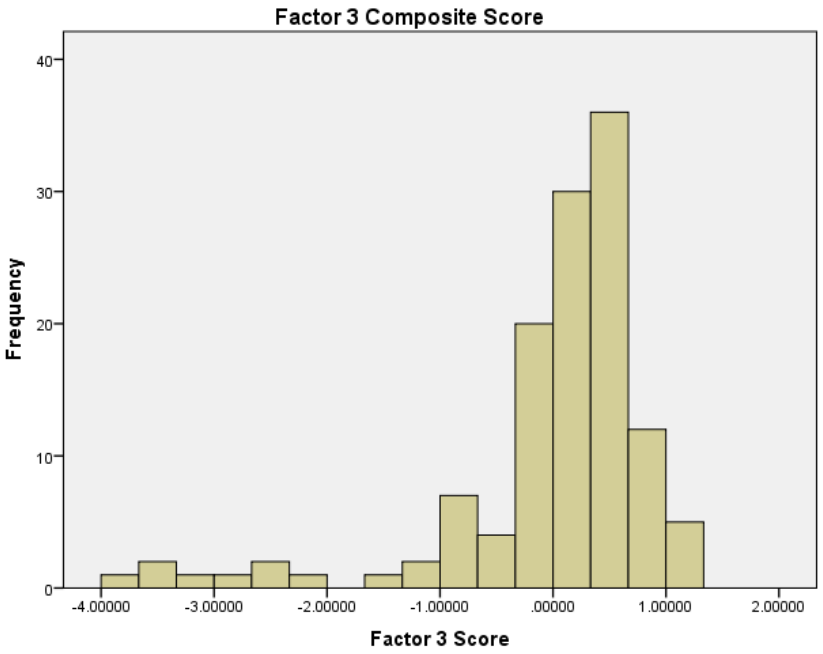

Figure 3.9. Factor three composite score distribution for all respondents (N = 125). There are outliers to the left of the graph.

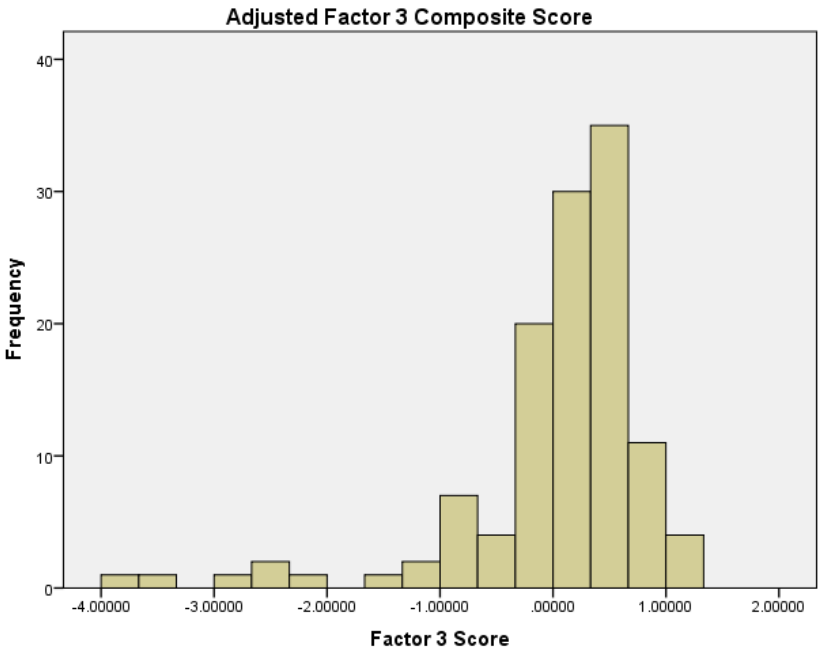

Figure 3.10. Factor three composite score distribution for consistent responders only (N = 120). There are fewer outliers to the left of the graph.

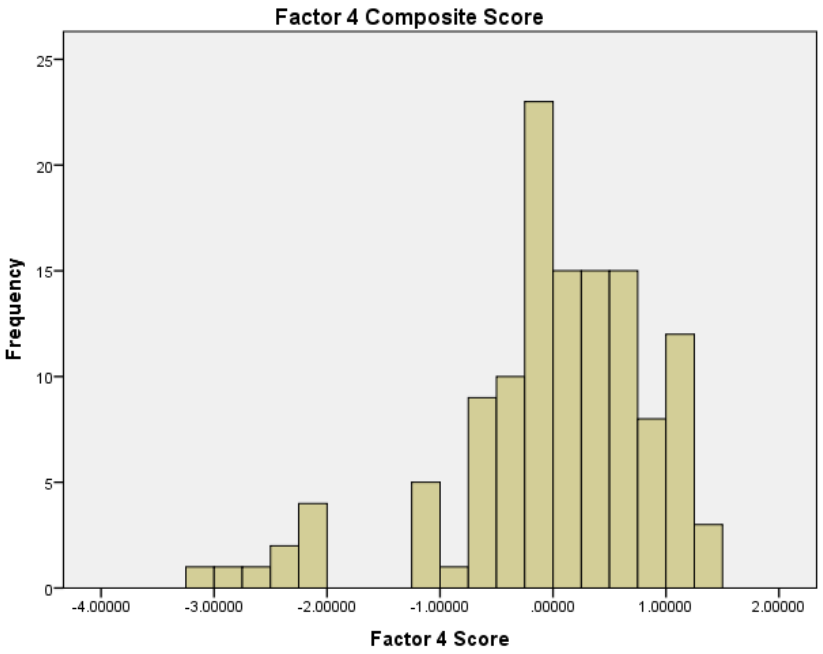

Figure 3.11. Factor four composite score distribution for all respondents (N = 125). There are outliers to the left of the graph.

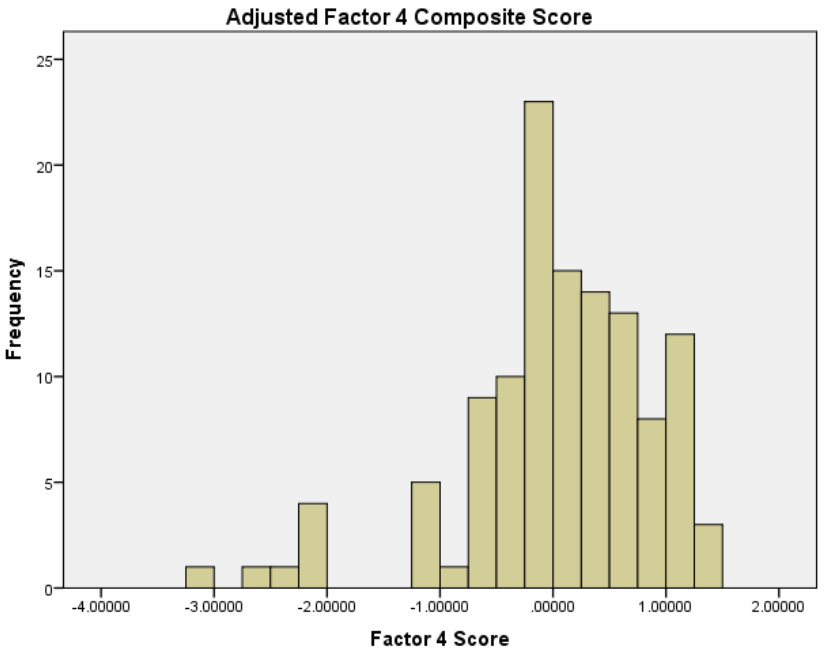

Figure 3.12. Factor four composite score distribution for consistent responders only (N = 120). There are fewer outliers to the left of the graph.

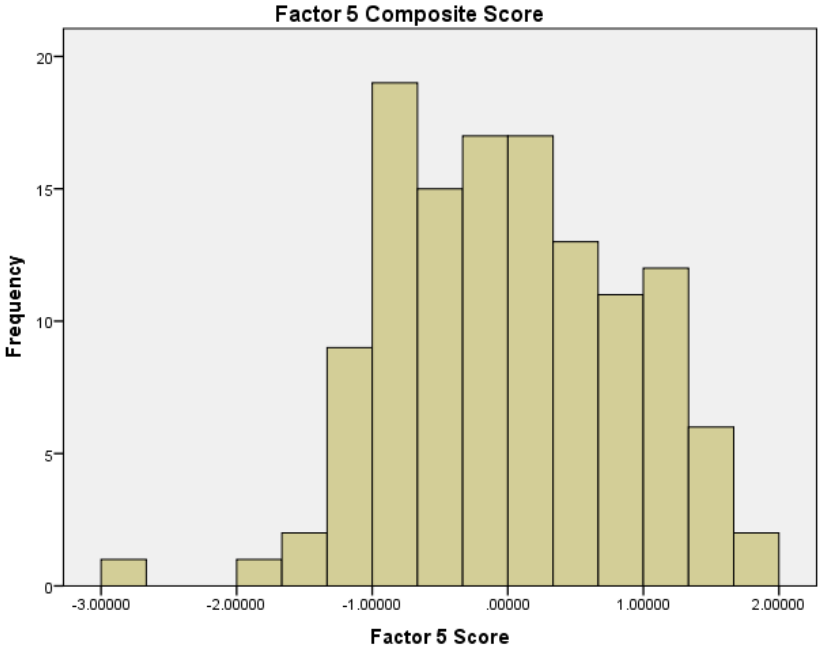

Figure 3.13. Factor five composite score distribution for all respondents (N = 125). There are outliers to the left of the graph.

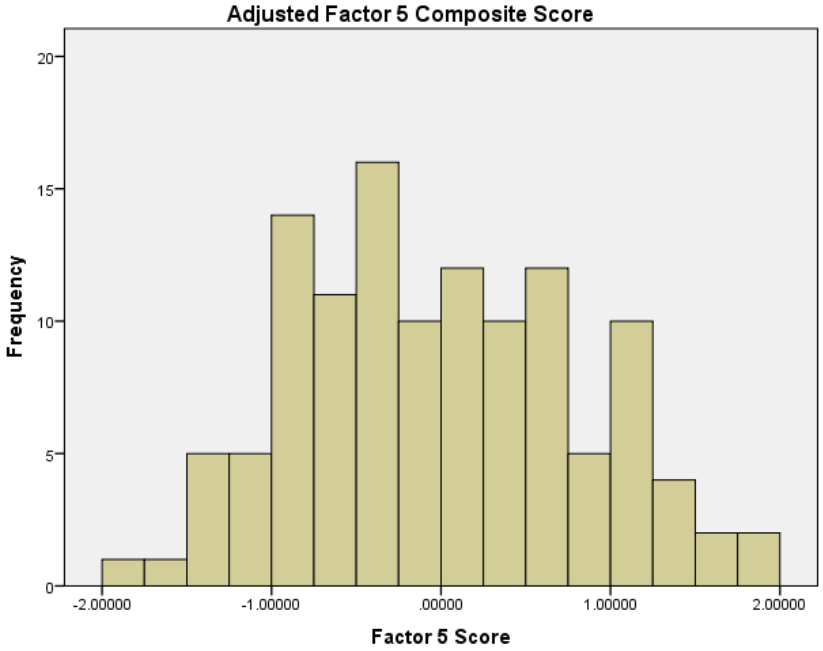

Figure 3.14. Factor five composite score distribution for consistent responders only (N = 120). There are fewer outliers to the left of the graph.

Given the sound theoretical underpinning of removing inconsistent responders and the positive statistical effect of decreasing the number of extreme scores on the composite, the four and five factor pattern matrices were re-computed without them (N = 120). As can be seen in Tables 3.11 and 3.12, there were now no cross-loading items. The four factor solution used 22 of the 26 items in the solution and the five factor solution used all 26 items. Removing the inconsistent responders provided clearer factors for interpretation.

Table 3.11

Pattern matrix of the four factor solution with consistent responders only (N = 120)

Item	Factor 1	Factor 2	Factor 3	Factor 4
19. When takes effect	1.00			
20. When can change	0.86			
18. Beneficiaries	0.74			
25. Weigh information	0.57			
17. Value of assets	0.42			
24. MMSE score	0.36			
5. Age				
21. Clear communication		0.87		
22. Consistency		0.77		
23. Memory for questions		0.67		
26. Attorney is of sound mind		0.31		
16. What a Will/EPA are			0.74	
13. Undue influence			0.69	
9. Mental illness			0.56	
15. Reason for assessment			0.47	
7. Medical conditions			0.45	
4. Facing important decision			0.37	
12. Changing mind			0.37	
6. Demeanour/appearance			0.36	
27. Relationship history				
30. Sensible				
11. Prior assessments				0.70
10. Fluctuates?				0.70
14. Presumption rebutted				0.55
8. Medications				0.48
28. Family/carer perspective				

Table 3.12

Pattern matrix of the five factor solution with consistent responders only (N = 120)

Item	*Factor 1*	*Factor 2*	*Factor 3*	*Factor 4*	*Factor 5*
19. When takes effect	0.99				
20. When can change	0.85				
18. Beneficiaries	0.73				
25. Weigh information	0.54				
17. Value of assets	0.40				
24. MMSE score	0.32				
21. Clear communication		0.87			
22. Consistency		0.80			
23. Memory for questions		0.66			
26. Attorney is of sound mind		0.31			
13. Undue influence			0.69		
16. What a Will/EPA are			0.68		
9. Mental illness			0.65		
7. Medical conditions			0.45		
15. Reason for assessment			0.45		
12. Changing mind			0.41		
4. Facing important decision			0.40		
6. Demeanour/appearance			0.39		
11. Prior assessments				0.73	
10. Fluctuates?				0.70	
14. Presumption rebutted				0.52	
8. Medications				0.45	
30. Sensible					0.75
28. Family/carer perspective					0.58
27. Relationship history					0.45
5. Age					0.34

In summary, the parallel analysis revealed the possibility of a four or a five factor solution. Table 3.13 displays the relevant considerations in determining which solution is the best fit for the data (N = 125 and N = 120 conditions). The most parsimonious solution is the five factor solution with the consistent responders (N = 120). Although there were no clear or obvious factor themes, they could loosely be thought of as: K*nowledge* (factor 1); *Communication* (factor 2); A*wareness* (factor 3); *External influences* (factor 4); and *Secondary considerations* (factor 5). Parallel analysis, factor analysis, pattern matrix examination and scrutiny of response consistency combined in support of a five factor solution.

Table 3.13

Comparison of the four and five factor solutions (N = 120)

N	Factors	Cumulative Sums of Squared Loadings	Items used	Cross-loadings
125	4	46.21%	22	4
125	5	50.73%	23	5
120	4	42.32%	22	0
120	5	47.07%	26	0

To reiterate, a primary goal of the research was to determine whether there were areas of similarity and difference between professional disciplines in what they consider to be important when assessing testamentary capacity and capacity to appoint an EPA. To further explore this hypothesis a one-way ANOVA was conducted to examine whether there were any significant differences between professions in how they scored on the latent factors (Table 3.14). There were no significant differences between medical, legal and allied practitioners in how they responded across the five composite factors.

Table 3.14

One-way ANOVA results comparing scores on composite factors 1-5 across the three professional groups (GPs, lawyers, and psychologists)

		Sum of Squares	*df*	Mean Square	*F*	*p*
Knowledge	Between-Groups	0.63	2	0.31	0.33	.72
	Within-Groups	112.19	117	0.96		
	Total	112.82	119			
Communication	Between-Groups	0.12	2	0.06	0.07	.94
	Within-Groups	104.04	117	0.89		
	Total	104.15	119			
Awareness	Between-Groups	0.30	2	0.15	0.17	.84
	Within-Groups	102.01	117	0.87		
	Total	102.31	119			
External influences	Between-Groups	3.10	2	1.55	2.01	.14
	Within-Groups	90.09	117	0.77		
	Total	93.19	119			
Secondary considerations	Between-Groups	0.40	2	0.20	0.27	.76
	Within-Groups	86.79	117	0.74		
	Total	87.19	119			

3.3 Capacity Assessments

The final phase of the research was to integrate the information gathered through the focus groups with the quantitative analysis from the questionnaire to develop an assessment protocol for assessing testamentary capacity and capacity to appoint an EPA. To do so, 38 participants, average age 74.79 years (*SD* = 8.27 years), completed cognitive measures (ACE-R and KBIT-2) and decision specific question-sets for making a Will and appointing an EPA. Means and standard deviations for the cognitive measures are presented in Table 3.15.

Most disagreements arise when determining borderline cases of capacity. A good protocol will be effective with this group and provide discriminant evidence to help determinations in these instances. For this reason, the research aimed to recruit participants who were likely to exhibit borderline capacity. Inspection of the means and standard deviations for results on all cognitive tests indicate that participants with borderline memory and cognitive functioning were likely sampled. Accordingly, the current research group is likely to represent the most difficult cases to classify.

Table 3.15

Means and standard deviations for results on the cognitive measures (N = 38)

Scale	Subscale (Range)	Mean	*SD*
MMSE	Total Score (0-30)	25.00	4.33
ACE-R	Attention and Orientation (0-18)	15.26	3.04
	Memory (0-26)	17.87	7.31
	Fluency (0-14)	8.37	3.13
	Language (0-26)	22.92	3.82
	Visuospatial (0-16)	13.87	2.26
	Total Score (0-100)	78.29	16.18
KBIT-2	Verbal Knowledge (0-60)	47.39	7.83
	Riddles (0-48)	32.45	8.64
	Total Verbal Raw Score (0-108)	79.84	15.47
	Verbal IQ (Standard Score)	92.87	14.07
	Matrices (/46)	22.53	9.43
	Nonverbal IQ (Standard Score)	87.29	19.87
	FSIQ Composite Score (0-154)	102.37	23.04
	FSIQ (Standard Score)	87.45	20.67

A correlation matrix is presented which shows the relationships between the cognitive measures (Table 3.16). Subtest scores are not correlated with their composite total scores to avoid redundant comparisons. As the ACE-R total score is made up of the MMSE score, attention and orientation, memory, fluency, language, and visual spatial subtests, only the total score is included in the correlations. Similarly, the KBIT-2 subtest inter-correlations are not included. A comprehensive correlation matrix is included in Appendix M. The results show that the cognitive measures are all positively correlated. The KBIT-2 riddles subtest showed the strongest correlations with the MMSE score and ACE-R total score. The KBIT-2 matrices subtest was the most modestly correlated with MMSE score and ACE-R total score.

Table 3.16

Correlation matrix for cognitive measures (N = 38)

Scale	Subtest	MMSE Score	ACE-R total score
KBIT-2	Verbal knowledge	.63**	.71**
	Riddles	.81**	.81**
	Total raw verbal score	.77**	.81**
	Matrices	.59**	.57**
	FSIQ composite raw score	.76**	.78**

**Correlation is significant at the 0.01 level (Pearson's correlation, 2-tailed).

Participants also responded to a question-set that was derived from the legal test of capacity. Participants were scored pass or fail on each sub-question based on the accuracy and completeness of responses. Pass and failure rates for each question in the set are shown in Table 3.17. A final determination of capacity is also provided. In keeping with the legal test of capacity, if a participant failed any one question in the set, they were found to lack capacity in that decision making area.

For the testamentary capacity question-set participants were most likely to struggle with understanding when and how they can make a new Will, i.e., the concept that the person making a new Will needs to understand the nature and likely consequences of what they are doing (have testamentary capacity). Pass rates across the other items were fairly constant and quite high (range 92.10% - 100%). It seems that one item alone in the question-set accounted for most of the failure rate for testamentary capacity.

For the EPA question-set participants were most likely to struggle with understanding what an EPA document is about, i.e., that it is a document that details who will make decisions when a person lacks capacity. Compared with the testamentary capacity question-set, the capacity to appoint an EPA question-set had more items that discerned between participants with and without capacity, indeed, no individual question had a 100% pass rate. Participants responded differentially to the testamentary capacity and the capacity to appoint an EPA question-sets.

It is a principle of capacity determination that one cannot extrapolate incapacity from one decision making domain to another. An examination of the similarities and differences between results on the testamentary capacity and capacity to appoint EPA question-sets support this standard. On average, participants found the capacity to appoint an EPA question-set more difficult (19/38 passed) than the testamentary capacity question-set (26/38 passed). Only 11 participants were found to lack capacity in both decision making areas. That is to say 1 participant who lacked testamentary capacity had capacity to appoint an EPA, and 8 participants who were found to lack capacity to appoint an EPA were found to have testamentary capacity. The data is thus unequivocally consistent with the principle that capacity is decision specific.

Table 3.17

Capacity to comprehend specific principles of making a Will and appointing an EPA

Capacity Principle	Has Capacity?	
	Yes	No
What is a Will?	94.70%	5.30%
Why do you have one?	94.70%	5.30%
When does it come into effect?	100.00%	0.00%
Do you own things?	97.40%	2.60%
What are they?	97.40%	2.60%
What are their value?	92.10%	7.90%
Who will you give your things to?	92.10%	7.90%
Who will you exclude?	100.00%	0.00%
When and how can you change your Will?	73.70%	26.30%
Has testamentary capacity?	68.40%	31.60%
What is an EPA?	71.10%	28.90%
Why do you have an EPA?	86.80%	13.20%
When does it come into effect?	81.60%	18.40%
What decisions can an attorney make?	76.30%	23.70%
Why did you choose them?	92.10%	7.90%
Will they make the same decisions as you would have?	94.70%	5.30%
How can you be sure?	84.20%	15.80%
Have you named more than one attorney?	86.80%	13.20%
Have you separated their powers?	84.20%	15.80%
What did your family and friends think about who you appointed?	94.70%	5.30%
What do you do if you want to change it?	92.10%	7.90%
When can you change it?	65.80%	34.20%
Has capacity to appoint an EPA?	50.00%	50.00%

3.3.1 Inter-rater reliability.

It is important to confirm the reliability of the determinations of capacity. A good way to check for reliability is to have a second assessor check mark the participants. As viewing the entire 500 minutes of question-set related interviews is too time-demanding and considering that a failure on any one item is sufficient to determine incapacity the researcher edited just the items that were failed. This resulted in a total of 55 minutes of extracted videotaped interviews. These were viewed by a second researcher with expertise in capacity assessment. Inter-rater reliability was 100% for all respondents.

3.3.2 Voluntariness.

Comprehensive assessments of capacity will document possible risk factors of undue influence. To gather relevant information, participants were asked a series of questions relating to voluntariness. Table 3.18 shows the most prevalent risk factors were being heavily dependent on another person both physically and emotionally. No research participants felt threatened, or had submitted to another person resulting in financial loss. Note that an assessor does not make a final determination relating to voluntariness, rather they are to catalogue the risk factors in the report. The relevant court is responsible for making the final determination regarding undue influence; therefore, no final determination relating to undue influence was made in this research. Administration of the Voluntariness Questionnaire was a convenient means of documenting potentially relevant risk factors.

Table 3.18

Percentage of respondents who felt pressures relating to certain aspects of voluntariness

Question	Yes	No
Are you isolated from your friends, relatives, or usual advisors?	13.20%	86.80%
Do you have problems in your family relationships?	7.90%	92.10%
Do you suffer medical disorders that affect your relationships?	7.90%	92.10%
Is someone interfering in your relationships?	5.30%	94.70%
Are you isolated from your friends or family?	7.90%	92.10%
Are you heavily dependent on another person?	31.60%	68.40%
Are you physically dependent on someone for food preparation and transport to appointments or similar?	18.40%	81.60%
Are you emotionally dependent on someone?	21.10%	78.90%
Are you dependent on someone else for information?	13.20%	86.80%
Do you feel someone is trying to manipulate you, or do you feel vulnerable?	13.20%	86.80%
Do you feel threatened or manipulated by someone to do things against your wishes?	0.00%	100.00%
Have you consented or submitted to another person because of anything we have discussed so far?	0.00%	100.00%
Have you sustained financial loss because of this action?	0.00%	100.00%

3.3.3 Cognitive correlates of capacity.

A correlation matrix (Table 3.19) was computed to determine the strength of the relationship between cognitive test results and the binary determination of capacity (from the summary rows from Table 3.17). . There was some variability in the correlation strength between different cognitive tests. The strongest positive associations with testamentary capacity were: KBIT-2 Riddles; MMSE score; KBIT-2 Composite total; and KBIT-2 verbal raw score. The strongest positive associations with capacity to appoint an EPA were: ACE-R memory, MMSE score; ACE-R total; and ACE-R attention and orientation. Poorer performance on these cognitive measures was associated with decisional incapacity. Verbal fluency was not a significant predictor of capacity for either testamentary capacity or capacity to appoint an EPA. Furthermore, the standardised scores (Verbal IQ, Nonverbal IQ, FSIQ) had lower correlations with capacity than the composite (raw) scores. It seems that converting scores to age-matched comparison standard scores (i.e., IQ scores) dilutes the predictive function of these tests; henceforth, only composite (raw) scores will be reported. This is consistent with the capacity principle of functional capacity, not status. That is, one's relative capacity to age-matched peers is less important than one's absolute ability (functionally ability). Examining the correlations between cognitive test results and decisional capacity provided important insight into which test scores are the best predictors of capacity.

Table 3.19

Correlations between performance on the cognitive measures and the binary determination of testamentary capacity or capacity to appoint an EPA

Scale	Subscale	Capacity	
		Wills	EPA
MMSE	Total Score	.65**	.54**
ACE-R	Attention and Orientation	.57**	.51**
	Memory	.48**	.61**
	Fluency	.21	.14
	Language	.42**	.45**
	Visuospatial	.34*	.18
	Total	.51**	.53**
KBIT-2	Verbal Knowledge	.48**	.36*
	Riddles	.67**	.49**
	Total Verbal Raw Score	.62**	.46**
	Verbal IQ	.56**	.34*
	Matrices	.50**	.26
	Nonverbal IQ	.46**	.20
	Composite Total Score	.62**	.41*
	FSIQ	.34*	.10

** Pearson's correlation is significant at the 0.01 level (2-tailed).

*Correlation is significant at the 0.05 level (2-tailed).

3.3.3.1 *MMSE score as a predictor variable.*

MMSE score is commonly presented in capacity literature. For this reason it was included in logistic regression analyses to establish its strength as a predictor variable of testamentary capacity and capacity to appoint an EPA. MMSE score was a statically significant predictor of testamentary capacity (chi square = 17.975, $p <$ .001; $df = 1$). Nagelkerke's R^2 is .53 indicating an adequate relationship between prediction and grouping. The model is presented in Table 3.20. The classification table (Table 3.21) reveals that the model is more accurate for predicting participants who have capacity (sensitivity[8]), as opposed to those who do not (specificity). MMSE score is a reasonably good predictor of testamentary capacity, but just above chance level for classifying those participants who lacked testamentary capacity.

[8] Sensitivity is a statistic that indicates the portion of a sample that is positively identified as having a condition. Note that in this thesis, sensitivity relates to the condition of having capacity. Therefore, specificity relates to the portion of the sample that is correctly identified as lacking capacity.

Table 3.20

Logistic regression analysis of 38 assessments of testamentary capacity with MMSE score as the predictor variable

							95% C.I.for EXP(B)	
Scale	*B*	*S.E.*	Wald	*df*	*p*	Exp(B)	Lower	Upper
MMSE score	-0.47	0.16	9.11	1	<.001	0.63	0.46	0.85

Table 3.21

Classification table showing observed and predicted outcomes of testamentary capacity with MMSE score as the predictor variable

		Predicted		
		Testamentary capacity		
Observed		Yes	No	Percentage correct
Testamentary capacity	Yes	24	2	92.31%[a]
	No	5	7	58.33%[b]
Total percent correctly classified				81.58%

[a] Sensitivity. [b] Specificity.

Logistic regression analyses were also conducted to determine the utility of MMSE score in predicting capacity to appoint an EPA (refer to Tables 3.22 and 3.23). Although weaker at predicting capacity to appoint an EPA, MMSE score was a statistically significant predictor (*chi square* = 13.56, $p < .001$; $df = 1$). Nagelkerke's R^2 is 0.40 which indicates a weak relationship between prediction and grouping. There was less variability in the models ability to accurately classifying those with (sensitivity) and without (specificity) decisional capacity; although predicting those who did have capacity was still more accurate. The MMSE is a reasonable measure for assisting determinations of capacity to appoint an EPA, but of less use in classifying those participants without capacity to appoint an EPA.

Table 3.22

Logistic regression analysis of 38 assessments of capacity to appoint an EPA with MMSE score as the predictor variable

							95% C.I.for EXP(B)	
Scale	*B*	*S.E.*	Wald	*df*	*p*	Exp(B)	Lower	Upper
MMSE score	-0.38	0.14	7.95	1	<.001	0.68	0.52	0.89

Table 3.23

Classification table showing observed and predicted outcomes of capacity to appoint an EPA with MMSE score as the predictor variable

		Predicted		
		Capacity to appoint EPA		
Observed		Yes	No	Percentage correct
Capacity to appoint EPA	Yes	15	4	78.95%[a]
	No	6	13	68.42%[b]
Total percent correctly classified				73.68%

[a] Sensitivity. [b] Specificity.

3.3.3.2 *Optimal MMSE Cut-Points.*

Receiver Operating Characteristic (*ROC*) analysis allows for the determination of diagnostic accuracy of a test (Coyle 2011). To examine the utility of the MMSE in capacity research, an Area Under the Curve (*AUC*) analysis was conducted. This analysis allows for a determination of the most appropriate cut-points to balance sensitivity with specificity. The *AUC* analysis is achieved by plotting 1 – specificity against sensitivity. It should be acknowledged that the *AUC* can overestimate accuracy as it is insensitive to base rates (Coyle & Hanlon, 2013). Swets (1988) presents classifications for *AUC* values: above 0.9 indicates high accuracy; 0.7–0.9 indicates some use; and 0.7–0.5 indicates poor accuracy. These are slightly more conservative than those offered by Streiner and Cairney, (2007) who suggest 0.50 to 0.70 is low; between 0.70 and 0.90 is moderate; and over 0.90 is high. A visual inspection of the *AUC* graph (Figure 3.15) shows that MMSE score is of some use as a predictor variable (*AUC* = 0.88, $p < .001$). A cut-point of 25.5/30 yielded a balance of sensitivity of 83% and specificity of 73% (Table 3.24). Another statistic that may be of interest is the cut-point which maximises specificity; this is the score below which no participants are found with testamentary capacity. In the current sample the cut-point for maximum specificity is 19/30. A clinical cut-point of 26.5 out of 30, which is used to predict dementia in an outpatient memory disorder population (Strauss, Sherman, & Spreen, 2006, p. 185), yields a sensitivity of 92% and a specificity of 61%.

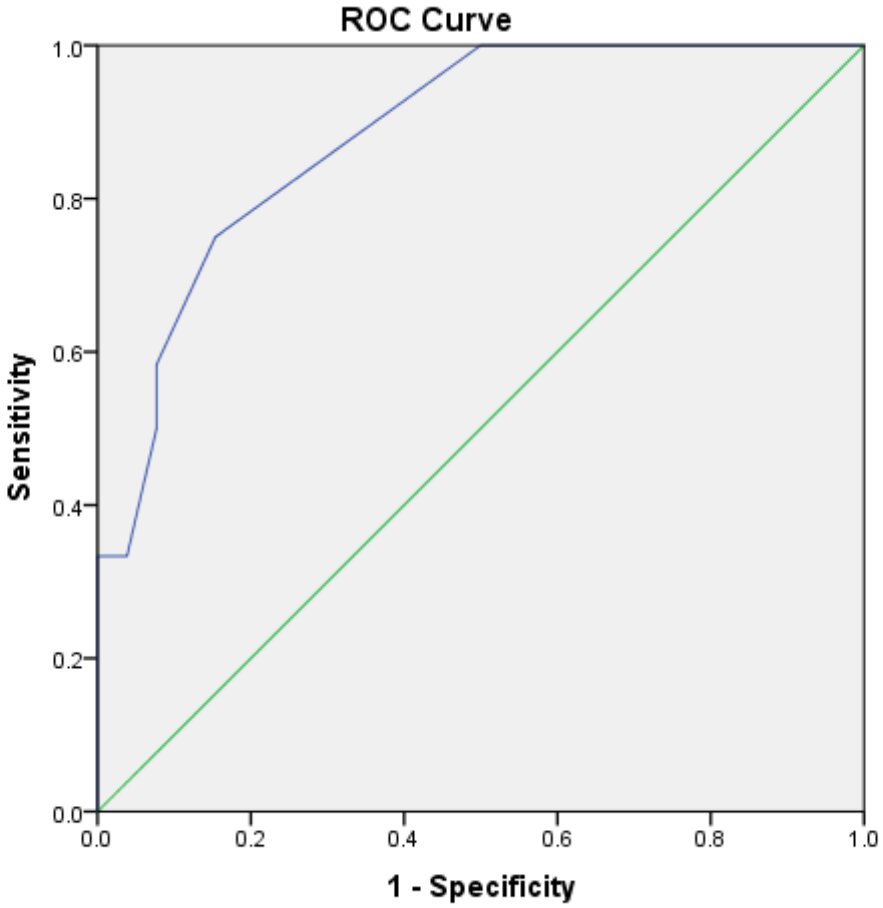

Figure 3.15. ROC analysis showing the *AUC* for MMSE score as a predictor of testamentary capacity. The diagonal represents random classification. MMSE score is of some use as a predictor variable (*AUC* = 0.88, $p < .001$).

Table 3.24

Sensitivity and specificity data for various cut-points of MMSE score in predicting testamentary capacity

MMSE Score[a]	Sensitivity	1 - Specificity
13	0.00	0.00
14.5	0.08	0.00
15.5	0.17	0.00
17	0.25	0.00
19	0.33	0.00
20.5	0.33	0.04
21.5	0.50	0.08
22.5	0.58	0.08
24	0.75	0.15
25.5	0.83	0.27
26.5 [b]	0.92	0.39
27.5	1.00	0.50
28.5	1.00	0.65
29.5	1.00	0.81
31	1.00	1.00

[a] The smallest cut-off value is the minimum observed test value minus 1, and the largest cut-off value is the maximum observed test value plus 1. All the other cut-off values are the averages of two consecutive ordered observed test values. [b] Denotes cut-point for predicting dementia with 93% probability in a memory disorders clinic population.

The same analysis was repeated for capacity to appoint an EPA (Figure 3.16 and Table 3.25). Again MMSE score was of some use as a predictor of capacity (*AUC* = 0.81, $p < .001$); however, there was no clear cut-point that balanced sensitivity with specificity. Rather, a sensitivity of 79% was found at a cut-point of 27.5/30 and a specificity of 79% was achieved at a cut-point of 29.5/30. The cut-point that maximised specificity was 22.5/30; no participants with a MMSE score below this cut-off had capacity to appoint an EPA. MMSE score can be helpful in determining capacity to appoint an EPA; however, the most appropriate cut-value for capacity determinations still has to be determined. The clinical cut-point of 26.5 points results in sensitivity of 74% of and specificity of 63%.

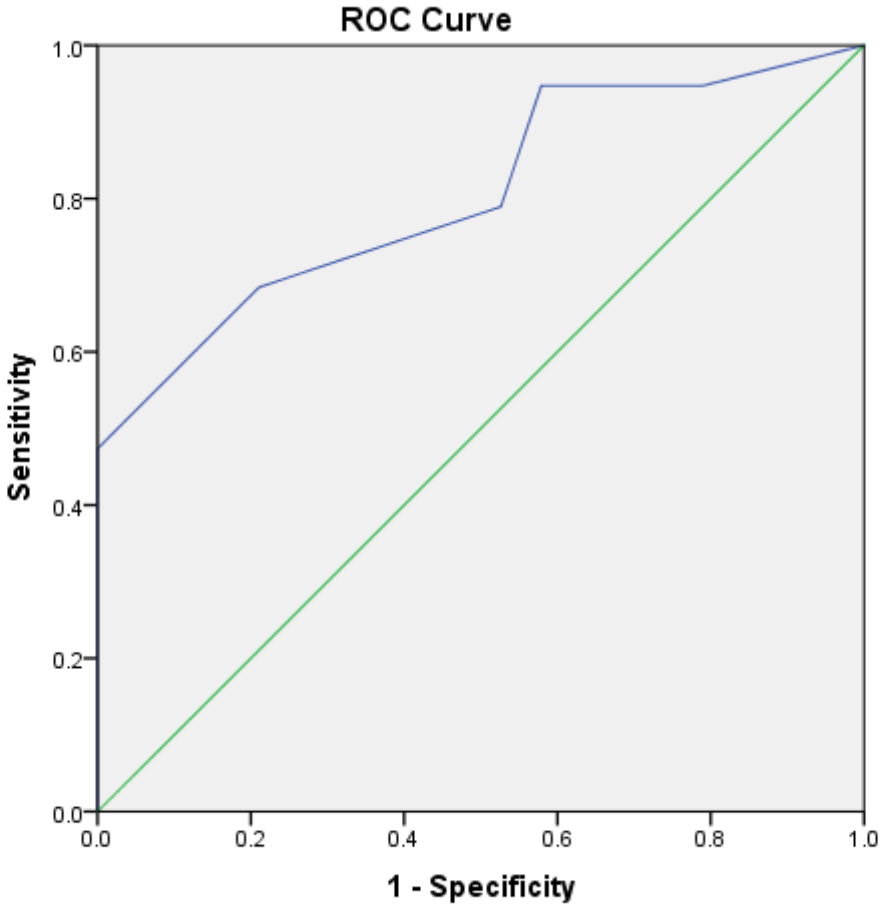

Figure 3.16. A *ROC* analysis showing the *AUC* for MMSE score as a predictor of capacity to appoint an EPA. The diagonal represents random classification. MMSE score was of some use as a predictor of capacity (*AUC* = 0.81, $p < .001$).

Table 3.25

Sensitivity and specificity data for various cut-points of MMSE score in predicting capacity to appoint an EPA

MMSE Score[a]	Sensitivity	1 - Specificity
13	0.00	0.00
14.5	0.05	0.00
15.5	0.11	0.00
17	0.16	0.00
19	0.21	0.00
20.5	0.26	0.00
21.5	0.42	0.00
22.5	0.47	0.00
24	0.58	0.11
25.5	0.68	0.21
26.5[b]	0.74	0.37
27.5	0.79	0.53
28.5	0.95	0.58
29.5	0.95	0.79
31	1.00	1.00

[a] The smallest cut-off value is the minimum observed test value minus 1, and the largest cut-off value is the maximum observed test value plus 1. All the other cut-off values are the averages of two consecutive ordered observed test values. [b] Denotes cut-point for predicting dementia with 93% probability in a memory disorders clinic population.

3.3.3.3 *Predicting Legal Capacity from Cognitive Ability.*

A primary aim of the research was to investigate whether the addition of the ACE-R and KBIT-2 cognitive tests added to the accuracy of capacity classification. To determine the additional value of these measures they were entered as predictor variables into logistic regression analyses for classifying testamentary capacity and capacity to appoint an EPA (see Tables 3.26 and 3.27). Note that the MMSE score is a subscale of the ACE-R total score, therefore, it was not entered independently to avoid double-counting.

For testamentary capacity, the ACE-R total score and KBIT-2 total composite score were significant predictors in the model (chi square = 16.95, $p < .001$; $df = 2$). Nagelkerke's R^2 is 0.51 which indicated an adequate relationship between prediction and grouping. ACE-R total score (which includes MMSE score) was not a significant contributor to the model when KBIT-2 was also used. KBIT-2 total composite score alone accounted for all the variance in the model. This model was better at classifying those with capacity (sensitivity) than those without (specificity). The administration of the KBIT-2 was of more benefit than MMSE score alone in the accurate classification of testamentary capacity, but still only correctly classified 66.67% of participants who lacked capacity.

Table 3.26

Logistic regression analysis of 38 assessments of testamentary capacity with ACE-R and KBIT-2 total composite scores as predictor variables

							95% C.I.for EXP(B)	
Scale	*B*	*S.E.*	Wald	*df*	*p*	Exp(B)	Lower	Upper
ACE-R total score	0.05	0.04	0.01	1	.94	1.00	0.92	1.09
KBIT-2 composite raw score	-0.09	0.04	4.91	1	.03	0.92	0.85	0.99

Table 3.27

Classification table showing observed and predicted outcomes of testamentary capacity with ACE-R total score and KBIT-2 total composite score as predictor variables

		Predicted		
		Testamentary capacity		
Observed		Yes	No	Percentage correct
Testamentary capacity	Yes	23	3	88.46%[a]
	No	4	8	66.67%[b]
Total percent correctly classified				81.58%

[a] Sensitivity. [b] Specificity.

For capacity to appoint an EPA, the ACE-R and KBIT-2 scales were entered together into a logistic regression. Results are displayed in Table 3.28. ACE-R total score and KBIT-2 total composite score together were significant predictors of capacity (*chi square* = 12.77, $p = .002$; $df = 2$). Nagelkerke's R^2 is 0.38 which indicated a weak relationship between prediction and grouping. This time, KBIT-2 total composite score was not a significant contributor to the model when ACE-R total score was also used. ACE-R total score alone accounted for all the variance in the model. The classification table (Table 3.29) shows the model was slightly better at classifying those with capacity (sensitivity) than those without (specificity). The administration of the ACE-R is of significant additional value in assessments of capacity to appoint an EPA, although only 63.16% of participants who lacked capacity were correctly classified.

Table 3.28

Logistic regression analysis of 38 assessments of capacity to appoint an EPA with ACE-R total score and KBIT-2 total composite score as predictor variables

						95% C.I.for EXP(B)		
Scale	*B*	*S.E.*	Wald	*df*	*p*	Exp(B)	Lower	Upper
ACE-R total score	-0.10	0.05	4.54	1	.03	0.90	0.82	0.99
KBIT-2 composite raw score	0.01	0.03	0.03	1	.85	1.01	0.96	1.06

Table 3.29

Classification table showing observed and predicted outcomes of capacity to appoint an EPA with ACE-R total score and KBIT-2 total composite score as predictor variables

		Predicted		
		Capacity to appoint EPA		
Observed		Yes	No	Percentage correct
Capacity to appoint EPA	Yes	13	6	68.42%[a]
	No	7	12	63.16%[b]
Total percent correctly classified				65.79%

[a] Sensitivity. [b] Specificity.

3.3.3.4 *Optimal KBIT-2 Cut-Point for Testamentary Capacity.*

As the KBIT-2 was the only significant predictor of testamentary capacity, it can be included in *ROC* and *AUC* analysis. This measure was the strongest predictor and additional analysis reveals the optimal cut-points. A visual inspection of the *AUC* graph (Figure 3.17) shows that KBIT-2 total composite score is of some use as a predictor variable (*AUC* = 0.87, $p < .001$). A cut-point of 90.5 points yielded a balance of sensitivity of 81% and specificity of 77% (Table 3.30). The cut-point that maximises specificity (the score below which no participants had testamentary capacity) was 75.5 points. The optimal cut-points on the KBIT-2 total composite score that balance sensitivity and specificity, and that maximise specificity, when predicting testamentary capacity were computed with *ROC* and *AUC* analyses.

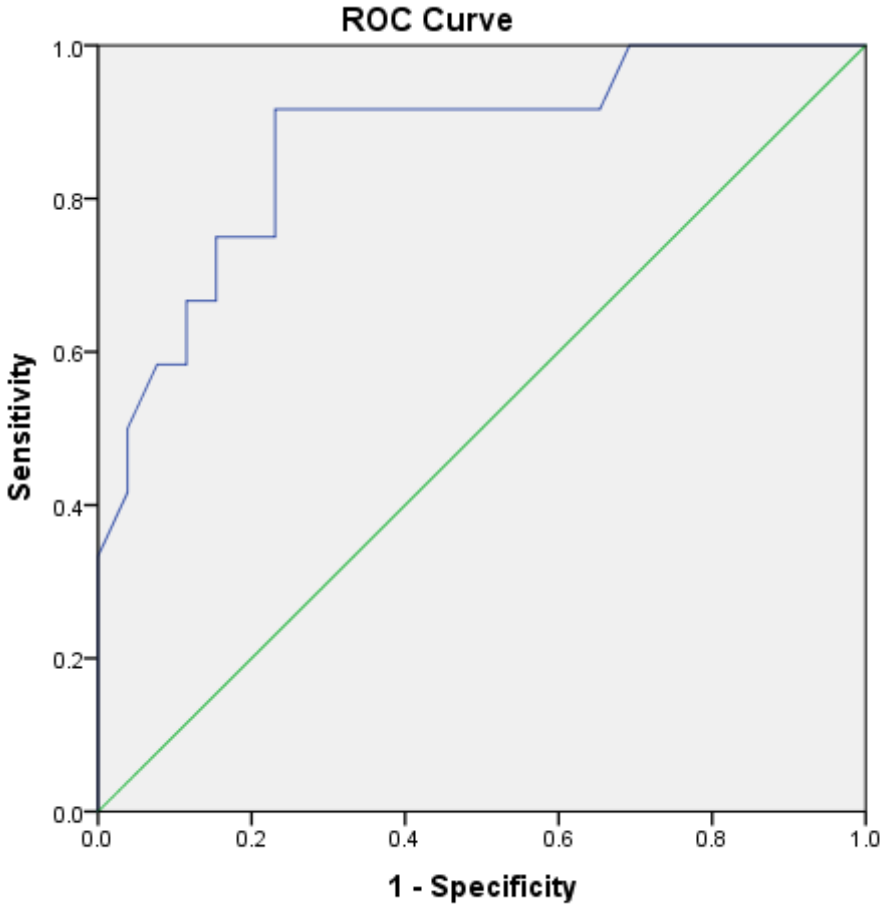

Figure 3.17. A *ROC* analysis showing the *AUC* for KBIT-2 total composite score as a predictor of testamentary capacity. The diagonal represents random classification. KBIT-2 total composite score is of some use as a predictor variable (*AUC* = 0.87, $p < .001$).

Table 3.30

Sensitivity and specificity data for various cut-points of KBIT-2 total composite score in predicting testamentary capacity

KBIT-2 total composite score[a]	Sensitivity	1 - Specificity
45.00	0.00	0.00
54.50	0.08	0.00
63.50	0.17	0.00
69.00	0.25	0.00
75.50	0.33	0.00
78.00	0.42	0.04
80.00	0.50	0.04
83.50	0.58	0.08
86.50	0.58	0.12
87.50	0.67	0.12
88.50	0.67	0.15
89.50	0.75	0.15
90.50	0.75	0.19
93.00	0.75	0.23
97.50	0.83	0.23
103.00	0.92	0.23
106.50	0.92	0.27
107.50	0.92	0.35
108.50	0.92	0.38

KBIT-2 total Composite score[a]	Sensitivity	1 - Specificity
110.50	0.92	0.46
113.50	0.92	0.50
116.50	0.92	0.54
118.50	0.92	0.58
120.50	0.92	0.62
123.00	0.92	0.65
125.00	1.00	0.69
126.50	1.00	0.73
128.00	1.00	0.85
130.00	1.00	0.88
133.00	1.00	0.92
137.50	1.00	0.96
141.00	1.00	1.00

[a] The smallest cut-off value is the minimum observed test value minus 1, and the largest cut-off value is the maximum observed test value plus 1. All the other cut-off values are the averages of two consecutive ordered observed test values.

3.3.3.5 Optimal ACE-R Total Score Cut-Point for Capacity to Appoint an EPA.

As the ACE-R total score was the only significant predictor of capacity to appoint an EPA, it can be included in *ROC* and *AUC* analysis. This measure was the strongest predictor and additional analysis provides information on cut-points. A visual inspection of the *AUC* graph (Figure 3.18) shows that ACE-R total score is of some use as a predictor variable (*AUC* = 0.80, p = .002). A cut-point of 84.5/100 yielded a sensitivity of 79% and a cut-point of 78.5/100 provided specificity of 79% (Table 3.31). The cut-point that maximises specificity (the score below which no participants had capacity to appoint an EPA) was 63/100. The best cut-points on the ACE-R that balance sensitivity and specificity, and that maximise specificity, when predicting capacity to appoint an EPA were computed with *ROC* and *AUC* analyses. Relying on the clinical cut-point of 88 points would result in a sensitivity of 89% and a specificity of 53%.

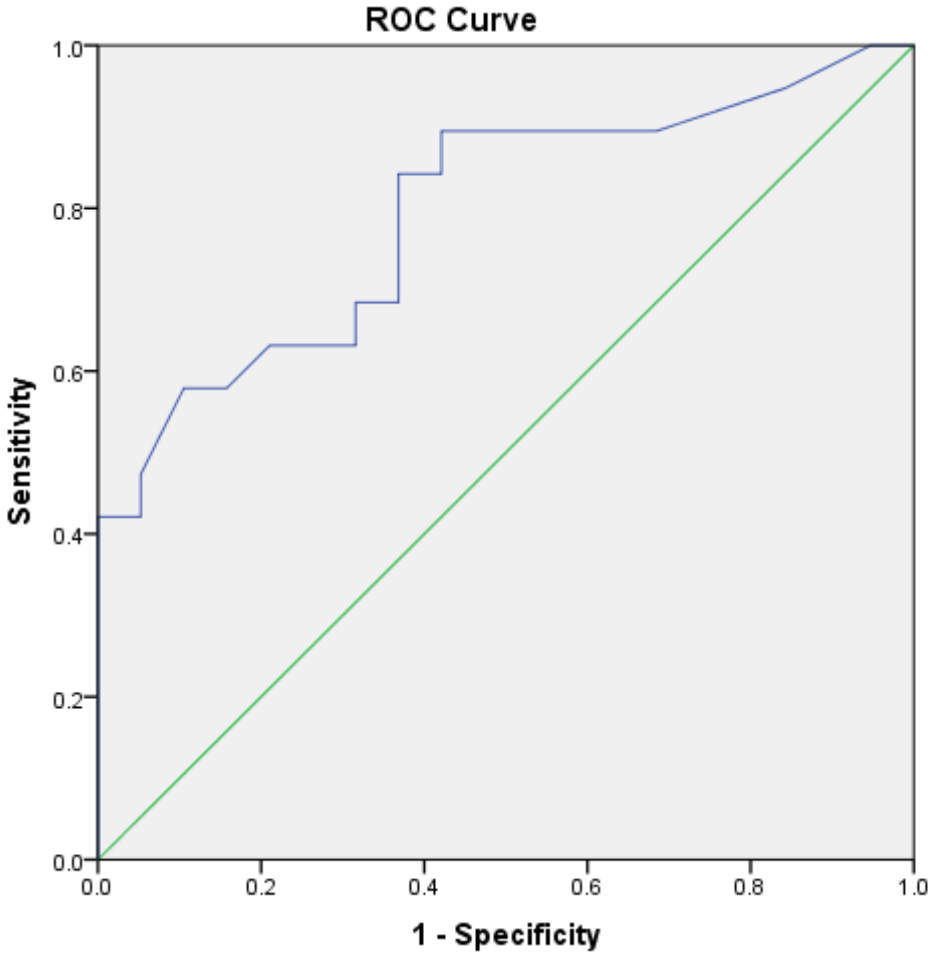

Figure 3.18. A *ROC* analysis showing the *AUC* for ACE-R total score as a predictor of capacity to appoint an EPA. The diagonal represents random classification. ACE-R total score is of some use as a predictor variable (*AUC* = 0.80, *p* = .002).

Table 3.31

Sensitivity and specificity data for various cut-points of ACE-R total score in predicting testamentary capacity

ACE-R total score[a]	Sensitivity	1 - Specificity
38.00	0.00	0.00
40.50	0.05	0.00
42.50	0.11	0.00
49.50	0.16	0.00
56.50	0.21	0.00
57.50	0.26	0.00
58.50	0.32	0.00
59.50	0.37	0.00
63.00	0.42	0.00
69.00	0.42	0.05
74.00	0.47	0.05
76.50	0.58	0.11
77.50	0.58	0.16
78.50	0.63	0.21
80.50	0.63	0.32
82.50	0.68	0.32
83.50	0.68	0.37
84.50	0.79	0.37
85.50	0.84	0.37

ACE-R total score[a]	Sensitivity	1 - Specificity
86.50	0.84	0.42
87.50	0.89	0.42
88.50[b]	0.89	0.47
90.50	0.89	0.53
92.50	0.89	0.63
93.50	0.89	0.68
94.50	0.95	0.84
96.50	1.00	0.95
99.00	1.00	1.00

[a] The smallest cut-off value is the minimum observed test value minus 1, and the largest cut-off value is the maximum observed test value plus 1. All the other cut-off values are the averages of two consecutive ordered observed test values. [b] Denotes cut-point for predicting dementia with 94% sensitivity and 89% specificity.

3.3.4 Optimal Subtest for Predicting Legal Capacity.

A primary goal of the current research was to determine which variables best predicted decisional capacity. To achieve this, logistic regression analyses were conducted using the cognitive measures with the highest correlations with testamentary capacity and capacity to appoint an EPA (from Table 3.16). Again, where individual subtests correlated highly, the composite total score was not also used to avoid redundancy. The best predictor variables for testamentary capacity and capacity to appoint an EPA are presented separately.

The variables with the highest positive correlations to testamentary capacity were: MMSE score and KBIT-2 Riddles sub-score. These variables were entered as predictor variables of testamentary capacity. A test of the full model against a constant only model was statistically significant, indicating that the predictors, as a set, reliably distinguished between participants who did and did not have capacity (*chi square* = 21.51, $p < .001$; $df = 2$). Nagelkerke's R^2 of 0.61 indicated a modest relationship between prediction and grouping. The Wald criterion demonstrated that neither of the variables on their own made a significant contribution to prediction (see Table 3.32). This indicated that the combination of both measures was required for the best fit. The classification table is presented in Table 3.33. Again sensitivity (92.31%) was higher than specificity (75.00%). These results support the inclusion of the MMSE and KBIT-2 cognitive measures in assessments of testamentary capacity.

Table 3.32

Logistic regression analysis of 38 assessments of testamentary capacity with MMSE score and KBIT-2 Riddles score as predictor variables

							95% C.I.for EXP(B)	
	B	*S.E.*	Wald	*df*	*p*	Exp(B)	Lower	Upper
MMSE score	-0.20	0.18	1.14	1	.29	0.82	0.57	1.18
KBIT-2 riddles score	-0.19	0.11	3.04	1	.08	0.83	0.67	1.02

Table 3.33

Classification table showing observed and predicted outcomes of testamentary capacity with MMSE score and KBIT-2 riddles score as predictor variables

		Predicted		
		Testamentary capacity		
Observed		Yes	No	Percentage correct
Testamentary capacity	Yes	24	2	92.31%[a]
	No	3	9	75.00%[b]
Total percent correctly classified				86.84%

[a] Sensitivity. [b] Specificity.

A logistic regression analysis was also conducted to predict capacity to appoint an EPA using the predictors with the highest correlations (and no redundancy). The predictor variables were: MMSE score; ACE-R memory; and ACE-R attention and orientation. Although ACE-R total score had strong positive correlations with capacity to appoint an EPA it was not used (to avoid redundancy) as other subtests of this scale were used that had stronger individual correlations. The full model, shown in Table 3.34, was a significantly better predictor of capacity to appoint an EPA than a constant only model (*chi square* = 17.49, $p < .001$; $df = 3$). Nagelkerke's R^2 of 0.49 indicated an adequate relationship between prediction and grouping. The Wald criterion demonstrated that none of the variables on their own made significant contributions to prediction accuracy; this indicates that the combination of all three subscales provided the best fit. The classification table (Table 3.35) shows the model was better at classifying those who had capacity (sensitivity), as opposed to those who did not (specificity). Taken together, MMSE score, ACE-R memory score, and ACE-R attention and orientation score were the best predictors of capacity to appoint an EPA, correctly classifying 76.32% of participants. The ACE-R and KBIT-2 cognitive instruments should be used in future assessments of capacity to appoint an EPA.

Table 3.34

Logistic regression analysis of 38 assessments of capacity to appoint an EPA with MMSE score; ACE-R memory; and ACE-R attention and orientation as predictor variables

							95% C.I.for EXP(B)	
	B	*S.E.*	Wald	*df*	*p*	Exp(B)	Lower	Upper
MMSE score	-0.10	0.32	0.10	1	.76	0.90	0.48	1.70
ACE-R memory	-0.23	0.12	3.59	1	.06	0.80	0.63	1.01
ACE-R attention and Orientation	0.01	0.41	0.00	1	.99	1.01	0.45	2.26

Table 3.35

Classification table showing observed and predicted outcomes of capacity to appoint an EPA with MMSE score, ACE-R memory, ACE-R attention and orientation as predictor variables

		Predicted		
		Capacity to appoint EPA		
Observed		Yes	No	Percentage correct
Capacity to appoint EPA	Yes	16	3	84.21%[a]
	No	6	13	68.42%[b]
Total percent correctly classified				76.32%

[a] Sensitivity. [b] Specificity.

3.4 Summary.

Three different combinations of predictor variables were presented for determining capacity. Tables 3.36 and 3.37 show the sensitivity, specificity, overall accuracy, positive and negative predictive values (PPV and NPV), and the positive and negative likelihood ratios for predicting testamentary capacity and capacity to appoint an EPA. The rows correspond with: (a) MMSE score; (b) ACE-R total score and KBIT-2 total composite score; and (c) the subscales with the highest correlations with capacity (for testamentary capacity that is: MMSE score and KBIT-2 riddles score and for capacity to appoint an EPA that is: MMSE score, ACE-R memory score, ACE-R attention and orientation score).

Initially a MMSE score only analysis was computed, as this is a commonly used measure in practice. The model was a significant predictor for both testamentary capacity and capacity to appoint an EPA; although overall it was better at predicting testamentary capacity. Furthermore, MMSE score had better sensitivity than specificity in classifying both types of capacity.

Secondly, the total scores from the ACE-R and KBIT-2 were used to predict decisional capacity. For testamentary capacity, the overall classification accuracy did not improve; however, specificity did improve at the expense of sensitivity. For capacity to appoint an EPA the addition of these total scores decreased the sensitivity and specificity of the model. This would indicate that MMSE score alone is a better predictor than ACE-R total score and KBIT-2 total composite score.

Finally, the highest independent correlating variables with each type of capacity were used in a logistic regression analysis. For testamentary capacity this combination of variables achieved the best sensitivity and specificity. In total 75.00% of participants who lacked capacity were correctly identified. The model yielded a small positive likelihood ratio and moderate negative likelihood ratio. For capacity to appoint an EPA, the three best predictor variables improved sensitivity; however, specificity remained at 68.42%. For capacity to appoint an EPA, the model was only slightly improved from MMSE score only. The sensitivity and specificity metrics were moderate, and the positive and negative likelihood ratios were small. For both testamentary capacity and capacity to appoint an EPA the addition of the ACE-R and KBIT-2 assessment tools improved specificity in determining capacity,

although total score was not the most valuable score. For testamentary capacity the best predictor variables were MMSE score, KBIT-2 riddles score and KBIT-2 total verbal raw score. For capacity to appoint an EPA, the best predictor variables were MMSE score, ACE-R memory score and ACE-R attention and orientation score. This optimal combination provided for good sensitivity for testamentary capacity (9231%) and fair specificity (75%). The optimal combination of subtests for capacity to appoint an EPA resulted in fair sensitivity (84.21%) and poor specificity (68.42%).

Table 3.36

Sensitivity, specificity, overall accuracy, positive and negative predictive values, positive and negative likelihood ratios for three groups of predictor variables in classifying testamentary capacity

Subtest	Sensitivity	Specificity	Overall Classification Accuracy	PPV	NPV	Positive Likelihood Ratio	Negative Likelihood Ratio
MMSE score	92.31%	58.33%	81.58%	82.76%	77.78%	2.22	0.13
ACE-R total score and KBIT-2 total composite score	88.46%	66.67%	81.58%	85.19%	72.73%	2.65	0.17
MMSE score and KBIT-2 riddles score	92.31%	75.00%	86.84%	88.89%	82.82%	3.69	0.10

Table 3.37

Sensitivity, specificity, overall accuracy, positive and negative predictive values, positive and negative likelihood ratios for three groups of predictor variables in classifying capacity to appoint an EPA

Subtest	Sensitivity	Specificity	Overall Classification Accuracy	PPV	NPV	Positive Likelihood Ratio	Negative Likelihood Ratio
MMSE score	78.95%	68.42%	73.68%	71.43%	76.47%	2.50	0.31
ACE-R total score, KBIT-2 total composite score	68.42%	63.16%	65.79%	65.00%	66.67%	1.86	0.50
MMSE score, ACE-R memory score, ACE-R attention and orientation score	84.21%	68.42%	76.32%	72.73%	81.25%	2.67	0.23

CHAPTER 4 DISCUSSION

Assessing decision making capacity is an emerging inter-disciplinary field. It combines psychometric assessment with clinical reasoning and the administration of legally informed question-sets. Until now, approaches have been diverse, with many health practitioners being unaware of the pertinent legal tests, and legal practitioners underutilising the skills of medical and allied health professionals. Furthermore, there has been insufficient research into the usefulness of psychometric tests in this field. There are no published studies that bring together the inter-disciplinary perspectives, nor are there any studies into the predictive power of reliable and valid psychometric tests in determining real world assessments of testamentary capacity or capacity to appoint an EPA. The findings reported here are then unique and significant contributions to assessing legal capacity.

4.1 Key Findings

4.1.1 Expert Opinion.

It was hypothesised that there would be similarities and differences between what GPs, lawyers, and psychologists considered when determining decision making capacity. This hypothesis is supported. The focus groups revealed areas of agreement and unique additional considerations in approaching assessments of capacity. These inter-disciplinary considerations were collated into a questionnaire which was disseminated amongst a wider group of professionals. Pivotally, when respondents had access to the inter-disciplinary considerations, these between-group disciplinary differences disappeared. When the views of all the professions sampled were collated, a consensus approach was determined.

The second hypothesis was that factor analysis of questionnaire results would reveal latent variables that corresponded to the general decision making process; (a) understanding the basic information about a problem; (b) considering the potential solutions; (c) weighing up the likely consequences of each option; and (d) communicating a clear choice. This hypothesis is partially supported. Some latent factors did correspond to these seminal legal test items, such as *knowledge* and *communication;* however, other variables emerged that were equally integral to the assessment process. Two such factors are *awareness* and *external influences*. *Awareness* was comprised of:

1. Being aware of the influence of anyone attending with the client.
2. That the client knows what a Will and an Enduring Power of Attorney are.
3. The presence of mental illness or emotional instability.
4. The presence of medical conditions, including a dementia illness.
5. That the client knows why they are being assessed.
6. How often the client has changed their mind.
7. That the client is currently facing an important decision.
8. The client's demeanour and appearance.

External influences includes:

1. The results from past assessments and collateral information.
2. Whether a client's condition fluctuates over time.
3. Whether the presumption of capacity has been rebutted.
4. Effect of medications.

The inclusion of some of these additional factors reflects contemporary practices in assessing capacity. It appears that changes in the complexity of many capacity assessments calls for a review of more factors than just those encompassed in the ruling of *Banks* (Campbell, 2006; Shulman, Cohen & Hull, 2005). This is a finding of seminal import from a legal perspective, the significance of which has yet to be addressed by the Superior Courts in Australia.

Surprisingly, a final factor emerged which can be thought of as *secondary considerations*. This factor was comprised of the following items:

1. How important is it that the client is making a sensible decision?
2. How important is the perspective of a family member or carer?
3. How relevant is the client's relationship history?
4. How important is the client's age as a presenting factor?

The *Guardianship and Administration Act 2000* (Qld), *Powers of Attorney Act 1998* (Qld), and the *Mental Capacity Act 2005* (UK) make it clear that there are certain matters that ought **not** be considered when assessing capacity. These include whether the person is making a sensible decision and the client's *status* regarding relationship or age. Furthermore, research has demonstrated that information gathered from the family or carer perspective can be unreliable and open to conflicts of interest

(Kuriansky, Gurland & Fleiss, 1976; Lai & Karlawish, 2007; Stocking et al., 2008). Despite this unequivocal stance by the law, and scientific evidence, the average rating on these items was between *somewhat important* and *very important*. It seems that despite the law, available guidelines such as the Capacity Toolkit (NSW Attorney General's Department, 2008), and the ongoing training provided by organisations, such as Capacity Australia (http://capacityaustralia.org.au/), professionals still consider irrelevant factors when assessing decisional capacity. This finding is of considerable import with respect to legal education and providing clear and unambiguous guidelines to other professionals who may be involved in assessing legal capacity.

4.1.2 Cognitive Correlates of Legal Capacity.

The final hypothesis was that the ACE-R and KBIT-2 assessment tools would significantly predict testamentary capacity and capacity to appoint an EPA. This hypothesis is supported. When the total scores from these tests were used as predictor variables in a logistic regression analysis the model was a significant predictor of both testamentary capacity and capacity to appoint an EPA. Unexpectedly, only the KBIT-2 total composite score was a significant contributor to the model when predicting testamentary capacity, and conversely, only the ACE-R total score was a significant contributor to predicting capacity to appoint an EPA. These findings support the principle that one cannot extrapolate incapacity from one decision making domain to another.

Although the ACE-R and KBIT-2 total scores were valuable in predicting decisional capacity, the best predictors of capacity were the subtests with the strongest positive correlates with decisional capacity. There were two independent subscales that correlated highly with testamentary capacity. These were MMSE score and KBIT-2 Riddles subscale score. When these two scales were entered together as predictor variables 92.31% of participants with and 75.00% of participants without testamentary capacity were correctly classified. Future assessments of testamentary capacity should include these subtests along with the relevant legal test. The strongest positive correlates with capacity to appoint an EPA were MMSE score, ACE-R memory score, and ACE-R attention and orientation score. When these scores were entered together as predictor variables, 84.21% of participants with and 68.42% of participants without capacity to appoint an EPA

were correctly classified. These subtests were not significantly better than MMSE score alone for assessing capacity to appoint an EPA.

On the whole, psychometric tests were much better at discriminating those participants who had legal decision making capacity (sensitivity) that those without (specificity). Therefore, these cognitive tests may be of additional value in buttressing a determination of capacity when a client is demonstrating cognitive impairment. Having said this, it is clear that even though the predictive power of the psychometric tests employed in this study is impressive, particularly the MMSE and KBIT-2 riddles subscale for testamentary capacity, in the absence of detailed question-sets they cannot be relied upon as definitive. In essence, psychometric tests can substantially inform assessment of legal capacity but they cannot replace detailed questioning. They are a most important adjunct to determination of legal capacity but they are not superordinate to detailed and targeted questioning.

4.2 Detailed Findings

4.2.1 Focus groups.

The Nominal Group Technique (NGT; Horton, 1980) was an effective method to quantify the considerations of each professional group in assessing decisional capacity. Regardless of group size, each focus group generated between 18 and 19 independent considerations. The NGT process enabled a compilation of the most important factors according to each professional group. Despite the large number of considerations, there was little inter-disciplinary agreement.

GPs identified the relevant legal principles of understanding information, weighing the consequences, and communicating a decision. They considered the results of cognitive testing; however, they did not make the important link between test results and functional capacity. Interestingly, they considered the capacity of the proposed attorney (when appointing an EPA), which was a unique consideration.

Lawyers pinpointed the relevant legal principles of understanding the general nature, purpose and significance of the concepts, and the ability to communicate instructions. Further, they brought attention to the considerations of medical diagnoses, demeanour, illogicality of instructions and confusion. These are important ‘red flags’ when conducting capacity assessments, although on their own are not indicative of a lack of capacity (Campbell, 2006).

Psychologists considered the importance of understanding the information, weighing the likely consequences, and considering the impact of medical or psychiatric illnesses. They also uniquely identified the need to assess for the presence of undue influence. Psychologists were more likely to consider what was in the client's best interest when determining capacity. This is contrary to the *right to decide principle* (Guardianship and Administration Act, 2000), which protects the client's human right to make considered decisions, even if they do not appear to be good decisions.

In sum, although all the professional groups adopted a common, core approach to determining legal capacity they all differed in some critical, idiosyncratic aspects. This reinforces the need for both initial training and continuing professional education targeted at capacity assessment, as this will, as has been noted previously, become increasingly important with an ageing population.

4.2.2 Questionnaire.

A 30-item questionnaire was developed from the focus groups, literature review and the legal test. This questionnaire was disseminated to a range of professionals who responded to items about what they considered to be important when assessing testamentary capacity and capacity to appoint an EPA. The medical perspective was represented by GPs, psychiatrists, geriatricians, and registered nurses. Allied health representatives included clinical, organisational, neuropsychological, forensic and generalist psychologists, along with counsellors, social workers and an occupational therapist. The legal viewpoint was gathered from lawyers with special interests in succession, family, criminal, business, and equity and trust law. Such a broad range of relevant opinions have never been collated in capacity research before.

Questionnaire results mirrored the findings of prior research by Helmes, Lewis and Allan (2004) in that the majority of professionals had requested specialist opinion on capacity in the past year. The act of seeking specialist opinion is consistent with the ethical principles of professional competence and due care. Interestingly, these referrals were more likely to be due to mental illness than physical disability, which promotes the unique role of mental health professionals in this field.

There was a large range of responses to each questionnaire item. This suggests that there is great variability in what people consider to be important when assessing capacity. Furthermore, these differences were not attributable to inter-disciplinary differences. A one-way ANOVA found no significant differences between the response patterns of medical, legal and allied practitioners across the five composite factors. The variability in responding represents considerable within group deviations in how capacity assessments are approached. Despite the high variation in responding to individual items, there was little difference in mean scores across the items; a pattern of middle responding emerged. The range of mean scores across all 26 items was between 4.11 and 5.21 (on a scale of 1 to 6). Responses did not assist in discriminating between the relevant importance of each consideration.

Principal axis analysis of the questionnaire data identified four or five factors for extraction in maximum likelihood factor analysis. To determine the final factor structure differences in Eigenvalues, total variance explained, factor loadings and cross-loadings were explored. The five factor model explained 4.52% more variance, used 23 out of a possible 26 questionnaire items (as opposed to 22 items), but had one extra cross-loading item. To assist in the final determination of which factor solution was best, inspection of variability of the composite factors was undertaken.

Visual inspection of the variability within factor composites revealed a subset of extreme responders. To determine why these respondents were outlying, the researcher returned to the individual questionnaires. At this point a response bias was identified. Specifically, the consistency check item revealed a pattern of inconsistent responding. Once these inconsistent responders were removed from analysis, a five factor solution was revealed. This solution used all 26 items, contained no cross-loadings and explained a greater amount of variance than the four factor solution.

In addition to the quantitative data gathered, respondents offered qualitative commentary. Qualitative data reflects the reality of the experiences of clinicians and can provide information that may be missed by quantitative only methods (Anderson, 2010). Forty percent of respondents added a total of 92 comments. The responses were grouped into 21 distinct themes. Respondents identified the essential topics of understanding, appreciating, and communicating a choice. The main contemporary themes in capacity research were also represented: that capacity is an

important topic area; who should assess; the presence of a valid trigger; that assessments be contemporaneous; client presentation factors; that capacity is decision specific; awareness of the relevant legal test; client history; medical factors; cultural considerations; collateral information; cognitive testing; augmentation strategies; and the right to decide. The variety of responses reflected the considerations raised in the focus groups which suggests that these views are representative of the larger professional collective.

Some of the themes were only considered from a single professional viewpoint. For example, medical respondents were the only ones to consider the impact of the capacity determination on the client. Lawyers uniquely acknowledged the need for research on capacity and the relevance of the legal test. Allied health practitioners acknowledged the need for a relevant trigger, the importance of gathering collateral information, conducting cognitive testing, and acknowledging limitations when conducting assessments.

There was a trend for each discipline to value their own expertise over the other professions. However to rely on the legal impression of capacity from interview alone is ignorant of the research that finds only a fifth of lawyers ask directly about their clients' decisions (Helmes, Lewis, & Allan, 2004) and even experienced clinicians lack the ability to accurately gauge client functioning from interview alone (Burns, Karim, Morris, & Byrne, 2010; Kuriansky, Gurland & Fleiss, 1976; Mackenzie & Newby, 2008; Markson, Kern, Annas & Glantz, 1994; Marson, McInturff, Hawkins, Bartolucci & Harrell, 1997; Ruchinskas, 2002; Ruchinskas 2003). Equally, to rely on neuropsychological testing alone is to overestimate the state of knowledge in linking cognitive impairments to legal capacity (McSherry, 2015). The reluctance to refer for clinical opinion seems to stem from a fear of uncertainty or differing opinion. As one legally trained questionnaire respondent baldly put it, *You don't ask a question you don't already know the answer to*. This resistance to the notion that a question-set alone may not adequately meet a standard of assessment that fits within a human rights framework and reflect best practice by involving medical opinion and cognitive tests is best articulated by Kapp (2015),

> In response to the foregoing discussion of deficiencies in the present law when it comes to guiding health care and human services clinicians who conduct decisional capacity evaluations of older adults, it is tempting to conclude that it would be best to leave well enough (or bad enough) alone. According to this view, attempts to rewrite the relevant statutes, court rules, and judicial opinions may open up an enormous "can of worms", and that potential makes the present silence and/or ambiguity of the law very palatable by comparison. After all, while surely not perfect, the prevailing practice of "bumbling through" capacity evaluations using working clinical criteria that have evolved incrementally and mainly *ad hoc,* has worked reasonably well thus far in balancing the fundamental social values at stake. (p. 171).

This separatist position must be dissolved for the benefit of those seeking assessment. Those practitioners who feel they are the sole custodians of the realm of decision making need to acknowledge the blind-spots in their approach and must adopt an inter-disciplinary coordinated resolution otherwise, otherwise:

> …capacity evaluations will continue to be conducted largely subjectively, unreliably, and at worst even arbitrarily, and adverse legal consequences—in the form of either too little respect for autonomy or too little protection of vulnerability—may be imposed unfairly on individuals when various kinds of life decisions must be made. (Kapp, 2015, p. 170)

4.2.3 Summary of Expert Opinion.

In summary, the information derived from the focus groups informed the development of a questionnaire that was responded to by a wide variety of professionals engaged in the day-to-day work of assessing capacity. Results indicated a number of important points:

1. There are areas of agreement and unique considerations that each profession bring to capacity assessments.
2. When the ideas of each profession are shared, there is inter-disciplinary agreement.
3. There is high variability within- but not between-groups in what considerations are important.

4. Latent factors were revealed that reflected more contemporary thinking about what needs to be considered in assessing capacity
5. Despite training and guidance, professionals still consider some irrelevant factors in reaching capacity determinations. This may lead to paternalistic maleficence and violations of the UN Convention on the Right of Persons with Disabilities (2007).

4.2.4 The Value of General and Screening Cognitive Measures in Classifying Legal Capacity.

The third phase of the research was to pilot the psycho-legal assessment protocol and gather information on the utility of a general test of cognitive ability (KBIT-2) and a cognitive screening test (ACE-R) in predicting testamentary capacity and capacity to appoint an EPA. The most challenging determinations of capacity are encountered with clients of borderline impaired cognitive functioning. For instance, Marson et al. (2009) found the least consensus when attempting to classify clients with a MMSE of 24 out of 30 (*SD* = 3.1). Four out of five of their raters reached agreement in only 69% of cases when rating this clinical group. The mean MMSE score in the current study was 25 out of 30 (*SD* = 4.33). Therefore, it can be concluded that the current protocol has been piloted with a sample that is representative of the clinical population who are the hardest to classify in terms of capacity.

4.2.4.1 *Predicting Testamentary Capacity.*

The MMSE is a commonly administered test that is relied upon retrospectively to assist in determinations of capacity (Pachet, Astner, & Brown, 2010; Shulman, Cohen & Hull, 2005). MMSE score was used in logistic regression analysis to predict testamentary capacity. Consistent with the systematic review conducted by Royall et al. (2007) and contrary to the findings by Marson, Cody, Ingram and Harrell (1995a), MMSE score was a significant predictor of testamentary capacity; however, it was much more sensitive (92.31%) than specific (58.33%). A cut-off score of 25.5 points balanced sensitivity (83%) with specificity (73%). The cut-point that optimises specificity may be of interest to minimise the risk of a false positive (Streiner, & Cairney, 2007). Concordant with the research findings of Pachet, Astner, and Brown (2010), all participants with a MMSE score below 19.5

points lacked capacity. Finally, sensitivity (92%) and specificity (61%) was calculated using the clinical cut-point of 26.5 out of 30.

ACE-R total score and the KBIT-2 total composite score were also inputted into logistic regression analysis to predict testamentary capacity. ACE-R total score and the KBIT-2 total composite score were significant predictors of testamentary capacity. The total scores of these two tests decreased the sensitivity (now 88.46%) and improved the specificity (to 66.67%). Interestingly, ACE-R total score (inclusive of MMSE score) was not a significant contributor to the model. KBIT-2 total composite score alone accounted for the variance in predicting testamentary capacity. *ROC* analysis revealed that KBIT-2 total composite score was of some use in predicting testamentary capacity (*AUC* = 0.87). A cut-point of 90.5 points balances sensitivity (81%) and specificity (77%). No participant who scored less than 75.5 composite points on the KBIT-2 was found to have testamentary capacity.

The subscales with the strongest independent positive correlations with capacity were used in logistic regression analyses to determine their sensitivity and specificity in classifying decisional capacity. These were the MMSE score and KBIT-2 riddles score. These two subtests resulted in the strongest sensitivity (92.31%) and specificity (75%). Assessments of testamentary capacity should include the MMSE and KBIT-2 riddles subtest. The cognitive processes involved in testamentary capacity appear to be related to a combination of verbal cognitive abilities (understanding riddles) and the specific abilities of orientation, registration, attention and calculation (MMSE components).

4.2.4.2 *Predicting Capacity to Appoint an EPA.*

The predictive accuracy of the MMSE in predicting capacity to appoint an EPA was also examined with logistic regression analysis. MMSE score was a significant predictor of capacity to appoint an EPA, with a sensitivity of 78.95% and a specificity of 68.42%. *ROC* analysis provided cut-points of 27.5 for sensitivity and 29.5 points for specificity. All participants with an MMSE score below 22.5 points were found to lack capacity to appoint an EPA. In general, a higher level of cognitive functioning was required for capacity to appoint an EPA than testamentary capacity. Finally, sensitivity (74%) and specificity (63%) was calculated using the clinical cut-point of 26.5 out of 30.

The additional utility of the ACE-R total score and the KBIT-2 total composite score in predicting capacity to appoint an EPA was examined. When these variables were entered into logistic regression analysis the classification accuracy actually decreased. The overall prediction accuracy of these two measures was 7.89% less accurate than MMSE score alone. ACE-R total score was the only significant contributor to the model. *ROC* analysis suggests a cut-point of 84.5/100 provided adequate sensitivity (79%) and a cut-point of 78.5/100 provided adequate specificity (79%). No participant with an ACE-R total score lower than 63/100 had capacity to appoint an EPA. Finally, sensitivity (89%) and specificity (53%) was achieved using the clinical cut-point of 88.5 out of 100. Capacity to appoint an EPA relates less to general abilities and relies more on attention and orientation, memory, and calculation. Overall the ACE-R was of some use in predicting capacity to appoint an EPA.

The finding that the addition of a general test of cognitive ability with a screening test of cognitive abilities resulted in the best classification accuracy of decisional capacity is contrary to the assertion by Mackenzie and Newby (2008). One reason for this could be because Mackenzie and Newby (2008) were investigating capacity to choose a discharge destination and not legal decision making capacity. The cognitive abilities inherent in these different decision making domains may be qualitatively different. This would support the principle of decision specific capacity.

Previous research has used standardised psychometric scores. The current research found that standardising scores based on population normative data **diminished** the meaningful variance in performance. For instance, the KBIT-2 composite (raw) scores were more highly correlated with capacity than standardised scores. The positive correlation between KBIT-2 IQ (standard score) and testamentary capacity and capacity to appoint an EPA was .34 and .10 respectively. This is compared with the raw score (composite) which correlated at .62 and .41. Using unstandardized scores is also consistent with the legal principle of functional capacity. The most important consideration is the client's absolute functional ability, not how well they performed compared with their peers. Finally, the utility of clinical cut-points was investigated. The clinical cut-point of the MMSE (26.5/30) had very poor specificity in predicting testamentary capacity (61%) and capacity to

appoint an EPA (63%). The clinical cut-point of the ACE-R (88.5/100) also had very poor specificity (53%) in predicting capacity to appoint an EPA. These clinic cut-points relate to predicting dementia, MCI or normal functioning which is basically comparing this test to another cognitive or medical test, as opposed to a functional, verifiable outcome. Furthermore, given that many people with dementia still have legal capacity, using the clinical cut-point for dementia will result in a false negative, and a violation of their right to decide (presumption of capacity). It is a substantial error to use clinical group derived cut-points for determining legal capacity.

The finding that memory, attention and orientation were highly correlated with capacity to appoint an EPA is supported the proposition by Saunders and Summers (2011) that decision making involved the cognitive processes of memory, learning, attention, language, and executive functions. Perhaps the natural and ancient process of passing on one's belongings to the next generation is an over-learnt skill that is more robust to the deleterious effects of cognitive impairments. The topic of Will making is a theme often portrayed in media and subject to personal conversations alike. Therefore, people have incidental exposure to a considerable amount of knowledge and deliberations on matters of succession law. These topics are discussed from a young age, subject to family discussions, and often feature in public education campaigns. The appreciation of the specifics of enduring documents, however, is less profuse. Greater exposure to information about Wills may provide protection against the effects of cognitive deficits. This main effect of understanding enduring documents being harder than understanding information about Wills supports the common practice of applying a higher cognitive threshold for EPA documents than for Wills (ABA-APA, 2008).

4.2.4.3 *Undue Influence.*

Uniquely in this study, the important consideration of undue influence was examined. A good assessment ought to record relevant observations and reports of threats to voluntariness. Use of the Voluntariness Questionnaire, which was derived from the work of Blum and Feledy (2002) for use in this study, provided a structured and comprehensive procedure for gathering this information. Commentary on matters of voluntariness and undue influence is obligatory in providing robust and comprehensive determinations of capacity.

4.2.5 Summary.

In summary, the results from the capacity assessments revealed a number of important findings:

1. Raw scores are better predictors of capacity than standardised scores.
2. Different tests predict different areas of capacity.
3. When conducting an assessment of testamentary capacity the best predictors are MMSE score and KBIT-2 riddles subtest.
4. When conducting an assessment of capacity to appoint an EPA the best predictor is the MMSE or ACE-R.
5. The fact these tests differentially predicted testamentary capacity and capacity to appoint an EPA is consistent with the principle of decision specific capacity. It should come as no surprise that different cognitive processes are recruited for different types of decisions.
6. When an assessment of testamentary capacity and capacity to appoint an EPA are both required (as is often the case), the combination of the ACE-R and the KBIT-2 tests are best.
7. These tests are more sensitive than specific, and offer more to buttressing findings of capacity, than finding incapacity.
8. Clinical group derived cut-points are meaningless in assessments of decisional capacity.
9. Neither of the tests can displace the importance of a legally derived question-set.
10. The Voluntariness Questionnaire is a useful tool to gathering relevant information about Undue Influence.

4.3 A Consensus Approach to Assessing Testamentary Capacity and Capacity to Appoint an EPA.

A consensus approach that integrates: (a) literature review; (b) extant guidelines; (c) inter-disciplinary expert opinions; (d) the utility of cognitive tests in capacity assessment, and; (d) the legal test is now established. The steps involved in assessing testamentary capacity and capacity to appoint an EPA are:

1. *Gain consent or assent to conduct the assessment.* The MacArthur Competence Assessment Tool for Treatment (Grisso & Appelbaum, 1998) provides a template for establishing capacity to consent to the assessment. Assessments can

be conducted by medical or allied healthcare providers with specific training in assessing capacity.

2. *Gather objective background information.* This information should relate to the decision being made, including specific triggers, potential risks, prior decisions, and patient values. For testamentary capacity assessments, information should also be provided relating to the client's assets and potential beneficiaries. Collateral data from health providers should also be sought relating to the *functional impact* of any medical conditions or medications, including the best times to assess (lucid intervals) and any suggestions for *augmentation strategies*. Caution should be exercised if relying on third parties for information as this approach lacks reliability and consistency (Lai & Karlawish, 2007; Stocking et al., 2008) and can be open to conflicts of interest. An assessor should also ensure the client has obtained relevant instruction from their advisor.
3. *Identify the relevant legal test.* The legal test may vary between jurisdictions.
4. *Conduct a cognitive assessment.* The inclusion of an assessment of cognitive ability is recommended. When assessing testamentary capacity the MMSE and KBIT-2 riddles subscale are recommended. For assessing capacity to appoint an EPA the MMSE or ACE-R are recommended. Specific subtests of the ACE-R that may be of most use are memory, attention and orientation. Importantly, raw composite scores are of more utility than standardised scores, and the stipulated clinical cut-off values are not relevant for determining capacity. Clinical diagnosis and capacity are different concepts. If clinicians employ the same cognitive battery it ensures a standardised approach which provides common ground for research and a better chance at pin-pointing the appropriate cut-off to achieve optimal specificity in determining capacity.
5. *Conduct a semi-structured interview using a legally validated question-set.* The Capacity Toolkit (NSW Attorney General's Department, 2008) provides relevant question-sets. Although psychometric tests inform assessment of capacity the client's performance on this question-set is of overarching importance in determining capacity.
6. *Assess for risk factors as regards voluntariness and undue influence.* The Voluntariness Questionnaire (derived from the Blum & Feledy, 2008 worksheets) is useful in this regard.

7. *Compile a report.* A final report should include a decision about capacity and detail relevant recommendations and limitations. An assessor needs demonstrate appropriate empathy in communicating the determination with the client.

4.4 Strengths, limitations and future direction

One limitation in interpreting the focus group and questionnaire data was that participants were asked to comment on testamentary capacity and capacity to appoint an EPA concurrently. As the data is grouped at this level, one cannot deduce which considerations were more pertinent to Wills and which to appointing an EPA. Given the later findings from the capacity assessments that revealed some considerations are more relevant for Wills (i.e., intelligence) and others for appointing an EPA (memory, attention and orientation) future research should investigate these two domains separately.

In most research in the social sciences there are limitations inherent in utilising a sample of the larger population. This limitation exists due to constraints on the practicality and costs involved in conducting large scale research. The impact of this limitation is that it limits the generalisability of the research findings. This issue is not as relevant for the qualitative information gathered from the focus groups, as they were not designed to capture a wholly representative view; however, the qualitative commentaries to the questionnaire do suggest the focus group views are indeed widely held. As more studies are conducted the possibility for meta-analysis and other methods of collating research groups will allow for more generalisability of the findings.

Sample size was not as much of an issue in the questionnaire phase of the research. Smaller sample sizes are often cited as a limitation to the generalisability and applicability of research findings; however, research is moving away from general heuristics of sample sizes in factor analysis. What is often more important is the strength of the communalities. In the current study, the average communality was above .5. Factor solutions with this level of communality can compute good solutions with sample sizes of 100 to 200 (MacCallum, Widaman, Zhang & Hong, 1999).

For the capacity assessment phase, the same limitation of sample size applies. This was a design feature of the study that reflected the time intensive nature of

comprehensively assessing capacity and the difficulties in accessing appropriate participants from a clinical dementia population. There were 12 participants who lacked testamentary capacity and 19 participants who lacked capacity to appoint an EPA. Despite these small sample sizes, the findings did replicate prior findings. External validity will improve as more research is conducted.

The inclusion of a measure of voluntariness reflects the importance of documenting indicia of undue influence in comprehensive contemporaneous assessments. No structured method for gathering such information has been proposed in previous research. The results from the Voluntariness Questionnaire were provided to reflect the importance of documenting these factors. Future researchers may wish to examine the relationship between the concepts of voluntariness and capacity.

There was also a potential limitation in having the same researcher administer the psychometric tests and conduct the capacity interview; this may have introduced researcher bias. This could not be overcome due to the limitations in funding and the potentially intrusive and confusing nature of having two assessors interview the participant. This is especially so when the interviews were conducted at the participant's private residence. This limitation was minimised by the high level of structure in administering standardised tests and structured question-sets. Further, as per the protocol of Marson et al. (2009), the interviews were videotaped and rated by another professional with experience in determining capacity in legal decision making domains. The 100% inter-rater reliability concordance score indicates that the protocol is robust to individual rater differences and potential assessor biases.

Finally, a word of caution is indicated when using cognitive tests to predict capacity. One must always be wary of implying a high level of predictability in the individual case from correlations. Such estimates have a wide confidence interval at the individual level. Confidence intervals apply to population parameters; however, are not very accurate when predicting in the individual case (Donaldson & Abbott, 2011) and this may be especially problematic in predicting a dichotomous outcome (Cooke & Michie, 2010). It is important that health professionals acknowledge the predictive accuracy of the tests and methods they employ when making recommendations (Coyle, 2011). One common way to discharge this duty is to

report the total variability a test accounts for, one such way is through the coefficient of determination (R^2). For example, the current results found an R^2 of 0.61 for MMSE score and KBIT-2 Riddles sub-score in predicting testamentary capacity. This means that 39% of the variance is unaccounted for. Therefore, it would be an error to rely solely on the results from neuropsychological tests in determinations of capacity; however, they do provide valuable information.

What is of most interest in the realm of legal decision making is what functional aptitudes can be inferred from the participants' performance, and whether the results indicate avenues for augmentative strategies (e.g., deficits in verbal comprehension may be facilitated by simpler language or written prompt cards). In many ways the current research is a pioneering step in an emerging field, and it has set a course for future research. As the discipline matures, validation and extension studies will enhance the robustness of the findings and likely offer new insights and directions.

CHAPTER 5 CONCLUSIONS

This thesis adds significant knowledge to the field of assessing legal decision making capacity. Focus groups were conducted to collate and contrast current opinions in the assessment of capacity by lawyers, GPs and psychologists. A questionnaire was developed which enabled comparison of the specific issues of capacity determination from both legal and healthcare perspectives. The thesis also compared accepted models of capacity determination (the Capacity Toolkit) with validated and reliable psychometric tests (the ACE-R and the KBIT-2) and created the Voluntariness Questionnaire from the work of Blum and Feledy (2008).

The research has led significant advances by determining a valid, reliable and clinically useful psycho-legal assessment protocol to the triers of fact in determining testamentary capacity and capacity to appoint an EPA, when challenged. This research adds significantly to the needs that have arisen secondary to an aging population and the ongoing legal dilemmas left by inconsistencies and inaccuracies in the current heterogeneous protocols for capacity assessment.

This thesis demonstrates that medical, legal and allied health professionals consider common and unique factors when assessing testamentary capacity and capacity to appoint an EPA. When the collective thoughts of all disciplines were provided there was agreement on the relevant factors to be considered. The views of each professional discipline are very important in designing an inter-disciplinary paradigm. This research project has incorporated the views of legal practitioners in the areas of succession, family, criminal, business, and equity and trust law; medical personnel including GPs, psychiatrists, geriatricians, and registered nurses; and allied health professionals including clinical, organisational, neuropsychological, forensic and generalist psychologists, counsellors, social workers and an occupational therapist. Future research should gather important perspectives of probate judges.

Factor analysis of the questionnaire revealed the presence of latent variables that extended on the basic decision making areas usually assessed. These additional factors reflect the contemporary practices of considering the broader assessment context. Future assessments of capacity should consider important contextual factors in addition to the decision making areas iterated in the seminal judgment of *Banks* which is still considered good law.

Practitioners still focus on non-relevant factors in assessing capacity. Reliance on things such as age, demeanour or carer report directly contravenes the available science and legal understanding. More training is needed in this area to ensure practitioners are conducting assessments of decisional capacity ethically and legally. Future research could administer the study questionnaire to assess pre-existing knowledge about important considerations in assessing decisional capacity. After appropriate training the questionnaire could again be administered, as a post-assessment measure, to evaluate the effectiveness of training. A decrease in mean scores on the secondary considerations and in increase in mean scores on the training focused items, combined with a decreased standard deviation on items would support training effectiveness. There is also a need for more innovative approaches to professional development in this field. The practice of teaching practitioners about the legal test does not always ensure practitioners are free from the pitfalls of considering statutory reasons (Markson, Kern, Annas, & Glantz, 1994).

Psychometric tests, such as the ACE-R and KBIT-2, are an important adjunct to the legal test for a number of reasons: a) in many jurisdictions and countries the law attempts to define the concept of decision making capacity; however, in so doing the law is not informed by science. Functional definitions can work for concepts such as capacity to drive, or perform a particular action. The situation is not so amenable to these definitions when it comes to complex decision making processes; in these cases, specific information about cognitive performance is needed; b) often estate disputes are raised retrospectively, after the principal is deceased. In these cases challenges often rely on the results of cognitive testing and other information available around the time of giving instructions. If assessments of testamentary capacity and capacity to appoint an EPA routinely include cognitive tests contemporaneously with forming an opinion on capacity, then a body of evidence relating to potential cut-points may begin to emerge to assist in such retrospective judgements; c) if a person scores very well on cognitive tests and was deemed to have capacity at the time, then the test results provide an additional protection to the client (sensitivity). Similarly, these tests provide a very valuable add-on in buttressing a finding of capacity for clients with suspected or real cognitive impairments (specificity). Results from cognitive testing would assisted a court in determining retrospective capacity where applications of the legal test are incomplete

due to an assessor not being aware of the full intentions of the proposed attorney, such as in the case of *Scott* (2012); d) results from cognitive tests can provide important information to health professionals about the client's functioning. Such findings can be used to inform accommodation strategies to enhance and maximise client capacity (an important principle of capacity), and; e) furthermore, in keeping with the QLS Client Care - Communication and Service communique, providing clients with a specialist report on capacity that integrates cognitive test results with a legally derived question-set is embarking on the "journey towards best practice and ever-higher levels of client satisfaction" (2014, p. 3). Assessors need to be aware not to rely on clinical group derived cut-points in interpreting results for the purpose of assessing decisional capacity. More research can investigate the utility of other valid and reliable cognitive tests in predicting legal capacity.

The current research circumnavigated the inadequacies of the vignette paradigm (Baird, Solcz, Gale-Ross, & Blake, 2009; Glass, 1998; Marson, Earnst, Jamil, Bartolucci & Harrell, 2000; Vellinga, Smit, Van Leeuwen, van Tilburg, & Jonker, 2005) of having participants consider their own unique decisions. Although this introduces variability, it is innovative and on the leading edge of demonstrating the research findings apply in the real world (ecological validity). Future research should use the client's actual decision when assessing their decisional capacity.

In sum, the current research provides a vital step forward in establishing the science behind the determination of decision making capacity in legal contexts. Furthermore, it provides for the development of an assessment protocol that amalgamates hitherto disparate fields and provides for consistency and comparison between future assessments. This will ultimately benefit the clients of such assessments by upholding their human rights and by assisting the courts in their important role of upholding distributive justice.

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Previously Published Material

Zuscak, S. J., & Coyle, I. R. (September 2014). *An assessment protocol for determining decision making capacity.* Paper presented at 1st Annual International Capacity Conference. Wanchai, Hong Kong.

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Appendix A Nominal Group Technique Part One

List the six most important factors (that you have come across or are aware of in your job) to consider in assessing a patient's capacity to:

- Appoint an Enduring Power of Attorney, and
- Make a Will.

You can use a word, a short phrase or a sentence. Do not discuss this with anyone else. Your anonymous response will be collected.

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

Appendix B Nominal Group Technique Part Two

Consider all the problems identified and numbered on the whiteboard. Assign a score of 6 to the **most** important problem that you perceive, 5 to the next most important problem and so on down to 1 for the **least** important problem of problems that you have identified as being the most important 6 problems of all those identified by the group. You **must** pick 6 problems. Your anonymous response will be collected.

Problem No._____ Score 6

Problem No._____ Score 5

Problem No._____ Score 4

Problem No._____ Score 3

Problem No._____ Score 2

Problem No._____ Score 1

Appendix C Information Sheet and Consent Form

University of Southern Queensland

The University of Southern Queensland

Participant Information Sheet

HREC Approval Number: H13REA261

Full Project Title: Cognitive Correlates of Decision Making Capacity: An Assessment Protocol for Psycho-Legal Determinations

Principal Researcher: Simon J. Zuscak

Other Researcher(s): Assoc. Prof. Graeme Senior, Prof. Ian Coyle

I would like to invite you to take part in this research project.

1. Procedures

Participation in this project will involve:

Participation in a focus group to collate and contrast opinions on the question, "What are the key principles in assessing a patient's capacity to propound a Will and execute a Power of Attorney document and what tests best address them?" There will be five to seven professionals involved in the focus group. There are five stages to completing the focus group interview:

1. The facilitator outlines the purpose of the meeting, and the procedure of the discussion.
2. Participants individually and confidentially write down their answer to the research question.
3. The facilitator transcribes the ideas onto a white board, grouping similar items.
4. Participants discuss the ideas on the board to clarify for understanding and add new items as necessary.
5. Participants vote for the most important variables.

The data from these sessions will inform the development of a questionnaire to be completed by a larger sample of professionals. Your identity may be known by fellow focus group participants; however your individual details will be kept

confidential and will not appear in the final questionnaire. The focus group is anticipated to take approx. 60 minutes in total.

The research is undertaken as part of a higher research degree and monitored by the primary and secondary supervisor. Your participation in this focus group may be counted as one hour of continuing professional development. There are no anticipated risks involved in participation in this study.

2. Voluntary Participation

Participation is entirely voluntary. **If you do not wish to take part you are not obliged to.** If you decide to take part and later change your mind, you are free to withdraw from the project at any stage. Any information already obtained from you will be destroyed. Where the information you provided is unidentifiable, or given in a focus group discussion it may not be possible to withdraw your data, however you will remain unidentified.

Your decision whether to take part or not to take part, or to take part and then withdraw, will not affect your relationship with the University of Southern Queensland. Please notify the researcher if you decide to withdraw from this project. Should you have any queries regarding the progress or conduct of this research, you can contact the principal researcher:

Simon J. Zuscak, University of Southern Queensland, Springfield Campus, Faculty of Sciences, Psychology, PO Box 4196, Springfield Central Qld 4300, Australia. 0755 314 838 Or after hours on 0433 262 516

If you have any ethical concerns with how the research is being conducted or any queries about your rights as a participant please feel free to contact the University of Southern Queensland Ethics Officer on the following details.

Ethics and Research Integrity Officer
Office of Research and Higher Degrees
University of Southern Queensland
West Street, Toowoomba 4350
Ph: +61 7 4631 2690
Email: ***ethics@usq.edu.au***

University of Southern Queensland

The University of Southern Queensland

Consent Form

HREC Approval Number: **H13REA261**

TO: Study Participant

Full Project Title: Cognitive Correlates of Decision Making Capacity: An Assessment Protocol for Psycho-Legal Determinations

Principal Researcher: Assoc. Prof. Graeme Senior

Student Researcher: Simon J. Zuscak

Associate Researcher(s): Prof. Ian Coyle

- I have read the Participant Information Sheet and the nature and purpose of the research project has been explained to me. I understand and agree to take part.
- I understand the purpose of the research project and my involvement in it.
- I understand that I may withdraw from the research project at any stage and that this will not affect my status now or in the future.
- I confirm that I am over 18 years of age.
- I understand that while information gained during the study may be published, I will not be identified and my personal results will remain confidential.

Name of participant…….....

Signed…….**Date**…….

If you have any ethical concerns with how the research is being conducted or any queries about your rights as a participant please feel free to contact the University of Southern Queensland Ethics Officer on the following details.

Ethics and Research Integrity Officer, Office of Research and Higher Degrees

University of Southern Queensland, West Street, Toowoomba 4350

Ph: +61 7 4631 2690, Email: ethics@usq.edu.au

Appendix D Structured 30-item Questionnaire

What is your profession (e.g., GP, lawyer, psychologist)?

Please list any area of specialty or endorsement? (e.g., succession law, forensic psychologist)

In answering the following, please consider your own experience of assessing the capacity of clients to make a Will or appoint an Enduring Power of Attorney. If you do not have direct experience, please answer based on your best understanding of what is important.

Read each item carefully, as the response options are reversed on some items.

1. **How frequently are you asked to comment on a client's capacity?**

Hardly ever	Annually	Quarterly	Monthly	Fortnightly	Weekly or less
6	5	4	3	2	1

2. **How often would you refer in the instance of physical disability for a specialist assessment?**

All the time	Very Frequently	Somewhat Frequently	Somewhat Infrequently	Very Infrequently	Never
6	5	4	3	2	1

3. **How often would you refer in the instance of suspected mental illness (including depression or dementia) for a specialist assessment?**

All the time	Very Frequently	Somewhat Frequently	Somewhat Infrequently	Very Infrequently	Never
6	5	4	3	2	1

HOW IMPORTANT ARE THE FOLLOWING <u>PRESENTING</u> FACTORS?

4. The client is currently facing an important decision

Extremely Unimportant	Very Unimportant	Somewhat Unimportant	Somewhat Important	Very Important	Extremely Important
1	2	3	4	5	6

5. Age

Extremely Important	Very Important	Somewhat Important	Somewhat Unimportant	Very Unimportant	Extremely Unimportant
6	5	4	3	2	1

6. Demeanour and appearance

Extremely Unimportant	Very Unimportant	Somewhat Unimportant	Somewhat Important	Very Important	Extremely Important
1	2	3	4	5	6

7. Medical conditions (including a dementia illness)

Extremely Unimportant	Very Unimportant	Somewhat Unimportant	Somewhat Important	Very Important	Extremely Important
1	2	3	4	5	6

8. Effect of medications

Extremely Important	Very Important	Somewhat Important	Somewhat Unimportant	Very Unimportant	Extremely Unimportant
6	5	4	3	2	1

9. Mental illness or emotional instability

Extremely Unimportant	Very Unimportant	Somewhat Unimportant	Somewhat Important	Very Important	Extremely Important
1	2	3	4	5	6

10. Whether a client's condition fluctuates over time

Extremely Important	Very Important	Somewhat Important	Somewhat Unimportant	Very Unimportant	Extremely Unimportant
6	5	4	3	2	1

11. Results from past assessments and collateral information

Extremely Important	Very Important	Somewhat Important	Somewhat Unimportant	Very Unimportant	Extremely Unimportant
6	5	4	3	2	1

12. How often the client has changed their mind

Extremely Unimportant	Very Unimportant	Somewhat Unimportant	Somewhat Important	Very Important	Extremely Important
1	2	3	4	5	6

13. The influence of anyone attending with the client

Extremely Unimportant	Very Unimportant	Somewhat Unimportant	Somewhat Important	Very Important	Extremely Important
1	2	3	4	5	6

14. Whether the presumption of capacity has been rebutted

Extremely Important	Very Important	Somewhat Important	Somewhat Unimportant	Very Unimportant	Extremely Unimportant
6	5	4	3	2	1

HOW IMPORTANT IS THE CLIENT'S KNOWLEDGE OF:

15. Why they are being assessed

Extremely Unimportant	Very Unimportant	Somewhat Unimportant	Somewhat Important	Very Important	Extremely Important
1	2	3	4	5	6

16. What a Will and an Enduring Power of Attorney are

Extremely Unimportant	Very Unimportant	Somewhat Unimportant	Somewhat Important	Very Important	Extremely Important
1	2	3	4	5	6

17. The value of their assets

Extremely Unimportant	Very Unimportant	Somewhat Unimportant	Somewhat Important	Very Important	Extremely Important
1	2	3	4	5	6

18. Who will benefit from their Will

Extremely Unimportant	Very Unimportant	Somewhat Unimportant	Somewhat Important	Very Important	Extremely Important
1	2	3	4	5	6

19. When their instructions take effect

Extremely Unimportant	Very Unimportant	Somewhat Unimportant	Somewhat Important	Very Important	Extremely Important
1	2	3	4	5	6

20. When they can change their instructions

Extremely Unimportant	Very Unimportant	Somewhat Unimportant	Somewhat Important	Very Important	Extremely Important
1	2	3	4	5	6

HOW IMPORTANT ARE THE FOLLOWING <u>ASSESSMENT</u> FACTORS:

21. Ability to communicate clearly

Extremely Important	Very Important	Somewhat Important	Somewhat Unimportant	Very Unimportant	Extremely Unimportant
6	5	4	3	2	1

22. Answering questions consistently

Extremely Important	Very Important	Somewhat Important	Somewhat Unimportant	Very Unimportant	Extremely Unimportant
6	5	4	3	2	1

23. Remembering answers to previous questions

Extremely Important	Very Important	Somewhat Important	Somewhat Unimportant	Very Unimportant	Extremely Unimportant
6	5	4	3	2	1

24. Results on a measure of mental state (e.g., Mini-Mental Status Examination [MMSE])

Extremely Unimportant	Very Unimportant	Somewhat Unimportant	Somewhat Important	Very Important	Extremely Important
1	2	3	4	5	6

25. Ability to weigh information to make a decision

Extremely Unimportant	Very Unimportant	Somewhat Unimportant	Somewhat Important	Very Important	Extremely Important
1	2	3	4	5	6

26. The named Enduring Power of Attorney is of sound mind

Extremely Important	Very Important	Somewhat Important	Somewhat Unimportant	Very Unimportant	Extremely Unimportant
6	5	4	3	2	1

27. The client's relationship history

Extremely Important	Very Important	Somewhat Important	Somewhat Unimportant	Very Unimportant	Extremely Unimportant
6	5	4	3	2	1

28. The perspective of a family member or carer

Extremely Important	Very Important	Somewhat Important	Somewhat Unimportant	Very Unimportant	Extremely Unimportant
6	5	4	3	2	1

29. Ability to communicate clearly

Extremely Unimportant	Very Unimportant	Somewhat Unimportant	Somewhat Important	Very Important	Extremely Important
1	2	3	4	5	6

30. The client is making a sensible decision

Extremely Important	Very Important	Somewhat Important	Somewhat Unimportant	Very Unimportant	Extremely Unimportant
6	5	4	3	2	1

Finally, is there anything else that you think is important in determining capacity?

END

Appendix E Information Form - Questionnaire

University of Southern Queensland

The University of Southern Queensland

Participant Information Sheet

HREC Approval Number: H13REA261

Full Project Title: Cognitive Correlates of Decision Making Capacity: An Assessment Protocol for Psycho-Legal Determinations

Principal Researcher: Simon J. Zuscak

Other Researcher(s): Prof. Tony Machin, Prof. Ian Coyle

I would like to invite you to take part in this research project.

3. Procedures

Participation in this project will involve:

Completing a questionnaire which asks about what you think are the key principles in assessing a patient's capacity to propound a Will and execute a Power of Attorney document.

It is anticipated that it will take you approx. 15 minutes to complete this survey.

The research will be monitored by the above named researchers.

The research will not benefit you directly.

There are no anticipated risks to your participation in this research.

4. Voluntary Participation

Participation is entirely voluntary. **If you do not wish to take part you are not obliged to.** If you decide to take part and later change your mind, you are free to withdraw from the project at any stage. Any information already obtained from you will be destroyed. Where the information you provided is unidentifiable it may not be possible to withdraw your data, however you will remain unidentified.

Your decision whether to take part or not to take part, or to take part and then withdraw, will not affect your relationship with the University of Southern Queensland.

Please notify the researcher if you decide to withdraw from this project, or simply close your internet browser.

Should you have any queries regarding the progress or conduct of this research, you can contact the principal researcher:

Simon J. Zuscak

University of Southern Queensland, Springfield Campus, Faculty of Sciences, Psychology

PO Box 4196

Springfield Central Qld 4300

Australia

0755 314 838

Or after hours on 0433 262 516

If you have any ethical concerns with how the research is being conducted or any queries about your rights as a participant please feel free to contact the University of Southern Queensland Ethics Officer on the following details.

Ethics and Research Integrity Officer
Office of Research and Higher Degrees
University of Southern Queensland
West Street, Toowoomba 4350
Ph: +61 7 4631 2690
Email: ***ethics@usq.edu.au***

Appendix F MacArthur Competence Assessment Tool for Clinical Research - Derived Questionnaire

Participant #_____

<u>Understanding</u> U-1 disclosure.

"I am conducting a study that is looking at what thinking abilities are needed to make a Will or appoint an Enduring Attorney. I am interested in assessing you because you have some memory issues. The study will take less than two hours. You will complete some memory tests and answer some questions about legal matters, including your Will and Enduring Attorney. Do you have any questions about what I just said?"

_____

_____

U-2 disclosure.

"This is a research project, and not part of your routine clinical care. Do you have any questions about what I just said?"

_____

_____

U-4a disclosure.

"Being part of this study will help us understand more about which thinking skills are needed to make important legal decisions. The research will not benefit you directly. Do you have any questions about what I just said?"

_____

_____

U-4b disclosure.

"The memory testing can be frustrating for some people. Also, I want to make sure that you understand we are only talking about decisions you have already made, and I do not suggest that you should review these decisions. You don't have to do anything further after this study. Do you have any questions about what I just said?"

_____

_____

U-5 disclosure.

"Your involvement is totally voluntary and you can stop at any time. Do you want to participate in this research project?"

_____

_____

Appendix G Demographic Questionnaire

Participant #_____

INSTRUCTIONS:

This questionnaire asks about personal information. Please answer the questions in the response column (circle as necessary).

Question	Response
What is your sex?	Female / Male
Is English your first language?	Yes / No
What is your age in years?	_____Years

Would you like to be supplied with a one-page summary of the research findings at the conclusion of the study?

Yes / No

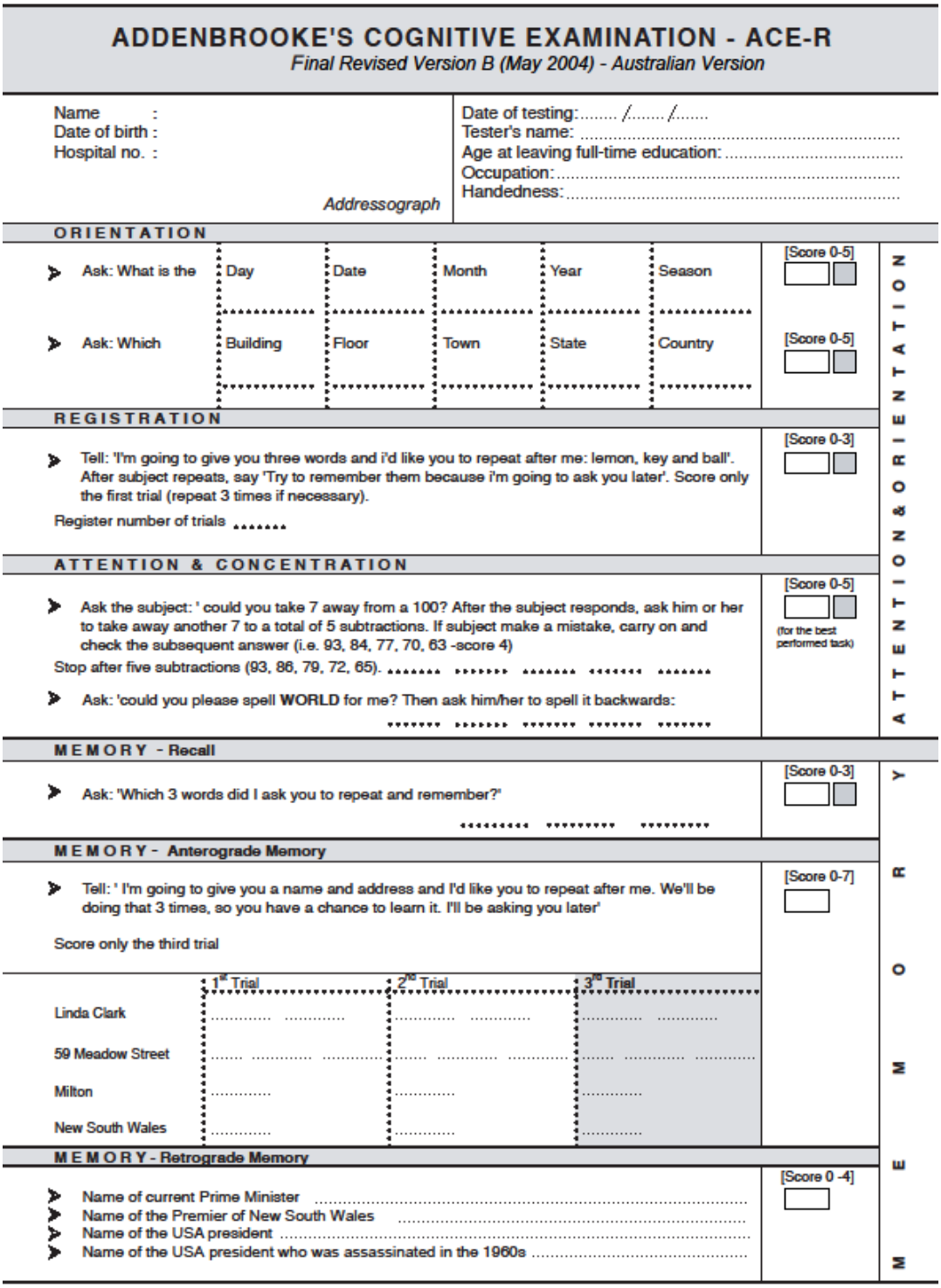
If Yes, please provide contact details for your preferred method of delivery:

Email:_____

Post:_____

Fax:_____

Appendix H Addenbrooke's Cognitive Examination – Form B



ADDENBROOKE'S COGNITIVE EXAMINATION - ACE-R

Final Revised Version B (May 2004) - Australian Version

Name :
Date of birth :
Hospital no. :

Addressograph

Date of testing:..... /..... /.....
Tester's name: .....
Age at leaving full-time education: .....
Occupation: .....
Handedness: .....

ORIENTATION — **ATTENTION & ORIENTATION**

- Ask: What is the — Day | Date | Month | Year | Season — [Score 0-5]
- Ask: Which — Building | Floor | Town | State | Country — [Score 0-5]

REGISTRATION

- Tell: 'I'm going to give you three words and i'd like you to repeat after me: lemon, key and ball'. After subject repeats, say 'Try to remember them because i'm going to ask you later'. Score only the first trial (repeat 3 times if necessary). [Score 0-3]

Register number of trials .....

ATTENTION & CONCENTRATION

- Ask the subject: ' could you take 7 away from a 100? After the subject responds, ask him or her to take away another 7 to a total of 5 subtractions. If subject make a mistake, carry on and check the subsequent answer (i.e. 93, 84, 77, 70, 63 -score 4) [Score 0-5] (for the best performed task)

Stop after five subtractions (93, 86, 79, 72, 65). ....

- Ask: 'could you please spell **WORLD** for me? Then ask him/her to spell it backwards:

....

MEMORY - Recall — **MEMORY**

- Ask: 'Which 3 words did I ask you to repeat and remember?' [Score 0-3]

....

MEMORY - Anterograde Memory

- Tell: ' I'm going to give you a name and address and I'd like you to repeat after me. We'll be doing that 3 times, so you have a chance to learn it. I'll be asking you later' [Score 0-7]

Score only the third trial

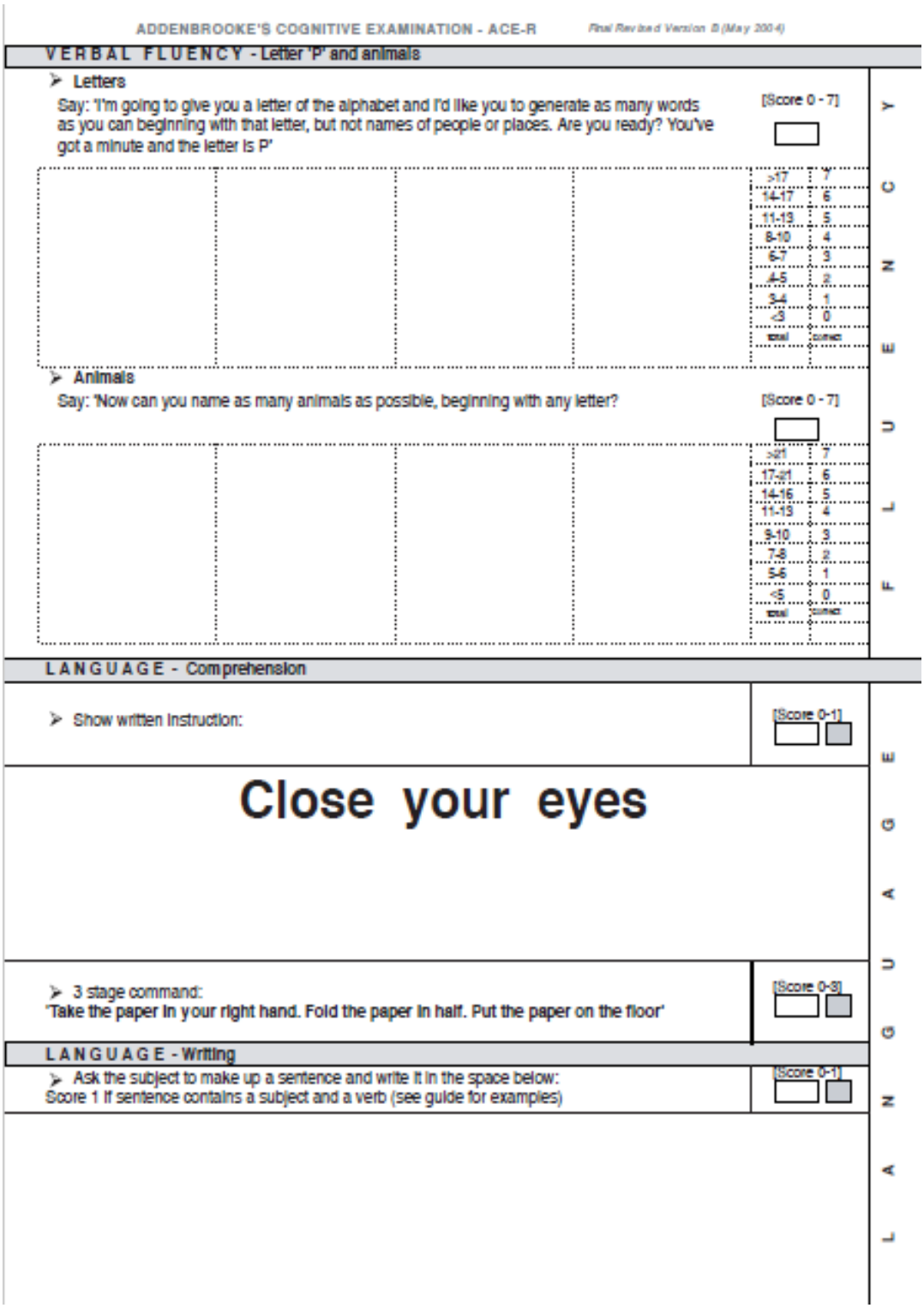
	1st Trial	2nd Trial	3rd Trial
Linda Clark	....	....	....
59 Meadow Street	....	....	....
Milton	.....	.....	.....
New South Wales	.....	.....	.....

MEMORY - Retrograde Memory

[Score 0 -4]

- Name of current Prime Minister .....
- Name of the Premier of New South Wales .....
- Name of the USA president .....
- Name of the USA president who was assassinated in the 1960s .....

Figure A1. Page 1 of the ACE-R, version B.



ADDENBROOKE'S COGNITIVE EXAMINATION - ACE-R *Final Revised Version B (May 2004)*

VERBAL FLUENCY - Letter 'P' and animals

➢ **Letters**

Say: 'I'm going to give you a letter of the alphabet and I'd like you to generate as many words as you can beginning with that letter, but not names of people or places. Are you ready? You've got a minute and the letter is P'

[Score 0 - 7]

>17	7
14-17	6
11-13	5
8-10	4
6-7	3
4-5	2
3-4	1
<3	0
total	correct

➢ **Animals**

Say: 'Now can you name as many animals as possible, beginning with any letter?

[Score 0 - 7]

>21	7
17-21	6
14-16	5
11-13	4
9-10	3
7-8	2
5-6	1
<5	0
total	correct

LANGUAGE - Comprehension

➢ Show written instruction:

[Score 0-1]

Close your eyes

➢ 3 stage command:
'Take the paper in your right hand. Fold the paper in half. Put the paper on the floor'

[Score 0-3]

LANGUAGE - Writing

➢ Ask the subject to make up a sentence and write it in the space below:
Score 1 if sentence contains a subject and a verb (see guide for examples)

[Score 0-1]

FLUENCY LANGUAGE

Figure A2. Page 2 of the ACE-R, version B.

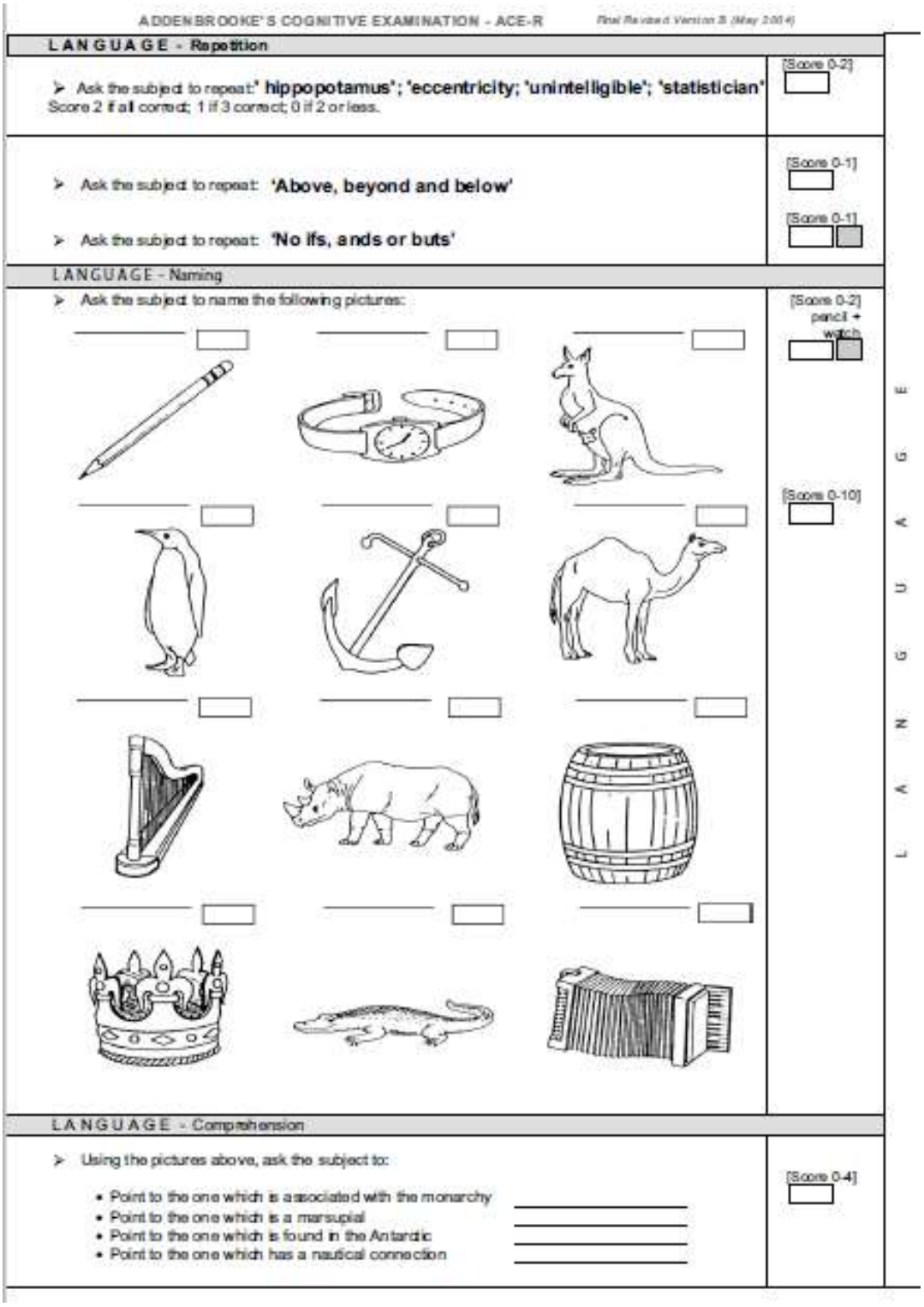
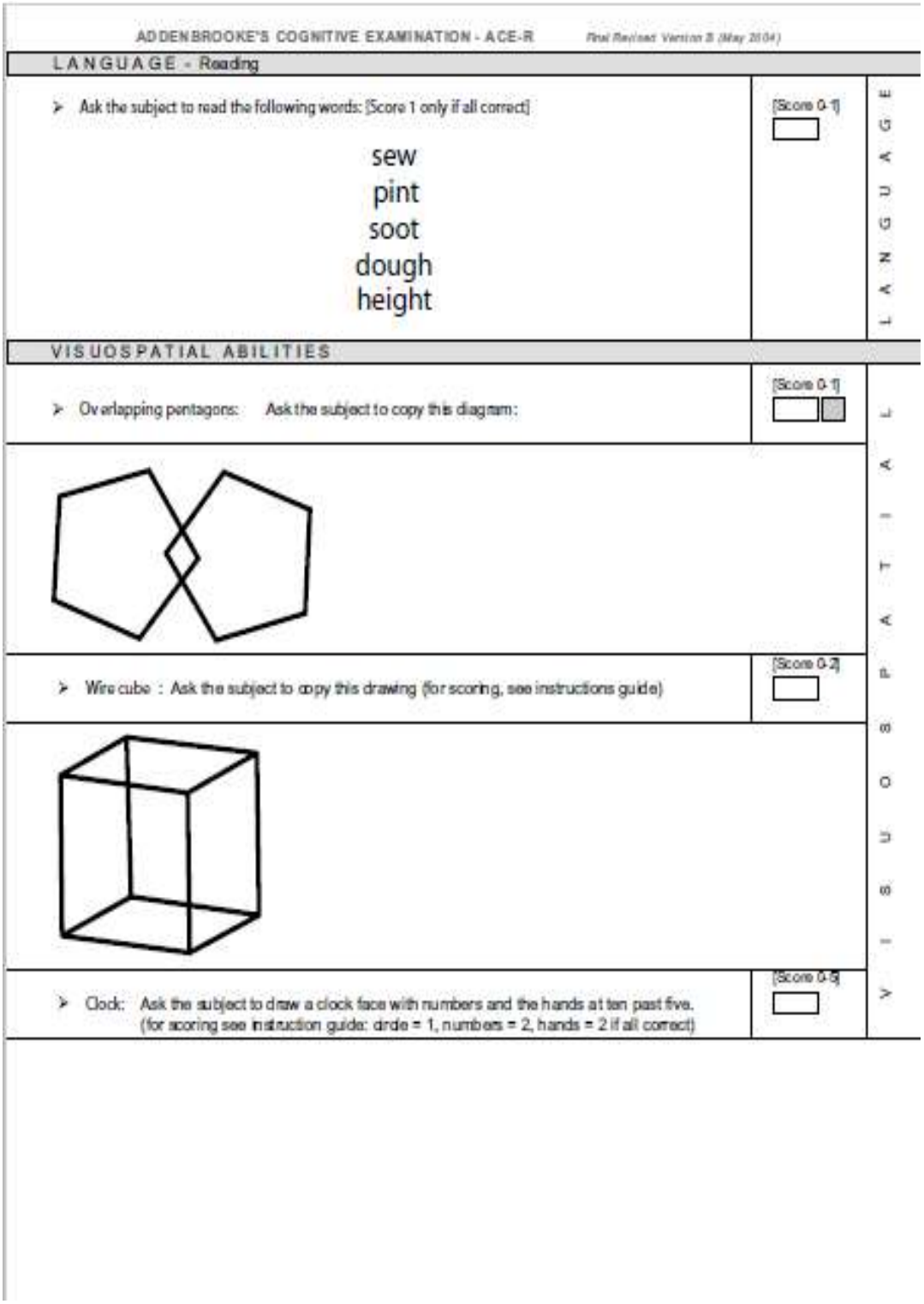


Figure A3. Page 3 of the ACE-R, version B.



ADDENBROOKE'S COGNITIVE EXAMINATION - ACE-R *Real Revised Version B (May 2004)*

LANGUAGE - Reading

➢ Ask the subject to read the following words: [Score 1 only if all correct] [Score 0-1]

sew
pint
soot
dough
height

LANGUAGE

VISUOSPATIAL ABILITIES

➢ Overlapping pentagons: Ask the subject to copy this diagram: [Score 0-1]

➢ Wire cube : Ask the subject to copy this drawing (for scoring, see instructions guide) [Score 0-2]

➢ Clock: Ask the subject to draw a clock face with numbers and the hands at ten past five. (for scoring see instruction guide: circle = 1, numbers = 2, hands = 2 if all correct) [Score 0-5]

VISUOSPATIAL

Figure A4. Page 4 of the ACE-R, version B.

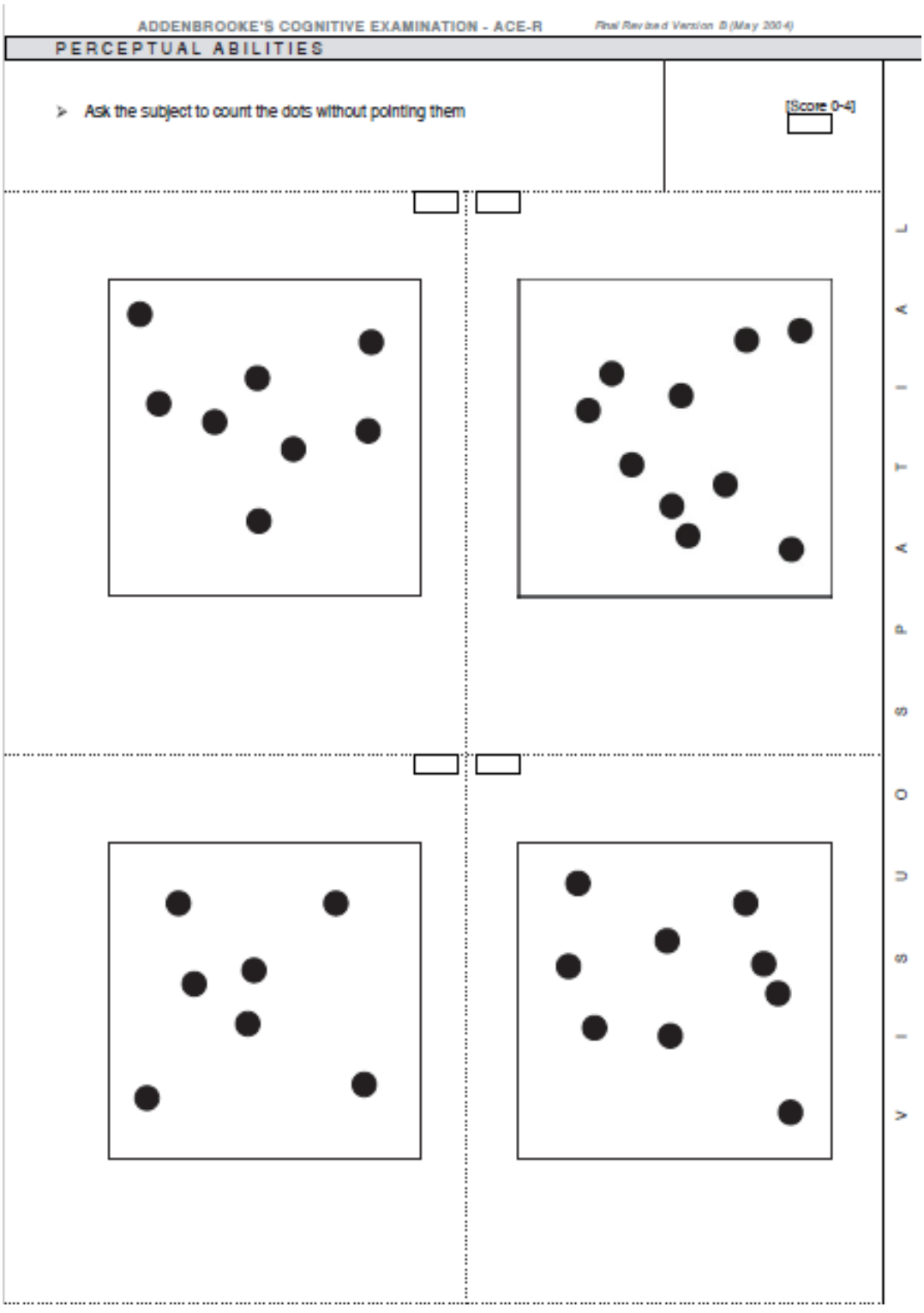
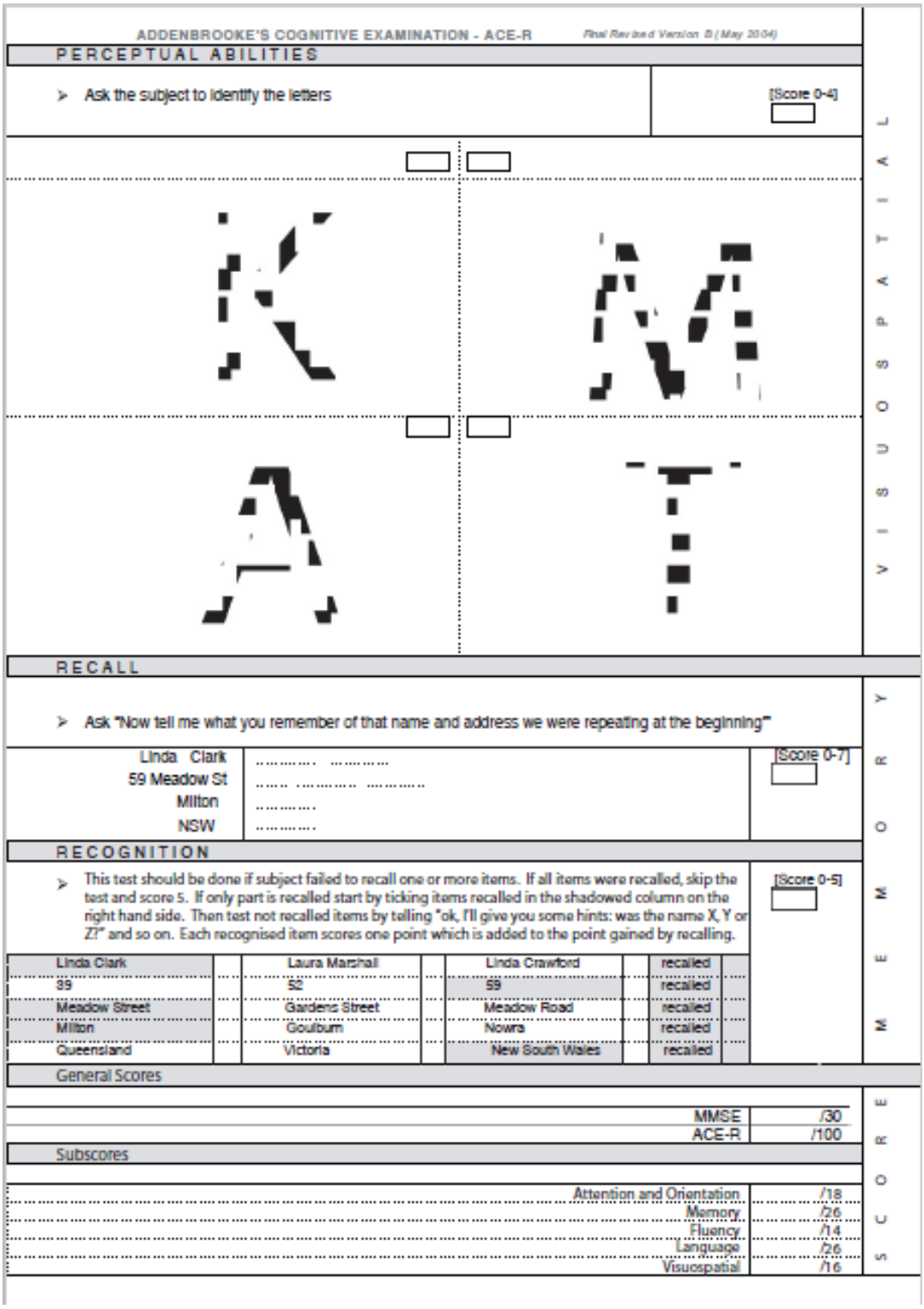


Figure A5. Page 5 of the ACE-R, version B.



ADDENBROOKE'S COGNITIVE EXAMINATION - ACE-R *Final Revised Version B (May 2004)*

PERCEPTUAL ABILITIES

➢ Ask the subject to identify the letters [Score 0-4]

RECALL

➢ Ask "Now tell me what you remember of that name and address we were repeating at the beginning"

Linda Clark	....	[Score 0-7]
59 Meadow St	....	
Milton	.....	
NSW	.....	

RECOGNITION

➢ This test should be done if subject failed to recall one or more items. If all items were recalled, skip the test and score 5. If only part is recalled start by ticking items recalled in the shadowed column on the right hand side. Then test not recalled items by telling "ok, I'll give you some hints: was the name X, Y or Z?" and so on. Each recognised item scores one point which is added to the point gained by recalling. [Score 0-5]

Linda Clark		Laura Marshall		Linda Crawford		recalled	
59		52		59		recalled	
Meadow Street		Gardens Street		Meadow Road		recalled	
Milton		Goulburn		Nowra		recalled	
Queensland		Victoria		New South Wales		recalled	

General Scores

MMSE	/30
ACE-R	/100

Subscores

Attention and Orientation	/18
Memory	/26
Fluency	/14
Language	/26
Visuospatial	/16

VISUOSPATIAL MEMORY SCORE

Figure A6. Page 6 of the ACE-R, version B.

Appendix I Capacity Toolkit (NSW Attorney General's Department, 2008) Question-Set

Participant #_____

For Wills :

- *What is a will?*

_____

_____

_____

_____

_____

- *Why do you have one?*

_____

_____

_____

_____

_____

- *When does a will come into effect?*

_____

_____

_____

_____

- *At the time you made your Will, did you have any property, money or other belongings?*

_____

_____

_____

- *What were they?*

_____

_____

_____

_____

- *How much do you think they were worth?*

_____

_____

_____

_____

_____

- *Tell me about your family and friends. Who did you decide to give your things to after you die? Why did you choose those people?*

_____

_____

_____

_____

- *Is there anyone you didn't want to give anything to? Why?*

_____

_____

_____

_____

_____

- *What happens if you decide that you want to change or cancel your will?*

_____

_____

_____

_____

_____

For Enduring Powers of Attorney:

- *Explain to me what appointing an enduring guardian is about.*

_____

_____

_____

_____

_____

- *Why did you want to appoint somebody as an enduring guardian?*

_____

_____

_____

_____

_____

- *When will your enduring guardian be able to make decisions for you?*

_____

_____

_____

_____

_____

- *What sorts of decisions will your enduring guardian be able to make for you?*

_____

_____

_____

_____

_____

- *Why did you choose that person or those people?*

_____

_____

_____

_____

_____

- *Do you want your enduring guardian to make decisions for you in the same way that you would make them?*

_____

_____

_____

_____

_____

- *How can you help them understand how you would want decisions to be made? Remember, you may not have the capacity to tell them later.*

_____

_____

_____

_____

_____

- *Sometimes people appoint more than one person so they can make decisions together for you. Did you do this? Why or why not?*

_____

_____

_____

_____

_____

- *Sometimes people appoint several different people as their enduring guardians and each guardian has a particular area of decision making, such as accommodation, health, services, and access to whom you might see and when. Is this something you did? Why or why not?*

_____

_____

_____

_____

_____

- *What did your friends and family think about you appointing an enduring guardian, and what did they think about the person or people you have chosen?*

_____

_____

_____

_____

_____

- *What happens if you decide that you want to change or cancel your appointment of an enduring guardian?*

_____

_____

_____

_____

_____

- *When would you be able to do this?*

_____

_____

_____

_____

_____

Appendix J Voluntariness Questionnaire (from the work of Blum & Feledy, 2002)

Participant #_____

1. **Would you consider yourself isolated from your friends, relatives, or usual advisors?**

☐ Yes ☐ No

If yes…

a. **Do you have problems in your family relationships?**

_____

_____

_____

b. **Do you suffer medical disorders that affect your relationships?**

_____

_____

_____

c. **Is someone interfering in your relationships?**

_____

_____

_____

d. **Are you isolated from your friends or family?**

_____

_____

Are you Dependent on another person?

☐ Yes ☐ No

If yes…

e. **Are you physically dependent on someone for food preparation and transport to appointments or similar?**

f. **Are you emotionally dependent on someone?**

g. **Are you dependent on someone else for information?**

2. **Do you feel someone is trying to manipulate you, or do you feel vulnerable?**

☐ Yes ☐ No

If yes…

   a. **Do you feel threatened or manipulated by someone to do things against your wishes?**

_____

_____

_____

_____

3. **Have you consented or submitted to another person because of anything we have discussed so far?**

☐ Yes ☐ No

4. **Have you sustained financial loss because of this action?**

☐ Yes ☐ No

If the assessor has concerns, refer as appropriate by giving the attached handout to the participant and/or support person as appropriate.

How to get help

Elder Abuse Helpline
9am–5pm, Monday to Friday

1300 651 192[9] **1300 651 192 (Queensland only)**

07 3867 2525 **07 3867 2525 (rest of Australia)**

Free and confidential advice for anyone experiencing elder abuse or who suspects someone they know may be experiencing elder abuse.

Seniors Legal and Support Service

Free legal and support services for people experiencing elder abuse or who know of someone experiencing elder abuse.

- Brisbane: 07 3214 6333 07 3214 6333 (9am–4.30pm, Monday to Friday)
- Cairns: 1800 062 608 1800 062 608 FREE or 07 4031 7688 07 4031 7688 (9am–4pm, Monday to Friday)
- Hervey Bay: 07 4124 6863 07 4124 6863 (9am–3pm, Monday to Friday)
- Toowoomba: 07 4616 9700 07 4616 9700 (9am–4.30pm, Monday to Thursday) (9am–4pm, Friday)
- Townsville: 07 4721 5511 07 4721 5511 (9am–5pm, Monday to Friday)

In an emergency call the police on 000 (triple zero).

Figure A7. Handout for clients at risk of Elder Abuse.

[9] The denotes Skype contact number.

Appendix K Post Study Interview

Participant #_____

Post-Study Interview

- *Did you feel any pressure or suggestion to make changes to your affairs?*

_____

_____

_____

_____

_____

- *Did you discuss your participation with anyone else? Who? What did they say?*

_____

_____

_____

_____

_____

- *Do you plan on amending your Will or EPA?* If so, will you consult with a legal advisor?

_____

_____

_____

_____

Appendix L Comprehensive List of NGT Part One Considerations

Table A1

Comprehensive listing of all responses generated in NGT part one

Profession	Important considerations in determining capacity to write a Will or appoint an EPA
GPs	Know what it all means this
	Knows responsibilities given
	Knows who will be involved
	No history of diminished mental capacity
	Proof of no significant mental impairment i.e., Mini mental state examination score above 24/30
	No intermittent illness that may impact mental capacity
	Aged 18 years.
	Visual acuity adequate to read documents
	Must be able to communicate a decision
	MMSE
	Physical condition's
	Knowledge of the patient and family
	Over 18 years of age.
	Must be given freely and willingly
	Must understand information
	Must retain information
	Must be able to weigh information to come to a decision
	Must be able to communicate decision
	Their ability to understand English
	Stage or level of disease involved for example advanced or early stage dementia illness
	Capacity of enduring power of attorney
	Time to adequately discuss
	Is it for a patient who needs one, for example, Down's Syndrome and parent
	Mental state examination

Profession	Important considerations in determining capacity to write a Will or appoint an EPA
GPs	Underlying reason behind this decision
	Consent, legal age and maturity
	Decision by self without bias
	Communication barrier
	Understand ramifications of will and EPA
	Results of MMSE
	Other cognitive details or test results
	Legal advice
	Medical history
	Satisfied that they are not under duress or confused
	Psychological assessment
	Mentally fit to understand documents
	MMSE
	Over 18 years of age
	Able to communicate
	Do they need an interpreter?
	General intellectual capacity
	MMSE or similar
	History of issues
	Evidence of understanding
	No evidence of coercion
	Testamentary capacity
	Family relationships
	Physical conditions
	Mental conditions
	Ethnicity
	Cultural factors
	Able to understand information
	Retain said information
	Can way up choices and options
	Can communicate their opinion

Profession	Important considerations in determining capacity to write a Will or appoint an EPA
GPs	Adult Not coerced or unduly influenced Ability to demonstrate understanding Getting an appropriate score on a Mini Mental State Exam Not being coerced into this Note concerns from family or friends about the patient's capacity or cognitive functioning
Lawyers	Whether the person suffers from dementia Whether the person understands the importance and significance of their decisions Understanding of the document itself Whether the person can reiterate their intentions Purpose of document External pressures Whether they have an apparent understanding of the general nature of the documents i.e., What does the will to and what does an EPA do Whether they display an adequate understanding of their personal circumstances i.e., Any disability or infirmity or fragility and where they are Whether they display a capacity for independent thought and can adequately explain what they want without influence from others Whether they display a level of confusion which may justify further investigation by referral to a specialist for assessment Whether they display any observable illness or incapacity which may suggest possible incapacity Whether the person has been brought to the appointment by a third party and whether that person appears to have any special influence over them An ability to hold a conversation without repetitions An inability to comprehend their personal and financial situation without assistance

Profession	Important considerations in determining capacity to write a Will or appoint an EPA
	Age
	Whether they have attended the appointment with a relative or friend who may benefit under the will
	Number of times the Will has been amended
	If it is know they are unwell such as in-hospital
	What medication they are on
	Whether client is of sound mind
	Whether the client can understand the nature and effect of Will and EPA
	Whether client understands what property they have
	Whether client understands who ought to be considered in making a Will
	Age
	Health
	Health status
	Cognitive awareness
	Fragile of appearance
	Comprehension
	Clarity of instructions
	GP comment or diagnosis
	Demeanour
	Ability to articulate issues relevant to the giving of instructions
	Ability to understand concepts relevant to instructions being given
	Logicality of instructions being given
	Recollection of recently discussed issues
	Consistency of instructions on subsequent visits
	Appearance of client at interview
	Understanding the purpose of documents
	Awareness of current events
	Age
	Medical conditions
	Influence of anyone attending interview with clients

Profession	Important considerations in determining capacity to write a Will or appoint an EPA
Psychologists	Of sound mind and ability to make rational decisions Relationship to enduring power of attorney - is there a power imbalance? Making these decisions without threat or coercion? Person's emotional stability Understanding of a will and what EPA means Person is not under the influence of illicit substances Whether the patient has dementia or intellectual disability Whether the patient has major mental health issues and/or is currently psychotic or has a diminished capacity to give informed consent. Whether the patient does not fully understand the ramifications of appointing an enduring power of attorney or making a Will Whether the patient is being threatened or coerced by spouse, partner, family member, friend, individual or business or religious organising wishing to profit from the patient Whether the patient is terminally ill or believes that they are terminally ill. Whether the patient's decision making process is being affected by prescription medication, alcohol intoxication, illegal drugs or treatment regimes such as chemotherapy resulting in "Chemo brain". The patient is able to understand the information required to make the decision and communicate their decision The patient is able to logically predict the consequences of their decision The patient is making the choice without undue influence by others The patient has capacity to make this decision MMSE is within normal range IQ test above profoundly disabled Emotional stability Clinical history, including relationships/bonds/dynamics with family and friends

Profession	Important considerations in determining capacity to write a Will or appoint an EPA
	Intellectual capacity Physical health/medical condition including prognosis. Presenting problems/concerns and how they've been resolved (or not) Overall psychological state/s Assumption of capacity Impact of any diagnoses on capacity Collateral data from other health professionals Best interest of person being assessed Reason why Power of Attorney sort of Will being amended Any duress? Patients understanding of process and effects of decision Current functioning in terms of MSE/cognition The patient needs to do this Re power of attorney – patients knowledge of the motives and intentions of the “power of attorney" Re will- patients understanding of mechanics of will i.e., They die and their assets get handed over

Appendix M Comprehensive Correlation Matrix for Cognitive Measures

Table A2

Full correlation matrix for cognitive measures (N = 38); **Pearson's correlation is significant at the 0.01 level. *Correlation is significant at the 0.05 level.

	MMSE score	ACE total score	ACE attention and concentration	ACE memory	ACE Fluency	ACE Language	ACE Visuospatial	KBIT-2 Verbal Knowledge Score	KBIT-2 Riddles Score	KBIT-2 Total Raw Verbal Score	KBIT-2 Verbal IQ Score	KBIT-2 Matrices Score	KBIT-2 Nonvernal IQ Score	FSIQ_Composite	IQfullscale
MMSE score	1.00	.94**	.94**	.89**	.59**	.75**	.50**	.63**	.81**	.767**	.680**	.592**	.551**	.757**	.381*
ACE total score	.94**	1.00	.89**	.93**	.70**	.84**	.58**	.71**	.81**	.809**	.735**	.572**	.538**	.777**	.421**
ACE attention and	.94**	.89**	1.00	.83**	.56**	.67**	.42**	.53**	.77**	.697**	.618**	.510**	.464**	.677**	.345*
ACE memory	.89**	.93**	.83**	1.00	.48**	.69**	.45**	.54**	.68**	.650**	.588**	.425**	.402*	.610**	.280
ACE Fluency	.59**	.70**	.56**	.48**	1.00	.58**	.32*	.65**	.56**	.641**	.619**	.360*	.338*	.578**	.359*
ACE Language	.75**	.84**	.67**	.69**	.58**	1.00	.38*	.75**	.77**	.811**	.693**	.518**	.468**	.756**	.385*
ACE Visuospatial	.50**	.58**	.42**	.45**	.32*	.38*	1.00	.46**	.47**	.494**	.504**	.655**	.665**	.600**	.499**
KBIT-2 Verbal Knowledg	.63**	.71**	.53**	.54**	.65**	.75**	.46**	1.00	.76**	.932**	.880**	.592**	.584**	.868**	.505**
KBIT-2 Riddles Score	.81**	.81**	.77**	.68**	.56**	.77**	.47**	.76**	1.00	.945**	.872**	.707**	.657**	.924**	.574**
KBIT-2 Total Raw Verbal	.77**	.81**	.70**	.65**	.64**	.81**	.49**	.93**	.94**	1	.933**	.695**	.663**	.956**	.577**
KBIT-2 Verbal IQ Score	.68**	.74**	.62**	.59**	.62**	.69**	.50**	.88**	.87**	.933**	1	.592**	.646**	.869**	.641**
KBIT-2 Matrices Score	.59**	.57**	.51**	.43**	.36*	.52**	.66**	.59**	.71**	.695**	.592**	1	.958**	.876**	.634**
KBIT-2 Nonvernal	.55**	.54**	.46**	.40*	.34*	.47**	.66**	.58**	.66**	.663**	.646**	.958**	1	.837**	.707**
FSIQ_Composite	.76**	.78**	.68**	.61**	.58**	.76**	.60**	.87**	.92**	.956**	.869**	.876**	.837**	1	.646**
IQfullscale	.38*	.42**	.34*	.28	.36*	.38*	.50**	.51**	.57**	.577**	.641**	.634**	.707**	.646**	1