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Methods of Conveying Information to Jurors: An Evidence Review



CRIME AND JUSTICE



Methods of Conveying Information to Jurors: An Evidence Review

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Executive Summary

Background

The purpose of this review is to identify methods by which juror recall and understanding of evidence and directions might be enhanced, and to evaluate both the empirical evidence (i.e. the academic literature) relating to these methods' effectiveness and the extent to which they have been adopted in other jurisdictions. The rationale for the review is that there is evidence to suggest that jurors face considerable challenges in recalling both the evidence and the legal directions in a criminal trial and that they struggle to understand legal directions. The deliberation process – whereby individual jurors pool their knowledge – assists to some degree in terms of remembering the evidence but it is less effective at improving the comprehension of legal directions.

Eight methods of improving memory and/or comprehension are identified and discussed: trial transcripts, juror note-taking, audio-visual and digital presentation methods, juror questions, pre-instruction, plain language directions, written directions and structured decision aids (routes to verdict). Aside from juror note-taking, none of these methods are routinely used in Scotland at present.

Methods

The review draws on empirical research relating to the eight techniques identified above, primarily from 2000 onwards, but it also includes a number of significant studies published prior to this date. It covers the main English speaking jurisdictions that use juries in criminal cases, namely England and Wales, Ireland, Northern Ireland, Canada, the Australian jurisdictions, New Zealand, and the US jurisdictions. It includes Government evaluations, reports by independent research institutes, and peer-reviewed studies conducted by academic researchers, often but not exclusively published in psychology journals.

The empirical studies have used two main methods: field studies and mock jury studies. Field studies are undertaken with real jurors who have sat on real criminal cases. Mock jury studies simulate the experience of sitting on a jury by recruiting members of the public to act as jurors and asking them to engage with simulated trial materials. Both types of study can provide useful evidence, but mock jury studies need to be carefully evaluated in terms of the realism of their research methods.

Key Findings from the Empirical Evidence

The empirical evidence suggests that the most effective ways of enhancing juror memory and understanding are juror note-taking, pre-instruction, plain language directions (including written directions) and the use of structured decision aids (routes to verdict). Each of these methods targets different issues (some improve memory, some improve understanding and application of legal tests) and there is evidence to suggest that they are best used in combination, rather than as alternatives.

Juror note-taking refers to the practice of encouraging jurors to take notes during the trial and providing them with materials to do so. There is a substantial body of evidence from good quality empirical studies to suggest that this improves juror memory of the evidence. Recent studies have suggested that providing jurors with trial-ordered notebooks (structured notebooks that help jurors to organise their notes) is particularly beneficial in this respect and may assist jurors who are not skilled at note-taking. These findings are particularly pertinent in the Scottish context, where trial judges do not routinely summarise the evidence, and so jurors need to rely more heavily on their memory than they might have to in some other jurisdictions.

Pre-instruction refers to the practice of directing jurors on the substantive legal issues in the case before evidence is led. There is a considerable body of evidence from good quality empirical studies to suggest that this improves comprehension and memory of the evidence. Despite concerns that it might cause jurors to reach their verdict decisions prematurely, there is no evidence that this is the case.

Plain language directions are legal directions that have been simplified as much as possible in terms of their language, grammar and syntax (while still retaining their essential legal meaning). There is a vast body of evidence to suggest that simplifying jury directions can improve juror comprehension of legal concepts. The majority of this stems from studies undertaken in the US, where jury directions have tended to be more complex, but the general principle that plain language directions assist jurors applies to any jurisdiction.

Written directions involve providing jurors with a written copy of the legal directions in the case. There is a substantial body of evidence from good quality empirical studies to suggest that this is highly beneficial not only in terms of memory but also in terms of understanding. There is also considerable evidence that jurors who are provided with written directions find them useful. Improvements in understanding tend to be limited to improvements in simple comprehension – in other words, they help jurors to remember and re-state those directions. The evidence on whether they help jurors to gain a deeper understanding of directions is more equivocal.

A structured decision aid (referred to here as a ‘route to verdict’) is a series of primarily factual questions – which might be presented as a series of written questions or in diagrammatic or flowchart form – that gradually lead jurors to a legally justified verdict. Routes to verdict are a relatively recent innovation and the evidence base is still developing. The evidence that does exist (particularly from the better designed studies) suggests that, compared to simply giving jurors a written copy of the trial judge’s directions, routes to verdict are more effective at improving ‘applied’ comprehension – that is jurors’ ability to correctly apply legal tests to the evidence. Oral directions should be tailored to the route to verdict provided, otherwise there is a danger that jurors ignore the route to verdict.

In terms of other methods of conveying information to jurors, there is little empirical evidence relating to the provision of trial transcripts to jurors. The evidence that does exist suggests that juror note-taking is more effective as a memory aid than providing a full transcript of the evidence. There is also only a small evidence base on the use

of audio-visual methods of conveying information. The evidence that does exist shows that this can be helpful in improving juror memory for both evidence and legal directions (although in relation to directions, the more obvious way to target this is through written directions or structured decision aids). There is a lack of evidence at the time of writing on the use of digital decision aids, such as providing information to jurors via a tablet or laptop, although there is a study in progress on this issue. The only mock jury study that has examined the effect of allowing jurors to ask questions during the trial concluded that it did not improve juror comprehension of scientific evidence.

Reform and Practice in Comparable Jurisdictions

It is possible to determine where particular techniques have become established or explicitly sanctioned in other jurisdictions through a range of sources such as standard judicial instructions, the reported decisions of the courts, recommendations from official bodies, surveys of judges, or specific provisions in legislation or court rules. A review of these sources was undertaken in a range of jurisdictions, namely Australia, Canada, England and Wales, Ireland, New Zealand and the US. This indicated that juror note-taking and using written structured decision aids are well-established across the jurisdictions surveyed, with some jurisdictions using additional written directions to capture points that are not contained in the structured decision aid. Pre-instruction is also clearly established as good practice in a number of jurisdictions.

The provision of transcripts to the jury has become more common in recent years, but remains the exception rather than the rule and has been resisted in a number of jurisdictions. The practice of jurors asking questions is generally discouraged across the jurisdictions surveyed. There is limited available evidence on the use of audio-visual methods of conveying information and plain language directions, although this may reflect only which practices are recorded in the materials surveyed rather than suggesting such methods are not used.

None of these techniques, with the exception of juror note-taking, is established practice in Scotland, although occasional use has been made of written directions.

1. Introduction

This evidence review of methods of communicating information to jurors was commissioned following the Post-Corroboration Safeguards Review (2015), which noted that there may be “scope for clarifying and simplifying the language used in some aspects of jury directions, and varying the means of communicating these directions”.¹ The Review also indicated support for improving the “quality and effectiveness of the information that is communicated to jurors”.²

In this evidence review, we identify a number of ways in which methods of communicating with jurors might be improved and we assess the empirical evidence of their effectiveness and the extent to which they have been adopted in other jurisdictions. In this introductory chapter, we set out the remit and structure of the remaining sections of the review and briefly consider why juror communication might be a problem.

1.1 The Remit and Aims of the Evidence Review

The Specification of Requirements (the document in which the Scottish Government set out its requirements for this research) states that:³

Although no formal recommendations were made in relation to communications to the jury in the Safeguards Review, the Scottish Government is keen to explore which methods enhance the recall and understanding of information, including evidence and judicial directions communicated to jurors in criminal trials.

As such, the remit of this review is to identify methods by which the recall and understanding of evidence and directions might be enhanced, and to evaluate the empirical evidence relating to their effectiveness. An initial review of the literature indicated that there are eight relevant methods that have been subjected to at least some empirical testing, namely:

- Trial transcripts
- Juror note-taking
- Audio-visual and digital presentation methods (such as giving jurors tablets)
- Juror questions
- Pre-instruction
- Plain language directions
- Written directions
- Structured decision aids (such as routes to verdict)

¹ The Post-Corroboration Safeguards Review, Final Report (2015) para 13.3. The Safeguards Review was a review, chaired by Lord Bonomy, into safeguards against wrongful conviction in the context of the potential abolition of the requirement for corroboration in criminal cases.

² Ibid para 13.5.

³ Specification of Requirements para 3.3.

Other suggestions have been made (such as having a trained facilitator present during deliberations to assist the jury)⁴ but these have not been subject to empirical investigation so are not included in this review.

1.2 Why Should we be Concerned About Methods of Communicating Information to Jurors?

At present, the way in which a jury trial operates in Scotland is as follows. At the outset of the trial, jurors are normally given some brief preliminary directions by the trial judge on general matters (such as the different functions of the judge and jury, the presumption of innocence and the burden and standard of proof). A trial then proceeds directly to the evidence – there are no opening speeches from either the Crown or defence. Only after all the evidence has been led are jurors directed by the trial judge on the legal issues relating to the case. Trial judges do not summarise the evidence for juries. Some limited comment on the evidence may be made, but only to the extent that this is necessary for the jury to understand the legal issues to be determined.⁵ In Scotland, jury directions are understood to be generally shorter than in some other jurisdictions,⁶ where it is not uncommon for them to last several hours.⁷ The total length of a jury trial in Scotland – including both the evidence and the directions – could be anything from a couple of hours to several weeks or months. The latest figures available suggest that the average jury trial lasted for five days in the High Court and two days in the Sheriff Court.⁸ After hearing the evidence and the directions, jurors retire to deliberate and return a verdict.

All of this poses a number of challenges for jurors. Memory – both for the evidence and for the content of the directions – is likely to be a particular challenge, especially in a lengthy and/or complex case. The absence of specific preliminary directions or opening speeches means that jurors are not given any kind of organising framework before they hear the evidence, beyond the indictment and any special defence that has been lodged. This may affect jurors' ability – at the point at which they hear it – to understand how a particular piece of evidence fits into the overall picture. This may, in turn, have a detrimental effect on the degree of attention they devote to it and/or their memory of it. There may also be challenges in terms of comprehension. This might be in relation to particular types of evidence, such as complex scientific

⁴ M Coen and J Doak, "Embedding explained jury verdicts in the English criminal trial" (2017) 37 Legal Studies 786 at 803.

⁵ Judicial Institute for Scotland, Jury Manual (June 2017) 5.3.

⁶ In a 2010 lecture, an English judge noted the considerable length of jury charges in that jurisdiction and (having spoken to the then Director of Judicial Studies in Scotland) contrasted this with an expectation that in Scotland, "[a] skilled judge is expected to charge the jury in 15-18 minutes, even in lengthy cases": Moses LJ, "Summing down the summing-up", Annual Law Reform Lecture, The Hall, Inner Temple, 23 November 2010 at 7.

⁷ An examination of the length of jury directions in Australia and New Zealand found, for example, that for a ten day trial, the average length of the directions varied from one hour and 16 minutes (in New Zealand) to four hours and 15 minutes (in Victoria): Criminal Law Review, Jury Directions: A New Approach (State of Victoria, Department of Justice, 2013) 19.

⁸ The figures relate to 2007; two trials in that year lasted for over eight weeks: Scottish Government, The Modern Scottish Jury in Criminal Trials (2008) 20.

evidence⁹ or in relation to understanding the legal tests that jurors are required to apply.

On the latter of these, a considerable body of research has assessed the extent to which juries comprehend legal directions and, as Comiskey puts it, this has “almost unanimously concluded that a jury’s ability to comprehend [them] is poor and that there is room for considerable improvement”.¹⁰ It is not within the remit of this review to set out the findings of these studies in detail.¹¹ It is worth noting, however, that jurors think they understand legal concepts better than they actually do¹² and that confidence does not necessarily equate to accuracy.¹³

It has sometimes been suggested that we do not need to be particularly concerned about these challenges because the deliberation process itself acts as an effective method of improving memory and understanding.¹⁴ The jury, by collectively pooling the individual memories of its members, may fill in any gaps in individual memory of the evidence and directions, and any errors in individuals’ understanding will be corrected by other members of the group.

There is evidence to suggest that deliberation is effective at correcting errors relating to the evidence. In a highly realistic mock jury experiment in which 18 mock juries watched a 2.5 hour video of a mock homicide trial and then deliberated in groups of 12 for up to an hour, Ellsworth found that “none of the juries maintained an erroneous perception of an important fact after the hour of deliberation”.¹⁵ Dann et al, in a study involving 48 mock juries who deliberated in groups of eight with no time limit, found that deliberation significantly improved understanding of DNA evidence¹⁶ and, in a later analysis, that those with the lowest initial levels of comprehension made the biggest gains following deliberation.¹⁷

Deliberation appears to be less effective, however, at improving comprehension of legal directions. In the mock jury study noted above, Ellsworth found that one fifth of all statements made by individual jurors about the law were “clearly, seriously wrong”¹⁸ and that these were rarely corrected by other jurors. In a study that involved

⁹ DJ Devine and S Macken, “Scientific evidence and juror decision making: theory, empirical research, and future directions”, in BH Bornstein and MK Miller (eds), *Advances in Psychology and Law: Volume 2* (2016) 95 at 105.

¹⁰ M Comiskey, “Initiating dialogue about jury comprehension of legal concepts: can the ‘stagnant pool’ be revitalised?” (2010) 35 *Queen’s Law Journal* 625 at 629.

¹¹ For a summary of the relevant literature, see F Leverick, “Jury directions”, in J Chalmers, F Leverick and A Shaw (eds), *Post-Corroborator Safeguards Review: Report of the Academic Expert Group* (2014) 101 at 110-117.

¹² L Hope, N Eales and A Mirashi, “Assisting jurors: promoting recall of trial information through the use of a trial-ordered notebook” (2014) 19 *Legal and Criminological Psychology* 316 at 326.

¹³ B Saxton, “How well do jurors understand jury instructions - a field test using real juries and real trials in Wyoming” (1998) 33 *Land and Water Law Review* 59 at 92.

¹⁴ W Young, N Cameron and Y Tinsley, *Juries in Criminal Trials Part 2: A Summary of the Research Findings* (Preliminary Paper 37, 1999) para 7.25.

¹⁵ P Ellsworth, “Are twelve heads better than one?” (1989) 52 *Law and Contemporary Problems* 205 at 217.

¹⁶ MB Dann, VP Hans and DH Kaye, *Testing the Effects of Selected Jury Trial Innovations on Juror Comprehension of Contested mtDNA Evidence: Final Technical Report* (2004) 67 (table 6.3).

¹⁷ VP Hans et al, “Science in the jury box: jurors’ comprehension of mitochondrial DNA evidence” (2011) 35 *Law and Human Behavior* 60 at 68.

¹⁸ Ellsworth (n 15) at 219.

recording the deliberations of 50 juries in real civil trials, Diamond et al found that only 47 per cent of incorrect statements about the law made by jurors were corrected by other jury members.¹⁹ This is perhaps unsurprising. Deliberation will be effective in this respect only if, as Diamond puts it, “a significant proportion of the jurors begin deliberations with correct information; otherwise, deliberation may simply reinforce the inaccuracies of the majority”.²⁰ Ellsworth also found that, typically, the most forcefully expressed position about the law prevailed, whether or not it was correct.²¹

1.3 Jury Communications in Scotland

The extent to which the eight methods of enhancing recall and understanding of evidence and directions identified above appear to be presently used in Scottish jury trials is as follows. This text draws on the Judicial Institute for Scotland’s Jury Manual and reported case-law, and has been reviewed by members of the judiciary.

1.3.1 Trial Transcripts

Trial proceedings are recorded but not routinely transcribed. A transcript can be requested by a party to the trial after it has concluded (to help, for example, in the preparation of an appeal), but jurors are not offered the option of requesting a full or partial transcript.

1.3.2 Juror Note-taking

Jurors are told in the information leaflet they are given that they may take notes if they wish, and that writing materials will be provided,²² although it does not appear to be standard to re-emphasise this in the opening directions.

1.3.3 Audio-visual and Digital Presentation Methods

There is no evidence of the use of audio-visual presentation methods or of providing digital information to jurors on tablets.

1.3.4 Juror Questions

Jurors may (normally via the judge) ask questions during the course of the trial, but are not routinely informed of this possibility and it is rare for any juror to seek to ask a question.²³

¹⁹ SS Diamond, B Murphy and MR Rose, “The ‘kettleful of law’ in real jury deliberations: successes, failures and next steps” (2012) 106 Northwestern University Law Review 1537 at 1558 (table 2).

²⁰ SS Diamond, “Illuminations and shadows from jury simulations” (1997) 21 Law and Human Behavior 561 at 565.

²¹ Ellsworth (n 15) at 220.

²² Scottish Courts and Tribunals Service, Jury Service in the High Court and Sheriff Court, 10.

²³ Judicial Institute for Scotland, Jury Manual (June 2017) 4.3. See also *Miller v HM Advocate* 1994 SCCR 818.

1.3.5 Pre-instruction

While jurors are given opening directions on general issues such as the standard of proof and their role in the case, no specific directions on the legal issues that form the subject of the charge are provided prior to the evidence being led. Jurors are, however, provided with a copy of the indictment and of any special defence that is being pled.

1.3.6 Plain Language Directions

The primary reference guide for trial judges in preparing their directions is the Jury Manual produced by the Judicial Institute of Scotland. The Jury Manual makes no reference to its contents having been assessed by a body such as the Plain English Campaign in terms of its comprehensibility.²⁴ That said, there is no evidence to suggest that Scottish jurors find directions unduly complex – this is not something that has ever been empirically tested.

1.3.7 Written Directions

It does not appear to be standard in Scotland to provide jurors with written directions (the possibility is not discussed in the Jury Manual), although individual trial judges may do this at their discretion and it is understood that written directions have been provided to jurors on occasion.

1.3.8 Structured Decision Aids (Routes to Verdict)

A route to verdict is a written aid that provides a series of primarily factual questions that gradually lead the jury to a legally justified verdict. Routes to verdict, in this sense, are not routinely used in Scotland, although the researchers understand that individual judges have occasionally chosen to employ them in specific cases where jurors will be required to consider a complex set of questions in their deliberations. Scottish courts do use the term “route to verdict”, but with a different meaning.²⁵

1.4 Outline of Structure

The remainder of the review is structured as follows. Chapter 2 focuses on the findings of the empirical studies covering the eight methods of improving jury communication identified above. Chapter 3 looks at the extent to which these methods of enhancing jury communication have been implemented in other jurisdictions. The research methods used, both in terms of the search strategy and how the empirical studies were evaluated, is included in an annex to the review.

²⁴ The Manual does include a copy of a paper on jury trials by the former chairman of the (then) Judicial Studies Committee, Lord Wheatley, which notes (at 4.4) that “care should be taken to use words and expressions that are clear and unambiguous and simple”.

²⁵ Since *Younas v HM Advocate* 2015 JC 180 it has become common for the appeal court to state that the trial judge’s directions must provide a “route to verdict”, but not in the sense that the directions must be in writing. The concept is summarised in *H v HM Advocate* [2016] HCJAC 4 at [13]: “The terms of a trial judge’s charge to the jury should be such as to enable the informed observer, who has heard the proceedings at the trial, to understand the reasons for the verdict. In other words, there must be a discernible route to the verdict.”

2. The Empirical Evidence

This chapter examines the empirical evidence about the effectiveness of the eight different techniques identified in chapter 1, namely trial transcripts, juror note-taking, audio-visual and digital presentation methods, juror questions, plain language directions, pre-instruction, written directions and structured decision aids. In the discussion that follows, the terms “community jurors” and “student jurors” are used to refer to participants in mock jury studies. These terms are explained in Annex 1.

2.1 Key Findings

The empirical evidence suggests that the most effective ways of enhancing juror memory and understanding are juror note-taking, pre-instruction, plain language directions and the use of written directions and structured decision aids (routes to verdict). Each of the methods targets different issues (some improve memory, some improve understanding and application of legal tests) and there is evidence to suggest that they are best used in combination, rather than as alternatives.

- **Juror note-taking:** there is a substantial body of evidence from good quality empirical studies to suggest that taking notes improves juror memory for the evidence. Recent studies have suggested that providing jurors with trial-ordered notebooks (structured notebooks which help jurors to organise their notes) is particularly beneficial in this respect and may assist jurors who are not skilled at note-taking.
- **Pre-instruction:** there is a considerable body of evidence from good quality empirical studies to suggest that pre-instructing jurors on the substantive legal issues in the case improves comprehension and memory for the evidence. Despite concerns that it might cause jurors to reach their verdict decisions prematurely, there is no evidence that this is the case.
- **Plain language directions:** there is a vast body of evidence, including a considerable amount from good quality empirical studies, to suggest that simplifying jury directions can improve juror comprehension of legal concepts. Almost all of this stems from studies undertaken in the US, where jury directions tend to be relatively complex, but the general principle that plain language directions assist jurors applies to any jurisdiction, including Scotland.
- **Written directions and routes to verdict:** There is a substantial evidence base to show that providing directions in writing improves memory and simple comprehension – in other words, they help jurors to remember and re-state those directions – but the evidence on whether they help jurors to gain a deeper understanding of directions is more equivocal. There is a developing evidence base relating to structured decision aids (routes to verdict), which are a more recent innovation. The evidence that does exist (particularly from the better designed studies) suggests that these are more effective than written directions in improving applied comprehension – jurors’ ability to

correctly apply legal tests to the evidence. Oral directions should be tailored to the route to verdict provided, otherwise there is a danger that jurors ignore the route to verdict.

2.2 Trial Transcripts

There is only a limited body of evidence on the effectiveness of trial transcripts and it is not especially convincing. One relatively realistic mock jury study found that a trial transcript was helpful in assisting jurors to remember the evidence led in the trial, but that jurors' own notes did so equally well. The reason for this may be that a full transcript – especially one provided in paper copy – is difficult to navigate. This difficulty will be much greater in the context of a real trial, which will be considerably longer than any simulation. Producing a full transcript quickly after the conclusion of the trial, so as not to delay jury deliberations, also poses considerable challenges.

This section examines the empirical evidence relating to providing trial transcripts – a written transcript of all of the evidence that was led – to assist jurors during their deliberations. The obvious advantage of this is that it means that jurors do not have to rely entirely on their memory for the evidence and, if disputes about what particular witnesses said arise during deliberations, these can be settled by looking at the written account. There are, however, potential difficulties. It may not be easy to produce a written transcript quickly and there would be costs involved. In a lengthy trial the transcript could be substantial and difficult for jurors to navigate and this could lengthen deliberations. This could be addressed by providing an index or perhaps a searchable electronic version – but either of these options adds time and cost. There is also the issue of what to do about evidence that was led but was later ruled to be inadmissible (which may be more difficult for a juror to ignore if it is recorded in the transcript) or exchanges that happen outside the presence of a jury. Removing these passages would of course be possible, but would add to the time taken to produce the record, again potentially delaying deliberations.¹

2.2.1 Mock Juror Studies

There are only two empirical studies that have attempted to evaluate the effect of providing a full trial transcript to jurors.² Horowitz and ForsterLee's study involved 195 community mock jurors, who watched a one hour videotaped reconstruction of a civil trial, where the roles were played by actors.³ The trial was designed so that

¹ E Najdvoski-Terziovski, J Clough and JRP Ogloff, "In your own words: a survey of judicial attitudes to jury communication" (2008) 18 *Journal of Judicial Administration* 65 at 77.

² A third study that provided a partial transcript as part of a package of materials did not attempt to isolate the impact of the transcript: see LW McDonald et al, "Digital evidence in the jury room: the impact of mobile technology on the jury" (2015) 27 *Current Issues in Criminal Justice* 179 (discussed in section 2.3.2).

³ IA Horowitz and L ForsterLee, "The effects of note-taking and trial transcript access on mock jury decisions in a complex civil trial" (2001) 25 *Law and Human Behavior* 373.

there were four plaintiffs, whose claims could be legally differentiated. If jurors correctly applied the directions to the evidence, there was a 'correct' legal answer in terms of who should be compensated and to what degree. After watching the trial, participants deliberated in groups of five or six for up to 30 minutes, before returning their verdicts, and individually completed questionnaires that assessed their recall of the evidence. Some of the mock jurors were given a transcript of the evidence to take into deliberations and use when completing the recollection test.

The researchers found that jurors who had the transcript performed significantly better on the recall test than those who did not, but that they did not outperform the jurors who took their own notes.⁴ Access to a trial transcript did not, however, help juries to reach the 'correct' legal answer – unlike the note-taking juries, who were better able to do this.⁵ The researchers conclude that while there may be some benefits to transcript access, the benefits of note-taking were greater. They speculate that this may have been because the transcript was a lengthy document that would have been difficult to navigate, whereas a juror's own notes would have been more focused.⁶ It may also be that jurors find it easier to navigate a document that they have themselves created.

Kelly's study involved 92 undergraduate psychology student mock jurors, who watched a 55 minute trial video based on a real criminal trial, before completing a multiple choice test of their recall for the evidence (as well as questions designed to test their comprehension of the law).⁷ One group of participants was given a trial transcript, and another group was given a package of materials which contained a chronology of events and other materials such as a verdict flowchart and written directions on the relevant law. A third group was given both. The groups with the package performed significantly better on fact recall than those who only had the transcript.⁸ This suggests that transcripts do not confer any advantages over more simplified written materials such as a timeline which was used in this case. That said, the experiment did only involve a small number of undergraduate students, which limits the reliance that can be placed on it.

⁴ Ibid at 385.

⁵ Ibid at 387.

⁶ Ibid at 387.

⁷ EL Kelly, *Provided Notes as an Alternative to Juror Notetaking: The Effects of Deliberation & Trial Complexity* (PhD thesis, University of Tasmania, 2010) (experiment 2).

⁸ Ibid at 102.

2.3 Juror Note-taking

There is a considerable body of empirical evidence, from both mock juror studies and field studies, pointing to juror note-taking being beneficial in terms of memory for the evidence, and to note-taking being more helpful in this respect than providing a full trial transcript. The mock juror studies vary in terms of their realism – a real trial would be considerably longer than even the most realistic experiment – but if anything this probably under-estimates the benefits of note-taking. Most studies involved civil trials, but there is no reason to think that note-taking would be any less helpful in the context of a criminal trial. These findings are particularly pertinent in the Scottish context, where trial judges do not routinely summarise the evidence, so jurors need to rely more heavily on their memory than they might have to in some other jurisdictions.

There is a concern that has arisen, especially in field studies, that jurors are not all skilled at taking notes and that those with better note-taking skills may dominate deliberations. This concern could be addressed at least to an extent by the provision of trial ordered notebooks (TONs) – structured notebooks that help jurors to organise their notes. The two empirical studies that have tested TONs both found that jurors who used them performed better in terms of their recollection of the evidence than those who took freestyle notes.

This section considers the empirical evidence relating to the effectiveness of juror note-taking. The most obvious advantage of this is that it may improve juror memory for the evidence that was led during the trial (and perhaps also the legal directions, although providing these in writing is a more obvious way of addressing that issue). If note taking does improve juror memory of the evidence this may be particularly useful in the Scottish context, where (unlike in some other jurisdictions) trial judges do not routinely summarise the evidence for juries at the end of the trial. Note-taking could also have secondary advantages in that note-taking jurors may feel more involved in the trial and therefore more satisfied with their experience of jury service.⁹

There are, however, a number of possible difficulties. Jurors may vary in their ability to take written notes and those who produce the best notes might dominate deliberations. Notes may be inaccurate and may be given undue weight simply because they are in written form. Jurors might take notes enthusiastically at the start of the trial, but become jaded as the trial progresses.¹⁰ Note-taking might also be distracting – either to the note-taker, who may not pay sufficient attention to the

⁹ L Heuer and SD Penrod, “Increasing jurors' participation in trials: a field experiment with jury notetaking and question asking” (1988) 12 *Law and Human Behavior* 231 at 233; New South Wales Law Reform Commission, Consultation Paper 4: Jury Directions in Criminal Trials (2009) para 10.6.

¹⁰ VE Flango, “Would jurors do a better job if they could take notes?” (1980) 63 *Judicature* 436 at 443; MA McLaughlin, “Questions to witnesses and note taking by the jury as aids to understanding in complex litigation” (1982-1983) 18 *New England Law Review* 687; NSW Law Reform Commission (n 9) para 10.9.

demeanour of witnesses, or to other jurors.¹¹ On the other hand, note-taking might equally assist in sustaining juror concentration by preventing their attention from wandering away from proceedings.¹²

There is an extensive body of empirical research on juror note-taking which comprises both mock jury and field experiments.

2.3.1 Mock Jury Studies

There is a large volume of mock jury studies, the vast majority of which point in the same direction – note-taking has a positive effect on memory for the evidence. This effect seems to occur even when jurors do not have access to their notes after making them.¹³ The benefits of juror note-taking are greatest, however, when jurors are supplied with materials that help them organise their notes (generally referred to as a trial-ordered notebook). Trial-ordered notebooks are discussed towards the end of this section.

One of the earliest studies of juror note-taking was undertaken by Rosenhan et al,¹⁴ whose experiment involved 144 student mock jurors, who watched a 75 minute trial video filmed in a court room. Half were permitted to take notes, half were not. Jurors completed questionnaires designed to test their memory for factual issues and the note taking group were permitted access to their notes when completing the questionnaires. Note-takers scored significantly higher on recall than jurors who did not take notes.¹⁵ The study was not especially realistic, however. Aside from its use of student jurors, the videotaped ‘trial’ consisted only of opening speeches (although they did last for 75 minutes). That said, the benefits of note-taking may be enhanced in a longer, more complex trial. The argument against this would be that jurors lose interest in note-taking over the course of a longer trial. However, there is some, albeit limited, evidence from field studies to suggest that this does not happen.¹⁶ The value of the Rosenhan et al study also lies in the fact that the researchers analysed the notes that the mock jurors made and found that the volume of notes taken and the degree to which the notes were well organised were both significantly related to recall.¹⁷ This suggests that there may be a role for some sort of organisational aid, such as trial-ordered notebooks, which are discussed at the end of this section.

Subsequent studies have been near unanimous in replicating the relationship between note-taking and memory. Fitzgerald, for example, found that note-takers were able to recall significantly more relevant details about a civil liability trial than

¹¹ LB Sand and SA Reiss, “A report on seven experiments conducted by District Court judges in the Second Circuit” (1985) 60 New York University Law Review 423 at 448.

¹² NSW Law Reform Commission (n 9) para 10.6.

¹³ Studies have varied in terms of whether note-taking jurors are allowed access to their notes when completing questionnaires testing their recall. Some studies have not allowed this (which may seem odd but the researchers were attempting to test the mechanism by which the benefit of note-taking occurs).

¹⁴ D Rosenhan, S Eisner and R Robinson, “Notetaking can aid juror recall” (1994) 18 Law and Human Behavior 53.

¹⁵ Ibid at 58.

¹⁶ See section 2.3.2.

¹⁷ Rosenhan et al (n 14) at 59.

jurors who did not take notes.¹⁸ The mock jurors were a mixture of college students, university support staff and older adults (aged between 55 and 75) recruited from the community. The trial reconstruction was a relatively realistic one, lasting for two hours and filmed using professional actors working from a script adapted from a real trial. The note-taking benefits were apparent across the range of participants. More recently, in a study involving 144 mock jurors who were either university students or staff, Thorley found that note-taking significantly enhanced recall of trial information.¹⁹ Although the simulated trial he used was only 30 minutes long, as noted above it is likely that the benefit in a longer trial would be even greater. Thorley also found that asking note-takers to spend ten minutes following the trial reading through and reviewing their notes enhanced recall still further.²⁰

All of the studies discussed thus far have permitted mock jurors to access their notes after the conclusion of the trial. There have, however, been a series of studies that show that the beneficial effect of note-taking occurs even when participants do not have access to their notes. The most extensive of these was undertaken by Horowitz and Bordens and involved 576 community jurors who watched one of two versions of a civil trial – a relatively simple one that lasted for 58 minutes or a more complex one that lasted for 72 minutes.²¹ After watching the trial, the mock jurors were divided into six or twelve person juries (the main focus of the experiment was to examine the impact of jury size on information recall) and deliberated for up to 75 minutes before returning a verdict. Half of the juries were composed of jurors who had been permitted to take notes, half were composed of jurors who had not. After their jury had returned a verdict, the notes were collected and individual jurors were asked to recall as much information about the trial as possible. Jurors who were permitted to take notes recalled significantly more relevant facts than those who were not, despite not having access to their notes when completing the recall task.²² The beneficial effect of note-taking was stronger in the twelve person juries than in the six person juries,²³ which might suggest the existence of a pooling effect whereby information that is missed by some jurors is recorded by others.

A number of other mock jury studies have found that note-taking enhances juror memory for the evidence even when jurors do not have access to their notes.²⁴ ForsterLee et al suggest that this is because the primary benefit of note-taking occurs at the encoding stage – in other words it is the process of making notes itself

¹⁸ JM Fitzgerald, "Younger and older jurors: the influence of environmental supports on memory performance and decision making in complex trials" (2000) 55 *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences* 323 at 326. See similarly Horowitz and ForsterLee, "The effects of note-taking and trial transcript access" (n 3) (195 community jurors, one hour videotaped trial reconstruction).

¹⁹ C Thorley, "Note taking and note reviewing enhance jurors' recall of trial information" (2016) 30 *Applied Cognitive Psychology* 655 at 659 (table 1).

²⁰ *Ibid.*

²¹ IA Horowitz and KS Bordens, "The effects of jury size, evidence complexity, and note taking on jury process and performance in a civil trial" (2002) 87 *Journal of Applied Psychology* 121.

²² *Ibid* at 126.

²³ *Ibid* at 127.

²⁴ See e.g. L ForsterLee and IA Horowitz, "Enhancing juror competence in a complex trial" (1997) 11 *Applied Cognitive Psychology* 305 (120 community jurors, 70 minute civil mock trial video, no deliberation); L ForsterLee, L Kent and IA Horowitz, "The cognitive effects of jury aids on decision-making in complex civil litigation" (2005) 19 *Applied Cognitive Psychology* 867 (279 community jurors, 1 hour 30 minute civil mock trial video, 30 minutes of deliberation in groups of 5-6).

that is beneficial, perhaps because it enhances concentration and encourages information processing.²⁵ They attempted to demonstrate this in a study that compared the recall of note-taking jurors with and without access to their notes. In the study, 192 community mock jurors listened to a two hour audiotape of a civil trial reconstruction. Note-takers outperformed those who did not take notes on a fact recollection task. However, the difference was only significant in the group who were permitted access to their notes when completing the task,²⁶ which suggests that even if there is some benefit to be had from note-taking at the encoding stage, this benefit is further enhanced if jurors are allowed to consult their notes after the trial is over.

This is confirmed by two other studies that have compared the two conditions, both of which found that while note-taking in itself improved juror memory for trial facts, jurors who had access to their notes while attempting to recall information outperformed jurors who took notes but did not have access to them.²⁷ In reality, it is unlikely that note-taking jurors would have their notes removed prior to deliberation – this may result in considerable juror dissatisfaction – and the evidence suggests that if this were done, it would reduce the benefit of note-taking.

Two mock jury studies – both conducted relatively recently – have tested the use of trial-ordered notebooks (TONs). A TON is a structured notebook which aims to help juries organise their note-taking. The first was conducted by Hope et al, whose TON contained sections (each of 2 sides of A4 paper) for each witness's evidence in chief and cross-examination, the opening statements, the closing statements and the trial judge's charge.²⁸ It was a small-scale study, involving only 58 community jurors who were randomly assigned to a group that either took freestyle notes, took notes in a TON or did not take notes. Participants watched a 35 minute mock trial video before completing a questionnaire to test their memory for details of the trial. They were permitted to refer to their notes in doing so. The group with the TON performed significantly better than the freestyle note group, whose performance was only slightly better than the group who did not take notes.²⁹ (Interestingly, when participants were asked to self-report their ability to recall details of the trial, there was no significant difference between the three groups.³⁰) The researchers also analysed the content of the notes that jurors took and found that the TON group recorded significantly more correct trial details (and significantly more legally relevant trial details) than the freestyle note-takers.³¹

²⁵ L ForsterLee, IA Horowitz and MJ Bourgeois, "Effects of notetaking on verdicts and evidence processing in a civil trial" (1994) 18 *Law and Human Behavior* 567 at 576.

²⁶ *Ibid* at 575.

²⁷ Kelly (n 7) 64 (experiment 1, involving 120 community jurors who watched a 44 minute mock trial video); C Thorley, R Baxter and J Lorek, "The impact of note taking style and note availability at retrieval on mock jurors' recall and recognition of trial information" (2016) 24 *Memory* 560 at 568 (130 undergraduate student jurors, who watched a 30 minute mock trial video).

²⁸ L Hope, N Eales and A Mirashi, "Assisting jurors: promoting recall of trial information through the use of a trial-ordered notebook" (2014) 19 *Legal and Criminological Psychology* 316 at 231. There is a picture of the TON at 232.

²⁹ *Ibid* at 325.

³⁰ *Ibid* at 326.

³¹ *Ibid* at 324.

The second study was undertaken by Thorley et al and involved 130 mock jurors who were either students or ex-students. Participants watched a 30 minute mock trial video. Jurors either took freestyle notes, used a TON (adapted only very slightly from the one used by Hope et al) or did not take notes. They were then asked to write down as much information as they could remember about the evidence and complete an exercise in recognition, where they were presented with statements about the evidence and asked if they were true or false. The note-taking groups were divided, with half having access to their notes and half having their notes removed after watching the trial video. The researchers analysed the content of the notes and found that a significantly higher volume of correct information was recorded by the TON group compared to the freestyle note-takers.³² The notes made by the TON note-takers were also significantly more accurate.³³ In the free recall exercise, both the freestyle note-taking and TON groups performed significantly better than the group who did not take notes, but the best performance was in the TON group who had access to their notes while completing the tasks.³⁴ There was little difference in performance on the recognition task between the groups, with all groups performing well. However, the researchers suggest that this may have been because the recognition test statements were quite detailed and may have provided powerful retrieval cues for jurors who did not take notes.³⁵ It might also have been because the trial – at 30 minutes – was relatively short and the evidence was still very fresh in the minds of the participants when they completed the test.

Finally, a study undertaken by Dann et al examined mock juror satisfaction with note-taking.³⁶ The study involved 480 community mock jurors who watched a 70 minute videotaped trial filmed in a real courtroom using legal professionals to play the parts of the judge and lawyers. The jurors deliberated in groups of eight with no time limit and deliberations were recorded. The study did not focus on the effect of note-taking on memory, but instead examined its effect on comprehension of DNA evidence and juror satisfaction. Note-taking did not improve comprehension,³⁷ which is unsurprising, but 92 per cent of those who took notes reported that they found it to be helpful and this figure was far higher than for any of the other innovations that were tested.³⁸ Dann et al also found that jurors in three quarters of the note-taking juries made express reference to their notes in the course of deliberations and only one of these references was inaccurate (the juror had recorded the wrong last name of a witness).³⁹

2.3.2 Field Studies

The first and most extensive field experiment was undertaken by Heuer and Penrod. Here the researchers tested the effectiveness of a number of different techniques, of

³² Thorley et al (n 27) at 567.

³³ Ibid at 568.

³⁴ Ibid.

³⁵ Ibid at 571.

³⁶ MB Dann, VP Hans and DH Kaye, Testing the Effects of Selected Jury Trial Innovations on Juror Comprehension of Contested mtDNA Evidence: Final Technical Report (2004).

³⁷ Ibid at 67 (table 6.3).

³⁸ Ibid at 66 (figures 6.7 and 6.8). The other innovations tested were permitting jurors to ask questions, providing a DNA checklist and providing a notebook containing a witness list and glossary of terms.

³⁹ Ibid at 58.

which note-taking was one, in a mixture of real civil and criminal trials in Wisconsin. A total of 29 judges agreed to randomly assign their trials so that jurors were either not allowed to take notes or were provided with writing materials and were encouraged to do so. Data was collected from 67 trials and questionnaires completed by 550 individual jurors, 260 of whom were in the note-taking condition (although only 172 of these actually took notes). The researchers found that while jurors appeared to take their note-taking task seriously (as evidenced by the content of the notes, which were examined by the researchers),⁴⁰ the jurors who took notes did not perform any better on multiple choice tests of memory and understanding than those who did not.⁴¹ However, jurors were permitted to take the questionnaire home with them after the trial had concluded and mail it back to the researchers – the average time between the trial being completed and the questionnaire being completed was 2.1 days⁴² – and they did not have access to their notes when completing it, so the failure to show any beneficial effect of note-taking may simply be due to this.

A further field experiment by Heuer and Penrod, this time involving 160 trials across 33 US states, attempted to address this deficiency by ensuring that jurors completed questionnaires before leaving the courtroom.⁴³ However, this study suffered from a different limitation, in that jurors were simply asked how well they thought they remembered the evidence. There was no significant difference between note takers and those who did not take notes in their answers to this question,⁴⁴ but the lack of any objective assessment of memory means that this finding is of limited value, especially as we know that jurors over-estimate their ability to remember evidence.⁴⁵ One further point that it is worth noting from the experiment, however, is that it provides some limited evidence that jurors do not tire of making notes over the course of the trial. Heuer and Penrod found that jurors made proportionally more notes on the defence case (which is always presented last) than on the prosecution case.⁴⁶

A smaller scale study, undertaken by Flango, involved only four trials (two criminal, two civil), in which two of the juries were permitted to take notes and two were not. Jurors completed questionnaires after the conclusion of the trial. The majority of jurors who took notes reported that they were useful as a memory aid and that they felt that they were able to participate more effectively in deliberations because of their note-taking,⁴⁷ but like Heuer and Penrod's second study the use of a self-reporting measure limits the value of this finding.

These are the only field experiments that have attempted to test the impact of note-taking by real jurors against a 'control' group of real jurors who were not permitted to take notes. There have, however, been two further field experiments in the US that have surveyed jurors about their experiences of taking notes. Sand and Reiss looked

⁴⁰ Heuer and Penrod, "Increasing jurors' participation in trials" (n 9) at 250.

⁴¹ *Ibid* at 245.

⁴² *Ibid* at 242.

⁴³ L Heuer and S Penrod, "Juror notetaking and question asking during trials: a national field experiment" (1994) 18 *Law And Human Behavior* 121 at 129.

⁴⁴ *Ibid* at 137.

⁴⁵ See Hope et al (n 28) at 326.

⁴⁶ Heuer and Penrod, "Juror notetaking" (n 43) at 139.

⁴⁷ Flango (n 10) at 442.

at the impact of a number of different procedures (of which note-taking was one) in real criminal and civil trials. Note-taking was tested by six judges in 32 trials (14 of which were criminal), in which jurors were advised they could take notes and were given materials to do so.⁴⁸ In all 14 of the criminal cases, the judges reported that they were “pleased” with the experiment,⁴⁹ with two stating that they thought that note-taking aided the jurors in recalling facts and in keeping track of the exhibits.⁵⁰ Three judges and three lawyers observed that note-taking appeared to increase juror attentiveness and that, “far from proving to be a distraction, it instead raised the jury’s interest in the trial”.⁵¹ All of these observations are, however, of limited value, as they were based purely on the perception of the judges and lawyers involved, rather than any objective measure. Only twelve jurors were surveyed, with seven of these reporting that the notes they took served as a useful memory aid.⁵²

Cohen and Cohen examined the impact of note-taking in 60 trials (a mixture of civil and criminal) as part of a wider jury reform project undertaken in ten courts in Tennessee in 2001-2002. Questionnaires were completed by 54 judges, 103 lawyers and 669 jurors.⁵³ Jurors reported “overwhelmingly” that the notes were helpful to them during deliberations and “most” jurors did not find note-taking distracting.⁵⁴ Judges were unanimous in stating that the note-taking “did not appear to distract jurors from the trial” and were generally enthusiastic about the practice.⁵⁵ The lawyers were also “virtually in agreement” that the note-taking was helpful and not disruptive.⁵⁶ As a result of the project, the Tennessee Rules of Civil and Criminal Procedure were amended to specifically authorise jurors to take notes and to use them during deliberations.⁵⁷

There are a number of other studies involving real jurors that have collected information about juror experience of note-taking as part of a broader study. In research undertaken for the New Zealand Law Commission, researchers were given permission in 48 jury trials (all involving criminal cases) to interview jurors after the conclusion of the trial. Of the 234 jurors who reported taking notes, 83 per cent stated that they referred to them during deliberations and 94 per cent stated that they found them useful as a memory aid.⁵⁸ However, respondents also reported a number of negative issues. Some stated that they felt restricted by their lack of experience of note-taking and that they did not know how to go about the task. Others stated that jurors with sparse or no notes tended to contribute less to deliberations.⁵⁹

⁴⁸ Sand and Reiss (n 11) at 446.

⁴⁹ *Ibid* at 449.

⁵⁰ *Ibid* at 450.

⁵¹ *Ibid* at 451.

⁵² *Ibid* at 450. Jurors only completed questionnaires where the case resulted in an acquittal or a hung jury, which meant the sample of juror questionnaires was very small.

⁵³ NP Cohen and DR Cohen, “Jury reform in Tennessee” (2003) 34 *University of Memphis Law Review* 1 at 8.

⁵⁴ *Ibid* at 38.

⁵⁵ *Ibid*.

⁵⁶ *Ibid*.

⁵⁷ *Ibid* at 39.

⁵⁸ W Young, N Cameron and Y Tinsley, *Juries in Criminal Trials Part 2: A Summary of the Research Findings* (Preliminary Paper 37, 1999) para 3.6.

⁵⁹ *Ibid* para 3.6.

Juror experience of note-taking also arose in a study undertaken by Chesterman et al,⁶⁰ who interviewed 175 jurors who had sat on real criminal trials in New South Wales between 1997 and 2000. Only a small minority of the jurors commented on note-taking (which was not the primary focus of the study), but two jurors from separate trials commented that inconsistencies between jurors' notes became a source of disagreement during deliberations and that jurors who took notes on the same trial sometimes had different accounts of the evidence.⁶¹ One juror recounted that a fellow juror not only took 17 exercise books of notes, but also wanted to work through every book during deliberations.⁶²

Finally, Matthews et al interviewed 361 real jurors who had sat on trials in six English criminal courts as part of a wider project to examine juror satisfaction. The researchers note that a small number of jurors commented that it was difficult to keep up with evidence while taking notes and some jurors stated that they "had a problem knowing what to write down, and how much to write down".⁶³

2.4 Audio-visual and Digital Presentation Methods

There is some evidence that visual images can improve juror memory and comprehension for both evidence and legal directions, although none of the relevant studies have used especially realistic research methods. There is also evidence that the use of visual images by the prosecution can bias jurors towards conviction, so caution must be taken in this respect.

The evidence base in terms of the use of digital technology – specifically, providing information to jurors on tablet computers – is very limited and no firm conclusions can yet be drawn about whether this has any beneficial or negative effects.

This section of the review examines the empirical evidence on audio-visual presentation methods and the use of digital technology to convey information to jurors. The focus is on studies that have evaluated the effect of presentation methods on memory or understanding – whether for evidence or for legal directions. There is some overlap here with studies that have evaluated the use of written directions and routes to verdict – both of which might be regarded as visual presentation methods – but these are considered separately.⁶⁴ The focus of this section is on images that are used to accompany either legal directions or scientific evidence, and on the use of digital technology such as tablets.

⁶⁰ M Chesterman, J Chan and S Hampton, *Managing Prejudicial Publicity: An Empirical Study of Criminal Jury Trials in New South Wales* (Law and Justice Foundation of NSW, 2001).

⁶¹ *Ibid* para 467.

⁶² *Ibid* para 468.

⁶³ R Matthews, L Hancock and D Briggs, *Jurors' Perceptions, Understanding, Confidence and Satisfaction in the Jury System: A Study in Six Courts* (London, Home Office, 2004) 40.

⁶⁴ In sections 2.7 and 2.8 respectively.

2.4.1 Audio-visual Presentation Methods

It has been suggested that jurors are more likely to retain information if it is accompanied by visual images and that it may also assist with comprehension of complex concepts.⁶⁵ This might be because jurors are more likely to pay attention to an interesting presentation format, but it might also be because pictures can facilitate learning when they accompany text. The evidence base in terms of the effect of audio-visual presentation methods on juries is, however, a small one and it has found mixed results.

Two studies have examined the use of visual images in the presentation of scientific evidence. Goodman-Delahunty and Hewson tested the impact of an expert tutorial on DNA evidence, which was presented to 470 community mock jurors either verbally or accompanied by multi-media images (3D images that modelled the structure of DNA, alongside graphics that illustrated key points). A further group did not receive the expert tutorial. The comprehension scores of the two groups who received the tutorial were significantly higher than the group that did not, with the group who saw the tutorial accompanied by the visual images achieving the highest comprehension scores (a marginally significant difference compared to the group who only heard the tutorial verbally).⁶⁶ The research methods used, however, were not the most realistic, meaning that the results must be treated with caution. The simulated trial involved a 35 minute audio-tape accompanied by either photos of the speaker or (in the multi-media condition) photos of the speaker and visual images.

Positive results were also found by Morell, in a study that involved 126 student mock jurors who watched videotapes (all identical in their length and verbal content) in which expert testimony was accompanied by (a) no visual aids, (b) diagrams, (c) computer animation, or (d) diagrams and computer animation. Each version of the video lasted for six minutes and after watching it participants were asked to write freely all they could remember about what was said. Morell reports that participants in the two computer animation groups recalled information significantly more accurately and in more detail than participants who did not view the computer animation. The diagram alone made no significant difference.⁶⁷ The length of the testimony and the fact that it was not presented in the context of a trial mean that the experiment lacks external validity. That said, given that the computer animation had a beneficial effect on memory even for a short six minute video, it is possible that in the context of a real trial (which would be far longer and where the challenges of memory are likely to be much greater) the effect would have been even more pronounced.

Two studies have examined the use of visual images in the presentation of legal directions. Brewer et al tested the impact of computer animations on mock juror comprehension of a self-defence direction. Their 189 mock jurors were a mixture of law students and adults with no legal expertise. Participants were given a case

⁶⁵ F Dattu, "Illustrated jury instructions: a proposal" (1998) 22 Law and Psychology Review 67 at 86.

⁶⁶ J Goodman-Delahunty and L Hewson, Improving Jury Understanding and Use of Expert DNA Evidence (Australian Institute of Criminology Technical and Background Report 37, 2010) 23.

⁶⁷ LC Morell, "New technology: experimental research on the influence of computer-animated display on jurors" (1999) 28 Southwestern University Law Review 411 at 414. The report of the experiment does not state the precise subject of the expert testimony.

summary (in both written and audio form) which was followed by approximately ten minutes of legal directions on the law of self-defence delivered by a serving trial judge. These were either delivered in audio only or were accompanied by computer animations in colour which highlighted key words and used human figures (in the style of crash test dummies) to illustrate concepts. Mock jurors then completed a questionnaire which measured comprehension via a mixture of multiple choice questions, paraphrasing and applying law to scenarios. The researchers found that while the audio-visual presentation made little difference to the comprehension scores of the law students, it did significantly improve comprehension in the community sample, bringing their comprehension scores up to the same level as the student sample.⁶⁸ The experiment was not a particularly realistic one: in a real trial jurors would be able to see the trial judge delivering directions rather than listening to an audio-tape and would also have heard from witnesses. It does, however, provide some limited basis on which to conclude that audio-visual presentation may improve comprehension for non-legal experts.

Park and Feigenson tested the impact of prosecution and defence lawyers using PowerPoint. They conducted three experiments, all of which used undergraduate psychology students as mock jurors (a total of 567 students) in a civil case for racial discrimination. The mock jurors watched a 54 minute video of actors playing the part of plaintiff and defence lawyers making a statement of their case which involved either none, one or both of the parties using a PowerPoint presentation to accompany their speech. The researchers found that the use of PowerPoint resulted in a significant improvement in memory of the speeches' content.⁶⁹ The effect was strongest when only one party used it.⁷⁰ As the authors themselves recognise, however, the study does have a number of limitations, most notably that the manner in which the information was presented greatly oversimplified the way in which information would be presented in a real trial.⁷¹

The use of visual images does have some drawbacks. Brewer et al note that animations, if they are not sufficiently neutral, may prejudice jurors or adversely affect the solemnity of the proceedings.⁷² There is some evidence of this from Park and Feigenson's research, where the use of PowerPoint significantly affected liability judgments in favour of the party using it. This might have been linked to improved juror memory for the evidence where PowerPoint was used. However, this may not have been the only factor at work, as lawyers who used PowerPoint were also rated significantly more persuasive, competent and well prepared by the mock jurors compared to those who did not use PowerPoint.⁷³ One mock jury study also found that giving jurors graphic photographs of crime scenes significantly increased the

⁶⁸ N Brewer, S Harvey and C Semmler, "Improving comprehension of jury instructions with audio-visual presentation" (2004) 18 *Applied Cognitive Psychology* 765 at 773.

⁶⁹ J Park and N Feigenson, "Effects of a visual technology on mock juror decision making" (2013) 27 *Applied Cognitive Psychology* 235 at 238.

⁷⁰ *Ibid* at 244.

⁷¹ *Ibid* at 245.

⁷² Brewer et al (n 68) at 775.

⁷³ Park and Feigenson (n 69) at 243.

likelihood of conviction;⁷⁴ while another found that the use of a 3D computer aided animation of a crime scene in a mock terrorism case had the same effect.⁷⁵

2.4.2 Digital Presentation Methods

The easiest way in which information might be presented to jurors in digital form is to give jurors a tablet computer, such as an iPad. The information that could be presented to jurors in digital form might include a full or partial case transcript, copies of exhibits or even legal directions. The main reason for doing so is that it might help jurors to remember the evidence. It might also make for shorter deliberation times, especially where the case is a complex one. Information is potentially easier to navigate on a tablet than in hard copy and it has become increasingly commonplace in society for information to be consumed in this form. There is, however, the risk that some jurors – particularly older jurors – may be disadvantaged if they are not experienced in using the technology.⁷⁶

There have been remarkably few studies that have examined the effect on memory or understanding of providing jurors with information in digital form. There is one ongoing study, funded by the Canadian Social Sciences and Humanities Research Council, that is examining the impact of providing information to jurors via a tablet computer and this has reported some preliminary results.⁷⁷ The study involved 152 community jurors recruited from the jury pool in a Melbourne criminal court, who watched a 60 minute trial video involving a terrorism charge before deliberating in groups of between eight and twelve.⁷⁸ A package of materials was prepared for the jurors, consisting of images of the prosecution's exhibits (such as political leaflets, screenshots of web pages and pictures of chemicals allegedly found at the defendant's home) and a partial transcript of evidence. One group of jurors received the materials in a ring binder, the other on a tablet computer.

The researchers concluded that the use of tablets shortened deliberation time – the groups with iPads moved to discussion more quickly, and were able to locate materials easily, whereas those with the paper copies spent longer flipping through the pages of their ring binders.⁷⁹ They did not find that there were any major differences in the content of the deliberations or the nature of the interactions between jury members in the two conditions.⁸⁰ No results have yet been reported, however, on whether the tablets led to any improvements in memory or

⁷⁴ K Douglas D Lyon and J Ogloff, "The impact of graphic photographic evidence on mock jurors' decisions in a murder trial: probative or prejudicial?" (1997) 21 *Law and Human Behavior* 485 at 492.

⁷⁵ D Tait and J Goodman-Delahunty, "Images of interactive virtual environments: do they affect verdict?", in D Tait and J Goodman-Delahunty (eds), *Juries, Science and Popular Culture in the Age of Terror* (2017) 173 at 184.

⁷⁶ D Tait and M Rossner, "Tablets in the jury room: enhancing performance while undermining fairness?", in K Benyekhlef et al (eds), *eAccess to Justice* (2016) 241 at 241. In 2017, 97% of 18-24 year olds reported owning a smartphone compared to 71% of those aged over 55: Deloitte, *Global Mobile Consumer Survey* (2017), available at <https://www.deloitte.co.uk/mobileuk/> (last accessed 6 February 2018).

⁷⁷ LW McDonald et al, "Digital evidence in the jury room: the impact of mobile technology on the jury" (2015) 27 *Current Issues in Criminal Justice* 179. The study was developed by a consortium including researchers from Australia, Canada, England and France.

⁷⁸ The report of the study does not specify how long they deliberated for.

⁷⁹ McDonald et al (n 77) at 188.

⁸⁰ *Ibid* at 189.

comprehension, nor in terms of how easy the jurors found it to use the tablets or whether jurors who were more experienced in technology dominated the discussions in any way. An earlier pilot study conducted by some of the same researchers did find, however, that juries who used tablets were significantly more likely to convict than juries who did not, which the researchers suggest might be because in their experiment it was only the prosecution that presented visual evidence.⁸¹

2.5 Juror Questions

There is only a limited evidence base on allowing jurors to ask questions during the trial. The only mock jury study to assess the impact of this on comprehension found that allowing jurors to question expert witnesses about DNA evidence did not lead to any improvement in understanding. There is evidence from this experiment and from field studies (albeit all conducted some time ago in the US) that jurors appreciate being able to ask questions, but that when they are given the opportunity to do so, they do not tend to ask many questions in practice, except in a minority of trials. There is some evidence that jurors, even when they are told that they can ask questions, feel too intimidated to do so.

This section of the review examines the empirical evidence on allowing jurors to ask questions during the trial. The focus here is specifically on allowing/encouraging questions during the course of the trial, as opposed to once the jury has commenced its deliberations. No empirical evidence exists on the latter – and only a limited amount on the former.

It has been suggested that jurors who are encouraged to ask their own questions – either of the witnesses or the trial judge – may be more active, focused and involved in the trial, decreasing the likelihood of them switching off through a lack of interest. It may help to resolve questions jurors have about the facts or the law, or uncover important evidence and issues that were left out by accident or by design. It may also improve juror satisfaction with the experience of jury service if jurors feel they were given the opportunity to participate.⁸² There are a number of obvious risks, however. If jurors were to ask a lot of questions, this could be time consuming and might interrupt the flow of proceedings, making it harder for other jurors to retain important information. Juror questions may also be inappropriate or focus on irrelevant or otherwise inadmissible matters. They might also attempt to seek information that has been deliberately omitted by the Crown or the defence for tactical reasons.⁸³ These last two difficulties in particular could be addressed through

⁸¹ Tait and Rossner (n 76) at 245.

⁸² K DeBarba, "Maintaining the adversarial system: the practice of allowing jurors to question witnesses during trial" (2002) 55 Vanderbilt Law Review 1521 at 1548; Heuer and Penrod, "Increasing jurors' participation" (n 9) at 237; NL Mott, "The current debate on juror questions: 'to ask or not to ask, that is the question'" (2003) 78 Chicago-Kent Law Review 1099 at 1102.

⁸³ DeBarba (n 82) at 1533; Heuer and Penrod, "Increasing jurors' participation" (n 9) at 237; Mott (n 82) at 1106.

trial judge intervention, but there is a risk that jurors might draw inappropriate inferences if they are not allowed to ask a particular question.⁸⁴

There has been some empirical research that has examined the impact of permitting jurors to ask questions during the trial, but with one exception this has taken the form of field studies rather than mock jury experiments.

2.5.1 Mock Jury Studies

The only mock jury study to examine juror questioning is that of Dann et al. In their experiment, 20 juries were permitted to ask questions and chose to do so in 14 of these trials.⁸⁵ Of those jurors who were in the groups permitted to ask questions, 69 per cent expressed support for being permitted to do so, although question asking received the lowest level of support from jurors of the four innovations that were tested.⁸⁶ It is worth bearing in mind, though, that the study was looking specifically at DNA evidence and that all of the questions asked by jurors related to scientific evidence given by two opposing expert witnesses.⁸⁷ The study did not, however, isolate the impact of question asking – the group who were permitted to ask questions were also asked to take notes. That said, this group did not perform any better in terms of its comprehension of the evidence than the group who were permitted neither of these things,⁸⁸ which suggests that the ability to ask questions does not necessarily lead to improved comprehension of scientific evidence. Dann et al's study was a relatively realistic one which included jury deliberation. Comprehension was tested both pre- and post-deliberation and in neither case did the ability to ask questions (combined with note-taking) improve it.

2.5.2 Field Studies

Field experiments have focused on two issues – the experience of juror questioning in practice (especially how often is it used) and views of jurors and other trial participants on the usefulness of being able to ask questions during the trial.

The evidence on the first is that jurors tend not to ask a lot of questions, even when they are told they can do so. Heuer and Penrod found in their two field studies (examining both criminal and civil cases)⁸⁹ that even where jurors are specifically told that they can ask questions and are told of the procedure for doing so (here by submitting questions to the trial judge), the number of questions actually asked is fairly small. In their first study, across 33 trials there were a total of 88 questions (an average of 2.7 per trial).⁹⁰ Of these, 15 were objected to by lawyers for either or both parties to the case. In every instance that either lawyer objected to a juror question the objection was sustained.⁹¹ In the second of their studies, questions were

⁸⁴ Heuer and Penrod, "Increasing jurors' participation" (n 9) at 237.

⁸⁵ Dann et al (n 36) 59. Their research methods are described in detail in section 2.2.1.

⁸⁶ Ibid 66 (figure 6.8). The other innovations were note taking, providing a DNA checklist and providing a notebook containing a witness list and glossary of terms.

⁸⁷ Ibid 60 (table 6.2).

⁸⁸ Ibid 67 (table 6.3).

⁸⁹ Heuer and Penrod, "Increasing jurors' participation" (n 9); Heuer and Penrod, "Juror notetaking" (n 43). Their research methods are set out in detail in section 2.3.2.

⁹⁰ Heuer and Penrod, "Increasing jurors' participation" (n 9) at 252.

⁹¹ Ibid at 252.

permitted in 71 trials and there was at least one question submitted in 51 of these. The number of questions submitted by jurors ranged from zero to 65, and the average number of questions asked per hour of trial time ranged from zero to 3.6. The number of questions asked per hour was two or greater in only three of the 71 trials.⁹²

Sand and Reiss found that in 26 trials (evenly divided between civil and criminal cases) where questions were permitted, the number of questions asked was generally very small (in eight cases, it was zero, in 16 cases it was one, in two cases it was two), but that two trials involved a very high number of questions (40 in one case, 56 in the other).⁹³ Cohen and Cohen found similarly – in the majority of the 60 trials (both civil and criminal) in their field experiment jurors asked only one or two questions, but in a very small minority of trials a much higher number were asked (the most was 37).⁹⁴ Unlike Heuer and Penrod, Cohen and Cohen found that the vast majority of the questions submitted to the judge were allowed.⁹⁵ Finally, Mott collected data on juror questions asked in a sample of 130 real civil and criminal trials in the US between 1995 and 2002. She found that the average (mean) number of questions asked per case was 16, but that there were a small minority of trials where a lot of questions were asked (in one trial there were 130), thus a better guide may be the median figure of seven.⁹⁶ Jurors in criminal trials asked twice as many questions as jurors in civil trials.⁹⁷ Mott also collected data on the subject matter of the questions. In criminal trials, the most common questions that jurors submitted were questions to eyewitnesses about what they had seen and how well they could see it, questions to witnesses about their motives, and questions about common practices (e.g. would it be normal for someone to do X?).⁹⁸

In all of these studies, jurors were not permitted to ask questions freely – they had to be submitted to the judge and questions could be objected to by the lawyers for either side. It may be that this discouraged questions that might otherwise have been asked. There is evidence from other studies that some jurors feel too intimidated to ask questions. Matthews et al, for example, found that a significant percentage of their sample of real jurors (67 per cent) reported that they wanted to ask questions at certain points during the trial in order to clarify the evidence, or to request more information, but that only half of those wishing to ask questions felt that they could.⁹⁹ The authors note that:¹⁰⁰

In some courts, jurors felt they were actively discouraged from asking questions during the trial and consequently said nothing in the hope that the

⁹² Heuer and Penrod, “Juror notetaking” (n 43) at 140.

⁹³ Sand and Reiss (n 11) at 445. Their research methods are set out in detail in section 2.3.2. The researchers do not say if there was anything distinctive about the cases in which a large number of questions were asked.

⁹⁴ Cohen and Cohen (n 53) at 42. Again, the authors do not state whether there is anything distinctive about those cases.

⁹⁵ *Ibid* at 43.

⁹⁶ Mott (n 82) at 1112. Mott does not state whether there was anything distinctive about those cases.

⁹⁷ *Ibid* at 1113.

⁹⁸ *Ibid* at 1125 (table 3). Mott’s dataset only indicates the questions that were submitted by jurors – it does not record whether the questions were allowed by the judge.

⁹⁹ Matthews et al (n 63) at 40. Their research methods are set out in detail in section 2.3.2.

¹⁰⁰ *Ibid*. See similarly Young et al (n 58) paras 4.13-4.14.

particular point would be clarified in the course of proceedings and that other relevant information would emerge before the completion of the trial. A number of jurors felt ‘it wasn’t their place to ask questions’ and it would be embarrassing, particularly since the question might be read out in court.

In terms of how useful jurors found the ability to ask questions of witnesses, views have tended to be reasonably positive about this. In Heuer and Penrod’s second study (their first did not ask jurors about this), jurors were moderately positive.¹⁰¹ Cohen and Cohen’s jurors were a bit more enthusiastic, with 70 per cent of jurors reporting that being able to ask a question was “very useful” (only six per cent stated that it was “not useful”).¹⁰² In terms of the legal professionals’ views, Heuer and Penrod found that trial judges were generally supportive of the procedure and did not see it as harmful to the trial process,¹⁰³ although it should be said that participation in the project was optional and those trial judges who did not take part might have held different views. In all three of the field studies where question asking was tested, the lawyers involved held mixed views as to its helpfulness.¹⁰⁴

2.6 Plain Language Directions

There is a substantial body of evidence from mock juror studies on the use of plain language directions and it points overwhelmingly in the same direction – that simplified directions are highly effective in improving juror comprehension of the legal tests they are asked to apply. Improvements in comprehension have been shown across different types of direction, with both student and community mock jurors, with deliberating and non-deliberating juries and with civil and criminal trials. Only two linked studies have failed to show any improvement as a result of plain language directions and that is most likely attributed to the fact that the directions were not re-written very well.

Care does need to be taken in re-writing directions to ensure that they retain the correct legal meaning and most of the studies that demonstrated improvements in comprehension worked with legal advisers to ensure that their re-written directions did this (or used officially sanctioned directions that had been re-written as part of a jurisdiction-wide simplification project).

Questions might be raised about how relevant this body of evidence is in the Scottish context – almost all of the studies concerned stem from the US where directions tend to be longer and more complex. That said, jurors clearly benefit from directions written in plain language and some jurisdictions have revised their standard judicial instructions with this in mind.¹⁰⁵

¹⁰¹ Heuer and Penrod, “Juror notetaking” (n 43) at 142.

¹⁰² Cohen and Cohen (n 53) at 44.

¹⁰³ Heuer and Penrod, “Juror notetaking” (n 43) at 145.

¹⁰⁴ Cohen and Cohen (n 53) at 44; Heuer and Penrod, “Juror notetaking” (n 43) at 145; Sand and Reiss (n 11) at 444.

¹⁰⁵ See chapter 3.

This section of the review examines the empirical evidence on the effectiveness of plain language directions – directions that simplify language, grammar and structure so that they are more easily comprehensible to jurors. The obvious advantage of plain language directions is that they might improve juror comprehension of legal concepts, something that a number of studies have shown to be problematic,¹⁰⁶ which in turn might lead to improved confidence in jury verdicts. There are no obvious disadvantages, but there might be a challenge in ensuring that simplified directions retain the correct legal meaning. It might also be seen as unnecessary if directions are already reasonably straightforward – the majority of research on juror comprehension has been undertaken in the US context where directions tend to be relatively long and complex. There is no empirical evidence on the extent to which jurors understand legal directions in the Scottish context. As noted in section 1.2, jury directions in Scotland are understood to be generally shorter than those in other jurisdictions, which may aid, but cannot be assumed to ensure, comprehension.

There is a considerable body of research – most of it in the US context – that has evaluated the effect of using simplified language in jury directions. Because of the obvious difficulties involved in conducting a field experiment in this area – or at least one where some juries are directed differently to others – all of the studies have involved mock juries.

2.6.1 Mock Jury Studies

Three pioneering studies of plain language directions were undertaken in the US in the late 1970s and early 1980s. Charrow and Charrow re-wrote 14 civil jury directions on subjects including causation, witness credibility, expert evidence and negligence, simplifying them by using techniques such as removing technical words, multiple negatives and embedded phrases.¹⁰⁷ They tested these on 48 jurors who had been cited but not selected to sit on trials – half of the jurors were tested on their comprehension of the original directions, the other half on the re-written directions. They found that comprehension improved by between 35 and 41 per cent (depending on the measure of comprehension used).¹⁰⁸

Although Charrow and Charrow's experiment used real jurors, it tested short single issue directions in isolation, rather than full directions in the context of a real trial. Elwork et al, however, did both of these things and achieved similar results. They re-wrote directions used in Michigan in a civil negligence trial, working on similar principles to Charrow and Charrow.¹⁰⁹ Their experiment involved 154 community jurors who watched a videotaped trial (based on a real case, but re-created using actors) for civil liability following a car accident. They took various steps to heighten the realism of the experimental setting, including conducting the experiment in a

¹⁰⁶ See section 1.1.

¹⁰⁷ RP Charrow and VR Charrow, "Making legal language understandable: a psycholinguistic study of jury instructions" (1979) 79 *Columbia Law Review* 1306. Their methodology for doing so is explained in detail at 1321-1328.

¹⁰⁸ *Ibid* at 1331.

¹⁰⁹ A Elwork, B Sales and J Alfini, "Juridic decisions: In ignorance of the law or in light of it?" (1977) 1 *Law and Human Behavior* 163 (experiment 2). Their simplification technique is set out at 165-169 and the original and re-written instructions are re-produced in Appendix A.

building that resembled a courtroom and showing the trial on a large TV screen in three one hour segments with a break of ten minutes between each. The jurors then heard either the original directions or the re-written directions. The mock jurors who received the rewritten instructions scored significantly higher in a twelve question comprehension test than those who received the original instructions.¹¹⁰

The Elwork et al study, realistic as it was, only tested the impact of re-writing civil directions. A follow up study by Elwork et al, however, involved criminal directions.¹¹¹ This study used videotapes of two mock criminal trials – one involving relatively complex issues of law (attempted murder, several alternative charges and a plea of insanity), the other one more straightforward (burglary). The researchers re-wrote both sets of directions to reduce their complexity (the directions in the complex trial were re-written twice, each version being a simplification of the previous one).¹¹² Their study participants were 314 community mock jurors who watched the trial video in a courtroom setting and then watched a video of one of the researchers reading either the original or re-written directions. Each participant was asked a series of short answer questions designed to test comprehension. The researchers found that simplified directions resulted in substantial improvements in juror comprehension. For the instructions in the complex trial, the average (mean) percentage of correct answers per juror was 51 per cent. After the first rewriting, this average increased to 66 per cent and after the second rewriting effort it increased to 80 per cent. Each of these increases was statistically significant.¹¹³ Similar improvements were found in relation to the instructions in the simple trial.¹¹⁴

None of the studies discussed thus far included deliberation in their research design. Elwork et al did undertake a small scale follow up study, in which they repeated the experiment using only the complex criminal trial (comparing the original directions with the second set of re-written directions) with 45 community jurors who deliberated in groups of six. As before, they found significant improvements in comprehension scores of the individual jurors in the group who heard the re-written instructions.¹¹⁵

The third of the pioneering US studies – that of Severance and Loftus – tested re-written criminal instructions and included deliberation as a component of the experiment.¹¹⁶ Severance and Loftus tested the impact of simplified directions in four areas (the meaning of reasonable doubt, intent, use of previous conviction evidence and an introductory instruction about jurors' general duties) on 216 undergraduate psychology students. The re-written directions were tested in the context of a trial

¹¹⁰ Ibid at 175. Elwork et al do not state whether these were yes/no or multiple choice questions.

¹¹¹ A Elwork, JJ Alfini and B Sales, "Towards understandable jury instructions" (1982) 65 *Judicature* 432. Their two studies are also reported in A Elwork, B Sales and JJ Alfini, *Writing Understandable Jury Instructions* (1982).

¹¹² Details of how they did this are included in their book, but essentially it involved replacing infrequently used words with more commonly used ones, replacing abstract words with concrete words, eliminating words with multiple meanings, removing negations, reducing legal jargon, shortening sentences and ordering legal concepts more logically.

¹¹³ Elwork et al, "Towards understandable jury instructions" (n 111) at 436.

¹¹⁴ Ibid.

¹¹⁵ Ibid at 442.

¹¹⁶ LJ Severance and EF Loftus, "Improving the ability of jurors to comprehend and apply criminal jury instructions" (1982) 17 *Law and Society Review* 153.

simulation – a one hour long videotaped burglary trial filmed in a real court, with a real judge and the remaining roles played by actors. Jurors watched the trial and then heard either the original instructions or the re-written instructions before deliberating in groups of six for 30 minutes. Each juror then individually completed two comprehension tests – one in a multiple choice format and one a test of application where they were asked to apply the directions to a novel factual scenario. The researchers found that the re-written instructions led to significantly better performance on the application test compared to the original instruction.¹¹⁷ However, it did not lead to a statistically significant increase in overall comprehension scores on the multiple choice test.¹¹⁸

The main limitation of Severance and Loftus' study was that it used student jurors. They went on, however, to repeat their experiment using the same materials with 306 community mock jurors – 162 who had been cited to court but not selected and 144 ex-jurors randomly selected from old jury lists.¹¹⁹ The revised directions improved comprehension scores (both in the application test and the multiple choice test), but the only statistically significant improvement occurred in relation to the previous conviction direction.¹²⁰ Comprehension was also tested using a paraphrase test whereby jurors were asked to explain in their own words what each concept meant and the authors found that correct answers outnumbered incorrect answers when the revised directions were given but not when the original directions were given.¹²¹ The results, while positive, were not as overwhelmingly so as those of Charrow and Charrow and Elwork et al. This may, however, be because some of their re-written instructions, while improvements on the originals, were still relatively complex.¹²² A further re-write might have resulted in greater improvements in comprehension.

Aside from these pioneering studies, the area where most empirical research has been undertaken is – again in the US context – in relation to the comprehension of death penalty sentencing instructions, in which jurors are asked to weigh aggravating and mitigating factors in order to determine whether the death penalty should be imposed. Four studies in the US context have focussed on juror comprehension of death penalty instructions – and all have shown comprehension improvements from the use of plain language directions.¹²³ Improvements in comprehension have also

¹¹⁷ Ibid at 190.

¹¹⁸ Ibid at 189.

¹¹⁹ LJ Severance, E Greene and EF Loftus, "Toward criminal jury instructions that jurors can understand" (1984) 75 *Journal of Criminal Law and Criminology* 198.

¹²⁰ Ibid at 219.

¹²¹ Ibid at 223.

¹²² See 185-188 (of Severance and Loftus (n 116)) and 209-213 (of Severance et al (n 119)) where the original and re-written directions are set out in full.

¹²³ A Smith and C Haney, "Getting to the point: attempting to improve juror comprehension of capital penalty phase instructions" (2011) 35 *Law and Human Behavior* 339 at 342 (211 student jurors, directions tested in isolation with no deliberation); SS Diamond and JN Levi, "Improving decisions on death by revising and testing jury instructions" (1996) 79 *Judicature* 224 at 230 (149 community jurors, audio description of evidence followed by instructions, deliberated in groups of six for up to 40 minutes); RL Wiener et al, "Guided jury discretion in capital murder cases: the role of declarative and procedural knowledge" (2004) 10 *Psychology, Public Policy, and Law* 516 at 556 (figure 2) (665 community jurors, 150 minute trial video, jurors deliberated in groups of between six and 13 for 20 minutes); CW Otto, BK Applegate and RK Davis, "Improving comprehension of capital sentencing

been demonstrated in the context of directions on eyewitness identification evidence¹²⁴ and on circumstantial evidence.¹²⁵

Although the overwhelming majority of studies point to a positive effect of plain language directions, this has not been a universal finding. Wiener et al, in two studies involving respectively 91 and 92 community mock jurors, tested the impact of a simplified death penalty direction, but found no improvement in comprehension.¹²⁶ This may, however, have been because the authors did not re-write the instruction very effectively. Their re-written instruction was, as English and Sales put it, “a single, lengthy (52 word) compound sentence that uses several words and phrases that jurors may not be familiar with”.¹²⁷

2.7 Pre-instruction

There is a considerable body of evidence, both from mock jury studies and field studies, to suggest that pre-instructing jurors on the substantive issues in the case improves comprehension of legal issues. The only study that did not find any improvement in comprehension as a result of pre-instruction did not use particularly realistic trial simulation methods, so little weight should be attached to it. Pre-instruction has been found to be most beneficial when combined with note-taking.

There is also some evidence that pre-instruction improves juror memory of the evidence that was led during the trial, although here the studies are more equivocal. The beneficial effects have, however, tended to be found in the most realistic experiments, so these should be given more weight. Here too, pre-instruction has been found to be most effective in improving memory when combined with juror note-taking.

There is little evidence for any of the possible downsides of pre-instruction. There is no evidence that it causes jurors to decide cases prematurely and, in field experiments undertaken in the US, judges, lawyers and jurors have expressed satisfaction with the procedure.

instructions: debunking juror misconceptions” (2007) 53 *Crime and Delinquency* 502 at 509 (199 student jurors, audio fact scenario followed by directions, no deliberation).

¹²⁴ G Ramirez, D Zemba and RE Geiselman, “Judge’s cautionary instructions on eyewitness testimony” (1996) 14 *American Journal of Forensic Psychology* 31 at 52-54 (338 student jurors, 30 minute trial video, no deliberation); E Greene, “Judge’s instruction on eyewitness testimony: evaluation and revision” (1998) 18 *Journal of Applied Social Psychology* 252 at 267 (139 community jurors, trial video lasting approximately 1 hour 30 minutes, jurors deliberated in groups of between five and nine for 30 minutes).

¹²⁵ P Tiersma and M Curtis, “Testing the comprehensibility of jury instructions: California’s old and new instructions on circumstantial evidence” (2008) 1 *Journal of Court Innovation* 231 at 250 (66 student jurors, comprehension tested in isolation).

¹²⁶ RL Wiener, CC Pritchard and M Weston, “Comprehensibility of approved jury instructions in capital murder cases” (1995) 80 *Journal of Applied Psychology* 455 at 461 and 463.

¹²⁷ PW English and BD Sales, “A ceiling or consistency effect for the comprehension of jury instructions” (1997) 3 *Psychology, Public Policy and Law* 381 at 395.

This section examines the empirical evidence relating to pre-instruction of jurors. Pre-instruction refers to the practice of giving jurors case specific direction on the relevant principles of substantive law prior to the evidence being led.

It has been suggested that pre-instructing jurors may have a number of advantages. It might improve recall of evidence, by assisting jurors in identifying relevant evidence as it is led and providing a framework for organising this. It might improve recall (and possibly even comprehension) of judicial directions, as jurors will hear them twice. It might also reduce juror bias, by identifying at the outset what the relevant issues in the trial are likely to be and reducing the possibility that jurors rely instead on inaccurate beliefs about what the law is or personal biases about the case or the characteristics of the accused.¹²⁸

It has also been suggested that there may be disadvantages. There is a fear that pre-instruction may overload jurors with too much information at the beginning of the trial. It might be regarded as unnecessary and a waste of valuable court time to give substantive directions twice. It might be difficult for jurors to make sense of legal directions before the evidence has been led. There may be a danger that pre-instruction encourages jurors to reach a verdict prematurely, and to ignore evidence that does not fit in with this hypothesis (although the opposite has also been proposed – that by giving jurors a framework for identifying the relevant issues, it discourages speculation about irrelevant matters). Finally, it may also be impractical to give pre-directions if the trial judge does not know what issues are likely to arise in the case.¹²⁹

Pre-instruction has been tested in both mock jury studies and field experiments.

2.7.1 Mock Jury Studies

A number of mock jury studies have tested the impact of pre-instruction. Some of these test pre-instruction and post-instruction only as alternatives, others have tested the condition where jurors are both pre-instructed *and* post-instructed. The latter is preferable in terms of realism – it is difficult to conceive of a situation in reality where jurors would *only* be directed on the law prior to hearing the evidence. Aside from anything else, unexpected issues may arise during the course of the trial that require directions to be given after the evidence has been led. The studies have focused on the effect of pre-instruction on three variables: memory (for both the facts and the law), comprehension and the point at which jurors decide on their verdict.

In terms of the impact on memory, the evidence is mixed. The first mock jury study to look specifically at pre-instruction was undertaken by Smith and did not demonstrate

¹²⁸ L Heuer and SD Penrod, "Instructing jurors: a field experiment with written and preliminary instructions" (1989) 13 *Law and Human Behavior* 409 at 413; Sand and Reiss (n 11) at 438; NSW Law Reform Commission (n 9) para 9.94.

¹²⁹ Heuer and Penrod, "Instructing jurors" (n 128) at 414; NSW Law Reform Commission (n 9) paras 9.97-9.99; Sand and Reiss (n 11) at 438.

any benefit of pre-instruction in terms of memory for the facts.¹³⁰ Smith's experiment involved 125 participants (a mixture of community and undergraduate psychology student jurors) who watched a 2.5 hour videotape of a homicide trial. They heard directions (including on the substantive law specific to the case) before the evidence, after the evidence, not at all or both. The jurors did not deliberate. Recall was tested via 20 multiple choice questions. Smith speculates, however, that the reason why pre-instruction did not lead to any improvement in memory for the evidence might have been because the jurors did not understand the substantive law well enough to use it as a framework for processing incoming evidence (as discussed below, comprehension of the law was generally low).¹³¹ Cruse and Brown likewise found no relationship between timing of instructions and recall for the evidence,¹³² but their experiment (which relied solely on a trial booklet) was so unrealistic that little weight can be attributed to this.

Other studies have demonstrated a relationship between pre-instruction and recall. ForsterLee and Horowitz found that pre-instructed jurors performed significantly better than post-instructed jurors in terms of their memory for the evidence.¹³³ Their experiment was a relatively realistic one, involving 120 community mock jurors, who watched a 70 minute video of a civil trial which was filmed using a mixture of professional actors and legal professionals (although the jurors did not deliberate). The researchers also found that the beneficial effect of pre-instruction on memory was greatest when it was combined with juror note-taking.¹³⁴ These findings replicate the results of an earlier, less realistic study undertaken by the same authors.¹³⁵ Fitzgerald also found that pre-instructed jurors performed significantly better on a number of different tests designed to measure their recollection for the evidence.¹³⁶ His experiment was also relatively realistic, involving 124 mock jurors (a mixture of college students and community jurors), who watched a two hour civil trial video (with a ten minute break in the middle), although his jurors did not deliberate. Fitzgerald found that pre-instruction was especially beneficial for the memory of the older jurors who participated in the experiment (specifically those aged 55 to 75).¹³⁷

Neither ForsterLee and Horowitz nor Fitzgerald tested the effect of pre- and post-instruction. In both experiments jurors were either instructed before the evidence was led or afterwards, not both (as Smith did). It may be therefore that memory for the facts was better not because of the pre-instruction but because juror recollections were tested immediately after the evidence had been led, rather than after a delay caused by hearing the post-instruction directions. The likelihood of this

¹³⁰ VL Smith, "Impact of pretrial instruction on jurors' information processing and decision making" (1991) 76 *Journal of Applied Psychology* 220 at 223.

¹³¹ *Ibid.*

¹³² D Cruse and BA Browne, "Reasoning in a jury trial: the influence of instructions" (1987) 114 *Journal of General Psychology* 129 at 131.

¹³³ ForsterLee and Horowitz (n 24) at 314.

¹³⁴ *Ibid.*

¹³⁵ L ForsterLee, IA Horowitz and MJ Bourgeois, "Juror competence in civil trials: effects of preinstruction and evidence technicality" (1993) 78 *Journal of Applied Psychology* 14. See similarly Elwork et al, "Juridic decisions" (n 109) at 177 (154 community jurors, three hour long trial video); MJ Bourgeois et al, "Nominal and interactive groups: effects of preinstruction and deliberations on decisions and evidence recall in complex trials" (1995) 80 *Journal of Applied Psychology* 58 at 63 (study 1, involving 86 community jurors and either a 75 or 90 minute audiotaped trial).

¹³⁶ Fitzgerald (n 18) at 326-328.

¹³⁷ *Ibid* at 327.

being significant would have depended on the length of the directions, but neither study provides information about this.

Finally, one study has examined the impact of pre-instruction not on memory for the evidence but on memory for judicial directions. Ramirez et al found that hearing a direction about the evaluation of eyewitness identification evidence twice – before and after the evidence had been led – significantly improved mock juror memory for the content of that direction.¹³⁸ It does have to be said though that the direction was relatively short¹³⁹ and that if memory for directions is a concern then the more obvious way to address this is by providing a written copy.¹⁴⁰

Some of the mock jury studies discussed above also tested the effect of pre-instruction on comprehension of the legal issues in the case.¹⁴¹ In her study, Smith tested comprehension via multiple methods, including multiple choice questions; ten true/false questions about the issues in the case and ten scenarios where the jurors had to apply the law to novel facts (determining whether the accused in each scenario was guilty of first degree murder, second degree murder, manslaughter or should be found not guilty). Participants' performance in all of the comprehension tests was poor, but those jurors who had been both pre- and post-instructed performed significantly better than jurors who had only been post-instructed. Pre-instruction alone had no effect.¹⁴² Similarly, ForsterLee and Horowitz found that pre-instructed jurors performed significantly better than post-instructed jurors in distinguishing between plaintiffs with differentially worthy cases,¹⁴³ although the study did not test the effect of both pre- and post-instruction. They also found that note-taking enhanced this ability further – the best performance was in the group who were pre-instructed and took notes.¹⁴⁴ By contrast, Bourgeois et al found no relationship between pre-instruction and mock jurors' ability to differentiate between plaintiffs,¹⁴⁵ but their use of an audiotaped trial rather than a video reconstruction means that lesser weight should be attached to this study.

Finally, two mock jury studies have examined the hypothesis that pre-instruction might cause jurors to decide cases prematurely (one of the suggested disadvantages of pre-instruction). Neither found any evidence that this was the case. Smith asked her mock jurors midway through the trial whether or not they had yet formed a view about their verdict and found that jurors who had been pre-instructed were significantly *more* likely to defer their verdict decisions compared to those who were only instructed after trial.¹⁴⁶ Bourgeois et al, who asked mock jurors half way

¹³⁸ Ramirez et al (n 124) at 42 (experiment 1).

¹³⁹ Consisting as it did of seven short paragraphs of text – see Appendix A of Ramirez et al where it is re-produced.

¹⁴⁰ On which, see section 2.7.

¹⁴¹ One study that did so is not discussed here as it only tested the effect of pre-instructing on the burden and standard of proof, not on the substantive legal issues in the case: see SM Kassin and LS Wrightsman, "On the requirements of proof: the timing of judicial instruction and mock juror verdicts" (1979) 17 *Journal of Personality and Social Psychology* 1877.

¹⁴² Smith (n 130) at 224.

¹⁴³ ForsterLee and Horowitz (n 24) at 313.

¹⁴⁴ *Ibid.*

¹⁴⁵ MJ Bourgeois et al, "Nominal and interactive groups: effects of preinstruction and deliberations on decisions and evidence recall in complex trials" (1995) 80 *Journal of Applied Psychology* 58 at 61 (study 1).

¹⁴⁶ Smith (n 130) at 225.

through the trial to indicate which side they favoured or whether they were still undecided, found that pre-instructed jurors were no more likely to have decided the case mid-trial than those who were not pre-instructed.¹⁴⁷

2.7.2 Field Studies

All three of the major US field studies examined the use of pre-instruction. Heuer and Penrod's study was the only one to objectively measure the impact of pre-instruction on comprehension, with the result that jurors who sat on criminal trials who were pre-instructed on substantive law showed a marginally significant improvement in performance in multiple choice tests of comprehension, compared to those who were not pre-instructed.¹⁴⁸ Given, however, that the jurors were allowed to take the questionnaire home and mail it back, rather than completing it immediately after the trial had concluded,¹⁴⁹ this probably under-estimates the beneficial effect of pre-instruction (as some of the jurors may have struggled with memory by the time they completed the questionnaire).

Heuer and Penrod did not test memory for the evidence directly, but did ask jurors how confident they were that they could remember the evidence that had been led. Pre-instruction made no difference to their degree of confidence,¹⁵⁰ but the use of a self-reporting measure means that this finding is of limited value. Jurors who were pre-instructed indicated that they found this helpful¹⁵¹ and the judges who participated in the experiment were also positive about it, and indicated that they did not find pre-instruction to be disruptive of the trial process.¹⁵² Sand and Reiss found likewise, although the number of criminal trials in their sample where pre-instruction was used was very small (there were only four of them) and three involved the same judge, so little reliance can be placed on this.¹⁵³ Cohen and Cohen found that pre-instructed jurors reported satisfaction with the procedure, and that it helped their understanding of what happened during the trial.¹⁵⁴ Lawyers' questionnaires were virtually unanimous in indicating support for pre-instruction¹⁵⁵ and as a result new rules of criminal procedure were implemented in Tennessee that require the court to pre-instruct jurors on a number of matters, including the legal principles involved in the case.¹⁵⁶

¹⁴⁷ Bourgeois et al (n 145) at 61.

¹⁴⁸ Heuer and Penrod, "Instructing jurors" (n 128) at 425.

¹⁴⁹ See section 2.3.2.

¹⁵⁰ Heuer and Penrod, "Instructing jurors" (n 128) at 424.

¹⁵¹ Ibid.

¹⁵² Ibid at 426.

¹⁵³ Sand and Reiss (n 11) at 441.

¹⁵⁴ Cohen and Cohen (n 53) at 51.

¹⁵⁵ Ibid.

¹⁵⁶ Ibid at 52. See Tennessee State Courts Rules of Criminal Procedure, rule 30(d)(1).

2.8 Written Directions

There is no real debate over the question of whether written directions improve juror memory – they clearly do, as jurors no longer have to rely on their own recall of what the trial judge has said. There is, however, a substantial body of evidence that written directions also improve juror comprehension of the law. The vast majority of studies have demonstrated improvements in comprehension from written directions and most of the studies that have not done so have suffered from methodological flaws. Studies of juror deliberations demonstrate that jurors who are given written directions frequently refer to them and use them to correct mistakes of law made by other jurors.

That said, there is a limit to the role that written directions can play in improving comprehension – putting instructions in writing cannot compensate for instructions that are inherently unclear. In a study undertaken by Ede and Goodman-Delahunty, written directions improved the ability of jurors to recall the content of the directions but they did not help jurors to gain a deeper understanding of how the law should be applied.

There are some practical issues that need to be addressed if written directions are to be provided. A copy should be given to each individual juror – otherwise there is a danger that the person with the written directions dominates the discussion.¹⁵⁷ It cannot be assumed that all jurors will have levels of literacy that would enable them to read a written text, so provision may need to be made in this respect by, for example, the use of recorded verbal or video directions.

This section of the review examines the empirical evidence relating to written directions. It has been argued that providing jurors with written directions can lead to a number of benefits, including improvements in memory; improvements in comprehension; better quality deliberations (where more time is spent applying the law); reduced deliberation time (as juries spend less time trying to recall the instructions and any disputes about their content are quickly and easily resolved); and improvements in juror confidence and satisfaction.¹⁵⁸

In relation to the first of these, Semmler and Brewer make the point that we are asking an awful lot of jurors to retain the information provided by the trial judge – even the simplest charge is likely to run to several pages of directions – and at least some barriers to comprehension may simply stem from limitations in working memory.¹⁵⁹ The possible objections to written directions include the fear that they might actually increase deliberation time (because jurors become involved in time

¹⁵⁷ RF Forston, “Sense and non-sense: jury trial communication” (1975) Brigham Young University Law Review 601 at 620.

¹⁵⁸ NS Marder, “Bringing jury instructions into the twenty-first century” (2006) 81 Notre Dame Law Review 449 at 452; Heuer and Penrod, “Instructing jurors” (n 128) at 410; NSW Law Reform Commission (n 9) paras 10.13-10.16.

¹⁵⁹ C Semmler and N Brewer, “Using a flow-chart to improve comprehension of jury instructions” (2002) 9 Psychiatry, Psychology and Law 262 at 267.

consuming arguments over how to interpret them); they might be time consuming and burdensome for trial judges to produce; or they assume a level of juror literacy that might not be borne out in practice.¹⁶⁰

Written directions have been tested in both mock jury and field experiments.¹⁶¹

2.8.1 Mock Jury Studies

The number of mock jury studies that have tested the impact of written directions is relatively small. None of the studies have directly tested the impact of written directions on memory, but that is probably because it is self-evident that having a written copy of directions would help jurors to remember the relevant legal tests. The focus of the studies has instead been on comprehension. Given that memory for the directions is a necessary step to understanding them, if written directions improve comprehension then it is probably safe to conclude that they also improve memory.

A number of studies have tested the impact of written directions on comprehension. Three of these found that comprehension improved as a result.¹⁶² Thomas' study is the most extensive and realistic of these.¹⁶³ It was conducted with 243 jurors who had been cited to court in Winchester but not selected to sit on trials. The jurors watched a 60 minute mock trial video before deliberating in groups of between nine and twelve for up to 20 minutes.¹⁶⁴ She found that the proportion of jurors who were able to answer correctly two questions aimed at testing understanding of a self-defence direction rose from 31 per cent to 48 per cent when the direction was provided in writing.¹⁶⁵

In the second study, Semmler and Brewer found that a written summary of the trial judge's directions significantly improved comprehension of the law of self-defence in a group of 234 community mock jurors,¹⁶⁶ although it does have to be said that the experiment was not very realistic, involving as it did a 700 word case summary read aloud to the participants, followed by an audio tape of a real trial judge reading a 15 minute self-defence direction.

The third study was undertaken by Ede and Goodman-Delahunty and tested the impact of written directions across a range of legal concepts. It involved 183 community mock jurors who watched an hour long trial video based on a real case

¹⁶⁰ JD Lieberman and BD Sales, "What social science teaches us about the jury instruction process" (1997) 3 *Psychology, Public Policy and Law* 589 at 626; Heuer and Penrod, "Instructing jurors" (n 128) at 411; Forston (n 157) at 620.

¹⁶¹ There is also anecdotal evidence from trial judges that they are effective: see e.g. N Madge, "Summing up: a judge's perspective" [2006] *Crim LR* 817.

¹⁶² A fourth study tested written directions, but only as part of a package that also included a route to verdict, so the impact of the written directions cannot be isolated: see Kelly (n 7).

¹⁶³ C Thomas, *Are Juries Fair?* (2010).

¹⁶⁴ This is not stated in *Are Juries Fair?* but a more comprehensive account of Thomas' research methods can be found in C Thomas (with N Balmer), *Diversity and Fairness in the Jury System* (2007) where at 43 (footnote 139) the figures on trial and deliberation length are provided.

¹⁶⁵ Thomas (n 163) at 38.

¹⁶⁶ Semmler and Brewer (n 159) at 264.

and performed by professional actors.¹⁶⁷ After viewing the trial, the jurors were asked a number of true/false questions about the procedural and substantive law in the case, some of which were relatively simple, while others required a deeper understanding and application of the law. They did not deliberate. Jurors who received written directions performed significantly better on the simple comprehension questions than jurors who were given no written aids. Perhaps more surprisingly, they also performed significantly better than jurors who had been given a route to verdict (the other innovation tested in the experiment).¹⁶⁸ On the complex comprehension questions, however, the written directions made no significant difference to comprehension.¹⁶⁹ The researchers suggest that the effect of the written directions on simple comprehension may have been solely due to the multiple exposure to the text of the legal tests – in other words, it improved juror memory, which allowed jurors to easily recognise correct statements of the law. The fact that this improvement did not translate to the complex comprehension questions suggests that written directions, while acting as a successful memory aid, did not help jurors obtain a deeper understanding of the law.¹⁷⁰ The researchers also note that the measure of comprehension they used – true/false questions – was not ideal and might have led jurors to answer correctly simply by guessing.¹⁷¹

By contrast, one mock jury study found that written directions did not improve comprehension. This was undertaken by Rose and Ogloff,¹⁷² who compared the performance of 39 undergraduate psychology students who were given written directions on conspiracy with 33 students who watched the same directions delivered by a trial judge on a video. However, the sample is very small and their experiment was so far removed from the reality of a criminal trial – it used a written fact summary rather than a full trial video and the group with the written directions did not also hear them orally – that little weight can be attached to it. The inherent complexity of the conspiracy direction may also have been an issue. It ran to fifteen pages and comprehension of it was generally low, regardless of the medium by which it was delivered.¹⁷³

2.8.2 Field Studies

The impact of written directions has been tested in a number of field studies. Heuer and Penrod's is the most extensive of these. Here, 29 judges in Wisconsin randomly assigned their trials (34 civil and 33 criminal) so that some juries received written instructions and some did not. After the trial was over the jurors were asked to complete questionnaires aimed at testing their understanding of the instructions they received (specifically those relating to the standard and burden of proof, the presumption of innocence, the evaluation of testimony and exhibits and procedural issues such as the allocation of responsibility for findings of law and fact). The

¹⁶⁷ T Ede and J Goodman-Delahunty, "Question trails in trials: structured versus unstructured decision-making" (2013) 37 Criminal Law Journal 114.

¹⁶⁸ *Ibid* at 127. Routes to verdict are discussed in section 2.9.

¹⁶⁹ *Ibid*.

¹⁷⁰ *Ibid* at 131.

¹⁷¹ *Ibid* at 134.

¹⁷² VG Rose and JR Ogloff, "Evaluating the comprehensibility of jury instructions: a method and an example" (2001) 25 Law and Human Behavior 409 at 426-427 (experiments 1 and 5).

¹⁷³ *Ibid* at 427.

researchers also canvassed the views of the judges involved. They found no evidence of any of the potential drawbacks of written directions. Written directions made no significant difference to deliberation time¹⁷⁴ and the judges involved reported that providing them was not burdensome or disruptive.¹⁷⁵ In terms of the possible advantages, jurors reported that the written directions were very helpful in settling any disputes that did arise. The researchers did not, however, find that the written directions led to any improvement in the comprehension of legal concepts.¹⁷⁶ Despite this, the researchers concluded that their results presented “a compelling case” for written instructions and that while they might not have all the advantages claimed of them they did have some clear benefits and they had no harmful consequences.¹⁷⁷

As noted above, the failure of Heuer and Penrod’s study to demonstrate any effect of written directions on comprehension may have been due to the fact that many jurors did not complete the comprehension questionnaire until several days after the end of the trial,¹⁷⁸ a point the researchers themselves acknowledge.¹⁷⁹ Another field study that found that written directions did not improve comprehension also suffered from the same methodological flaw (as well as failing to separate out the effect of written and taped directions).¹⁸⁰ Kramer and Koenig, however, in a study of 600 jurors who had sat on real criminal cases in Michigan, and who received questionnaires immediately after they finished serving on a trial, found that written directions did significantly improve comprehension.¹⁸¹

These are the only field experiments to have objectively compared the comprehension of jurors who received written directions to those who did not. Trimboli reports on a survey of 1,225 real jurors, conducted in New South Wales, in which jurors who received written directions were significantly more likely to report that they understood everything or nearly everything the trial judge said about the legal issues in the case.¹⁸²

Other field studies have examined juror attitudes towards written directions and have found that jurors generally found them helpful and judges were also positive about the experience of providing them.¹⁸³ Surveys of real jurors who did not receive written directions have reported that they would have found it helpful to have done

¹⁷⁴ The mean reported deliberation time was 2.6 hours for written instructions and 2.7 hours for oral instructions: Heuer and Penrod, “Instructing jurors” (n 128) at 421.

¹⁷⁵ Ibid at 423.

¹⁷⁶ Ibid at 421.

¹⁷⁷ Ibid at 429.

¹⁷⁸ See section 2.3.2.

¹⁷⁹ Heuer and Penrod, “Instructing jurors” (n 128) at 423.

¹⁸⁰ A Reifman, SM Gusick and PC Ellsworth, “Real jurors’ understanding of the law in real cases” (1992) 16 *Law and Human Behavior* 539.

¹⁸¹ G Kramer and D Koenig, “Do jurors understand criminal jury instructions? Analyzing the results of the Michigan juror comprehension project” (1990) 23 *University of Michigan Journal of Law Reform* 401 at 428.

¹⁸² L Trimboli, *Juror Understanding of Judicial Instructions in Criminal Trials*, New South Wales Crime and Justice Bulletin No 119 (2008) 6.

¹⁸³ Sand and Reiss (n 11) at 455; Young et al (n 58) para 7.59.

so.¹⁸⁴ In Young et al's study for the New Zealand Law Commission, a number of jurors suggested that if they had had a written summary of the law, deliberation time would have been reduced: in one case jurors reported that they spent time collectively putting together their notes to work out what the key elements of the offence were; and in another they had to ask the judge a question to clarify the law, which they believed would have been unnecessary if they had received a written aid.¹⁸⁵

A final study worth noting is that of Diamond et al, in which the researchers were permitted to record real jury deliberations in civil trials in Arizona.¹⁸⁶ Deliberations were recorded in 50 civil cases between 1998 and 2001 and all juries had a written copy of the judge's directions, as the law in Arizona mandates this.¹⁸⁷ The researchers found that frequent reference was made to the written directions during the course of deliberations. In 46 of the 50 juries, at least one juror read a direction aloud to the group, and in nearly half of the trials (46 per cent), at least half of the jurors each read at least one direction aloud.¹⁸⁸ This, the researchers conclude, demonstrates that where written directions are provided, jurors do consult them as a source of reference.

Diamond et al also found that the majority of references (79 per cent) made to the law by the jurors were accurate, although there were still some errors made.¹⁸⁹ In Ellsworth's study, however, which also recorded jury deliberations (albeit in a mock jury study), the jurors did not have written directions and the number of legal errors made was far greater (at around half of all statements about the law).¹⁹⁰ It is also notable that in Diamond et al's study, around half of the legally incorrect statements that were made were corrected by other jurors.¹⁹¹ Compare this to Ellsworth's study, where the jurors did not have written directions. Here only 12 per cent of incorrect legal statements were corrected and a substantial number of correct statements about the law were supplanted by incorrect ones.¹⁹² These comparisons do need to be treated with caution, as the subject matter of the trials and the methodology used by the two studies was not the same, but they do provide some limited evidence that written directions may improve comprehension, especially following deliberation.

¹⁸⁴ BL Cutler and DM Hughes, "Judging jury service: results of the North Carolina administrative office of the courts jurors survey" (2001) 19 Behavioral Sciences and the Law 305 at 314 (table 5); Young et al (n 58) para 7.60.

¹⁸⁵ Young et al (n 58) para 7.60.

¹⁸⁶ SS Diamond, B Murphy and MR Rose, "The 'kettleful of law' in real jury deliberations: successes, failures and next steps" (2012) 106 Northwestern University Law Review 1537.

¹⁸⁷ See Arizona Rules of Criminal Procedure rule 22.1(a)(1).

¹⁸⁸ Diamond et al (n 186) at 1553.

¹⁸⁹ Ibid at 1556.

¹⁹⁰ P Ellsworth, "Are twelve heads better than one?" (1989) 52 Law and Contemporary Problems 205 at 219. Ellsworth's research methods were explained in section 2.2.

¹⁹¹ Diamond et al (n 186) at 1558 (table 2).

¹⁹² Ellsworth (n 190) at 219.

2.9 Structured Decision Aids (Routes to Verdict)

Routes to verdict (RTVs) are a relatively new innovation – compared for example to written directions or note taking – and as such the body of evidence that has empirically tested them is still small. There are, however, two relatively well designed mock jury studies (those of Weiner et al and Ede and Goodman-Delahunty) that have found RTVs to be effective in improving jurors' ability to comprehend legal concepts and, in particular, to apply legal tests appropriately. Further support for the effectiveness of RTVs in improving applied comprehension comes from the study conducted by Kelly, although the fact that she did not isolate the impact of the RTV means that this must be regarded with more caution.

These studies must be weighed against other studies that have not found RTVs to improve comprehension. However, all of the studies where a positive effect was not demonstrated do have methodological weaknesses which mean that limited weight can be attached to them. Further evidence of the effectiveness of RTVs may be forthcoming when a major study being undertaken in Australia and New Zealand reports its findings – preliminary results from this study support the conclusion that RTVs are effective. Field studies also indicate that jurors who have been given RTVs find them useful, particularly in longer, complex trials.

The experimental research has pointed to one practical issue, which is that if juries are not specifically directed about the RTV and it does not relate to the oral directions they hear, then they may not use it. This suggests that RTVs will be most effective when accompanied by a tailored jury direction.

This section considers the empirical evidence relating to routes to verdict and other structured decision aids. There is an initial question of terminology, which is used inconsistently by the studies (and by the courts). What is being considered here is a written aid that provides juries with a series of primarily factual questions that gradually lead them to a legally justified verdict.¹⁹³ This might be presented as a series of questions or in flowchart or other diagrammatic form.¹⁹⁴ It has sometimes been referred to as a flowchart, a stepped verdict, a fact based direction, a decision tree or a question trail, but for consistency the term route to verdict (RTV) will be used here.¹⁹⁵ The focus is on a written RTV as an aid that jurors can take into deliberations,¹⁹⁶ which may be accompanied by the trial judge talking through the

¹⁹³ The questions cannot entirely avoid legal tests but they do minimise the difficulties involved in understanding and applying them.

¹⁹⁴ For examples, see Appendix 1 of Judicial College, *The Crown Court Compendium* (Nov 2017). RTVs are standard practice in England and Wales – see chapter 3.5.6.

¹⁹⁵ Note that the term RTV has a different meaning in the Scottish context: see section 1.3.

¹⁹⁶ As such, two studies which focused only on oral RTVs are not included here: A Smith and C Haney, "Getting to the point: attempting to improve juror comprehension of capital penalty phase instructions" (2011) 35 *Law and Human Behavior* 339 and N Brewer, S Harvey and C Semmler, "Improving comprehension of jury instructions with audio-visual presentation" (2004) 18 *Applied Cognitive Psychology* 765.

RTV orally and giving any other necessary directions that are not captured in the RTV.

The potential advantage of a RTV is that it greatly simplifies the task that a jury is required to perform. Rather than requiring jurors to understand and apply complex directions, they are asked instead a series of factual questions that focus their attention on the relevant issues and lead them to a legally justified verdict. As such, it should improve the chance of a fair verdict being reached in accordance with the law and minimise problems that might result from the failure of juries to comprehend directions. RTVs also have the potential to improve transparency, with accused persons being able to see more clearly why a particular verdict was reached, which may lead them – and the wider public – to have greater confidence in the criminal justice process. RTVs may also lead to cost savings through shorter deliberation times, as jurors spend less time attempting to understand their task.¹⁹⁷

One objection that might be made to RTVs is that they leave no role for jury nullification¹⁹⁸ – juries choosing not to apply laws that they consider unjust – although depending on one’s view of jury nullification that may equally be seen as an advantage. In any case, simply giving a jury a RTV without also requiring it to provide a legally reasoned verdict does not necessarily prevent nullification from occurring. RTVs might also be felt by judges to be difficult and time consuming to prepare,¹⁹⁹ although that can be ameliorated by the provision of examples to judges for reference and is likely to improve over time as judges gain practical experience.

The body of empirical evidence on RTVs comes primarily from mock jury studies, although field studies do provide some limited observations.

2.9.1 Mock Jury Studies

RTVs have been tested in a number of mock jury studies. In evaluating these studies there are a number of specific methodological considerations. First, the most useful measures of comprehension in this context are those that focus on the application of legal tests. It is this that a RTV is designed to help, and thus measures that test recall or abstract comprehension are not especially useful. Secondly, consideration needs to be given to the RTV document’s design. A failure to find any useful effect might simply be because of a poorly designed RTV rather than an indication that RTVs do not assist jurors. Not all of the studies discussed here provide a copy of the RTV that was tested, so it is not always possible to assess this. Third, the studies vary in terms of whether the RTV was accompanied by any tailored direction explaining how it should be used or indeed any oral direction at all – in some experiments it replaced the oral directions rather than supplemented them.

Two early studies are somewhat equivocal in terms of their support for RTVs. Semmler and Brewer tested the effect of a RTV flowchart on 234 community mock

¹⁹⁷ Criminal Law Review, Jury Directions: A New Approach (State of Victoria, Department of Justice, 2013) para 6.3.3; EC Wiggins and SJ Breckler, “Special verdicts as guides to jury decision making” (1990) 14 Law and Psychology Review 1 at 3.

¹⁹⁸ Wiggins and Breckler (n 197) at 4; M Coen and J Doak, “Embedding explained jury verdicts in the English criminal trial” (2017) 37 Legal Studies 786 at 791.

¹⁹⁹ Najdvoski-Terziovski et al (n 1) at 77.

jurors who had heard a 700 word audio summary of a self-defence case. The flowchart improved the ability of the jurors to apply the legal test to both the case in question (in which a legally correct application of the law would lead to the conclusion that the defence was not made out) and to novel fact scenarios, compared to jurors who only received standard (oral) directions. However, neither relationship was a statistically significant one, so little can be drawn from this.²⁰⁰ It is worth noting, however, that in terms of applying the law to novel factual scenarios, the improvement was only present when the participants also heard a recording of a trial judge giving directions – the flowchart on its own did not result in any improvement.²⁰¹ The recorded directions did not refer to the flowchart – they were standardised across experimental conditions – and the improvement may well have been greater if they were integrated. The study is also limited by the fact that it was not particularly realistic, relying as it did on a trial summary and lacking any element of deliberation.

In a more realistic experiment, involving 665 community mock jurors who watched a 2.5 hour video incorporating the trial and sentencing of a capital murder case in the US, and then deliberated in groups of between six and 13 for up to 20 minutes, Wiener et al found that a RTV improved juror comprehension of the legal concepts involved in the case.²⁰² The comprehension questionnaire was multiple choice, but it contained both abstract questions and questions that involved application of the law to factual scenarios. The study tested a number of innovations, and the researchers found that while the RTV significantly improved comprehension, it did not perform as well as a set of simplified plain language directions. The reason for this may have been that the RTV used in the experiment was not very clear and some elements were still difficult to understand (unlike the simplified directions, it did not, for example, explain what was meant by a mitigating factor).

Three relatively recent experiments provide more robust evidence that RTVs improve juror comprehension. Ede and Goodman-Delahunty tested the effect of a RTV on 183 community mock jurors in Australia, who watched a 60 minute trial video performed by professional actors. Jurors were provided with either a written summary of the trial judge's directions, a RTV or no aids. The researchers found that while the RTV made little difference to comprehension for the simple comprehension questions (that tested memory rather than understanding of the directions), it did significantly improve comprehension scores for the more complex questions that required a deeper understanding of the law.²⁰³ This experiment, while relatively realistic, did have some limitations. There was no deliberation and the questionnaire used to test comprehension used yes/no answers, rather than multiple choice or free text. Participants in the RTV group heard the same oral directions as the other jurors – the oral directions were not tailored to the use of the RTV (although if they had been, the improvement in comprehension may have been even greater).

In a series of experiments undertaken by Kelly, mock jurors who were given a RTV performed significantly better in multiple choice comprehension tests (both those

²⁰⁰ Semmler and Brewer (n 159) at 265 (instant case) and 266 (novel fact scenarios).

²⁰¹ Ibid at 264.

²⁰² Wiener et al (n 126) at 556 (figure 2).

²⁰³ Ede and Goodman-Delahunty (n 167) at 127. Simple comprehension was significantly improved by the written directions: see section 2.7.2. A copy of their RTV is provided in their Appendix.

measuring abstract and applied knowledge) than those who only heard standard oral trial judge directions.²⁰⁴ Her experiments – one of which involved community jurors recruited from the jury pool at Southern Tasmania Supreme Court and three of which involved student jurors – both involved a 55 minute trial video, filmed in a real courtroom with a mixture of legal professionals and actors using a script adapted from a real criminal trial. One of her four experiments involved deliberation in groups of four or five for up to 30 minutes. While the trial materials were relatively realistic, unfortunately, the RTV was only one component of a package of materials given to jurors – the package also included a transcript of evidence, written directions and a chronology of key events – so it is not possible to isolate the effect of the RTV alone.²⁰⁵

Finally, McKay et al found some limited support for a RTV's effectiveness on the application of legal tests in an experiment involving a mixed sample of 92 mock jurors (some of whom were students, some of whom were recruited from the community). It was tested in three factual scenarios (aggravated robbery, kidnapping and indecent assault), but significant improvements in comprehension were found only in the aggravated robbery scenario.²⁰⁶ It has to be said, though, that the research methods were not as robust as other studies. The mock jurors were given a trial summary rather than a video (although they did hear recorded oral directions afterwards), there was no deliberation and comprehension was measured by asking the jurors to provide a written justification of the verdict they reached (which was coded by the researchers for "quality"²⁰⁷).

Taken together, the studies described above provide some limited support for the effectiveness of RTVs. They do have to be weighed, however, against three studies that have failed to find any positive effect. Essex and Goodman-Delahunty did not find any improvement in comprehension scores among jurors who were given a RTV compared to those who were only directed orally.²⁰⁸ Their experiment was relatively realistic in most respects – it used 236 real jurors in a Sydney criminal court who had been cited but not selected and they watched a 45 minute professionally acted trial video of a sexual assault trial. Comprehension was measured in a variety of ways, including through application. There were, however, also a number of limitations, which may explain why the RTV did not have any effect. The trial was relatively short, it did not involve any defence evidence and the legal issues were reasonably easy to understand, as evidenced by the fact that comprehension scores were high across all experimental conditions. In addition, the jurors who were given the RTV heard the same directions as those who were not – no reference was made to the RTV in the oral directions.

²⁰⁴ Kelly (n 7) at 67 (experiment 1), 102 (experiment 2), 127 (experiment 3) and 187 (experiment 4).

²⁰⁵ The package was tested without the transcript but not without the other components.

²⁰⁶ C McKay, M Nolan and M Smithson, "Effectiveness of question trails as jury decision aids: the jury's still out" (2014) 21 *Psychiatry, Psychology and Law* 492 at 502.

²⁰⁷ *Ibid* at 500.

²⁰⁸ R Essex and J Goodman-Delahunty, "Judicial directions and the criminal standard of proof: improving juror comprehension" (2014) 24 *Journal of Judicial Administration* 75 at 86. Their RTV is reproduced at Appendix B of their paper.

Ogloff also failed to find any significant improvement in comprehension from the use of a RTV compared to the use of oral directions only.²⁰⁹ His study involved 545 community mock jurors, who watched a two and a half hour mock trial video based on an actual criminal case. The jurors deliberated for up to two hours (the size of the groups is not specified in the report cited here) before returning a verdict and individually completing comprehension questionnaires. However, when Ogloff and another researcher watched the recorded deliberations, they found that few of the juries were actually using the RTV which, they state, “highlights the need to clearly instruct – and perhaps to direct – the jury in the use of decision making aids such as [these]”.²¹⁰

Finally, in a slightly different context, Dann et al examined the effect of a decision tree on comprehension of DNA evidence, but found that it had no significant effect.²¹¹ The study was a large scale one and was relatively realistic, using a trial video and including a long period of deliberation.²¹² However, the context perhaps limits the usefulness of the study – the jurors were working their way through a series of questions designed to evaluate the likelihood that hairs found on a discarded sweatshirt belonged to the accused, rather than to reach a verdict.²¹³ Perhaps more importantly, like Ogloff, the researchers found that when they analysed the recorded deliberations, jurors made limited references to the decision tree. Only seven out of the 20 juries made any use of it and only two attempted to work their way through the questions, with both efforts being “abandoned about midway through when discussion of related evidence commenced”.²¹⁴ This might suggest that the decision tree was not well designed, but it also provides further support for Ogloff’s point about needing to direct juries specifically on the use of a RTV if it is to provide maximum benefit. In Dann et al’s experiment, the juries who used the decision tree received the same oral directions as those who did not.

2.9.2 Field Experiments

A much more limited set of field experiments have examined RTVs. Strawn et al report on a judge (Strawn himself) who utilised a RTV in a re-trial of a criminal case he presided over, the first case having resulted in the jury being unable to reach a verdict. In the second trial, the jury was able to reach a verdict and commented favourably on the RTV, whereas in the first case, it was reported that they jury had been confused by the instructions, unable to agree on a verdict, and left the jury room “angry with one another and confused, still debating what ‘the law’ required”.²¹⁵ The weight that can be attached to an anecdotal report of a single case is, however, limited. Young et al, in their study of real jurors in New Zealand, found that those jurors who had been given a RTV all reported that they found it useful in deliberations. Other jurors who did not receive a RTV commented that it might have

²⁰⁹ JRP Ogloff, *Judicial Instructions and the Jury: A Comparison of Alternative Strategies* (1998), as reported in JRP Ogloff and VG Rose, “The comprehension of judicial instructions”, in N Brewer and K D Williams (eds), *Psychology and Law: An Empirical Perspective* (2005) 407 at 419.

²¹⁰ Ogloff and Rose (n 209) at 436.

²¹¹ Dann et al (n 36) 67 (table 6.3).

²¹² See the account of the research methods in section 2.2.1.

²¹³ Dann et al (n 36) at 62. The checklist is set out in Appendix B of their report.

²¹⁴ *Ibid.*

²¹⁵ DU Strawn et al, “Reaching a verdict, step by step” (1977) 60 *Judicature* 38 at 38.

been useful, because they felt that they had “no framework for their decision-making and did not work through the legal points in the case systematically”.²¹⁶ Heuer and Penrod also found that the limited number of jurors in their field study who were given RTVs were significantly more likely to feel well informed, satisfied, more confident their verdict was correct, and more confident their verdict reflected a proper understanding of the law. This was most marked in longer and more complex trials.²¹⁷

There is a further – and very extensive – project testing the impact of RTVs that is in progress in Australia and New Zealand.²¹⁸ The project involves both a major mock jury study and a field experiment comparing matched pairs of cases in New Zealand (where RTVs are routinely used) and Victoria (where they are not). Preliminary results from the project suggest that in the mock jury study, the RTV improved juror comprehension, but only after deliberation.²¹⁹ As in Ogloff’s study, however, the jurors were not specifically directed on the RTV and the researchers found that the deliberating juries did not always use it to help them reach a verdict – instead some groups set it aside as they did not see how it related to the information in the verbal charge.

Preliminary results from the field study suggest that RTVs may improve applied comprehension and that the deliberations of juries who used RTVs were significantly shorter than those that did not. However, until these results are formally published, along with full details of the research methods used, it is not possible to determine the weight to be attached to them. The methods used in the field study in particular will need to be scrutinised to assess whether any differences in deliberation times can be confidently attributed to the RTV rather than to other differences in the way criminal trials are conducted in the two jurisdictions or to differences in the nature of the cases concerned.

²¹⁶ Young et al (n 58) para 7.61.

²¹⁷ L Heuer and SD Penrod, “Trial complexity: a field investigation of its meaning and its effects” (1994) 18 *Law and Human Behavior* 29 at 50.

²¹⁸ Asking the Right Questions: Improving Juror Comprehension of Judicial Directions, funded by the Australian Research Council and the Victoria Department of Justice and Regulation: see <https://research.monash.edu/en/projects/asking-the-right-questions-improving-juror-comprehension-of-judic> (last accessed 6 February 2018).

²¹⁹ These and the other preliminary results noted below were provided to Fiona Leverick in a telephone conversation with Jonathan Clough (the lead researcher) on 13 November 2017.

3. Reform Initiatives and Practice in Comparable Jurisdictions

This chapter sets out the available evidence for the usage of the eight different techniques identified in chapter 1 in a range of comparable jurisdictions: Australia, Canada, England and Wales, Ireland, New Zealand, and the United States of America. Jury trials in these jurisdictions typically involve juries with 12 members (although smaller juries may be used for some cases in some US jurisdictions), two verdicts (guilty or not guilty) and a requirement that verdicts be reached by at least near-unanimity (10 or 11 of 12 jurors) and in some instances unanimity only.¹ This contrasts with the Scottish system of 15-member juries, three verdicts (guilty, not guilty or not proven) and verdicts being permissible by a simple majority (normally eight votes from fifteen members) rather than unanimity or near-unanimity being required.

3.1 Key Findings

- **Juror note-taking** and the use of **structured decision aids** (routes to verdict) are well-established across the jurisdictions surveyed. In respect of juror note-taking, this is only to the extent of advising jurors that they may take notes and not in the form of trial-ordered notebooks, which the empirical evidence suggests may be particularly beneficial. In a number of jurisdictions, **written directions** may go beyond structured decision aids and cover matters additional to the elements of the offence(s) and any defence(s).
- **Pre-instruction** is clearly established as good practice in a range of jurisdictions.
- Providing **transcripts** to the jury has become more common in recent years, but remains the exception rather than the rule and has been resisted in a number of jurisdictions.
- The practice of **questions being asked by jurors** is generally discouraged across the jurisdictions surveyed, despite occasional suggestions that this might be beneficial and the practice having been put on a statutory footing in one jurisdiction (New Zealand). In general, jurors are not normally advised that they may put questions to witnesses but a question may be put by the judge if a juror spontaneously requests this and the judge considers it appropriate to do so.
- There is very limited available evidence on the use of the other techniques surveyed in this report (**audio-visual methods of conveying information**

¹ For a comprehensive survey, see J Chalmers, "Jury majority, size and verdicts", in J Chalmers, F Leverick and A Shaw (eds), *Post-Corroborator Safeguards Review: Report of the Academic Expert Group* (2014) ch 13. Unanimous verdicts are required in Canada and many US jurisdictions, while some Australian jurisdictions permit near-unanimous verdicts but require unanimity in certain circumstances (principally conviction on a charge of murder).

and **plain language directions**), although this may reflect only which practices are recorded in the materials surveyed rather than suggesting such methods are not used.

As noted in chapter 1,² none of these methods other than juror note-taking is established practice in Scotland.

3.2 Limitations

Two notes of caution are appropriate. First, jury systems afford a considerable deal of discretion to the trial judge in how a jury is instructed. The use of particular techniques need not have specific legislative sanction and judges who choose to use particular techniques will not necessarily use those techniques in exactly the same way as other judges. It is not therefore possible to state categorically that a particular technique is used in certain jurisdictions and not used in others: the use of any technique will normally be a matter for an individual judge in the context of a specific trial. It is, however, possible to identify where particular techniques have become established or explicitly sanctioned. This may be evidenced through standard judicial instructions (sometimes referred to as “bench books”) where these exist and are made publicly available, the reported decisions of the courts, recommendations from official bodies, surveys of judges, or specific provision in legislation or court rules.

The absence of readily available evidence regarding a particular technique does not in itself demonstrate that it is not used. In particular, the sources consulted primarily document the use of particular practices by judges in directing juries, rather than by counsel in leading evidence from witnesses. It was not therefore possible in this study readily to identify evidence of established practice relating to audio-visual presentation methods (about which, as noted above,³ there exists only a small number of research studies). This suggests such methods are not routinely used by judges in instructing juries, but implies nothing about their use in relation to particular types of evidence, which will in any event vary significantly depending on the evidence being led.

Secondly, bespoke solutions may be developed for complex or unusual trials. For example, in a recent and very lengthy English trial for conspiracy to cheat the Revenue (lasting for just under one year), the judge made the following remarks after passing sentence:⁴

The trial itself has taken a very long time and there are multiple lessons to be learnt from it. One thing I wish to say is that the use of iPads (or other tablet devices) was used in this trial very successfully. Each juror had an iPad on which the whole of the evidence was available through chronological schedules of events which contained links. They also had the legal directions, the Indictment, the admissions and everything else they required. They could annotate these, highlight them and so on. The support we received from the

² See chapter 1.3.

³ See chapter 2.3.

⁴ R v Richards, Gold, Whiston-Dew, Anwyl and Demetriou, Southwark Crown Court, 10 Nov 2017 (Edis J).

contractor was admirable. I am very grateful to the team for all that they have done. The jury very quickly learned how to operate their iPads and were able to access them in retirement. They had almost no paper at all.

This evidence review does not address the use of such bespoke solutions, which may not be recorded in the literature, but instead is concerned with techniques which can be routinely applied across a range of trials in the normal course of court business.

3.3 Australia

Criminal trial procedure in Australia differs between the various individual jurisdictions. The review here focuses on the three largest states – New South Wales, Victoria, and Queensland – which in total account for around three-quarters of the Australian population and where the most detailed accounts of practice and reform suggestions are available.

3.3.1 Transcripts

In New South Wales, there is legislative provision to the effect that a judge may supply a copy of all or part of the transcript of evidence at a trial to the jury if the jury requests it and the judge “considers that it is appropriate and practicable to do so”.⁵ In making the recommendation which led to this provision, the New South Wales Law Reform Commission drew on a survey of judges which revealed a split of views on whether the transcript might ever assist the jury.⁶ The Commission cited the example given by one judge who suggested that the transcript might be of use “where the case turns upon: (a) precise words in conversation, (b) a comparison of details of events given by witnesses; (c) complex descriptions” and commented that “it would only seldom be appropriate to provide more than part of the transcript”.⁷ The current suggested directions in the Criminal Trial Courts Bench Book suggest that the jury should be told at the outset of the case that “[i]f you would like to have a copy of the transcript, either of all the evidence, or just of the evidence of a particular witness, then you only need to ask”.⁸

In Queensland, the Supreme and District Courts Bench Book suggests that juries should be directed at the outset that although the proceedings are being recorded, it is not the practice for a jury to be supplied with a copy of the transcript, but that if the

⁵ Jury Act 1977 s 55C (NSW), as inserted by the Jury (Amendment) Act 1987 Sch 1 (NSW). For discussion of the circumstances in which providing a transcript might be appropriate, see *R v Bartle* [2003] NSWCCA 329 at [660]-[672]. Prior to the 1987 amendment, juries were never or at most rarely provided with a transcript: see *R v Taousanis* [1999] NSWSC 107 at [8], commenting that any request for a transcript by the jury would surely have been refused.

⁶ 16 of 41 judges who responded believed the jury would never be assisted by access to the transcript, while 17 of 41 judges believed it might be of value in certain situations.

⁷ New South Wales Law Reform Commission, *The Jury in a Criminal Trial* (Report No 48, 1986) para 6.34. A suggested jury direction relating to the use of a transcript can be found in *Judicial Committee of New South Wales, Criminal Trial Bench Book* (2007, updated to Oct 2017) 1-530.

⁸ *Judicial Committee of New South Wales* (n 7) 1-490.

jury need to be reminded of what any of the witnesses said it can be read back to them.⁹

In Victoria, the judge may order that the transcript of some or all of the evidence in the trial be given to the jury for the purpose of helping the jury to understand the issues or the evidence.¹⁰

3.3.2 Note-taking

The suggested preliminary directions for juries in New South Wales, Victoria and Queensland all propose that juries should be told that they may take notes if they wish but should not allow this to distract them from assessing the witnesses and their evidence.¹¹

3.3.3 Allowing or Encouraging Questions During the Trial

In a recent New South Wales decision, the Court of Criminal Appeal was highly critical of the trial judge for having directed the jury during her introductory remarks that they were entitled to ask questions of the witnesses, an invitation which the jury had taken up to the extent of asking 56 questions. This had “crossed the boundary to the point in which the very nature of the trial was altered in a fundamental respect”.¹² While this does not appear absolutely to preclude allowing a question from the jury to be put to a witness (as may be done in Victoria and Queensland, discussed next), it demonstrates a clear disapproval of jury questioning.

In *R v Lo Presti*, the Supreme Court of Victoria noted the “perils” of jury questioning and formulated the following guidelines for trial judges:¹³

1. Juries should not be told of any right possessed by them to question a witness.
2. A juror who wishes to put, or have put, a question to a witness has a right for that to be done provided that the question or questions is or are limited to the clarification of evidence given or the explanation of some matter about which confusion exists.
3. It is not essential that the question asked be formulated by the foreman.
4. It is highly desirable that the question sought to be asked first be submitted to the judge so that he may consider its relevance and admissibility.

⁹ Queensland Courts, Supreme and District Court Benchbook (updated to March 2017) 4.9. See also *R v Rope* [2010] QCA 194, where a jury (which had not been directed in these terms) requested the transcript. It was commented at [30] that while the practice of providing a transcript “may be gaining acceptance”, the trial judge should not be criticised for refusing to provide it, but that the jury was entitled to have “read to it those parts of the evidence about which they seek to be reminded”.

¹⁰ Criminal Procedure Act 2009 s 223(ha), as inserted by the Jury Directions Act 2013 s 29. This implements a recommendation by the Victorian Law Reform Commission, *Jury Directions: Final Report* (2009) para 5.18. The statutory language simply refers to “the transcript of the evidence” rather than “some or all”, but the Victoria Criminal Charge Book (2016) 2.2.1, which provides detailed guidance on the potential use of transcripts, uses the “some or all” formulation.

¹¹ Judicial Committee of New South Wales (n 7) 1-490; Queensland Courts (n 9) 1.9.2.

¹² *R v Tootle* [2017] NSWCCA 103 at [63].

¹³ [1992] 1 VR 696.

5. If the judge allows the question it is immaterial whether it is actually asked by the juror or the judge. However, if the judge puts the question there will be removed the risk that exists when a layman is the questioner of the generation of a spontaneous exchange of questions and answers in the course of which improper material may emerge.

In Queensland, the Supreme and District Court Benchbook offers a form of direction to be offered for when a juror raises the issue of putting a question to a witness, based on the decision in *Lo Presti*: any potential question should be submitted to the judge in writing, and the judge will decide whether it is to be put to the witness. If it is put to the witness this will be done by the judge.¹⁴

3.3.4 Pre-instruction

The suggested preliminary directions for juries in New South Wales propose that juries should be directed at the outset on “where known, the issues to be raised in the trial”, and that these should be recorded in a written document to be provided to the jury for reference during the trial, alongside a number of other issues.¹⁵

This topic was the subject of extensive discussion in the Victorian Law Reform Commission’s 2012 report on Jury Directions, which recommended that:¹⁶

The jury should receive guidance about the issues that are in dispute from the start of the trial, although those issues may be narrowed and refined as the trial proceeds. Jurors should not have to wait until the end of the trial, as sometimes happens, to fully understand the relevance of the evidence they have heard.

3.3.5 Written Directions and Structured Decision Aids

In New South Wales, judges have had express statutory sanction for giving written directions to juries since 1987.¹⁷ This provision implements a recommendation of the New South Wales Law Reform Commission, which noted that it was clear that judges already had this power, but “some are wary of exercising the discretion over the objections of counsel”.¹⁸ Written directions may be given at any point during the trial.¹⁹ The Criminal Trial Courts Bench Book suggests that “in an appropriate case written directions on the elements of the offences and available verdicts and any

¹⁴ Queensland Courts (n 9) 15.1.

¹⁵ Judicial Committee of New South Wales (n 7) 1-010.

¹⁶ Victorian Law Reform Commission, Jury Directions (Report 136, 2012) para 6.3.

¹⁷ Jury Act 1977 s 55B (NSW) (“Any direction of law to a jury by a judge or coroner may be given in writing if the judge or coroner considers that it is appropriate to do so.”). Section 55B was inserted by the Jury (Amendment) Act 1987 Sch 1 (NSW).

¹⁸ NSW Law Reform Commission (n 7) para 6.36, citing authorities including *R v Petroff* (1980) 2 A Crim R 101. The Commission has reiterated the benefits of written directions in subsequent work: Consultation Paper 4: Jury Directions in Criminal Trials (2009) paras 10.13-10.38; Jury Directions (Report 136, 2012) paras 6.110-6.121.

¹⁹ See *R v Elomar & Ors* [2008] NSWSC 1442, where the trial judge permitted a “roadmap” or “chronology” of the facts alleged and sought to be proved, prepared by the Crown, to be given to the jury at the outset of proceedings to assist them in following a long and complex case.

other relevant matter be given to the jury before counsel address but with a short oral explanation of the directions”.²⁰

All this refers to written directions generally rather than to structured decision aids, although it is clear from reported case law that structured decision aids are used in at least some cases.²¹ A 2014 case noted that “question trails” were “common practice in some jurisdictions, including other States and Territories of Australia, and [are] becoming more common place in this jurisdiction [and] can be of great use in complex trials”.²² A 2016 speech to the District Court Annual Conference by a New South Wales judge, endorsing the practice of using question trails as in New Zealand and making recommendations as to how this should be done, has been published on the Supreme Court website.²³

In Queensland, the Supreme and District Court Benchbook notes that “self-defence is recognised as a difficult area in which to direct a jury” and that a judge “should endeavour to lay out a logical and coherent pathway for the jury e.g. by written aids, flow charts etc” but does not appear to address the question of written directions or structured decision aids more generally.²⁴ There is a relatively small number of reported appellate decisions in which the use of a “question trail” by the trial judge is recorded, and where the court has considered the terms of the question trail but has not commented on the practice of using such aids.²⁵

In Victoria, written directions and structured decision aids are explicitly sanctioned by section 223 of the Criminal Procedure Act 2009, following various amendments made to that section between 2013 and 2017.²⁶ The effect of that provision is summarised in the Victoria Criminal Charge Book as follows:²⁷

Under the Criminal Procedure Act 2009 s 223, a judge may give the jury written directions summarising relevant matters of law, setting out the questions it may be pertinent for them to consider, or describing the possible verdicts at which they may properly arrive.

Written directions may be particularly helpful where the law is complicated, or where there are a number of alternative verdicts to be considered.

²⁰ Judicial Committee of New South Wales (n 7) 1-535.

²¹ Recent appellate decisions referring to “question trails” having been used at trial include R v Jenkins [2017] NSWSC 593; R v Duffy [2017] NSWCCA 77; R v Lane [2017] NSWCCA 46.

²² R v Budrodeen [2014] NSWCCA 332 at [3].

²³ RA Hulme, “Sharpening up your summing up”, paper presented at the District Court Annual Conference at Wollongong, 29 March 2016.

²⁴ Queensland Courts (n 9) 94.2.

²⁵ R v Cowan [2015] QCA 87; R v Graham [2015] QCA 137; R v Teichmann [2016] QCA 347; R v Pham [2017] QCA 43. See also R v Mazza [2017] QCA 136 (“written directions”, but not described as a question trail).

²⁶ Empirical research in 2006 found that some judges in Victoria provided written materials but these were fairly rudimentary; judges who did not do this were concerned they lacked the necessary experience and time. See E Najdovski-Terziovski, J Clough and J R P Ogloff, “In your own words: a survey of judicial attitudes to jury communication” (2008) 18 Journal of Judicial Administration 65 at 77.

²⁷ Victoria Criminal Charge Book (2016) 2.2.1.8-11, citations to case law omitted.

In cases involving numerous, detailed and complex legal issues, it may be an imposition on the jury *not* to assist them by providing them with written directions. It may be unrealistic to believe that they will be able to retain the key structure and content of the summing-up in their minds without the assistance of such a document.

Written directions should not be used as a substitute for directions of law or references to how the parties have put their case. Instead, written directions may be used in conjunction with and to supplement oral directions (see Jury Directions Act 2015 ss 65, 66).

In addition to this provision, section 67 of the Jury Directions Act 2015 permits a trial judge to give to the jury “directions that contain, or are in the form of, factual questions that address matters that the jury must consider or be satisfied of in order to reach a verdict, including the elements of the offence and any relevant defences”: that is, a question trail.²⁸ Amendments in 2017 expressly permit the judge to direct the jury on the order in which it must consider the issues in a trial.²⁹

3.4 Canada

In Canada, model jury instructions are published by the Canadian Judicial Council.³⁰ These instructions are regularly referred to by the courts,³¹ albeit with the caveat that they are “a tool” which exists “to guide, not govern”.³² These, along with the reported decisions of the appellate courts, provide clear evidence of accepted best practice in relation to various aspects of jury direction.

3.4.1 Transcripts

The Model Jury Instructions include a direction addressing this point, to be given at the end of the trial, to the effect that jurors will not be provided with a transcript but may ask for guidance when they cannot recall a point or their recollections differ. It reads as follows:³³

Although the testimony of every witness has been recorded, we will not have a written transcript of the evidence available for you to review when you go to the jury room to discuss your decision in this case. I think you will find that

²⁸ See e.g. *Dunn v The Queen* [2017] VSCA 371 at [5]; *Beqiri v The Queen* [2017] VSCA 112 at [82], both of which refer to directions given under section 67 of the 2015 as “question trails”. The legislation (which is permissive rather than mandatory) does not explicitly require that such directions are in writing, but it is clear that it encompasses a written form: see e.g. *Dunn* at [67] (“a five-page document”).

²⁹ Jury Directions Act 2015 ss 64E-64F (Vic), as inserted by the Jury Directions Act 2017 s 9 (Vic). The appropriate order in which to consider issues would seem to be strongly implied by a question trail in any event, but these provisions are broader and apply to both oral and written directions.

³⁰ They are available on the National Judicial Institute’s website at <https://www.nji-inm.ca/index.cfm/publications/model-jury-instructions/>.

³¹ Recent examples in the Supreme Court of Canada include *R v Villaroman* 2016 SCC 33 at [23] and *R v H (JM)* 2011 SCC 45 at [25].

³² *R v Rodgeron* 2015 SCC 38 at [51].

³³ National Judicial Institute, Model Jury Instructions, section 12.1 (last revised June 2012).

your collective memory of the evidence is good. However, if there is something you cannot recall or your recollections differ, counsel and I will try to assist you by reviewing our notes or I may direct that the evidence be played back from the recorder. Normally, we would play back both the direct evidence and the cross-examination on any point.

3.4.2 Note-taking

The Model Jury Instructions include a direction on note-taking to be given (if at all) at the outset of the trial. It reads as follows:³⁴

We depend on the memory and judgment of all jurors to decide this case. If you want to take notes during the trial to help you remember what a witness said, you may do so. You may find it difficult, however, to take detailed, accurate notes and, at the same time, pay close attention to what witnesses are saying and how they are saying it. If you take notes, do not be distracted from your duty to observe the witnesses. You may always ask to hear a tape of a witness's testimony or have some evidence read back to you, but you only have one chance to observe the appearance and behaviour of the witnesses when they testify. If you decide not to take notes, you must still listen carefully to the evidence.

This direction is suggested as optional, to be given only "when the judge decides to tell jurors that they may take notes". This reflects judicial authority from 1985 acknowledging arguments that had been made against note-taking, albeit suggesting that those arguments had been refuted by a Law Reform Commission of Canada report recommending that jurors be provided with note-taking facilities.³⁵ A judge in a later (2003) case suggested that note-taking had become more common in recent years and should be permitted "with appropriate cautions from the Court".³⁶

3.4.3 Allowing or Encouraging Questions During the Trial

The Model Jury Instructions include an optional direction on questions from the jury which "should only be given when the judge decides to permit jurors to ask questions and to tell them that they may do so". It reads as follows:³⁷

It is not the role of jurors to conduct the trial. It is your duty to consider the evidence that is presented, not to decide what questions the witnesses should be asked or how to ask them. Sometimes you might wish to ask a witness a question. It is usually best to listen to the rest of the witness's testimony in case your question is answered later. It may even be answered by another

³⁴ Ibid section 4.5 (last revised March 2011), paragraph numbers omitted.

³⁵ R v Andrade (1985) 18 CCC (3d) 41 at [51], citing Law Reform Commission of Canada, *The Jury in Criminal Trials* (Working Paper No 27, 1980) 115-118.

³⁶ R v Mariani (2003) 59 WCB (2d) 526 at [3]. A "surprising dearth of authority in Canada" on the issue of note-taking was noted in R v Codina (1995) 95 CCC (3d) 311 at [73]. See also the civil case of Cowles v Balac (2006) 151 ACWS (3d) 1044 at [193] and M Comiskey, "Initiating dialogue about jury comprehension of legal concepts: can the 'stagnant pool' be revitalised?" (2010) 35 Queen's Law Journal 625 at 648-651.

³⁷ National Judicial Institute (n33) section 4.6 (last revised March 2011), paragraph numbers omitted.

witness. This is why it is generally best simply to be patient and listen closely to all the evidence. However, if there is an important point that you believe needs to be clarified, put up your hand to indicate that you have a question. Please hand your question to me in writing. After I have read the question, I will decide what to do. I may need to ask you to go to the jury room while I discuss the question with the lawyers.

In 2001, two commentators observed that “[w]hile some judges have allowed jurors to ask some questions, Canadian courts have devoted very little attention to this practice”.³⁸ In a 2015 case where jurors requested additional information about aspects of a witness’s testimony, the trial judge reviewed the (limited) authorities and concluded that they supported a procedure whereby questions could be permitted where “(a) clear preliminary jury instruction is provided; (b) the questions are considered only at the end of a witness’s testimony; (c) the questions are reduced to writing; (d) counsel is given the opportunity to make submissions in the absence of the jury, and; (e) the judge considers whether the question is admissible in light of counsel’s submissions and the usual rules of admissibility”.³⁹

3.4.4 Pre-instruction

The Model Jury Instructions include an optional direction, to be given before evidence is led:⁴⁰

To help you follow the evidence in this case, I will describe the essential elements of the offence charged. After all of the evidence has been presented, I will give you complete instructions on the law that applies to these essential elements and to any other issues you must consider.

A note accompanying the instruction advises that it “should be used with care, especially where there are several definitions of an offence and a dispute between the parties whether there is an evidentiary foundation for the submission of some of them to the jury”, and that “[e]xcept in the rarest of cases... should not include any reference to substantive defences as the evidence may unfold differently than anticipated”.

3.4.5 Written Directions and Structured Decision Aids

Notwithstanding some hostility to the use of written directions in earlier cases,⁴¹ more recent decisions have endorsed this practice. In 2002, the Ontario Court of Appeal commented that:⁴²

³⁸ JRP Ogloff and RA Schuller, *Introduction to Psychology and Law: Canadian Perspectives* (2001) 179.

³⁹ *R v Koopmans* 2015 BCSC 2501 at [18]. Here, “preliminary jury instruction” does not necessarily mean instruction at the start of the trial; in this case the instruction was given when the jury had raised the issue.

⁴⁰ National Judicial Institute (n 33) section 5.3 (last revised March 2011).

⁴¹ See *R v Wong (No 2)* [1978] 4 WWR 468 at [24] (“no doubt a dangerous procedure and should, I think, be adopted only in very special circumstances and with great care”); *Comiskey* (n 41) at 655-657.

⁴² *R v Poitras* [2002] OJ No 25 at [47]. See also *R v Browne* 2017 ONSC 5796. Cf *R v Li* 2012 ONCA 291.

The time has come to embrace the use of written material to enhance juror comprehension of oral instructions, particularly where those instructions must be lengthy and complex. There is no legal impediment to the use of written material as an adjunct to oral instructions. While the Criminal Code contemplates that trial judges will give closing instructions to the jury (s. 650.1), it says nothing about how those instructions should be given.

The court in that case was critical of the trial judge for not including, in a written document consisting of 30 typed pages, instructions on the presumption of innocence and reasonable doubt in his written directions, but concluded that this omission had not prejudiced the accused.

The practice of providing the jury with a route to verdict, commonly referred to in Canada as a “decision tree”, has become more common in Canadian practice in recent years,⁴³ as is evidenced by such aids being regularly cited in appellate court decisions⁴⁴ and the fact that the Model Jury Instructions in respect of offence and defence elements are presented in the form of decision trees (albeit that this does not itself require that the directions be given in writing, as the questions could be put to the jury orally).

3.5 England and Wales

3.5.1 Transcripts

Jurors are not routinely provided with transcripts in England and Wales. While there is some case law on the extent to which jurors should be permitted to access the transcript of a police interview recording which is played in court,⁴⁵ this is very different both from being provided with a transcript of the trial or from being allowed to refer to such a transcript during deliberations. Darbyshire records that in research for her book *Sitting in Judgment*, she interviewed 25 Crown Court judges, 19 of whom considered this a bad idea – referring to the risk of juries getting “bogged down”, and emphasising their role in noting the demeanour of witnesses – but six of whom would be prepared to allow jurors access to a transcript.⁴⁶

3.5.2 Note-taking

The Crown Court Compendium suggests that a jury should “if appropriate” be directed to the following effect at the start of the trial:⁴⁷

Notepaper and writing materials have been made available for use by the jury. The jury may take such notes as they find helpful. However, it would be better

⁴³ Comiskey (n 41) at 656-657.

⁴⁴ In 2017, see R v Phillips 2017 ONCA 752; R v Primeau 2017 QCCA 1394; R v Pardy 2017 NLCA 49; R v Kelly 2017 ONCA 621; R v Spence 2017 ONCA 619; R v Harkes 2017 ABCA 229; R v Monckton 2017 ONCA 450; R v Gayle 2017 ONCA 297; R v Pierre 2017 ONCA 140.

⁴⁵ See R v Emmerson (1991) 92 Cr App R 284; R v Popescu [2010] EWCA Crim 1230.

⁴⁶ P Darbyshire, *Sitting in Judgment: The Working Lives of Judges* (2011) 218-219.

⁴⁷ Judicial College, *The Crown Court Compendium* (Nov 2017) p 3-4.

not to take so many notes that they are unable to observe the manner/demeanour of the witnesses as they give their evidence. The jury are not obliged to take any notes at all if they do not wish to. In any event the judge will review the evidence when summing up at the end of the trial.

3.5.3 Allowing or Encouraging Questions During the Trial

In its 2012 consultation paper on Contempt of Court, the Law Commission suggested “that jurors should be given greater encouragement to ask questions during the proceedings about the evidence in the case, in order to discourage them from trying to find the information on their own initiative”.⁴⁸ A consultation response from the senior judiciary was critical of this proposal:⁴⁹

As to the asking of questions by jurors, we understand they are already made aware of their ability to do this. We see no need to emphasise this further. It raises false expectations since many questions cannot properly be answered or may hamper the efficient progress of the case. Moreover, to encourage questions and then not to answer them because they relate to inadmissible background or irrelevant matters is unsatisfactory.

The opening remarks suggested by the Crown Court Compendium do not in fact include an express statement about the ability of jurors to ask questions, but include an optional direction to the effect that “[i]f any juror needs to ask a question or give any information to the judge during the trial they should write a short note and give it to the usher”.⁵⁰

3.5.4 Plain Language Directions

Most of the example directions in the Crown Court Compendium were reviewed by the Plain English Campaign prior to their inclusion in the Compendium.⁵¹

3.5.5 Pre-instruction

The Criminal Procedure Rules place an obligation on the court, in “order to manage a trial”, to “establish, with the active assistance of the parties, what are the disputed issues”.⁵² The Criminal Practice Directions⁵³ note that the prosecution’s opening speech, which should “concisely outlin[e] the facts and the matters likely to be in dispute”.⁵⁴ After this speech has been made, the court may, “to help the jurors to understand the case and resolve any issue in it... invite the defendant concisely to

⁴⁸ Law Commission, Contempt of Court (Law Com CP No 209, 2012) para 4.85.

⁴⁹ Treacy LJ and Tugendhat J, “Contempt of court: a judicial response to Law Commission Consultation paper No 209” (2013) paras 75-76. <https://www.judiciary.gov.uk/wp-content/uploads/JCO/Documents/Consultations/sen-judiciary-response-to-law-comm-on-contempt-court.pdf> (last accessed 6 February 2018)

⁵⁰ Judicial College (n 47) p 3-4.

⁵¹ Judicial College (n 47) p 1-6.

⁵² Criminal Procedure Rules r 3.11(a).

⁵³ Paras 25A.1-25A.2.

⁵⁴ Criminal Procedure Rules r 25.9(2)(b).

identify what is in issue, if necessary in terms approved by the court”, or direct that the jurors be given a copy of any defence statement.⁵⁵

The identification of issues in this way provides an opportunity for pre-instruction, as explained in the Criminal Procedure Directions:⁵⁶

To identify the issues for the jury at this stage also provides an opportunity for the judge to give appropriate directions about the law; for example, as to what features of the prosecution evidence they should look out for in a case in which what is in issue is the identification of the defendant by an eye-witness. Giving such directions at the outset is another means by which the jury can be helped to focus on the significant features of the evidence, in the interests of a fair and effective trial.

The Crown Court Compendium suggests that such directions might be given either orally and/or in a short document, emphasising that they are intended as no more than a brief introductory summary.⁵⁷

The Criminal Procedure Rules require the court to “give the jury directions about the relevant law at any time at which to do so will assist jurors to evaluate the evidence”.⁵⁸ This could be pre-instruction, as set out above, but could also consist of specific directions prior to the relevant evidence being led, or shortly thereafter.⁵⁹

3.5.6 Written Directions and Structured Decision Aids

In English practice, a “route to verdict” is defined as a written document “which poses a series of questions that lead the jury to the appropriate verdict”.⁶⁰ Since April 2016, the Criminal Practice Directions have stated that a trial judge should provide a written route to verdict “save where the case is so straightforward that it would be superfluous to do so”.⁶¹ Sample routes to verdict are provided in the Crown Court Compendium.

Even before the April 2016 amendment, the use of such documents, sometimes referred to as “steps to verdict”,⁶² had become well-established in English practice,⁶³

⁵⁵ Criminal Procedure Rules r 25.9(2)(b). A “defence statement” is one served as part of the disclosure process.

⁵⁶ Para 25A.3.

⁵⁷ Judicial College (n 47) p 3-2.

⁵⁸ Criminal Procedure Rules r 25.14(2).

⁵⁹ Criminal Procedure Directions para 26K.8. Examples are noted at para 26K.10. Any directions provided prior to the closing speeches should be listed (but not repeated) in the judge’s summing up, so as to provide a definitive account of all directions in the event of an appeal: para 26K.19.

⁶⁰ CPD VI 26K.11. Examples of the text of routes to verdict can be found in a number of reported cases: e.g. *R v Grant-Murray* [2017] EWCA Crim 1228 at [91]; *R v Varley* [2017] EWCA Crim 268 at [25].

⁶¹ CPD VI 26K.11, as inserted by the Criminal Practice Directions 2015 Amendment No 1 [2016] EWCA Crim 97.

⁶² *R v Fathi* [2001] EWCA Crim 1028 appears to be the first case where this term is used; “routes to verdict” first appears in *R v Marston* [2007] EWCA Crim 2477. *R v Slack* [1989] QB 775 appears to be the earliest case referring to a jury being provided with “written directions”. Reported cases referring to juries receiving written directions of any sort exist only sporadically before 2009.

and they are now regularly referred to in Court of Appeal judgments.⁶⁴ The introduction of the presumption in favour of their use follows arguments made in their favour by various judges over time, whether in the context of official reviews⁶⁵ or extra-judicially.⁶⁶

While acknowledging that some cases may be sufficiently straightforward that no route to verdict is required,⁶⁷ the Court of Appeal has in recent years, even before the 2016 amendment, regularly criticised trial judges for not providing written routes to verdict,⁶⁸ noting that they may be particularly valuable in, for example, cases involving multiple defendants alleged to have performed different roles,⁶⁹ or where the burden of proof differs in respect of different issues before the jury.⁷⁰

A route to verdict may be provided before closing speeches from counsel, along with other directions on the law if the judge decides that this will assist the jury. This is referred to as a “split summing up”, which “may avoid repetitious explanations of the law by the advocates”.⁷¹

A judge may provide the jury with further written materials in addition to any route to verdict. These might address, for example, directions beyond the route to verdict itself (such as in relation to particular types of evidence) or a complex chronology.⁷² Where material, such as a chronology, addresses matters of fact rather than law, it would be expected that such a document would be agreed with counsel,⁷³ or prepared by the parties and approved by the judge.⁷⁴ It has been held that it is generally inappropriate (as being liable to confuse) to provide a jury with copies of relevant legislation unless it is short and straightforward.⁷⁵

⁶³ Judicial College, *The Crown Court Compendium* (May 2016) para 1.5 (“Recent surveys with judges at Judicial College courses have revealed that over 90% of judges now use written directions some of the time.”)

⁶⁴ Westlaw records over 30 decisions of the Court of Appeal reported in 2016 and 2017 which referred to a “route to verdict” or “steps to verdict” document.

⁶⁵ RE Auld, *Review of the Criminal Courts of England and Wales* (2001) 533; B Leveson, *Review of Efficiency in Criminal Proceedings* (2015) para 288.

⁶⁶ N Madge, “Summing up: a judge’s perspective” [2006] *Crim LR* 817; Moses LJ, “Summing down the summing-up”, *Annual Law Reform Lecture*, The Hall, Inner Temple, 3 November 2010.

⁶⁷ See e.g. *R v Purlis* [2017] *EWCA Crim* 1135 at [34] (“There was one issue: identification.”)

⁶⁸ See e.g. *R v DSK* [2017] *EWCA Crim* 1134 at [34]; *R v Brown* [2017] *EWCA Crim* 167 at [70]; *R v Samuels* [2016] *EWCA Crim* 1876 at [9]; *R v Shah* [2016] *EWCA Crim* 1632 at [47]; *R v Ashiq* [2015] *EWCA Crim* 1617 at [40].

⁶⁹ *R v Brown* [2017] *EWCA Crim* 1134.

⁷⁰ *R v Wilcocks* [2017] 4 *WLR* 39 at [34].

⁷¹ *Criminal Procedure Directions* para 26K.16.

⁷² *Criminal Procedure Directions* paras 26K.13-14.

⁷³ *R v McCredie* [2000] *BCC* 617 at 620. See also *R v Bennett* [2015] 1 *Cr App R* 16.

⁷⁴ *Criminal Procedure Directions* para 26K.15.

⁷⁵ *R v C* [1991] 2 *FLR* 252.

3.6 Ireland

3.6.1 Transcripts

Section 57 of the Criminal Justice (Theft and Fraud Offences) Act 2001 makes specific provision in relation to the trial on indictment of offences under that Act, permitting the judge to order that the jury should be given transcripts of all or part of the trial, including the judge's charge to the jury.⁷⁶ Concerns about the high cost of this measure and the technical difficulties of implementing it meant that it was not brought into force until August 2011.⁷⁷ Similar provisions have been made in other legislation in respect of other specified offences.⁷⁸

A 2013 report by the Law Reform Commission recommended that section 57 of the 2001 Act should be extended to all trials on indictment.⁷⁹

3.6.2 Note-taking and Questions

The Courts Service website includes a list of "common questions" asked by jurors, including:⁸⁰

May I take notes?

You may take notes if you wish but there is no need to write everything down as the judge will summarise the evidence for you at the end of the case. The notes can only be used in the courtroom and jury room. You cannot take them home with you. They are destroyed at the end of the trial.

May I ask a question during the trial?

Each juror must understand the case. Therefore, if you need to check something, you may write down a question and pass it to the foreman/woman who will then ask the judge.

3.6.3 Written Directions

In its 2013 report, the Law Reform Commission noted research suggesting that juror comprehension of legal directions was aided by written directions,⁸¹ but did not make specific recommendations in this regard, recommending instead that legislative

⁷⁶ Section 57.

⁷⁷ Criminal Justice (Theft and Fraud Offences) 2001 (Commencement) Order 2011 (SI No 394 of 2011). See Department of Justice and Equality, "Minister Shatter Announces White Collar Crime Measure", 3 Aug 2011. <http://www.justice.ie/en/JELR/Pages/PR11000161>. Section 57 was the last section of the Act to be commenced: C McGreal, Criminal Justice (Theft and Fraud Offences) Act 2001, 2nd edn (2011) 158.

⁷⁸ Central Bank (Supervision and Enforcement) Act 2013 s 56 (offences under financial services legislation; in force since 2013); Competition Act 2002 s 10 (in force since 2011); Company Law Enforcement Act 2011 s 110 (in force since 2011); Communications Regulation Act 2002 s 46C (in force since 2007). See also S Horan, Corporate Crime (2011) para 8.18.

⁷⁹ Law Reform Commission, Jury Service (LRC 107-2013) para 10.27.

⁸⁰ <http://www.courts.ie/courts.ie/library3.nsf/pagecurrent/58D1622F4C8923EB80258010005635DF> (last accessed 6 February 2018).

⁸¹ Para 10.25, citing C Thomas, Are Juries Fair? (2010).

provision be made for empirical research into various matters including juror comprehension.⁸²

3.7 New Zealand

3.7.1 Transcripts

According to a 2012 lecture by a New Zealand judge, “[i]t is common practice now for juries to be given a transcript of the evidence to assist them in their deliberations”.⁸³ This practice is a “relatively recent phenomenon”, following the findings of jury research.⁸⁴ In a 2013 case discussing giving videotaped evidence in chief, it was noted that practice had moved on considerably from when the jury might be provided with a transcript of that video and that alone.⁸⁵

In earlier times, although a transcript of the complainant’s video was normally available to the jury, a transcript of the remainder of the complainant’s evidence (cross-examination and re-examination), and the other evidence in the trial was not generally available to the jury. All this changed some time ago. It is routine for juries to have available a transcript of the entire oral evidence given at the trial as well as other documentary assistance. This has had two main benefits. First, the task of the trial judge is simplified because it is no longer necessary for the judge to read to the jury the transcript of the complainant’s oral evidence after the video is replayed. Second, the jury has ready access to all the other evidence in the case as well.

3.7.2 Note-taking

A 2004 postal survey of New Zealand judges, found that the “vast majority” of judges allowed jurors to take notes, recording that 84 per cent of judges specifically advised jurors that they could take notes during the trial.⁸⁶

3.7.3 Allowing or Encouraging Questions During the Trial

New Zealand has a specific statutory framework for questions by jurors. Section 101 of the Evidence Act 2006 provides as follows:⁸⁷

⁸² Para 11.18.

⁸³ S Glazebrook, “Streamlining New Zealand’s criminal justice system”, paper prepared for the Criminal Law Conference 2012: Reforming the Criminal Justice System of Hong Kong, 17 November 2012, n 5. See also *S v R* [2013] NZCA 350 at [6] (“normal practice”).

⁸⁴ *S v R* [2013] NZCA 350 at [20] n 8, citing W Young, N Cameron and Y Tinsley, *Juries in Criminal Trials Part 2: A Summary of the Research Findings* (Preliminary Paper 37, 1999) at [87]-[91]. The court in *The Queen v McLean* [2001] NZCA 233 noted at [41] that some trial judges had begun to make transcripts available to juries, and confirmed that they had a discretion to do so.

⁸⁵ *E v R* [2013] NZCA 678 at [57].

⁸⁶ J R P Ogloff, J Clough and J Goodman-Delahunty, “Enhancing communication with Australian and New Zealand juries: a survey of judges” (2007) 16 *Journal of Judicial Administration* 235 at 241. The response rate to the survey was 54% amongst New Zealand judges.

⁸⁷ For the background to this provision, see Law Commission, *Evidence* (NZLC Report No 55, 1999) paras 443-444. The Commission considered that this was an area where there was “considerable

- (1) If a jury wishes to put a question to a witness in a proceeding,—
 - (a) the jury must first inform the Judge of the question; and
 - (b) the Judge must determine—
 - (i) whether and how the question should be put to the witness; and
 - (ii) if the question is to be put to the witness, whether the parties may question the witness about matters raised by the question.
- (2) If a question from the jury is put to a witness, then, subject to any determination made by the Judge under subsection (1)(b)(ii),—
 - (a) every party, other than the party who called the witness, may cross-examine the witness on any matter raised by the jury's question; and
 - (b) the party who called the witness may re-examine the witness.

3.7.4 Written Directions and Structured Decision Aids

New Zealand juries are “almost always offered a ‘question trail’ which outlines the key factual issues that must be determined to reach a verdict”.⁸⁸ This can be seen by the fact that “question trails” are now regularly cited in appellate court decisions.⁸⁹ A 2012 lecture by the former chair of the Institute for Judicial Studies noted that the Institute’s training on directing juries required participants to draft and discuss question trails based on a mock case provided to participants.⁹⁰ A 2014 case summarised the position as follows:⁹¹

While they have no statutory basis, question trails or issues sheets – written directions provided by judges to assist juries in reaching a verdict – are regarded as “contemporary best practice” in criminal trials. Their principal purpose is to supplement the judge’s oral summing-up by distilling in written form the issue or issues for determination in a series of logical steps which relate the essential factual allegations of a charge directly to its legal elements. The judicial expectation is that the question trail will give proper contextual guidance on the relevant legal principles and serve as a structural

variation in judicial view and practice”, but concluded that “[p]roperly controlled, jury questions will promote the rational ascertainment of facts”.

⁸⁸ Law Commission, *The Justice Response to Victims of Sexual Violence: Criminal Trials and Alternative Processes* (NZLC Report 136, 2015) para 3.40.

⁸⁹ In the second half of 2017 alone, see *Edwardson v R* [2017] NZCA 618; *Northland Environmental Protection Society v Chief Executive of the Minister for Primary Industries* [2017] NZCA 607; *Henderson v R* [2017] NZCA 605; *Liu v R* [2017] NZCA 573; *Keil v R* [2017] NZCA 563; *Pohutuhutu v R* [2017] NZCA 501; *Nuku v District Court at Auckland* [2017] NZCA 471; *W v The Queen* [2017] NZSC 154; *M v R* [2017] NZCA 428; *Beamsley v R* [2017] NZCA 406; *Fungavaka v The Queen* [2017] NZSC 119; *Rose v R* [2017] NZCA 335; *Titford v R* [2017] NZCA 331; *White v R* [2017] NZCA 322; *Rowe v R* [2017] NZCA 316; *W v R* [2017] NZCA 304; *Christian v R* [2017] NZCA 296; *Simon v R* [2017] NZCA 277. See also *Hagaman v Little* [2017] NZCA 447 at [15], a civil jury case describing question trails as the “modern practice in New Zealand”.

⁹⁰ S Glazebrook, “Streamlining New Zealand’s criminal justice system”, paper prepared for the Criminal Law Conference 2012: Reforming the Criminal Justice System of Hong Kong, 17 November 2012.

⁹¹ *Singh v R* [2014] NZCA 306 at [1]-[2].

framework for the jury's deliberations.

Adopting a best practice approach, the question trail should: (a) correctly state the substantive law; (b) remind the jury that the Crown has the onus of proof and that its standard is beyond reasonable doubt; (c) emphasise that a not guilty verdict must be delivered if the jury is unsure about proof of an essential element of the charge or charges; and (d) not strive for artificiality if the evidence clearly favours one side – fair presentation depends on the facts of the case. Best practice also requires that the judge should consult with counsel about the contents of the document before finalising its terms.

3.8 United States of America

Practice and legislation in respect of juries differs across the various United States jurisdictions and a comprehensive account would be a considerable undertaking well beyond the scope of the current report. This section does not, therefore, attempt to conduct a full review of individual state (or federal court) practice or legislation in respect of communication with juries, but provides a highly selective note drawing on published material which itself seeks to provide an overview of practice in the United States.

3.8.1 Transcripts

The position relating to requests by the jury to review testimony or evidence has been summarised as follows:⁹²

It sometimes happens that the jury after retiring will submit to the trial judge a request to review certain testimony or evidence. A number of states have statutes or court rules which appear to require the judge to honor such a request, but the courts are not in agreement as to whether these provisions are mandatory or discretionary. Elsewhere the judge has some discretion as to whether to act favorably upon the jury's request. If the judge grants the request, it is advisable that the judge consider having the jury review other evidence relating to the same factual issue so as not to suggest the evidence requested is especially important.

Review of this sort will not necessarily involve providing a transcript to the jury: it may instead (and, from the reported cases, appears more likely to) involve a "read-back" of the relevant evidence.⁹³

⁹² WR LaFave, JH Israel, NJ King and OS Kerr, *Criminal Procedure* (updated to December 2017) §24.9(c).

⁹³ See e.g. *Hazuri v State*, 91 So 3d 836 (Fla, 2012): where a Florida jury requested transcripts and the request was denied, it was held that the court had erred by not informing the jury of their right to have testimony read back to them. An example of a case where transcripts were provided to the jury instead of evidence being read back can be found in *US v Escotto*, 121 F 3d 81 (2nd Cir, 1997).

3.8.2 Note-taking

Despite historic opposition to the practice of note-taking,⁹⁴ it appears to have become widely established in US practice, with a 2002-2006 survey finding that 69% of state courts and 71.2% of federal courts permitted jurors to take notes.⁹⁵ These figures relate to both civil and criminal jury trials; a follow-up study limited to civil jury trials in 2014 reported an increase in the extent to which note-taking was permitted, to 76% of courts.⁹⁶

3.8.3 Allowing or Encouraging Questions During the Trial

Some US jurisdictions permit questions by jurors (provided the questions are asked through the trial judge), while others prohibit it.⁹⁷ A 2010 article summarised the position as follows:⁹⁸

More than half of the states and all of the federal circuits permit jurors to submit written questions for witnesses but leave it to the discretion of the trial judge to decide whether to permit the practice in any given case. The American Bar Association, in its Principles for Juries & Jury Trials, recommends permitting juror questions and suggests that juror questions might be particularly useful in cases that are “complex” or where there is “complicated evidence or unclear testimony.” In criminal trials three states have rules that mandate juror questions, and six states have case law that prohibits juror questions. In civil trials, six states have rules that mandate juror questions, and ten states have case law that seems to prohibit juror questions. Thus, most states simply permit the practice but give the trial judge discretion in deciding when to use it.

3.8.4 Plain Language Directions

The New South Wales Law Reform Commission has identified California as having carried out perhaps the largest project aiming to draft jury directions in plain English. A task force was appointed in 1997 to carry out this task, and sets of civil and

⁹⁴ See e.g. JS Woodcock, “Note taking by jurors” (1951) 55 Dickinson Law Review 335, noting decisions such as *US v Davis* 103 F Rep 457 (1900), aff. 107 F 753 (6th Cir 1901), where the court refused to allow note-taking on the basis that it would give a juror a dangerous “undue influence” in discussions, either because his notes might be erroneous or incomplete or because it would allow him to act with a “corrupt purpose” and deceive other jurors.

⁹⁵ GE Mize, P Hannaford-Agor and NL Waters, *The State-of-the-States Survey of Jury Improvement Efforts: A Compendium Report* (2007) 32. This represents a significant change from estimates in the late 1980s that 90% of federal judges did not permit note-taking; it appears that permitting the practice became widespread by the late 1990s. See NS Marder, “Juror bias, voir dire, and the judge-jury relationship” (2015) 90 Chicago-Kent Law Review 927 at 947 n 96.

⁹⁶ P Hannaford-Agor, “But have we made any progress? An update on the status of jury improvement efforts in state and federal courts” (National Center for State Courts Center for Jury Studies, 2015) 7.

⁹⁷ See 81 Am. Jur. 2d Witnesses § 648 (Propriety of juror questions).

⁹⁸ NS Marder, “Answering jurors’ questions: next steps in Illinois” (2010) 41 Loyola University Chicago Law Journal 727 at 747. A more recent survey, restricted to the Eighth Circuit and Iowa, but examining empirical survey data as well as case law, can be found in TD Waterman, MW Bennett and DC Waterman, “A fresh look at jurors questioning witnesses” (2016) 64 Drake Law Review 485, which reaches positive conclusions regarding the practice.

criminal jury instructions were published in 2003 and 2005 respectively.⁹⁹ Similar efforts have been undertaken in a range of other US jurisdictions.¹⁰⁰

3.8.5 Pre-instruction

A 2007 report found that “[e]ight states report that they require judges to pre-instruct jurors on the substantive law before the evidentiary portion of the trial, although most of the required instructions deal with basic legal principles such as burden of proof and admonitions concerning juror conduct rather [than] specific instructions on the elements of crimes or claims to be proven at trial. Two states – Nevada and Texas – prohibit pre-instructions”.¹⁰¹ In a 2006 decision,¹⁰² the Appellate Division of the Supreme Court of New York noted that it had previously held that it was an error “to instruct the jury before summations with respect to the elements of the crime with which the defendant has charged”,¹⁰³ and had regularly adhered to that holding. It concluded, however, that it was appropriate to change that position, noting that since that earlier decision an “enormous amount” of jury research had found benefits in the practice.

3.8.6 Written Directions and Structured Decision Aids

In *James v Kentucky*,¹⁰⁴ the US Supreme Court agreed that a state was entitled to require that jury instructions be provided in writing, as Kentucky law does.¹⁰⁵ Some other states have a similar requirement but most, “along with the federal courts, leave the use of written instructions to the discretion of the trial judge”.¹⁰⁶

⁹⁹ New South Wales Law Reform Commission, Consultation Paper 4: Jury Directions in Criminal Trials (2009) para 3.24. See further PM Tiersma, *Communicating with Juries: How to Draft More Understandable Jury Instructions* (2006) (a member of the simplification committee who sets out the principles that were used in the project).

¹⁰⁰ See JS Vowell, “Alabama pattern jury instructions: instructing juries in plain language” (2005) 29 *American Journal of Trial Advocacy* 137 at 148-149.

¹⁰¹ Mize, Hannaford-Agor and Waters (n 95) 36.

¹⁰² *People v Harper*, 32 AD 3d 16 (2006).

¹⁰³ In *People v Mollica*, 267 AD 2d 479 (1999).

¹⁰⁴ 486 US 341 (1984).

¹⁰⁵ Kentucky Rules of Criminal Procedure Rule 9.54 (“It shall be the duty of the court to instruct the jury in writing on the law of the case, which instructions shall be read to the jury prior to the closing summations of counsel. These requirements may not be waived except by agreement of both the defence and prosecution.”)

¹⁰⁶ *LaFave et al* (n 92) §24.8(a).

Annex 1: Research Methods

This annex explains the research methods that were used to identify and evaluate relevant empirical studies.

Search Criteria

It was originally intended that the search would encompass material published between the years 2000 to 2017, but it soon became apparent that a number of significant studies were published prior to this, so these were also included in the review. The search focused on the main English speaking jurisdictions that use juries in criminal cases, namely England and Wales, Ireland, Northern Ireland, Canada, the Australian jurisdictions, New Zealand, and the US jurisdictions (but also being mindful of the fact that empirical research may have been undertaken by researchers working in other jurisdictions). It also became apparent that a number of significant studies had been undertaken in the context of civil jury trials (as opposed to criminal trials). Where these were assessed as relevant to the review, they were included. Studies undertaken in the Scottish context were not excluded from the remit of the research, but no such studies were identified.

In order to identify relevant sources, two exercises were undertaken. First, an extensive search of electronic databases was undertaken. This encompassed legal databases (such as Westlaw, Lexis Nexis and HeinOnline), scientific databases (such as PsycARTICLES); multi-disciplinary databases (such as JSTOR and Ingenta Connect) and the databases of the major academic journal publishers (such as Wiley Online Library, Sage Journals Online and Springer Link). A specific search of other sources (including Google Scholar, the Index to Common Law Festschriften (covering 2000-2004) and library catalogues) was undertaken to identify relevant material in book form. A snowballing technique (checking the references cited in each study) was used to identify other relevant sources of evidence.

Secondly, a search was undertaken to identify relevant Government reports, reports published by law reform bodies such as Law Commissions, and work that has been published in PhD theses. Government reports were identified by searching the individual Government websites and the catalogues of national libraries in the relevant jurisdictions. Law Commission reports were identified by searching the British Columbia Law Institute Law Reform Database, but also by directly searching the websites of the official law reform bodies of the jurisdictions concerned. The search for PhD theses was undertaken using the ProQuest UK database (which also indexes PhD theses written in English outside the UK).

Evaluation of Research Methods

Broadly speaking there are two main empirical research methods that have been used to assess jury communication methods: field studies and mock jury studies.¹⁰⁷ Field studies are undertaken with real jurors who have sat on real criminal cases. Mock jury studies simulate the experience of sitting on a jury by recruiting members of the public to act as jurors and asking them to engage with simulated trial materials. Both methods have advantages and disadvantages.

The main advantage of field studies is their realism – participants have sat on real trials in which they determined the fate of an accused person. Their main disadvantage is that the potential for controlled experiments – where variables are manipulated in order to test the impact of different interventions – is limited. There is also the practical consideration that in many jurisdictions – including Scotland – it is not permissible to ask real jurors to reveal any information about their deliberations.¹⁰⁸ Even in those jurisdictions where it is possible to do so, it is not permissible to record or observe jury deliberations in criminal cases.¹⁰⁹ This limits the type of information that can be obtained. It means, for example, that the researchers must rely on juror recollections of how the discussion progressed, which may not be accurate. There have been several large scale field experiments undertaken into methods of conveying information to jurors – primarily in the US – which were discussed in chapter 2.

It is safe to say, however, that the primary method that has been used to evaluate the effectiveness of methods of conveying information to jurors is mock jury studies. Mock jury studies' great advantage is that they can easily be used to conduct controlled experiments where the impact of a particular method is tested against a control group who have not been given that method. Their main disadvantage is that it is difficult and expensive to replicate the real trial experience authentically. If this is not done well, the external validity of such studies – the extent to which their findings are generalisable beyond the experimental setting – is open to question. For this reason, we have been careful to evaluate the research methods used by mock jury studies when drawing conclusions. There are five main areas where methodological scrutiny is necessary, each of which will be briefly discussed.

The Sample

Studies need to be evaluated in terms of sample size and sample composition. Many studies use a convenience sample of undergraduate students (usually psychology students who participate in the study in exchange for course credit) rather than a sample that is representative of real juries' characteristics. The extent to which this affects external validity is debateable – a recent meta-analysis has suggested that it

¹⁰⁷ Somewhere between these two methods lies the use of shadow juries, where mock jurors follow a live criminal trial alongside the 'real' jury. This is not a method that has been used in any studies relevant to this evidence review so will not be discussed further here.

¹⁰⁸ In Scotland, see Contempt of Court Act 1981 s 8.

¹⁰⁹ This has been done in civil cases: see SS Diamond, B Murphy and MR Rose, "The 'kettleful of law' in real jury deliberations: successes, failures and next steps" (2012) 106 *Northwestern University Law Review* 1537.

makes little difference¹¹⁰ although others have disagreed.¹¹¹ In the present context, however, studies that use student samples do need to be treated with some caution, given that the dependent variable most commonly used to assess the effectiveness of jury communication methods is the extent to which jurors understand legal directions. Student samples are more likely to score highly on this measure than the general population, given their level of education. In this review, we use the term “community jurors” to refer to a sample of jurors that is not solely comprised of students.

The Stimulus Materials

Studies need to be evaluated in terms of the materials they use to simulate the trial experience. Some have – for reasons of convenience and cost – used written trial transcripts or study packs instead of visual materials (a video or a live trial re-enactment). Others have tested comprehension of legal directions in isolation – with no attempt to place them in the context of a trial. These studies (which in the present review only arise in the context of plain language directions) must be regarded with particular caution, given that in a real trial jurors will be exposed to many other stimuli that may make remembering and understanding directions more challenging. Even where a visual trial simulation has been used, it is important to scrutinise studies in terms of the extent to which the materials reflect the reality of a trial. This is particularly important in the present context, where what is being tested is the extent to which particular methods aid juror memory and understanding. A method that is effective in a highly simplified trial may not be so effective in the longer and more complex setting of a real trial. A recent meta-analysis of studies that have attempted to improve juror understanding found, for example, that the *longest* jury direction in the empirical studies they looked at was 936 words, or only six minutes of listening.¹¹²

There is, of course, a limit to what can be done in terms of replicating the real trial experience – real trials sometimes run for several days or weeks – but it is important that the stimulus materials (the trial and the legal directions) are not too short and that legal procedures and witness testimony are re-created as accurately as possible.

Deliberation

A further consideration is whether a study allowed for deliberation in groups, as jurors would in a real criminal trial. There is broad consensus that studies that do not include an element of deliberation always lack external validity¹¹³ and thus must be treated with some caution. This is especially true in the present context, where there

¹¹⁰ BH Bornstein et al, “Mock juror sampling issues in jury simulation research: a meta-analysis” (2017) 41 Law and Human Behavior 13 at 25.

¹¹¹ RL Wiener, DA Krauss and JD Lieberman, “Mock jury research: where do we go from here?” (2011) 29 Behavioral Sciences and the Law 467 at 472.

¹¹² CM Baguley, BM McKimmie and BM Masser, “Deconstructing the simplification of jury instructions: how simplifying the features of complexity affects jurors’ application of instructions” (2017) 41 Law and Human Behavior 284 at 294.

¹¹³ F Leverick, “Jury instructions on eyewitness identification evidence: a re-evaluation” (2016) 49 Creighton Law Review 555 at 566-567.

is evidence that deliberation itself can improve juror comprehension (albeit to a limited extent)¹¹⁴ and where some studies have found decision aids to be effective only where jurors have deliberated.¹¹⁵ Even where deliberation is included in the study design, the time for which jurors are allowed to deliberate is sometimes very short and the size of juries can be much smaller than they would be in Scotland – groups of six to eight are particularly common (reflecting in part the fact that in many US states, criminal juries can have as few as six members). Extrapolating from a group of this size to the Scottish context, where the normal jury size is 15, must be done with care.

Solemnity

Unlike those in mock jury studies, real jurors know that their decision will have consequences for the accused and for the other parties involved. The extent to which this affects the way that jurors behave is unclear. It is possible that mock jurors are not engaged in their task to the same extent as real jurors and that this might negatively affect their memory and understanding, making extrapolation from the experimental setting difficult. That said, there is evidence from some studies that mock jurors engage very conscientiously with their role and express stress regarding their verdict choices.¹¹⁶ To increase the likelihood of mock juror engagement, it is important that studies take as many steps as possible to maximise the solemnity of proceedings, such as using appropriate venues and directing mock jurors about their role in a similar way to real jurors.

Methods of Measuring Effectiveness

In evaluating the effectiveness of methods of conveying information to jurors it is important to consider how effectiveness is measured. Most studies have done so by using juror comprehension as the dependant variable, but care does need to be taken in a number of respects when interpreting the results. First, studies that rely on self-reporting must be treated with particular caution,¹¹⁷ as research has shown that jurors tend to over-estimate both how well they remember evidence¹¹⁸ and how well they understand directions on the law.¹¹⁹

Secondly, when assessing whether information has been effectively conveyed to jurors, there is a need to distinguish between difficulties that are due to

¹¹⁴ See section 1.1.

¹¹⁵ See e.g. MB Dann, VP Hans and DH Kaye, Testing the Effects of Selected Jury Trial Innovations on Juror Comprehension of Contested mtDNA Evidence: Final Technical Report (2004) at 67 (table 6.3).

¹¹⁶ E Finch and V Munro, "Lifting the veil: the use of focus groups and trial simulations in legal research" (2008) 35 *Journal of Law and Society* 30 at 45; L Ellison and V Munro, "Getting to (not) guilty: examining jurors' deliberative processes in, and beyond, the context of a mock rape trial" (2010) 30 *Legal Studies* 74 at 84; P Ellsworth, "Are twelve heads better than one?" (1989) 52 *Law and Contemporary Problems* 205 at 223.

¹¹⁷ JD Lieberman and BD Sales, "What social science teaches us about the jury instruction process" (1997) 3 *Psychology, Public Policy and Law* 589 at 595.

¹¹⁸ L Hope, N Eales and A Mirashi, "Assisting jurors: promoting recall of trial information through the use of a trial-ordered notebook" (2014) 19 *Legal and Criminological Psychology* 316 at 326.

¹¹⁹ BM McKimmie, E Antrobus and C Baguley, "Objective and subjective comprehension of jury instructions in criminal trials" (2014) 17 *New Criminal Law Review* 163 at 173; C Thomas, *Are Juries Fair?* (2010) 36.

understanding and those that are due to memory. One of the largest field experiments (that tested the effectiveness of a number of methods, such as note-taking and written directions) assessed juror comprehension via a postal questionnaire that jurors could take home and complete, with many jurors completing it several days after the trial had concluded.¹²⁰ None of the methods tested improved comprehension, but it was impossible to tell whether this was because they were ineffective or because jurors' memories of the trial had faded.

Thirdly, it is necessary to examine the measure of comprehension used, as different measures can lead to different results.¹²¹ Lieberman and Sales note that various methods have been adopted, including:¹²²

- (a) agree/disagree statements,
- (b) multiple choice questionnaires,
- (c) short answer questions (where respondents have to answer in their own words),
- (d) asking respondents to paraphrase legal instructions,
- (e) asking respondents to apply legal tests to novel situations,
- (f) asking respondents to give a verdict in the instant case (on the assumption that a specific verdict would be legally appropriate if the instructions were followed) and/or
- (g) asking jurors to provide a justification of their verdict (which is then independently rated in terms of its legal accuracy).

Some of these methods have obvious potential weaknesses – in (a) and (b), respondents might answer correctly simply by guessing (so the sample size must be sufficient to overcome the effects of guessing and the wording of the questions must not make it easy to guess the correct answer). But what is important is that each method is assessing something slightly different – a juror could score highly on (d) simply by having accurate recall, but this does not necessarily mean that she understood the concept or was able to apply it to the facts.¹²³ Finally, in determining the weight to be attributed to the various studies, care must also be taken to examine what it was that jurors were being asked to understand and the design of the intervention. Where studies fail to show that a particular intervention was effective, this could be because the concepts were already very simple to understand or because the aid provided to jurors was poorly designed.¹²⁴

¹²⁰ L Heuer and SD Penrod, "Instructing jurors: a field experiment with written and preliminary instructions" (1989) 13 *Law and Human Behavior* 409.

¹²¹ Baguley et al (n 6) at 286.

¹²² Lieberman and Sales (n 11) at 593-594.

¹²³ VL Smith, "Impact of pretrial instruction on jurors' information processing and decision making" (1991) 76 *Journal of Applied Psychology* 220 at 221.

¹²⁴ N Feigenson, "Visual evidence" (2010) 17 *Psychonomic Bulletin & Review* 149 at 150.



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